

2020 Annual Monitoring Report

Olympic View Sanitary Landfill

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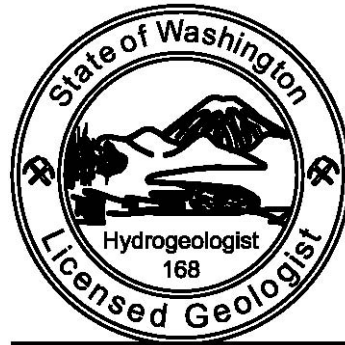
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1.0 INTRODUCTION

This report summarizes the results of the 2020 semi-annual post-closure environmental monitoring conducted at the Olympic View Sanitary Landfill (OVSL), located in Bremerton, Washington. Monitoring events for the current compliance period were performed during May and November of 2020. Environmental monitoring at the OVSL includes sampling and analysis of groundwater and leachate pond leak-detection liquid, and monitoring landfill gas (LFG). Leachate influent monitoring is also conducted on an annual basis.

The current, optimized, semi-annual monitoring schedule at the OVSL was initiated in 2019. In a February 14, 2019 letter, the Washington Department of Ecology (Ecology) agreed to a two-year trial period for reducing the frequency of groundwater quality monitoring at the OVSL from the previous quarterly schedule to a semi-annual basis. Ecology also indicated that if the facility continues to demonstrate overall decreasing groundwater contaminant concentrations, and if no new significant increasing parameter trends are observed, semi-annual monitoring at the landfill would remain appropriate for the facility.

Groundwater and LFG monitoring was performed at the facility in accordance with the OVSL *Environmental Monitoring Plan* (EMP, Engineering Management Support, Inc., 2010) and the updated site-specific *Sampling and Analysis Plan* (SAP, revision 1.2, SCS Engineers, 2019). The plans were developed in consultation with Ecology and reflect a refined understanding of the site conditions based on the results of a Remedial Investigation/Feasibility Study (RI/FS) per WAC 173-340 (Model Toxics Control Act, MTCA). The OVSL monitoring program is also intended to meet requirements of the Criteria for Municipal Solid Waste Landfills (WAC 173-351-430) which is administered by the Kitsap County Public Health District (KPHD).

SCS Engineers (SCS) and Aspect Consulting (for landfill gas) performed environmental monitoring at the OVSL throughout 2020. The following information summarizes the routine monitoring activities described in this report:

- Semiannual collection and analysis of groundwater samples at select monitoring wells within the monitoring network.
- Semiannual measurement of depth-to-water in groundwater monitoring wells sampled for water quality.
- Measurement of depth-to-water in water table-only groundwater monitoring wells.
- Semi-annual collection and analysis of a leachate pond/leak detection system sample.
- Collection and analysis of leachate influent samples (during the November semi-annual monitoring event).
- Quarterly measurement of LFG concentrations at perimeter soil gas monitoring probes and building monitoring locations.

1.1 REPORT CONTENTS

The 2020 Annual Monitoring Report includes:

- A site location description and background section.
- A discussion of monitoring activities including a summary of sampling techniques and locations within the groundwater and LFG monitoring network.
- Construction details for groundwater monitoring wells.
- A discussion of the groundwater conditions including groundwater elevations, flow direction, and flow velocity for the reporting year.
- A summary of the monitoring analytical program and presentation of the analytical results and findings for the reporting year.
- A summary of the LFG monitoring results for the reporting year.
- A geochemical evaluation of the water quality samples collected during the November 2020 semi-annual monitoring event.
- A statistical trend analysis and concentration time series plots of groundwater monitoring results.
- A statistical evaluation and comparison of groundwater results to calculated prediction limits.
- A comparison of groundwater monitoring results to site-specific cleanup levels and other applicable criteria.
- Field documentation from the 2020 monitoring events.
- A data validation report and associated analytical laboratory reports for the November 2020 semi-annual monitoring event.
- A summary of historical LFG monitoring measurements.

Previously issued analytical laboratory data reports for the first semi-annual monitoring event will not be reissued with this report, but can be found in the May 2020 semi-annual monitoring report. Similarly, LFG monitoring results for the first two quarters of 2020 have been previously documented in the May 2020 monitoring report.

In order to conserve paper resources, the complete 2020 annual report is presented on an enclosed data CD attached to the rear cover of the document. However, for the convenience of the reviewer, hard copies of select materials are included in this report.

2.0 SITE DESCRIPTION

2.1 LOCATION

The closed OVSL facility is located on approximately 436 acres in Sections 3 and 10, Township 23N, Range 1W of the Willamette Meridian, in Kitsap County, Washington. The facility is situated on an upland area approximately 10 miles southwest of the city of Bremerton. The facility address is 10015 SW Barney White Road, Bremerton, Washington. A site location map is shown on Figure 1. The closed refuse fill area covers approximately 65 acres of the property. A site plan is presented on Figure 2.

2.2 BACKGROUND

The OVSL facility accepted municipal solid waste between 1967 and 2003. Landfill closure was completed in 2004, in accordance with Washington Administrative Code (WAC) 173-351. Closure activities included construction of a LFG monitoring system, an active LFG collection and treatment system, a leachate collection and treatment system, a stormwater drainage control system, and a final landfill cover.

The final landfill cover consists of (top to bottom):

- 12-inches of vegetative topsoil and cover soil.
- Geotextile fabric.
- 12-inch drainage layer.
- Geonet composite 60-mil flexible membrane liner.
- 6-inch thick, low permeability soil.

The active LFG collection system consists of a total of 81 well heads (69 vertical wells, 4 horizontal wells, and 8 interconnections to the leachate collection system) connected to a gas treatment flare station. The leachate collection system consists of subgrade collection piping and a leachate collection lagoon. A stormwater drainage system controls stormwater erosion and minimizes off-site migration of sediment-laden water (WMW, 2008). Drainage and erosion protection improvements include vegetation, a landfill toe under-drain, down chutes, culverts, and drainage ditches.

2.3 TOPOGRAPHY AND CLIMATE

The facility is located in the Southern Upland of the Kitsap Peninsula adjacent to the Union River-Gorst Creek trough. Site topography ranges from approximately 150 to 360 feet above mean sea level (MSL). The land surface generally slopes to the west-southwest towards the Union River, which is situated approximately one half mile west of the site.

Kitsap County's climate is characterized as maritime, with long, mild, wet winters and short, cool, dry summers. Climatically, and due to the local relief, there can be significant variations in total annual precipitation and average temperatures over short distances.

2.4 LOCAL AND REGIONAL HYDROGEOLOGY

The regional near-surface geology in the vicinity of the OVSL is dominated by glacio-fluvial and glacio-lacustrine deposits associated with the Vashon glaciation. A Remedial Investigation Report completed for the OVSL (Parametrix, 2007) identified the following main stratigraphic units in the vicinity of the site:

- Organic Soils and Peat (Qw).
- Alluvium (Qal).
- Vashon Recessional Outwash (Qvr).
- Vashon Lacustrine Recessional Outwash (Qvrl).
- Vashon Till (Qvt).
- Vashon Advance Outwash (Qva).
- Vashon Advance Lacustrine Deposits (Qval).
- Pre-Vashon Deposits (Qpvu).

With the exception of the Vashon Till (which has not been confirmed to be present at the site), each of these stratigraphic units appears to be present beneath the OVSL.

Information provided in the site conceptual model indicates that organic soils/peat, alluvium (including flood plain deposits), outwash, glacio-fluvial, and glacio-lacustrine deposits outcrop along the west-central portions of the OVSL facility. Groundwater is present beneath the site at elevations ranging between approximately 140 and 260 feet above MSL (depths-to-water ranging between near-surface and approximately 80 feet below ground surface). The groundwater flow direction beneath the landfill is generally toward the west.

3.0 2020 MONITORING ACTIVITIES

3.1 GROUNDWATER

3.1.1 Groundwater Monitoring Network

Groundwater monitoring is conducted at the OVSL in accordance with the January 2001 Agreed Order, the EMP as modified through subsequent technical discussions with Ecology, and the current site-specific SAP (SCS, 2019, revision 1.2). The monitoring program also meets the post-closure landfill monitoring requirements under WAC 173-351-430.

The groundwater monitoring network at the OVSL includes four categories of monitoring wells that are sampled semi-annually, plus monitoring wells that are only used for water level measurements. The four well categories designated at the site include the following:

- Upgradient (background) monitoring wells are used to assess the quality of groundwater upgradient of the landfill. *[Note: Water quality monitoring at Upgradient wells is limited to Appendix II field parameters for one of the semi-annual events (May event) as long as no new water quality exceedances or increasing trends are observed.]*
- Performance monitoring wells are used to assess groundwater quality at the edge of the waste management unit.
- Compliance monitoring wells are used to assess groundwater quality at the MTCA Point-of-Compliance (POC).
- Downgradient monitoring wells are used to assess groundwater quality leaving the site.

A monitoring well identifier and type summary is provided in the exhibit below. The locations of these groundwater monitoring wells are illustrated on Figure 2.

Exhibit 1. 2020 OVSL Groundwater Monitoring Well Network (by Type)

Upgradient *	Performance	Compliance	Downgradient
MW-13A	MW-19C	MW-15R	MW-29A
MW-13B		MW-34A	MW-32
MW-16		MW-34C	MW-33A
MW-35		MW-39	MW-33C
		MW-42	MW-36A
		MW-43	

A indicates a shallower well completion

B indicates an intermediate well completion

C indicates a deeper well completion

* Water quality monitoring at Upgradient wells limited to Appendix II field parameters for one of the semi-annual events (May event) as long as no new water quality exceedances or increasing trends are observed.

Completion depths for the water quality monitoring wells range from approximately 20 to 260 feet below ground surface (bgs). Screen lengths vary from 5 to 20 feet, with a 10-foot average well screen length. Construction details for both the water quality monitoring wells and the water level measurement only wells are summarized on Table 1.

Each of the groundwater monitoring wells designated for routine water quality sampling is outfitted with a dedicated sampling pump (QED Well Wizard) suitable for low-flow purging and sampling. Low-flow sampling with dedicated pumps minimizes pump-introduced artifacts and eliminates cross contamination between wells. The dedicated bladder pumps are positioned with their inlets located within the screened interval of the well. Well construction, development, and pump installation are reported in detail in the *Report of 2005 Gas Probe and Monitoring Well Installations at OVSL* (SCS Engineers 2006), the *Remedial Investigation Report, OVSL, Kitsap County* (Parametrix, 2007) and the *Groundwater Monitoring Well Installation Report, OVSL* (SCS Engineers. 2009).

3.1.2 Monitoring Schedule

Groundwater monitoring was conducted on a semi-annual basis during 2020, with sampling events completed during May and November. Consistent with the current SAP, during the May event Upgradient monitoring locations (MW-13A, MW-13B, MW-16 and MW-35) were only monitored for field parameters.

3.1.3 Parameters and Analytical Methods

The analytical program for groundwater quality monitoring during the 2020 reporting period included the Appendix I and II parameters summarized in Exhibit 2.

Exhibit 2. 2020 OVSL Groundwater Analytical Parameters

Analytical Program	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, turbidity, and static water level
Geochemical Indicator and General Parameters	chloride, sulfate, nitrate, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, manganese and total suspended solids
Total Metals*	antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc
Volatile Organic Compounds	as listed in WAC 173-351 Appendix I
Leachate Indicator Parameters	ammonia, total organic carbon (TOC), and total dissolved solids (TDS)

* Consistent with the 2013 revisions to WAC 173-351, both dissolved and total Appendix I metals data were reported for a minimum period of eight quarters between September 2013 and December 2015. Beginning in 2016, Appendix I metals data have only been reported as a total fraction

Laboratory methods are derived from several industry-standard publications. Methods for Chemical Analysis of Water and Wastes (MCAWW, EPA 1983) describe procedures used for nitrate, nitrite, chloride, sulfate, and ammonia analyses. Standard Methods for the Examination of Water and Wastewater (APHA 1999, revised 2014) describe the methods used for analysis of alkalinity (total and bicarbonate), TDS, total suspended solids (TSS), and TOC. Metals and VOC analyses are described in EPA publication number SW-846, Test Methods for Evaluating Solid Wastes, Physical

and Chemical Methods (EPA revised 2007). The method for measuring arsenic is described in Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry (EPA 1994).

All laboratory analyses were completed by Eurofins/TestAmerica in Denver, Colorado and Buffalo, New York, and by Analytical Resources Incorporated in Tukwila, Washington. These laboratories are accredited in accordance with WAC 173-50, Accreditation of Environmental Laboratories.

3.1.4 Field Monitoring And Sampling Procedures

The 2020 OVSL field activities consisted of surveying well conditions, obtaining field measurements (depth-to-water, pH, specific conductivity, turbidity, temperature, and dissolved oxygen), collecting groundwater samples for laboratory analysis, and packaging and shipping the samples to the relevant laboratories. These activities were conducted as described in the 2019 site-specific SAP (revision 1.2).

As part of the routine groundwater monitoring program, static water levels were initially measured and recorded in all of the water quality wells being sampled prior to initializing any well purging or groundwater collection procedures. Static water levels also were measured at 14 additional site wells that are only used for the semi-annual determination of the potentiometric groundwater surface. Depth-to-water measurements (measured to the nearest 0.01 ft.) were obtained using an electronic water level indicator. Static water level measurements were recorded and documented on field sampling and measurement forms included in Appendix A (for November 2020).

Prior to sample collection, groundwater monitoring wells were purged in order to ensure representative groundwater conditions at each location. Both purging and sampling of the monitoring wells were conducted using low-flow/low-volume well sampling techniques. Once the pumping was initiated, flow rates were confirmed by volumetric discharge measurements (by measuring the total volume discharged per cycle using a graduated cylinder and verifying the number of pump cycles per minute specified by the controller). Field measurements for pH, temperature, specific conductivity, dissolved oxygen, and turbidity were conducted using a closed, in-line flow-through cell and a portable turbidity meter. When water quality parameters stabilized and there had been no change in the pumping water level, sample collection would begin. Field parameters were measured as described in Standard Methods for the Examination of Water and Wastewater (APAH 2014).

Before initiating the purge process, the field meters were calibrated in accordance with manufacturer's guidelines. Field data obtained during the well purging procedure was recorded on field sampling and measurement forms included in Appendix A (for November 2020).

Non-disposable sampling equipment that was exposed to well water (e.g., electronic water level tape) was decontaminated between wells as outlined in the SAP. Decontamination of equipment was completed before leaving each well, thereby minimizing potential cross contamination. Disposable sampling equipment and disposable personal protective equipment (PPE) were removed and disposed of after each use and prior to leaving each well. Excess purge and sampling water was discharged into the leachate collection pond.

3.2 LEACHATE

Leachate generated from three separate closed municipal waste storage cells is collected and pumped to an arterial force main that discharges to a one-acre leachate pond situated near the western end of the landfill (refer to Figure 2). The force main outfall is located on the north end of the leachate lagoon. Accumulated leachate is treated by aeration. When the leachate elevation in the pond approaches the elevation of the former pond outlet, leachate is removed via pumping and is hauled to nearby wastewater treatment plants.

3.2.1 Leachate Monitoring Locations

Per the EMP and SAP, leachate monitoring is performed at three locations at the facility. Influent leachate sampling station L-INF is situated immediately downstream of the force main outfall on the north end of the leachate collection pond. The OBWL-TD sampling station is located at the Old Barney White Landfill Toe Drain collection sump, which subsequently connects to the leachate pond. Sampling station LP-LCD is located at the pump discharge outlet which periodically returns any accumulated liquids that collect beneath the leachate pond liner system back into the main lagoon.

The locations of the leachate monitoring stations are illustrated on Figure 2.

3.2.2 Monitoring Schedule

The current SAP provides for annual monitoring of the L-INF and OBWL-TD stations and semi-annual monitoring of the LP-LCD station. Leachate samples were collected from L-INF and OBWL-TD during November 2020. The LP-LCD was sampled during each of the May and November 2020 monitoring events.

3.2.3 Parameters and Analytical Methods

A summary of the analyzed parameters for the leachate samples collected at the OVSL is presented in Exhibit 3.

Exhibit 3. 2020 OVSL Leachate Analytical Parameters

Semi-Annual LP-LCD Analytical Program	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, and turbidity
Geochemical Indicator Parameters	chloride, sulfate, nitrate/nitrite, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese
Leachate Indicator Parameters	ammonia, TOC, and TDS

Annual L-INF and OBWL-TD Analytical Program	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, and turbidity
Geochemical Indicator Parameters	chloride, sulfate, nitrate/nitrite, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese
Total Metals	antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc
Volatile Organic Compounds	as listed in WAC 173-351 Appendix I
Leachate Indicator Parameters	ammonia, total organic carbon (TOC), and total dissolved solids (TDS)

Laboratory methods are the same methods used for groundwater samples. All laboratory analyses for the leachate samples were completed by Eurofins/TestAmerica laboratories in Denver, Colorado and Buffalo, New York.

3.2.4 Leachate Monitoring Field Procedures

Field activities consisted of obtaining field parameter measurements, collecting leachate samples for laboratory analysis, and packaging and shipping the samples to the laboratory. The L-INF and OBWL-TD samples consisted of individual grab samples that were collected directly from their respective sampling stations using a peristaltic pump. New disposable plastic tubing was used during the collection of each sample, and was subsequently discarded between sampling locations. The LP-LCD sample was obtained from an inline sampling port attached to the liquid return line that drains back into the leachate pond. All the leachate samples were collected directly into pre-labeled laboratory containers suitable for the chemical parameters being analyzed. Field instruments were calibrated in accordance with manufacturer's guidelines.

Field-measured parameters including temperature, specific conductivity, pH, and dissolved oxygen were measured as described in Standard Methods for the Examination of Water and Wastewater (APAH 2014). Field information obtained during leachate sampling was recorded on Field Information Forms included in Appendix A (for November 2020).

3.3 LANDFILL GAS

Landfill gas monitoring activities at the OVSL consist of obtaining field measurements of primary gas composition (methane, carbon dioxide, and oxygen) at 10 subsurface soil gas detection probes (several with multiple screened intervals) and six locations inside four onsite structures or immediately adjacent to the landfill. Throughout 2020, all LFG monitoring at the OVSL was conducted by Aspect Consulting, with the data being communicated to SCS for inclusion in the semi-annual and annual monitoring reports.

LFG monitoring is conducted to provide an assessment of the subsurface soil gas conditions at the OVSL and monitor compliance with regulatory criteria for subsurface methane concentrations. At the subsurface gas detection probes (LFG probes) relative soil gas pressure was also measured in the field. LFG monitoring procedures are detailed in the 2019 SAP.

3.3.1 Landfill Gas Monitoring Network

Monitoring is conducted at 10 perimeter LFG probes (GP-7 through GP-16) and four onsite structures (Scale House, South Slope Well House, Electrical Shed and Office) as illustrated on Figure 3. Five of the LFG probes (GP-9 through GP-13) consist of multiple, vertically-discrete, monitoring zones. Probes with dual monitoring zones are designated with an “S” for the shallow zone, and a “D” for the deep zone. Probes with three monitoring zones are designated with an “S” for the shallow zone, “M” for the middle zone, and “D” for the deep zone. Details of all the LFG probes and boring logs can be found in Report of *2005 Gas Probe and Monitoring Well Installations at OVSL* (SCS Engineers 2006).

3.3.2 Monitoring Schedule

Monitoring at the LFG probes and facility structures was conducted quarterly during March, May, September, and November 2020. LFG monitoring results are reported in Section 4.

3.3.3 Landfill Gas Monitoring Field Procedures and Instrumentation

Field monitoring was conducted in accordance with the 2019 SAP. The LFG probes and building locations were monitored in the field (for all parameters) using a Lantec GEM2000, or equivalent, portable multi-gas analyzer. This portable gas analyzer measures methane and carbon dioxide with a dual wavelength infrared cell with a reference channel. Oxygen is measured with an electro-chemical cell. Pressure was measured with a transducer. The gas analyzer was calibrated prior to each monitoring event.

3.3.4 Field Conditions

General weather conditions were noted for each quarterly LFG monitoring event. Atmospheric pressure fluctuations can influence gas concentrations and pressure in LFG probes. To assist in interpreting the monitoring data, barometric conditions were recorded during and prior to monitoring. The barometric trends for September and November 2020 are included in this report.

4.0 2020 MONITORING RESULTS

4.1 GROUNDWATER

4.1.1 Groundwater Elevation and Flow

All of the monitoring wells in the current compliance program were accessible for the collection of water table elevation information during 2020. Recorded depth-to-water levels are summarized in field documentation included in Appendix A.

Depth-to-water measurements collected during 2020 were used to calculate groundwater elevations in feet relative to MSL. The 2020 records have been compiled and are presented on Table 3. Groundwater elevation surface maps derived from static depth-to-water measurements collected at the OVSL monitoring wells for each of the semi-annual events are presented in Figures 4A and 4B. A hydrograph showing the past 10 years of recorded groundwater elevations is presented on Figure 5. Groundwater elevations calculated for the OVSL ranged from 141.79 (MW-30A in May) to 240.98 (MW-13A in May) ft. MSL over the 2020 reporting period. Groundwater elevations remained relatively stable throughout the year. Historically, the potentiometric groundwater surface across the OVSL has not shown significant seasonal fluctuations.

The groundwater flow direction over the 2020 reporting period was consistent with that previously reported at the site. Locally, the groundwater flow direction is to the west/northwest. As summarized below in Exhibit 4, the average hydraulic gradient across the site remained fairly consistent between the wet and dry seasons.

Exhibit 4. Calculated 2020 Hydraulic Gradient and Flow Velocities

East Side of OVSL Facility		
	May 2020	November 2020
Well Pair	MW-35/MW-24	
Hydraulic Gradient (ft/ft)	0.0331	0.0340
Flow Velocity (ft/day)	2.87	2.94
West Side of OVSL Facility		
	May 2020	November 2020
Well Pair	MW-20/MW-33A	
Hydraulic Gradient (ft/ft)	0.0132	0.0123
Flow Velocity (ft/day)	6.77	6.29

Eastern Hydraulic Conductivity = 26 ft/day (Parametrix 2007)
 Western Hydraulic Conductivity = 154 ft/day (Parametrix 2007)
 Porosity = 30% (Parametrix 2007)

4.1.2 Groundwater Quality

4.1.2.1 Chemical Analysis

Water quality data for the OVSL are summarized in Tables 4A through 4D. These tables present the data results, segregated by well type, for detected analytes and measured field parameters for the 2020 semi-annual monitoring events. Each table presents the data for a monitoring well category (Compliance, Performance, Downgradient, and Upgradient). A table (4E) summarizing the detected analytes and field parameters for the annual L-INF and OBWL-TD leachate and the semi-annual LP-LCD leak detection monitoring stations is also provided. In addition, a summary table of VOC detections in groundwater and leachate is presented as Table 5.

4.1.2.2 Data QA/QC

Analytical data from the Eurofins/TestAmerica and ARI laboratories were subjected to a quality assurance/quality control (QA/QC) review. The review included field and in-house components. The field portion consisted of the collection and analysis of trip blanks, field replicates, and matrix spike/matrix spike duplicates. The in-house evaluation provided a detailed examination of laboratory data which included sample handling, analysis hold times, and laboratory performance analyses (duplicates, blanks, matrix spikes, matrix spike duplicates and surrogate recoveries).

For the May and November semi-annual data sets, the laboratory reported several low-level laboratory blank detections (less than the reporting limit) for beryllium, lead, manganese, nickel and selenium. These blank detections did not appear to be related to any anomalous sample detections for these parameters. Data qualifiers were appended to the reported results as appropriate.

The November TDS results for MW-43 were reported slightly outside holding time due the requested reanalysis of the sample. The initial results were determined to have be affected by laboratory artifacts and were inconsistent with historical results.

Notwithstanding the above reported laboratory data qualifiers, the 2020 data set was determined to be acceptable for the intended purposes. Appendix B contains the data validation report and the analytical laboratory data reports for the November 2020 monitoring event.

4.1.3 Spatial Distribution and Temporal Trends

4.1.3.1 Parameter Distribution

As noted in prior monitoring reports, the influence of past waste disposal activities on groundwater quality at the OVSL continues to be observed through groundwater VOC detections, general chemistry, and inorganics and field parameter results. The elevated concentrations of parameters adjacent to the landfill are typically characteristic of influence from either landfill leaching, transport from LFG, or increased mobilization of naturally occurring constituents as a result of the landfill's presence.

Several key parameters (arsenic, iron, manganese, and vinyl chloride) are routinely monitored for their spatial distribution each quarter by plotting concentrations on the landfill base map. Exhibit 5 summarizes the spatial distribution of these key OVSL parameters in each of the monitoring well categories.

Exhibit 5. Spatial Distribution of Key OVSL Groundwater Parameters

Total Arsenic (mg/L) - November 2020 (Figure 6A)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	0.000115	0.00294 MW-19C	0.0000426	0.000548
Locations	MW-35		MW-43	MW-36A
High	0.0011		0.00902	0.0105
Locations	MW-16		MW-34C	MW-32

Total Iron (mg/L) - November 2020 (Figure 6B)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	<0.06	0.20 MW-19C	<0.06	0.03
Locations	MW-13A, MW-13B		MW-15R	MW-36A
High	0.88		36	4.6
Location	MW-16		MW-39	MW-33A

Total Manganese (mg/L) - November 2020 (Figure 6C)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	<0.001	1.2 MW-19C	0.0013	0.00057
Locations	MW-13B		MW-34A	MW-36A
High	0.011		3.9	2.6
Locations	MW-16		MW-42	MW-32

Vinyl Chloride (µg/L) - November 2020 (Figure 6D)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	<0.02	0.044 MW-19C	<0.02	<0.02
Locations	MW-13A, MW-13B, MW-16, MW-35		MW-15R, MW-34A, MW-39, MW-43	MW-29A, MW-33A, MW-33C, MW-36A
High	NA		0.079	0.23
Locations	NA		MW-42	MW-32

As noted during past monitoring years, groundwater impacts are observed in each category of monitoring wells at the site.

The most elevated arsenic, total iron and total manganese concentrations (0.000115, 0.88 and 0.011 mg/L, respectively) that were detected in the Upgradient (background) monitoring wells during the November 2020 monitoring event occurred in MW-16. Vinyl chloride was not reported in any of the Upgradient wells throughout 2020 reporting period. Detectable levels of arsenic, total iron and total manganese (0.00294, 0.20 and 1.2 mg/L, respectively) were reported during November 2020

in Performance monitoring well MW-19C. In addition, 0.044 µg/L of vinyl chloride was reported in this well during the event.

The highest November 2020 concentrations of primary parameters in the Compliance monitoring wells were reported in MW-34C (0.00902 arsenic), MW-39 (36 mg/L iron) and MW-42 (3.9 mg/L manganese and 0.079 µg/L vinyl chloride). These same parameters were highest in the Downgradient monitoring wells MW-32 (0.0105 mg/L arsenic, 2.6 mg/L manganese and 0.23 µg/L vinyl chloride) and MW-33A (4.6 mg/L iron).

4.1.3.2 Temporal Trends

Time series graphs and statistical trend analyses were completed for all Upgradient, Performance, Compliance, and Downgradient monitoring wells using the DUMPStat software package. The statistical data set includes analytical results obtained between 2005 through the present reporting year (2020). This evaluation was conducted for parameters listed in Appendices I and II of WAC 173-351-990 which are organized into two groups: “Trend Test A” and “Trend Test B”. The “Trend Test A” time series includes all organic parameters in Appendices I and II that have been detected above the practical quantification limit (PQL) during at least one sampling event in any of the wells since 2005 (currently 25 VOCs). The “Trend Test B” time series includes Appendix I and II inorganic and groundwater quality parameters (currently 32 parameters). To facilitate review of the statistically significant trends, time series sets were developed to show those well/parameter combinations exhibiting either increasing or decreasing trends. These time series graphs are presented in Appendix C along with the other statistical evaluation results. A summary of those parameters showing significant increasing or decreasing concentration trends grouped by well type is provided on Table 6A, and a more detailed summary of parameter trends in specific wells can be found in Table 6B.

The dominant data trend observed for the majority of water quality parameters monitored at the OVSL continues to be that of stable or gradually decreasing concentrations. This is predominantly observed in the Compliance and Downgradient monitoring wells. However, significant decreases continue to be noted in all well groups for as many as 14 inorganic parameters and two VOCs (Tables 6A/6B). Significant increasing trends were also noted for a few field monitored or inorganic parameters in several of the Upgradient, Compliance and Downgradient wells, although the overall number of parameters with increasing trends at the OVSL remains low.

Significant parameter trends calculated for the Compliance monitoring wells are summarized in the following exhibit.

Exhibit 6. Significant Temporal Trends in Compliance Wells (2005-2020)

Increasing		Decreasing	
Parameter	Wells	Parameter	Wells
Arsenic	MW-42	Alkalinity, Total	MW-15R, MW-34A, MW-34C, MW-42
Chloride	MW-39	Ammonia	MW-43
pH	MW-34C, MW-42	Barium	MW-15R
Potassium, Dissolved	MW-42	Bicarbonate Alkalinity	MW-15R, MW-34A, MW-34C, MW-42
Temperature	MW-34A, MW-34C	Calcium	MW-15R, MW-34A, MW-34C
		Chloride	MW-15R, MW-34A, MW-34C
		Magnesium	MW-15R, MW-34A, MW-34C, MW-42
		Manganese	MW-15R, MW-42, MW-43
		pH	MW-34A
		Sodium	MW-15R, MW-34A, MW-34C, MW-42, MW-43
		Specific Conductivity	MW-15R, MW-34A, MW-34C
		Sulfate	MW-42
		Total Dissolved Solids	MW-15R, MW-34C, MW-34A
		Total Organic Carbon	MW-34C
		Vinyl Chloride	MW-34C

4.1.4 Groundwater Geochemistry

The geochemical character of the groundwater, LP-LCD, OBWL-TD and L-INF samples was evaluated by plotting and comparing geochemical parameters using a Piper diagram for the November 2020 analytical results. Water quality samples collected during November 2020 were of similar geochemical water type with clear differences seen between the groundwater and leachate derived samples.

As noted in previous monitoring reports, the positions of the sampled wells on the diagram indicate that the dominant anion in site groundwater is bicarbonate, with cations being dominated by calcium and magnesium. The leachate derived samples continue to report significantly higher sodium, calcium and potassium concentrations than groundwater, as well as higher chloride and bicarbonate levels. The November 2020 OBWL-TD sample reported relatively low alkalinity, ammonia, chloride, nitrate BOD, COD and TOC levels compared to the remaining leachate samples. The Piper diagram for November 2020 is presented in Appendix D. The Piper diagram for the May 2020 event of the current compliance year can be found in the corresponding semi-annual monitoring report.

In addition to the Piper diagram, groundwater cation/anion balance calculations were also used to assess geochemical character. Ideally, after the major anions and cations present in a sample are determined, the sum of the positive cations (in milliequivalents per liter [meq/L]) should approximately equal the sum of the negative anions (Hem 1986). All natural waters should be electroneutral. However, differences can arise between dissolved cations and anions in groundwater as measured by an analytical laboratory due to a number of factors including: presence of colloidal fractions, systematic error in preparation and analysis of samples, malfunction of/poorly calibrated equipment, major species omitted from analysis, the presence of unusually high concentrations of cations/anions, and not all ions present in water are included in the balance calculation. Due to these potential issues, differences in the ion balance can be difficult to assess for imbalances due to groundwater impacts.

The range of the sum of ions and balance of ions observed at the site for the November 2020 monitoring event are summarized in the exhibit below. Positive balance values indicate that the sum of the cations is greater than the sum of the anions. As stated in WAC 173-351-430-5(a), a relative percent difference (RPD) in the charge-balance (ion balance) of greater than five to ten percent (depending on the concentrations of ions in solution) could potentially indicate impacted groundwater conditions.

Exhibit 7. Cation-Anion Ranges for Groundwater (November 2020)

Well Group	Upgradient	Performance	Compliance	Downgradient
Sum of Cations (meq/L)	1.52 – 1.71	1.63	0.56 – 3.79	0.91 – 3.59
Sum of Anions (meq/L)	1.85 – 1.87	1.78	0.66 – 4.44	1.05 – 3.47
Balance (%)	-10.04 – -3.93	-4.39	-13.13 – 0.94	-7.34 – 1.76

Ion balances observed at the site during the November 2020 event were typically within or very close to this threshold. Upgradient well MW-16 and Compliance well MW-39 reported unusually low ion balances (-10.04 and -13.13, respectively) which appear to be related to lower than typically HCO_3 results in the November 2020 samples. Results outside the (+/-) 5 to 10% ion balance threshold can be associated with possible errors associated with analytical limitations in these measurements (as previously discussed) or potential low level impacts from human activities at the site.

4.1.5 Statistical Prediction Limit Evaluation

Statistical prediction limits using data from the upgradient monitoring wells are calculated at the end of each monitoring year to provide updated background concentrations for all Appendix I and II inorganic detection monitoring and groundwater quality parameters (a total of 32 parameters). These updated background prediction limit concentrations are used for comparison purposes for compliance and downgradient monitoring wells.

Prediction limits calculated for inorganic parameters through November 2020 were exceeded at least once in five of the Compliance (MW-34A, MW-34C, MW-39, MW-42 and MW-43) monitoring wells, as well as in all five Downgradient (MW-29A, MW-32, MW-33A, MW-33C and MW-36A) monitoring wells. Compliance well MW-42 (14 exceedances) and Downgradient well MW-32 (13 exceedances) reported the largest number of prediction limit exceedances for the November event. A summary of the latest prediction limit exceedances for the November 2020 Compliance and Downgradient data sets is presented on Table 7. Prediction limit calculations through 2020 are presented in Appendix C.

As summarized on Tables 6A and 6B, the following Upgradient monitoring wells exhibited statistically significant (increasing or decreasing) trends over the period for which background prediction limits are calculated: MW-13A (sulfate), MW-13B (bicarbonate/total alkalinity, specific conductance, chloride and sulfate), MW-16 (chloride and magnesium) and MW-35 (bicarbonate/total alkalinity, nitrate and specific conductance). Parameter trends in Upgradient monitoring wells are noted because they can impart a bias on the calculated prediction limit for the affected monitoring parameters which, in turn, can affect the number of exceedances identified for those monitoring parameters in Compliance and Downgradient wells.

The apparent increasing trends for bicarbonate/total alkalinity and specific conductance in the some of the upgradient wells could impart a positive bias on the calculated prediction limits for these parameters. However, visual examination of the time series graphs presented in Appendix C suggests that the increasing trends noted for these parameters are generally minor. Therefore, any bias to the prediction limit would be expected to be nominal and not significantly change the number of exceedances within this parameter subset.

4.1.6 Point of Compliance and Cleanup Level Exceedances

4.1.6.1 Point of Compliance (POC)

The solid waste regulations (WAC 173-351-300[6]), specify that groundwater quality compliance must be established at a POC located on the landfill property no more than one hundred fifty meters (four hundred ninety two feet) from the waste management unit boundary. At the OVSL, the POC is established as a line of wells located within 150 meters of the landfill waste management unit boundary. As illustrated on Figure 2, the Compliance monitoring wells are colored red and lie west/northwest of the downslope boundary of the landfill.

4.1.6.2 Cleanup Level Exceedances

Site Specific MTCA Cleanup Level

Ten organic and inorganic parameters are regulated under the OVSL Cleanup Action Plan (CAP, Ecology 2010) and have site-specific MTCA cleanup levels. Analytical results are used to calculate an upper confidence limit (95% UCL) of the mean concentration for each parameter for each well for Compliance and Downgradient monitoring wells to assess compliance with their respective cleanup level.

The UCLs are calculated using a three-year moving data window for the ten site-specific chemicals of concern (COC). The UCLs are calculated using MTCASat; calculation details are presented in Appendix C. The following exhibit and Table 8 summarize the COCs and their 2020 UCL exceedances in the Compliance and Downgradient monitoring wells.

Exhibit 8. 2020 MTCA Exceedances for Chemicals of Concern

Chemicals of Concern	Units	Site-specific MTCA Cleanup Level	Exceedances in 2020 (95% UCL)
1,1-Dichloroethane	µg/L	50	No
1,4-Dichlorobenzene	µg/L	2	No
Ammonia	mg/L	0.19	Yes
Arsenic	mg/L	0.000462	Yes
Cis-1,2-Dichloroethene	µg/L	35	No
Ethyl ether	µg/L	50	No
Iron	mg/L	0.3	Yes
Manganese	mg/L	0.05	Yes
Trichloroethene	µg/L	1	No
Vinyl Chloride	µg/L	0.2	Yes

Blue indicates this COC reported a 95% UCL exceedance of its site-specific MTCA Cleanup Levels in at least one Compliance or Downgradient well during 2020.

As noted in past monitoring reports, the OVSL continues to report generally stable to improving groundwater quality. The 95% UCL for vinyl chloride remained below the cleanup level in all Compliance wells and all Downgradient wells except MW-32. It is important to note that minor variations in parameter concentrations observed from year to year can cause exceedances to arise or vanish between reporting periods. This is largely a result of the UCLs hovering very near their site cleanup levels and not an indication of meaningful changes to overall groundwater conditions.

Statistically significant COC trends are also noted on Table 8 in order to provide additional information regarding the status of the UCL relative to the cleanup standard. Trend information may be particularly useful if the calculated UCL value is very close to the cleanup standard (e.g., within 10%). In such cases, trend information may be useful in predicting a change in status of the UCL versus the cleanup level in the relative near term.

Exceedances of the site-specific MTCA cleanup levels were reported in five of the six Compliance well locations (refer to Table 8): MW-34A (arsenic); MW-34C (arsenic, iron and manganese); MW-39 (ammonia, arsenic, iron, and manganese); MW-42 (ammonia, arsenic, iron and manganese); and MW-43 (iron and manganese). A single Compliance well (MW-42) reported a statistically significant increasing trend for arsenic. Statistically significant decreasing trends were also noted in several Compliance wells for vinyl chloride (in MW-34C), manganese (in MW-15R and MW-42); and ammonia (in MW-43). These same exceedances and trends were reported for these wells during the previous (2019) compliance period. In addition, the 95% UCLs for the VOC COCs remained below the site-specific MTCA cleanup levels in all of the Compliance monitoring wells during 2020.

Exceedances of at least one of the site-specific MTCA cleanup levels continue to be reported in all five Downgradient well locations (refer to Table 8): MW-29A (arsenic, iron, and manganese); MW-32 (arsenic, iron, manganese, and vinyl chloride); MW-33A (arsenic, iron, manganese and ammonia); MW-33C (arsenic and manganese); and MW-36A (arsenic). One Downgradient well (MW-33C) reported a statistically significant increasing trend for arsenic. However, significant decreasing trends were once again reported at MW-29A (for ammonia) and MW-32 (for vinyl chloride). With the sole exception of vinyl chloride in MW-32, all of the 95% UCLs for the tracked VOCs remained below their site-specific MTCA cleanup levels in all of the Downgradient monitoring wells.

It should also be noted that trichloroethene (1.1 µg/L) slightly exceeded its 1.0 µg/L site-specific cleanup standard in Performance well MW-19C during the November 2020 event. This VOC has sporadically reported low-level exceedances of this standard at this specific well over the past several compliance years.

Other Criteria Comparison (Federal MCLs, WAC 173-200, and MTCA)

In addition to the site-specific MTCA cleanup levels, groundwater at the OVSL is also compared to WAC 173-200 Groundwater Quality Protection Standards and State/Federal Primary and Secondary Maximum Contaminant Levels (MCLs). For comparison purposes, site-specific MTCA cleanup levels are also included.

The WAC 173-200 and MCL exceedances for the 2020 reporting period by parameter and well are summarized on Table 9. Criteria for the following seven analytes were exceeded:

- pH
- ammonia
- arsenic
- iron
- manganese
- trichloroethene
- vinyl chloride

Each of these parameters are noted to have routinely exceeded their respective regulatory standards over the previous five (2016 through 2020) compliance years. The magnitude of the 2020 exceedance remained generally consistent with previous results.

4.2 LEACHATE MONITORING RESULTS

4.2.1 Leachate Quality

The results of the November 2020 leachate influent (L-INF) and Old Barney White Landfill Toe Drain (OBWL-TD) sample analyses are presented on Table 4E. Samples were also obtained from the LP-LCD monitoring station and submitted for selected Appendix II parameter and total metals analysis during each 2020 semi-annual event (refer to Table 4E).

The annual L-INF sample reported relatively elevated concentrations of the typical leachate parameters, including total/bicarbonate alkalinity, ammonia, calcium, chloride, magnesium, sodium, COD and TOC. In addition, low but detectable levels tetrahydrofuran were reported in the November 2020 sample. As noted during previous compliance years, the annual OBWL-TD sample reported overall lower leachate indicator results than the leachate influent. In addition, VOCs were not reported in 2020 OBWL-TD sample. The 2020 semi-annual LP-LCD samples reported lower alkalinity, ammonia, chloride, COD and TOC concentrations than routinely observed in the L-INF leachate sample.

4.2.2 Leachate Generation Rates

Leachate volumes generated at the OVSL have been recorded on a weekly basis since 2008. During the course of the 2020 reporting period, approximately 778,110 gallons of leachate were pumped into the leachate collection pond. A total of 47.96 inches of rainfall was recorded at the OVSL weather station during 2020.

Leachate generation at the OVSL has significantly declined over the past decade. Prior to 2013, the facility typically produced over 2 million gallons annually. Between 2013 and 2019, annual leachate generation ranged from 1,106,803 gallons (in 2014) to 681,901 gallons (in 2016). The leachate volume calculated for 2020 remained in this reduced range, and continues to indicate that ongoing improvements to site maintenance and existing infrastructure are reducing leachate generation rates at the OVSL. Annualized rainfall totals at the OVSL and the volumes of leachate produced on a quarterly and annual basis over the last 14 years are presented on Figure 7.

In addition, the liner leak collection/detection system is checked regularly for the presence of any accumulated liquids beneath the OVSL leachate pond. If liquids are present, they are pumped out of the collection system, pass through the LP-LCD monitoring station, and are returned to the leachate pond. The volumes of liquid pumped out of the liner leakage collection system during 2020 are presented on Table 10. A total of 1,133 gallons of liquid were removed from the collection system during 2020. This is a slightly higher LP-LCD volume than was pumped (905 gallons) from this system during the preceding year (2019).

4.3 LANDFILL GAS MONITORING RESULTS

LFG monitoring results for the OVSL are discussed in terms of detected methane and/or carbon dioxide (at concentrations of both gases at levels greater than 0.3 percent by volume) and depressed oxygen (less than 20.3 percent by volume). The detection of these gases, as well as elevated gas pressures within the perimeter probes, are indicative of the potential presence of LFG. The reported values represent measurements under stabilized conditions (after purging at least one probe volume from each sampling zone).

Perimeter LFG probes and surface structure locations were monitored quarterly for the presence of LFG. The third and fourth quarter 2020 LFG monitoring results are summarized in Tables 11A and 11B, respectively. A summary of the LFG probe results over the entire 2020 compliance period is also provided on Table 12. In addition, LFG extraction rates and major gas component results for the 2020 operational period are summarized in Appendix E (on Table E-4). Over 2020, an estimated 100.54 million cubic feet of LFG were collected at the OVSL flare inlet, with an annualized average concentration of 23.01 percent methane (by volume).

4.3.1 Perimeter Gas Probes

LFG probe GP-15, located on northwest edge of the Phase II waste cell, reported a methane detection of 0.5 percent by volume during the September event. No other methane detections were reported in any of the remaining LFG perimeter probes over the second half of 2020. It should be noted that methane concentrations of less than five percent by volume have a reading accuracy of ± 0.3 percent by volume.

Carbon dioxide was reported at the majority of LFG probe locations with detected concentration readings during September 2020 ranging from 0.7 (GP-10D) to 11.5 percent by volume (GP-7). LFG probes reported carbon dioxide concentrations ranging between 0.9 (GP-10D) and 11.2 percent by volume (GP-7) during November 2020. It should be noted that concentrations of carbon dioxide less than five percent by volume have a reading accuracy of ± 0.3 percent by volume.

During the September event depressed oxygen levels (less than 20.3 percent by volume) were measured at LFG probe locations ranging from 0.1 (GP-15) to 19.6 (GP-10D) percent by volume. Two probes (GP-10S/D and GP-12S) reported oxygen levels equal to or above 20.3 percent by volume. Depressed oxygen levels for the November event ranged from 0.7 (GP-15) to 19.9 (GP-10D)

percent by volume. During the November event, GP-10S was the only probe to reported oxygen levels above 20.3 percent by volume. It should be noted that the reading accuracy for oxygen with the GEM2000 at concentrations less than 25 percent by volume is ± 1 percent by volume.

Overall LFG production at the closed OVSL has and will continue to decline over time. As noted in previous reporting years, the observed declines in methane and carbon dioxide levels in the OVSL gas monitoring probes (as well as the increases in oxygen levels) likely also reflect changes in the LFG extraction system components (e.g., replacement of gas flares and blower station and the installation of six new LFG wells during October 2011 in the Barney White area) and more recent changes to LFG extraction system operations implemented by Waste Management.

Appendix E includes tables and time-series plots of the historical concentrations of methane, carbon dioxide, and oxygen in the currently monitored gas probes, from March 2008 through the end of the 2020 monitoring year.

4.3.2 Structure Monitoring

Methane was not detected above instrument detection levels in any of the four monitored structures (Scale House, South Slope Well House, Electrical Shed and Office) during either the September or November LFG monitoring events. The regulatory standard for methane in structures on or near the landfill is 25% of the lower explosive limit (LEL). Carbon dioxide was also not measured in excess of the instrument's 0.3 percent by volume detection level in any of these structures. Oxygen levels reported in these structures were all ambient, ranging between 20.3 and 21.3 percent by volume over the second half of 2020.

4.3.3 Barometric Pressure Conditions

LFG concentrations and pressures are influenced by fluctuating barometric pressure. Relative to time, the highest LFG concentrations and depressed oxygen concentrations tend to occur shortly after a significantly falling barometric trend. This is due to the effects of the landfill pressures trying to stabilize with the fluctuation in atmospheric (barometric) pressure and the associated lag time for stabilization.

To assist in interpreting data, barometric conditions were recorded prior to and during LFG monitoring. Atmospheric trends recorded during the September and November LFG monitoring events are presented on Figures 8A and 8B, respectively. LFG probe measurement recorded during both monitoring events were obtained over periods of generally steady barometric pressure conditions.

5.0 SUMMARY AND CONCLUSIONS

The groundwater quality results, LFG concentrations and leachate production rates reported for the OVSL over the 2020 compliance period remain consistent with the continuing stabilization of the closed landfill and an overall improvement of environmental site conditions. Groundwater quality data collected over the past decade indicate that historically detected contaminants in groundwater are generally declining, with fewer exceedances of site-specific MTCA cleanup levels reported at POC monitoring wells and downgradient of the site. Leachate generation volumes for 2020 were slightly lower than those reported for the preceding year, and remain significantly lower than pre-2015 levels, demonstrating the continued effectiveness of the improved engineering controls being implemented at the facility. The OVSL will continue to explore opportunities to minimize any remaining above ground contribution to leachate volumes to ensure that the long-term trend of diminishing leachate generation is maintained.

LFG production at the facility continues to gradually decline, with flow rates decreasing to several orders of magnitude below their modeled production high as the natural depletion of methane and other landfill gases continues at the site. It is anticipated that on-going operations and maintenance (O&M) efforts at the OVSL will continue to show improving environmental conditions and increased landfill stability.

5.1 GROUNDWATER

5.1.1 Groundwater Quality

A number of VOCs, general chemistry parameters, inorganic analytes, and field parameters continued to be reported at elevated concentrations in the monitoring wells adjacent to the OVSL. During 2020, site specific MTCA cleanup levels, groundwater protection standards and/or federal MCLs were exceeded for seven analytes: pH, total arsenic, total iron, total manganese, ammonia, trichloroethene and vinyl chloride. These results are generally consistent with those reported over the past several years, with overall trends showing that the majority of analyte concentrations are decreasing.

Arsenic was the only OVSL parameter to exceed a primary MCL during 2020 compliance period. These exceedances continue to be reported in two wells: MW-32 (0.0105 mg/L in November) and MW-34C (0.0258 mg/L in May). It should be noted that these are total arsenic results that were obtained from unfiltered groundwater samples. The primary MCL for vinyl chloride was not exceeded during the current reporting period and has not been exceeded since 2006.

Over the current reporting year, 95% UCL MTCA cleanup goal exceedances were reported at least once in five OVSL Compliance wells and in all of the Downgradient monitoring wells. With the exception of vinyl chloride in MW-32, the only parameters that exceeded the site specific MTCA cleanup goals in these wells were ammonia, arsenic, iron, and manganese.

The majority of parameter exceedances were reported in Compliance wells MW-34C, MW-39 and MW-42 and Downgradient well MW-32. However, an analysis of the 95% UCL for the ten site COCs relative to their respective cleanup levels supports the ongoing overall improvement in groundwater quality. With the exception of arsenic in MW-33C and MW-42, no statistically significant increasing trends were calculated for the OVSL COCs over the current reporting year.

Prediction limits for inorganic parameters were exceeded at least once in ten groundwater monitoring wells during 2020. Significantly increasing concentrations trends (using Sen's Non-

Parametric Test for Trend) were reported for at least one inorganic parameter at nine well locations, while significantly decreasing trends also occurred at eighteen well locations. Significantly decreasing concentration trends were reported for trichloroethene (MW-19C) and vinyl chloride in wells MW-19C, MW-32 and MW-34C.

Overall, the groundwater analytical data, statistical and graphical analyses, and comparison to water quality standards though 2020 continue to indicate similar, but improving conditions to those previously documented at the OVSL, with on-going evidence that natural attenuation continues to be improving the groundwater quality at the site.

5.1.2 Evidence of Natural Attenuation

Natural attention includes a variety of physical, chemical and biological processes that act without human intervention to reduce mass, toxicity, mobility, volume, or concentration of contaminants. Examples of these processes can include biodegradation, dispersion, dilution, sorption, volatilization, chemical transformation, and contaminant destruction. At solid waste landfills, natural attenuation processes are largely controlled by and associated with changes in groundwater chemistry. Typically, for landfills, pathways for aerating subsurface soils and groundwater are impeded, resulting in increasingly anaerobic and reducing conditions. In turn, these conditions promote microbial communities that can degrade organic compounds resulting in the dechlorination of solvents and their daughter products.

Gradual, yet consistent, improvements to water quality continue to be observed at the OVSL. This is illustrated by the overall stability and/or decreasing trends observed in the calculated 95% UCLs for site COCs and through their improving comparison with their respective site-specific MTCA cleanup levels. These data continue to support the conclusion that natural attention is occurring as expected at the OVSL. As has been previously noted, significant areas across and immediately downgradient of the OVSL waste cells exhibit a pronounced anaerobic and/or reducing geochemistry. As a result, dissolved oxygen (DO) levels are significantly reduced in the groundwater immediately beneath and downgradient of the unlined Barney White waste cell. The presence of organic rich wetlands northwest of this waste cell is also suspected be contributing to the locally anoxic groundwater conditions.

These geochemical conditions remain prevalent at well locations showing the most elevated contaminant concentrations (e.g., MW-19C, MW-34C and MW-42 with elevated total manganese, vinyl chloride and other redox sensitive parameters). The presence of vinyl chloride beneath the west-central portions of the site is consistent with the ongoing reductive dechlorination of parent compounds (PCE, TCE and DCE isomers). However, further downgradient, along the far western margins of the site (MW-33A and MW-36A) groundwater geochemistry becomes increasingly less reductive and more oxidative, which in turn is increasingly supportive of the degradation of vinyl chloride. This was once again demonstrated during 2020 by the absence of VOCs, including vinyl chloride, in downgradient wells MW-29A, MW-33A, MW-33C and MW-36A.

The number of decreasing parameter trends reported for the OVSL provides additional evidence supporting this ongoing and expected natural attenuation. Given the current data and historical trends, natural attenuation at the OVSL can be anticipated to continue throughout the post-closure period and beyond.

The 2020 monitoring results indicate that the current, optimized schedule for semi-annual monitoring at the OVSL, which was initialed in 2019, remains appropriate for the facility. Since the facility continues to demonstrate overall decreasing groundwater contaminant concentrations, and

ongoing stable to decreasing parameter trends, the current semi-annual groundwater monitoring program as detailed in the current site-specific *Sampling and Analysis Plan* (SAP, revision 1.2, SCS Engineers, 2019) remains appropriate for the OVSL.

5.2 LEACHATE

Comparisons between the 2020 groundwater and L-INF field and water quality results continue to demonstrate that parameters measured and analyzed in the L-INF leachate are elevated relative to the local groundwater. These parameters include total/bicarbonate alkalinity, ammonia, calcium, chloride, magnesium, sulfate, sodium, COD, TDS and TOC. Low but detectable levels of tetrahydrofuran were also reported in the November 2020 sample. The OBWL-TD sample reported generally lower leachate indicator results than the landfill influent, and did not report detectable VOCs. The LP-LCD monitoring station was sampled during both semi-annual events. These samples continued to report elevated specific conductivity, alkalinity, calcium, chloride, sodium, sulfate, TDS and TOC compared to the groundwater results.

A total of 778,110 gallons of leachate were generated from the OVSL over the course of the 2020 reporting year. This volume was lower than that reported for the preceding year (878,605 gallons), and appreciably less than previous annual totals (ranging to over 2 million gallons) reported prior to the implementation of site maintenance and infrastructure improvements initiated in 2013. Liquid volumes recorded at the LP-LCD monitoring station for the leachate pond leakage collection system indicate that approximately 1,133 gallons of liquid were captured and returned to the pond during 2020. The LP-LCD volume remained relatively low, and continues to suggest that leakage through the leachate pond liner system is well controlled.

5.3 LANDFILL GAS

Methane was not detected above state regulatory standards in any of the LFG monitoring probes or in any of the landfill structures during 2020. Perimeter LFG probe monitoring results continue to demonstrate that the facility is in compliance with respect to subsurface landfill soil gas migration criteria (less than 5% by volume of methane in soil at the property boundary). Methane was not detected in any of the onsite structures that were monitored over the reporting period.

LFG extraction rates and major gas component results over the 2020 operational period are summarized in Appendix E. An estimated 100.54 million cubic feet of LFG were collected at the OVSL flare inlet over 2020, with an annualized average concentration of 23.01 percent methane (by volume). Improvements (discussed above and in previous reports) to the OVSL LFG extraction system and associated infrastructure have reduced and or stabilized LFG levels at both perimeter soil gas probe and structural monitoring locations. The LFG collection system will continue to be monitored and optimized to enhance its performance.

6.0 REFERENCES

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Tables



Table 1. Groundwater Well Construction Details
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Well ID	Northing	Easting	Measuring Point Elevation (ft. MSL)	Well Depth (ft. bgs)	Top of Screen Elevation (ft. MSL)	Bottom of Screen Elevation (ft. MSL)	Screen Length (ft.)
Water Quality Monitoring Wells							
MW-13A	188233.33	1159346.53	288.74	155	141	131	10
MW-13B	188223.33	1159346.53	288.66	260	36	26	10
MW-15R	189905.03	1157711.29	180.66	33	157	147	10
MW-16	190804.53	1159350.37	240.01	70	178	168	10
MW-19C	188520.03	1157025.96	196.96	90	111	106	5
MW-29A	188570.27	1156121.60	160.21	25	140	135	5
MW-32	188908.88	1156388.52	152.36	21	135	130	5
MW-33A	189304.18	1155636.34	147.68	20	140	125	15
MW-33C	189284.18	1155636.34	147.59	65	89	79	10
MW-34A	189391.16	1156929.63	197.95	48	168	148	20
MW-34C	189391.16	1156943.77	199.89	98	114	99	15
MW-35	188917.42	1159762.03	302.69	149	161	151	10
MW-36A	189754.10	1156935.20	192.68	50	147	142	5
MW-39	190362.60	1158325.32	189.92	25	174	164	10
MW-42	188690.50	1156617.90	187.43	33	159	154	5
MW-43	188407.60	1156636.60	186.42	30	161	156	5
Water Level Measurement Only Wells							
MW-2B1	189232.23	1157544.63	172.94	18	163	153	10
MW-2A1	189242.23	1157544.63	174.22	38	143	133	10
MW-4	188298.52	1156887.57	175.78	34	149	139	10
MW-10	188737.81	1156265.18	155.12	17.5	142	137	5
MW-20	188850.01	1157062.68	198.41	49	165	150	15
MW-21	188737.81	1156245.18	156.03	15	150	140	10
MW-23A	189485.84	1158085.12	182.28	23	172	157	15
MW-24	189795.14	1158383.22	208.24	42	176	161	15
MW-29C	188479.36	1156072.97	156.92	50	111	106	5
MW-30A	188623.50	1155612.45	166.74	35	136	131	5
MW-36	189751.87	1156955.77	189.39	100	99	89	10
MW-41A	188106.83	1157522.05	199.43	35.7	168	163	5
MW-41B	188104.34	1157530.68	200.64	79	126	121	5
MW-41C	188101.13	1157541.93	199.67	117	87	82	5

Table 2. Summary of Analytical Parameters
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Well	Volatile Organic Compounds		Geochemical Indicator Parameters**	Leachate Indicator Parameters			Field Parameters	Metals* and Nitrate	
	WAC 173-351 Appendix I	Vinyl Chloride (SIM)	Cl, Fe, Mn, SO ₄ , Ca, Mg, Na, K, Alkalinity, Bicarbonate Alkalinity	Ammonia	TOC, TDS	BOD, COD	Dissolved Oxygen, ORP, pH, Specific Conductivity, Temperature, Turbidity	As, Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn, NO ₃	TSS
Compliance Monitoring Locations									
MW-15R	✓	✓	✓	✓	✓		✓	✓	✓
MW-34A									
MW-34C									
MW-39									
MW-42									
MW-43									
Performance Monitoring Locations									
MW-19C	✓	✓	✓	✓	✓		✓	✓	✓
Downgradient Monitoring Locations									
MW-29A	✓	✓	✓	✓	✓		✓	✓	✓
MW-32									
MW-33A									
MW-33C									
MW-36A									
Upgradient Monitoring Locations									
MW-13A ^a	✓	✓	✓	✓	✓		✓	✓	✓
MW-13B ^a									
MW-35 ^a									
MW-16 ^a									
Leachate Monitoring Locations									
L-INF ^b	✓	✓	✓	✓	✓	✓	✓	✓	✓
LP-LCD	✓	✓	✓	✓	✓	✓	✓	✓	
OBWL-TD ^b	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes

✓ Indicates wells were sampled for selected parameters.

* The Appendix I metals in the groundwater samples were analyzed for only total metals fractions.

** Only Iron and Manganese were analyzed for both total and dissolved fractions.

^a Water quality monitoring at the Upgradient wells was limited to Appendix II field parameters during the Semi-annual # 1 event (in May).

^b Sampled annually (November 2020).

Table 3. Groundwater Elevations
2020 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Location ID	Measuring Point Elevation (ft. MSL)	Semi-Annual #1 May 2020		Semi-Annual #2 November 2020	
		DTW	WLE	DTW	WLE
Water Quality Monitoring Wells					
MW-13A	288.74	47.76	240.98	49.13	239.61
MW-13B	288.66	61.34	227.32	63.42	225.24
MW-15R	180.66	19.31	161.35	19.47	161.19
MW-16	240.01	58.91	181.10	62.89	177.12
MW-19C	196.96	34.60	162.36	35.16	161.80
MW-29A	160.21	14.29	145.92	11.33	148.88
MW-32	152.36	1.80	150.56	1.33	151.03
MW-33A	147.68	5.55	142.13	4.45	143.23
MW-33C	147.59	2.58	145.01	1.81	145.78
MW-34A	197.95	40.29	157.66	40.36	157.59
MW-34C	199.89	42.10	157.79	42.17	157.72
MW-35	302.69	72.74	229.95	73.60	229.09
MW-36A	192.68	31.74	160.94	31.80	160.88
MW-39	189.92	21.18	168.74	19.53	170.39
MW-42	187.43	28.54	158.89	27.34	160.09
MW-43	186.42	25.69	160.73	22.16	164.26
Water Level Measurement Only Wells					
MW-2A1	174.22	8.69	165.53	9.22	165.00
MW-2B1	172.94	7.50	165.44	7.90	165.04
MW-4	175.78	15.55	160.23	13.28	162.50
MW-10	155.12	4.80	150.32	4.61	150.51
MW-20	198.41	36.55	161.86	36.85	161.56
MW-21	156.03	6.00	150.03	7.31	148.72
MW-23A	182.28	12.91	169.37	14.26	168.02
MW-24	208.25	32.95	175.30	35.20	173.05
MW-29C ¹	156.92	12.80	144.12	N/A	N/A
MW-30A	166.74	24.95	141.79	24.56	142.18
MW-36	189.39	31.89	157.50	31.87	157.52
MW-41A ²	199.43	25.59	173.84	N/A	N/A
MW-41B	200.64	25.96	174.68	28.41	172.23
MW-41C	199.67	27.36	172.31	29.49	170.18

Notes:

Elevations, ft. MSL

WLE = Water level elevation

DTW = Depth to Water (ft)

N/A = Not applicable

¹ DTW was not measured for Semi-Annual #2. Hit obstruction at 8.9 feet.

² DTW was not measured for Semi-Annual #2. Hit obstruction at 31.51 feet.

Table 4A. Detections and Field Measurements - Compliance Monitoring Wells
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-15R 5/26/2020	MW-15R 11/19/2020	MW-34A 5/26/2020	MW-34A 11/19/2020	MW-34C 5/26/2020	MW-34C 11/19/2020	MW-39 5/26/2020	MW-39 11/19/2020	MW-42 5/27/2020	MW-42 11/19/2020	MW-43 5/27/2020	MW-43 11/19/2020
Field Parameter													
Dissolved Oxygen	mg/L	0.94	0.44	5.34	0.77	0.47	0.34	0.56	0.31	0.33	0.05	2.13	3.48
Oxidation Reduction Potential	mV	127.6	188.3	236.0	132.0	45.4	2.7	-6.3	-25.0	-21.2	-48.0	223.8	284.1
pH	SU	6.83	6.44	6.38	6.18	6.84	6.67	6.50	6.06	6.57	6.45	5.86	5.60
Specific Conductivity	umhos/c	167	156	134	186	213	192	300	268	492	465	49	60
Temperature	deg C	9.7	9.3	11.7	11.3	12.6	12.1	9.8	10.8	11.4	12.0	8.4	11.9
Turbidity	NTU	0.2	0.8	0.4	1.6	172.0	81.3	2.0	2.4	1.0	3.4	3.7	9.7
General Chemistry													
Alkalinity, Bicarbonate (As CaCO3)	mg/L	81	75	68	88	100	95	120	110	210	210	17	23
Alkalinity, Total (As CaCO3)	mg/L	81	75	68	88	100	95	120	110	210	210	17	23
Ammonia (as N)	mg/L	--	--	--	--	--	--	0.42	0.37	4.0	3.6	--	--
Calcium, Dissolved	mg/L	15	14	12	16	22	19	13	14	38	34	4.1	4.9
Chloride	mg/L	--	--	--	--	3.1	--	6.7	4.6	8.7	5.9	--	--
Iron, Dissolved	mg/L	0.031 J	--	--	--	1.6	0.59	40	37	24	22	0.022 J	--
Iron, Total	mg/L	0.034 J B	--	0.028 J B	0.11	46 B	10	43 B	36	25	24	0.44	0.26
Magnesium, Dissolved	mg/L	9.6	8.6	6.0	8.5	9.3	8.2	8.4	8.5	13	12	1.7	2.1
Manganese, Dissolved	mg/L	0.0031	0.0013	0.0004 J B	0.00035 J	0.53 B	0.51	0.45 B	0.50	4.1 B	3.7	0.016 B	0.0077
Manganese, Total	mg/L	0.0024	0.0015 B	0.0012	0.0013 B	4.8	0.87 B	0.44	0.49 B	4.1	3.9	0.019	0.010
Nitrate (As N)	mg/L	0.15	--	0.14	0.51	--	--	--	0.11	--	--	0.61	0.94
Potassium, Dissolved	mg/L	0.69 J	0.72 J	0.43 J	0.61 J	0.83 J	0.80 J	0.26 J	--	8.0	7.3	0.62 J	0.59 J
Sodium, Dissolved	mg/L	5.7	5.6	8.7	9.3	11	10	9.3	9.2	18 B	18	2.2 B	3.0
Sulfate	mg/L	5.4	5.0	--	--	--	--	--	--	7.6	6.6	--	--
Total Dissolved Solids (TDS)	mg/L	110	140	110	140	190	150	170	180	270	250	51	33 H
Total Organic Carbon (TOC)	mg/L	--	--	--	--	1.4	--	2.5	2.9	6.2	5.6	--	1.3
Total Suspended Solids (TSS)	mg/L	--	--	--	--	610	30	7.2	12	8.0	17	--	--
Metals													
Antimony, Total	mg/L	--	--	--	--	--	--	0.00064 J	--	--	--	--	--
Arsenic, Total	mg/L	0.000219	0.000229	0.000465	0.000492	0.0258	0.00902	0.00253	0.00163	0.00174	0.00197	0.0000428	0.0000426
Barium, Total	mg/L	0.0045	0.0043	0.0029	0.0036	0.240	0.052	0.015	0.014	0.095	0.089	0.0029	0.0046
Beryllium, Total	mg/L	--	--	--	--	0.00026 J	0.00023 J	0.000092 J	--	--	--	--	--
Chromium, Total	mg/L	--	0.00056 J	0.0043	0.0017 J	0.00097 J	0.00052 J	0.00087 J	0.00077 J	0.00079 J	0.00070 J	--	--
Cobalt, Total	mg/L	--	--	--	--	0.013 J	--	0.0086	0.0076	0.0016 J	0.0012 J	--	--
Copper, Total	mg/L	--	--	--	--	0.0089	0.0025	--	--	--	--	--	--
Lead, Total	mg/L	--	--	--	--	--	0.00024 J	--	--	--	--	--	--
Nickel, Total	mg/L	0.0014 J	0.0012 J B	0.0024 J	0.0016 J B	0.0010 J	0.00058 J B	0.0027 J	0.003 J B	0.0016 J	0.0013 J B	--	--
Selenium, Total	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium, Total	mg/L	0.0038	0.0039	0.0043	0.0043	0.0057	0.0015 J	0.0020	0.0013 J	--	--	0.0013 J	--
Zinc, Total	mg/L	0.0029 J	--	--	--	0.003 J	--	--	--	0.0025 J	--	--	--
Volatile Organic Compounds													
Carbon disulfide	ug/L	--	--	--	--	--	--	--	--	--	--	--	0.81 J
Vinyl chloride	ug/L	--	--	--	--	0.022	0.023	--	--	0.070	0.079	--	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year

CaCO₃ = Calcium carbonate
 deg-C = Degrees Celcius
 J = Concentration is estimated
 umhos/cm = Microhms per centimeter
 ug/L = Micrograms per liter
 mg/L = Miligrams per liter

mV = Milivolts
 N = Nitrogen
 NTU = Nephelometric turbidity units
 SU = Standard units
 -- = Parameter not detected above the project-specific reporting limit
 B = Analyte detected in sample blank
Bold = Analyte exceeds a water quality standard.

Table 4B. Detections and Field Measurements - Performance Monitoring Wells
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-19C 5/27/2020	MW-19C 11/19/2020
Field Parameter			
Dissolved Oxygen	mg/L	0.49	0.13
Oxidative Reduction Potential	mV	67.0	38.6
pH	SU	6.90	6.75
Specific Conductivity	umhos/cm	165	167
Temperature	deg C	11.2	10.4
Turbidity	NTU	0.4	3.2
General Chemistry			
Alkalinity, Bicarbonate (As CaCO ₃)	mg/L	81	81
Alkalinity, Total (As CaCO ₃)	mg/L	81	81
Ammonia (as N)	mg/L	0.43	0.45
Calcium, Dissolved	mg/L	14	14
Chloride	mg/L	--	--
Iron, Dissolved	mg/L	0.16	0.13
Iron, Total	mg/L	0.19	0.20
Magnesium, Dissolved	mg/L	7.4	7.1
Manganese, Dissolved	mg/L	1.1 B	1.0
Manganese, Total	mg/L	1.1	1.2
Nitrate (As N)	mg/L	--	--
Potassium, Dissolved	mg/L	1.4	1.2
Sodium, Dissolved	mg/L	6.6 B	6.5
Sulfate	mg/L	--	--
Total Dissolved Solids (TDS)	mg/L	120	130
Total Organic Carbon (TOC)	mg/L	--	--
Total Suspended Solids (TSS)	mg/L	--	--
Metals			
Antimony, Total	mg/L	--	--
Arsenic, Total	mg/L	0.00274	0.00294
Barium, Total	mg/L	0.0037	0.0040
Beryllium, Total	mg/L	--	--
Chromium, Total	mg/L	--	--
Cobalt, Total	mg/L	--	--
Copper, Total	mg/L	--	--
Lead, Total	mg/L	--	--
Nickel, Total	mg/L	0.00033 J	0.00032 J B
Selenium, Total	mg/L	--	--
Vanadium, Total	mg/L	--	--
Zinc, Total	mg/L	--	--
Volatile Organic Compounds			
Trichloroethene	ug/L	0.99 J	1.1
Vinyl chloride	ug/L	0.018 J	0.044

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting

CaCO₃ = Calcium carbonate

Bold = Analyte exceeds a water quality standard.

deg-C = Degrees Celcius

B = Analyte detected in sample blank

J = Concentration is estimated

umhos/cm = Microhms per centimeter

ug/L = Micrograms per liter

mg/L = Miligrams per liter

Table 4C. Detections and Field Measurements - Downgradient Monitoring Wells
2020 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-29A 5/27/2020	MW-29A 11/19/2020	MW-32 5/27/2020	MW-32 11/20/2020	MW-33A 5/28/2020	MW-33A 11/20/2020	MW-33C 5/28/2020	MW-33C 11/20/2020	MW-36A 5/26/2020	MW-36A 11/19/2020
Field Parameter											
Dissolved Oxygen	mg/L	0.45	0.08	0.43	0.47	1.96	0.35	0.57	0.23	2.50	3.24
Oxidative Reduction Potential	mV	71.3	54.3	22.3	0.4	23.7	63.1	-58.5	-61.7	216.8	227.8
pH	SU	6.17	6.00	6.86	6.62	6.85	5.84	8.02	7.67	6.33	5.90
Specific Conductivity	umhos/cm	108	107	286	329	125	98	163	158	133	119
Temperature	deg C	8.1	11.6	10.5	10.8	8.5	9.1	8.8	8.3	9.2	8.8
Turbidity	NTU	3.2	3.0	0.7	2.0	7.2	6.1	0.9	2.5	0.8	1.0
General Chemistry											
Alkalinity, Bicarbonate (As CaCO3)	mg/L	55	44	130	150	66	47	76	74	80	61
Alkalinity, Total (As CaCO3)	mg/L	55	44	130	150	66	47	76	74	80	61
Ammonia (as N)	mg/L	0.064	0.056	0.042	0.057	--	0.21	--	--	--	--
Calcium, Dissolved	mg/L	7.7	7.0	26	32	14	9.7	18	17	10	8.8
Chloride	mg/L	--	--	7.7	8.8	--	--	5.0	--	--	--
Iron, Dissolved	mg/L	5.6	4.1	0.59	0.74	0.40	2.1	0.096	0.051 J	--	--
Iron, Total	mg/L	4.5	4.5	0.62	0.81	2.7 B	4.6	0.37 B	0.16	0.17 B	0.03 J
Magnesium, Dissolved	mg/L	4.5	4.1	13	16	6.6	4.3	7.4	6.8	7.1	6.1
Manganese, Dissolved	mg/L	1.6 B	1.4	2.1 B	2.4	0.013	0.093	0.15	0.13	0.00047 J B	--
Manganese, Total	mg/L	1.5	1.5	2.0	2.6	0.033	0.099	0.17	0.21	0.00064 J	0.00057 J B
Nitrate (As N)	mg/L	--	--	--	--	--	--	--	--	0.70	0.64
Potassium, Dissolved	mg/L	0.39 J	0.30 J	1.2	1.1	0.91 J	0.56 J	1.4	1.2	0.77 J	0.83 J
Sodium, Dissolved	mg/L	3.8 B	3.8	12	13	4.1 B	3.3	4.5 B	4.0	7.0	6.3
Sulfate	mg/L	--	--	9.7	13	--	--	11	8.1	--	--
Total Dissolved Solids (TDS)	mg/L	77	75	200	210	100	73	120	97	110	120
Total Organic Carbon (TOC)	mg/L	1.4	1.6	1.0	1.6	1.2	2.3	--	--	--	--
Total Suspended Solids (TSS)	mg/L	--	--	--	--	11	10	--	--	--	--
Metals											
Antimony, Total	mg/L	--	--	--	--	0.0039 J	--	--	--	--	0.00082 J
Arsenic, Total	mg/L	0.00188	0.00211	0.00952	0.0105	0.000441	0.000585	0.00281	0.00289	0.000594	0.000548
Barium, Total	mg/L	0.0067	0.0067	0.0036	0.0050	0.0017	0.0035	0.0046	0.0042	0.0026	0.0023
Beryllium, Total	mg/L	--	--	--	--	0.00051 J	--	--	--	--	--
Chromium, Total	mg/L	0.00062 J	--	--	--	0.0044 J	0.0014 J	--	--	0.009	0.010
Cobalt, Total	mg/L	0.0030	0.0026 J	--	--	--	--	--	--	--	--
Copper, Total	mg/L	--	--	--	0.00066 J	0.0053 J	0.00094 J	0.0036	--	--	--
Lead, Total	mg/L	--	--	--	--	0.00022 J	--	--	--	--	--
Nickel, Total	mg/L	0.0024 J	0.0021 J B	0.0015 J	0.0015 J	0.00054 J	0.00079 J	--	--	0.0016 J	0.0014 J B
Selenium, Total	mg/L	--	--	--	--	--	--	--	--	0.0005 J	--
Thallium, Total	mg/L	--	--	--	--	--	--	0.00009 J	--	--	--
Vanadium, Total	mg/L	--	--	--	--	0.0110	0.0037	--	--	0.0023	0.0028
Zinc, Total	mg/L	--	--	--	--	--	0.0027 J	0.0023 J	--	--	--
Volatile Organic Compounds											
Trichloroethene	ug/L	--	--	0.51 J	0.51 J	--	--	--	--	--	--
Vinyl chloride	ug/L	--	--	0.25	0.23	--	--	--	--	--	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year
CaCO₃ = Calcium carbonate
deg-C = Degrees Celcius
J = Concentration is estimated
umhos/cm = Microhms per centimeter
ug/L = Micrograms per liter
mg/L = Milligrams per liter
mV = Millivolts
N = Nitrogen
NTU = Nephelometric turbidity units
SU = Standard units
-- = Parameter not detected above the project-specific reporting limit

Table 4D. Detections and Field Measurements - Upgradient Monitoring Wells
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-13A 5/26/2020	MW-13A 11/19/2020	MW-13B 5/26/2020	MW-13B 11/19/2020	MW-16 5/27/2020	MW-16 11/20/2020	MW-35 5/27/2020	MW-35 11/19/2020
Field Parameter									
Dissolved Oxygen	mg/L	1.46	8.25	1.66	8.89	6.61	5.52	4.50	5.64
Oxidative Reduction Potential	mV	160.0	298.8	158.0	282.7	192.7	146.1	184.4	31.5
pH	SU	7.28	6.99	7.76	7.64	6.50	6.14	7.49	7.20
Specific Conductivity	umhos/cm	170	168	175	170	121	151	168	156
Temperature	deg C	9.5	9.4	10.0	9.5	9.7	8.6	10.0	9.6
Turbidity	NTU	0.4	2.8	1.0	2.8	0.3	9.3	0.4	1.3
General Chemistry									
Alkalinity, Bicarbonate (As CaCO ₃)	mg/L	*	84	*	84	*	85	*	85
Alkalinity, Total (As CaCO ₃)	mg/L	*	84	*	84	*	85	*	85
Ammonia (as N)	mg/L	*	--	*	--	*	--	*	--
Calcium, Dissolved	mg/L	*	15	*	16	*	13	*	14
Chloride	mg/L	*	--	*	--	*	--	*	--
Iron, Dissolved	mg/L	*	--	*	--	*	--	*	--
Iron, Total	mg/L	*	--	*	--	*	0.88	*	0.048 J
Magnesium, Dissolved	mg/L	*	8.7	*	8.0	*	7.4	*	8.6
Manganese, Dissolved	mg/L	*	--	*	--	*	0.00035 J	*	0.00033 J
Manganese, Total	mg/L	*	0.00046 J	*	--	*	0.11	*	0.00068 J B
Nitrate (As N)	mg/L	*	0.42	*	0.35	*	--	*	0.43
Potassium, Dissolved	mg/L	*	0.50 J	*	0.46 J	*	0.79 J	*	0.52 J
Sodium, Dissolved	mg/L	*	5.3	*	5.3	*	5.6	*	5.2
Sulfate	mg/L	*	--	*	--	*	--	*	--
Total Dissolved Solids (TDS)	mg/L	*	130	*	120	*	100	*	110
Total Organic Carbon (TOC)	mg/L	*	--	*	--	*	--	*	--
Total Suspended Solids (TSS)	mg/L	*	--	*	--	*	--	*	--
Metals									
Antimony, Total	mg/L	*	--	*	--	*	--	*	--
Arsenic, Total	mg/L	*	0.000198	*	0.000347	*	0.0011	*	0.000115
Barium, Total	mg/L	*	0.0025	*	0.0032	*	0.0055	*	0.0029
Beryllium, Total	mg/L	*	--	*	--	*	--	*	--
Chromium, Total	mg/L	*	0.0022 J	*	0.0028 J	*	0.019	*	0.0023 J
Cobalt, Total	mg/L	*	--	*	--	*	0.002 J	*	--
Copper, Total	mg/L	*	--	*	--	*	0.0018 J	*	0.0015 J
Lead, Total	mg/L	*	--	*	--	*	0.00092 J B	*	--
Nickel, Total	mg/L	*	--	*	--	*	0.0055	*	--
Selenium, Total	mg/L	*	--	*	--	*	--	*	--
Vanadium, Total	mg/L	*	0.0037	*	0.0056	*	0.0090	*	0.0043
Zinc, Total	mg/L	*	--	*	--	*	--	*	0.002 J
Volatile Organic Compounds									
No detections	ug/L	*	--	*	--	*	--	*	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year

* = Only field parameters analyzed at upgradient wells during Semi-annual #1 event

CaCO₃ = Calcium carbonate

deg-C = Degrees Celcius

J = Concentration is estimated

umhos/cm = Microhms per centimeter

ug/L = Micrograms per liter

mg/L = Miligrams per liter

mV = Milivolts

N = Nitrogen

NTU = Nephelometric turbidity units

SU = Standard units

-- = Parameter not detected above the project-specific reporting limit

B = Analyte detected in sample blank

Bold = Analyte exceeds a water quality standard.

Table 4E. Detections and Field Measurements - Leachate and Leak Detection Locations
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	L-INF 11/20/20	OBWL-TD 11/20/20	LP-LCD 5/26/2020	LP-LCD 11/20/2020
Field Parameter					
Dissolved Oxygen	mg/L	1.20	10.50	5.96	8.42
Oxidative Reduction Potential	mV	-36.5	14.0	215.1	101.3
pH	SU	7.11	7.62	7.47	7.41
Specific Conductivity	umhos/cm	5,228	599.4	3,874	3,627
Temperature	Deg C	12.1	9.5	16.5	9.3
Turbidity	NTU	4.2	3.2	7.7	8.2
General Chemistry					
Alkalinity, Bicarbonate (As CaCO ₃)	mg/L	1,800	98	740	750
Alkalinity, Total (As CaCO ₃)	mg/L	1,800	98	740	750
Ammonia (as N)	mg/L	200	--	0.51	1.1
Biochemical Oxygen Demand	mg/L	17	--	6.1	--
Calcium, Dissolved	mg/L	140	120	98	87
Chemical Oxygen Demand	mg/L	380	--	150	140
Chloride	mg/L	810	--	590	580
Iron, Dissolved	mg/L	7.6	0.026 J	0.11	0.032 J
Iron, Total	mg/L	7.7	0.23	0.78 B	0.13
Magnesium, Dissolved	mg/L	100	14	60	53
Manganese, Dissolved	mg/L	2.6	0.0086	0.35 B	0.20
Manganese, Total	mg/L	2.8	0.011	0.44	0.30
Nitrate (As N)	mg/L	--	0.61	25	8.6
Nitrate/Nitrite, Total	mg/L	--	0.61	25	8.6
Potassium, Dissolved	mg/L	110	2.7	88	80
Sodium, Dissolved	mg/L	780	7.5	680	630
Sulfate	mg/L	300	270	280	270
Total Dissolved Solids (TDS)	mg/L	2,900	460	2,300	2400
Total Organic Carbon (TOC)	mg/L	120	2.0	44	47
Total Suspended Solids (TSS)	mg/L	21	4.0	*	*
Metals					
Antimony, Total	mg/L	0.0030	0.0013	0.0034	0.0025
Arsenic, Total	mg/L	0.00628	0.000967	0.0103	0.014
Barium, Total	mg/L	0.20	0.02	0.15	0.11
Beryllium, Total	mg/L	--	--	--	0.000096 J B
Chromium, Total	mg/L	0.0072	0.0013 J	0.0029 J	0.0026 J
Cobalt, Total	mg/L	0.0078	--	0.011	0.0092
Copper, Total	mg/L	--	0.003	0.014	0.013
Lead, Total	mg/L	--	--	0.0034	0.0015 B
Nickel, Total	mg/L	0.054	0.0031 J	0.082	0.091
Selenium, Total	mg/L	0.00043 J B	--	0.0012	0.00099 J B
Vanadium, Total	mg/L	0.012	--	0.0087	0.0082
Zinc, Total	mg/L	0.0029 J	0.008	0.017	0.014
Volatile Organic Compounds					
Tetrahydrofuran	ug/L	70 J	--	--	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year.

* = Not analyzed

CaCO₃ = Calcium carbonate

deg-C = Degrees Celcius

H = Analyzed beyond hold time

J = Concentration is estimated

mg/L = Milligrams per liter

ug/L = Micrograms per liter

umhos/cm = Microhms per centimeter

Table 5. 2020 Groundwater and Leachate VOC Detections
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	Event	Well Type	Well	Result
Carbon disulfide	ug/L	Q420	Compliance	MW-43	0.81 J
Tetrahydrofuran	ug/L	Q420	System	L-INF	70 J
Trichloroethene	ug/L	Q220	Downgradient	MW-32	0.51 J
			Performance	MW-19C	0.99 J
		Q420	Downgradient	MW-32	0.51 J
			Performance	MW-19C	1.1
Vinyl chloride	ug/L	Q220	Compliance	MW-42	0.07
				MW-34C	0.022
			Downgradient	MW-32	0.25
		Q420	Performance	MW-19C	0.018 J
			Compliance	MW-34C	0.023
				MW-42	0.079
	Downgradient	MW-32	0.23		
	Performance	MW-19C	0.044		

Notes:

J = Indicates that concentration is estimated due to low concentration in sample

Table 6A. Summary of Significant Parameter Trends by Well Type
 2020 Annual Monitoring Report
 Olympic View Sanitary Lanfill, Kitsap County, Washington

Significant VOC Trends		Significant Inorganic Parameter Trends	
Increasing	Decreasing	Increasing	Decreasing
Upgradient Wells			
None	None	Alkalinity, Bicarbonate Alkalinity, Total Nitrate Specific Conductivity	Chloride Magnesium, Dissolved Sulfate
Performance Wells			
None	Trichloroethene Vinyl Chloride	None	Ammonia (as N) Arsenic, Total Chloride Sodium, Dissolved Sulfate
Compliance Wells			
None	Vinyl Chloride	Arsenic, Total Chloride pH Potassium, Dissolved Temperature	Alkalinity, Bicarbonate Alkalinity, Total Ammonia (as N) Barium, Total Calcium, Dissolved Chloride Magnesium, Dissolved Manganese, Total pH Sodium, Dissolved Specific Conductivity Sulfate Total Dissolved Solids Total Organic Carbon
Downgradient Wells			
None	Vinyl Chloride	Arsenic, Total pH Specific Conductivity	Alkalinity, Bicarbonate Alkalinity, Total Ammonia (as N) Calcium, Dissolved Chloride Magnesium, Dissolved Sodium, Dissolved Specific Conductivity Sulfate Total Dissolved Solids Vanadium, Total

Table 6B. Summary of Trends in Groundwater (2005 - 2020)
2020 Annual Monitoring Report
Olympic View Sanitary Lanfill, Kitsap County, Washington

Results of Sen's Non-Parametric Test for Trend

Trend Test Period: January 2005 through December 2020

Trend Test Wells:

- Compliance Wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
- Performance Wells: MW-19C
- Downgradient Wells: MW-29A, MW-32, MW-33A, MW-33C, MW-36A
- Upgradient Wells* MW-13A, MW-13B, MW-16, MW-35

*trend status shown is based on most recent event with reported data, as shown

Trend Test A = all organic parameters listed in Appendix I and Appendix II of WAC 173-351-990 that have been detected at least once in at least one of 16 wells comprising the network of 1) compliance, 2) performance, 3) downgradient, and 4) upgradient site monitoring wells, during the trend test period. This includes the following constituents:

	<u>Significant Increasing Trends</u>	<u>Significant Decreasing Trends</u>
1,2-Dichloroethene (total)	None	None
1,2-Dichlorobenzene	None	None
1,4-Dichlorobenzene	None	None
2-Butanone (MEK)	None	None
Acetone	None	None
Carbon Disulfide	None	None
Chlorobenzene	None	None
Chlorodifluoromethane	None	None
Chloroform	None	None
Chloromethane	None	None
cis-1,2-dichloroethene	None	None
Dichlorodifluoromethane	None	None
Dichlorofluoromethane	None	None
Ethyl Ether	None	None
Methylene Chloride	None	None
Naphthalene	None	None
n-Butyl Alcohol	None	None
tert-Butyl Alcohol	None	None
Tetrahydrofuran	None	None
trans-1,2-Dichloroethene	None	None
Trichloroethene	None	MW-19C (graph 325)
Vinyl Chloride	None	MW-19C (graph 341) MW-32 (graph 343) MW-34C (graph 347)

Table 6B. Summary of Trends in Groundwater (2005 - 2020)
 2020 Annual Monitoring Report
 Olympic View Sanitary Lanfill, Kitsap County, Washington

Trend Test B = all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)		
	<u>Significant Increasing Trends</u>	<u>Significant Decreasing Trends</u>
Alkalinity, bicarbonate (as CaCO ₃)	MW-13B (graph 2) MW-35 (graph 12)	MW-15R (graph 3) MW-34A (graph 10) MW-34C (graph 11) MW-36A (graph 13) MW-42 (graph 15)
Alkalinity, total (as CaCO ₃)	MW-13B (graph 18) MW-35 (graph 28)	MW-15R (graph 19) MW-34A (graph 26) MW-34C (graph 27) MW-36A (graph 29) MW-42 (graph 31)
Ammonia (as N)	None	MW-19C (graph 37) MW-29A (graph 38) MW-43 (graph 48)
Antimony, total	None	None
Arsenic, total	MW-33C (graph 73) MW-42 (graph 79)	MW-19C (graph 69)
Barium, total	None	MW-15R (graph 83)
Beryllium, total	None	None
Cadmium, total	None	None
Calcium, dissolved	None	MW-15R (graph 131) MW-29A (graph 134) MW-34A (graph 138) MW-34C (graph 139) MW-36A (graph 141)

Table 6B. Summary of Trends in Groundwater (2005 - 2020)
 2020 Annual Monitoring Report
 Olympic View Sanitary Lanfill, Kitsap County, Washington

Trend Test B = all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)		
	<u>Significant Increasing Trends</u>	<u>Significant Decreasing Trends</u>
Chloride	MW-39 (graph 158)	MW-13B (graph 146) MW-15R (graph 147) MW-16 (graph 148) MW-19C (graph 149) MW-33A (graph 152) MW-34A (graph 154) MW-34C (graph 155)
Chromium, total	None	None
Cobalt, total	None	None
Copper, total	None	None
Iron, total	None	None
Lead, total	None	None
Magnesium, dissolved	None	MW-15R (graph 243) MW-16 (graph 244) MW-33A (graph 248) MW-34A (graph 250) MW-34C (graph 251) MW-42 (graph 255)
Manganese, total	None	MW-15R (graph 259) MW-42 (graph 271) MW-43 (graph 272)
Nickel, total	None	None
Nitrate (as N)	MW-35 (graph 300)	None
pH	MW-32 (graph 311) MW-34C (graph 315) MW-42 (graph 319)	MW-34A (graph 314)
Potassium, dissolved	MW-42 (graph 335)	None
Selenium, total	None	None
Silver, total	None	None

Table 6B. Summary of Trends in Groundwater (2005 - 2020)
 2020 Annual Monitoring Report
 Olympic View Sanitary Lanfill, Kitsap County, Washington

Trend Test B = all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)		
	<u>Significant Increasing Trends</u>	<u>Significant Decreasing Trends</u>
Sodium, dissolved	None	MW-15R (graph 371) MW-19C (graph 373) MW-32 (graph 375) MW-34A (graph 378) MW-34C (graph 379) MW-36A (graph 381) MW-42 (graph 383) MW-43 (graph 384)
Specific Conductivity	MW-13B (graph 386) MW-33C (graph 393) MW-35 (graph 396)	MW-15R (graph 387) MW-33A (graph 392) MW-34A (graph 394) MW-34C (graph 395)
Sulfate	None	MW-13A (graph 401) MW-13B (graph 402) MW-19C (graph 405) MW-32 (graph 407) MW-42 (graph 415)
Temperature	MW-34A (graph 426) MW-34C (graph 427)	None
Thallium, total	None	None
Total Dissolved Solids	None	MW-15R (graph 451) MW-33A (graph 456) MW-34A (graph 458) MW-34C (graph 459)
Total Organic Carbon	None	MW-34C (graph 475)
Vanadium, total	None	MW-36A (graph 493)
Zinc, total	None	None

Table 7. November 2020 Prediction Limit Exceedances
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Well Type	Well Location	Date Sampled	Parameter	Units	Result	Prediction Limit
Compliance	MW-34A	11/19/2020	Arsenic, total	ug/L	0.492	0.4807
		11/19/2020	Sodium, dissolved	mg/L	9.3	7.7
		11/19/2020	Specific conductivity	mS/cm	0.186	0.18
	MW-34C	11/19/2020	Arsenic, total	ug/L	9.02	0.4807
		11/19/2020	Barium, total	mg/L	0.052	0.0043
		11/19/2020	Calcium, dissolved	mg/L	19	18
		11/19/2020	Copper, total	mg/L	0.0025	0.0021
		11/19/2020	Iron, total	mg/L	10	0.31
		11/19/2020	Manganese, total	mg/L	0.87	0.062
		11/19/2020	Sodium, dissolved	mg/L	10	7.7
		11/19/2020	Specific conductivity	mS/cm	0.192	0.18
	MW-39	11/19/2020	Alkalinity, bicarbonate (as cacO3)	mg/L	110	96
		11/19/2020	Alkalinity, total (as cacO3)	mg/L	110	96
		11/19/2020	Ammonia (as n)	mg/L	0.37	0.28
		11/19/2020	Arsenic, total	ug/L	1.63	0.4807
		11/19/2020	Barium, total	mg/L	0.014	0.0043
		11/19/2020	Chloride	mg/L	4.6	4.4
		11/19/2020	Cobalt, total	mg/L	0.0076	0.003
		11/19/2020	Iron, total	mg/L	36	0.31
		11/19/2020	Manganese, total	mg/L	0.49	0.062
		11/19/2020	Sodium, dissolved	mg/L	9.2	7.7
		11/19/2020	Specific conductivity	mS/cm	0.268	0.18
		11/19/2020	Total dissolved solids (tds)	mg/L	180	175
	MW-42	11/19/2020	Alkalinity, bicarbonate (as cacO3)	mg/L	210	96
		11/19/2020	Alkalinity, total (as cacO3)	mg/L	210	96
		11/19/2020	Ammonia (as n)	mg/L	3.6	0.28
		11/19/2020	Arsenic, total	ug/L	1.97	0.4807
		11/19/2020	Barium, total	mg/L	0.089	0.0043
		11/19/2020	Calcium, dissolved	mg/L	34	18
		11/19/2020	Chloride	mg/L	5.9	4.4
		11/19/2020	Iron, total	mg/L	24	0.31
		11/19/2020	Magnesium, dissolved	mg/L	12	11.2184
		11/19/2020	Manganese, total	mg/L	3.9	0.062
		11/19/2020	Potassium, dissolved	mg/L	7.3	1.4
		11/19/2020	Sodium, dissolved	mg/L	18	7.7
		11/19/2020	Specific conductivity	mS/cm	0.465	0.18
		11/19/2020	Total dissolved solids (tds)	mg/L	250	175
		MW-43	11/19/2020	Barium, total	mg/L	0.0046
	11/19/2020		pH	pH Units	5.6	5.81 - 8.18

Table 7. November 2020 Prediction Limit Exceedances
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Well Type	Well Location	Date Sampled	Parameter	Units	Result	Prediction Limit
Downgradient	MW-29A	11/19/2020	Arsenic, total	ug/L	2.11	0.4807
		11/19/2020	Barium, total	mg/L	0.0067	0.0043
		11/19/2020	Iron, total	mg/L	4.5	0.31
		11/19/2020	Manganese, total	mg/L	1.5	0.062
	MW-32	11/20/2020	Alkalinity, bicarbonate (as caco3)	mg/L	150	96
		11/20/2020	Alkalinity, total (as caco3)	mg/L	150	96
		11/20/2020	Arsenic, total	ug/L	10.5	0.4807
		11/20/2020	Barium, total	mg/L	0.005	0.0043
		11/20/2020	Calcium, dissolved	mg/L	32	18
		11/20/2020	Chloride	mg/L	8.8	4.4
		11/20/2020	Iron, total	mg/L	0.81	0.31
		11/20/2020	Magnesium, dissolved	mg/L	16	11.2184
		11/20/2020	Manganese, total	mg/L	2.6	0.062
		11/20/2020	Sodium, dissolved	mg/L	13	7.7
		11/20/2020	Specific conductivity	mS/cm	0.329	0.18
		11/20/2020	Sulfate	mg/L	13	9.9
		11/20/2020	Total dissolved solids (tds)	mg/L	210	175
	MW-33A	11/20/2020	Arsenic, total	ug/L	0.585	0.4807
		11/20/2020	Iron, total	mg/L	4.6	0.31
		11/20/2020	Manganese, total	mg/L	0.099	0.062
	MW-33C	11/20/2020	Arsenic, total	ug/L	2.89	0.4807
		11/20/2020	Manganese, total	mg/L	0.21	0.062
	MW-36A	11/19/2020	Arsenic, total	ug/L	0.548	0.4807
11/19/2020		Chromium, total	mg/L	0.01	0.0092	

Notes:

Contents prepared by GeoChem Applications

deg C = degrees Celcius

CaCO3 = calcium carbonate

N = nitrogen

ug/L = micrograms per liter

mg/L = milligrams per liter

mS/cm = milliSiemens per centimeter

Table 8. 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Statistical Methodology: calculation of 95% UCL of mean per MTCASat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2018 through December 31, 2020

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Compliance	MW-15R	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-15R	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-15R	Arsenic, total	8	100%	0.269	0.239	ug/L	LN	0.462	ug/L	No	No
	MW-15R	Iron, total	8	0%	0.06 (ND)	0.06	mg/L	B	0.30	mg/L	No	No
	MW-15R	Manganese, total	8	100%	0.0026	0.002	mg/L	Z	0.05	mg/L	No	Yes (▼)
	MW-15R	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-15R	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-15R	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-15R	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-15R	Ammonia as N	8	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	No
Downgradient	MW-34A	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-34A	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-34A	Arsenic, total	8	100%	0.492	0.482	ug/L	LN	0.462	ug/L	Yes	No
	MW-34A	Iron, total	8	50%	0.18	0.17	mg/L	LN	0.30	mg/L	No	No
	MW-34A	Manganese, total	8	87.5%	0.0047	0.003	mg/L	Z	0.05	mg/L	No	No
	MW-34A	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-34A	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-34A	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-34A	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-34A	Ammonia as N	8	12.5%	0.031	0.031	mg/L	A	0.19	mg/L	No	No
Downgradient	MW-34C	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-34C	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-34C	Arsenic, total	8	100%	30.7	36.9	ug/L	LN	0.462	ug/L	Yes	No
	MW-34C	Iron, total	8	100%	46	83.6	mg/L	LN	0.30	mg/L	Yes	No
	MW-34C	Manganese, total	8	100%	5.3	3.3	mg/L	Z	0.05	mg/L	Yes	No
	MW-34C	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-34C	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-34C	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-34C	Vinyl Chloride	8	100%	0.055	0.05	ug/L	LN	0.20	ug/L	No	Yes (▼)
	MW-34C	Ammonia as N	8	12.5%	0.031	0.031	mg/L	A	0.19	mg/L	No	No

Table 8. 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Compliance	MW-39	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-39	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-39	Arsenic, total	8	100%	2.98	2.39	ug/L	LN	0.462	ug/L	Yes	No
	MW-39	Iron, total	8	100%	44	39.7	mg/L	Z	0.30	mg/L	Yes	No
	MW-39	Manganese, total	8	100%	0.49	0.47	mg/L	LN	0.05	mg/L	Yes	No
	MW-39	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-39	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-39	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-39	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-39	Ammonia as N	8	100%	0.65	0.52	mg/L	Z	0.19	mg/L	Yes	No
	MW-42	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-42	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-42	Arsenic, total	8	100%	1.97	1.85	ug/L	LN	0.462	ug/L	Yes	Yes (▲)
	MW-42	Iron, total	8	100%	25	24.4	mg/L	Z	0.30	mg/L	Yes	No
	MW-42	Manganese, total	8	100%	4.2	4.1	mg/L	LN	0.05	mg/L	Yes	Yes (▼)
	MW-42	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-42	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-42	Trichloroethene	8	12.5%	0.47	0.47	ug/L	A	1.0	ug/L	No	No
	MW-42	Vinyl Chloride	8	87.5%	0.094	0.08	ug/L	N	0.20	ug/L	No	No
	MW-42	Ammonia as N	8	100%	8.4	5.5	mg/L	Z	0.19	mg/L	Yes	No
	MW-43	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-43	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-43	Arsenic, total	8	87.5%	0.108	0.071	ug/L	Z	0.462	ug/L	No	No
	MW-43	Iron, total	8	100%	3.5	8.5	mg/L	LN	0.30	mg/L	Yes	No
	MW-43	Manganese, total	8	100%	0.11	0.08	mg/L	LN	0.05	mg/L	Yes	Yes (▼)
	MW-43	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-43	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-43	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-43	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-43	Ammonia as N	8	12.5%	0.052	0.052	mg/L	A	0.19	mg/L	No	Yes (▼)

Table 8. 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Downgradient	MW-29A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-29A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-29A	Arsenic, total	6	100%	2.19	2.11	ug/L	LN	0.462	ug/L	Yes	No
	MW-29A	Iron, total	6	100%	4.5	4.42	mg/L	N	0.30	mg/L	Yes	No
	MW-29A	Manganese, total	6	100%	1.5	1.43	mg/L	Z	0.05	mg/L	Yes	No
	MW-29A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-29A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-29A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-29A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-29A	Ammonia as N	6	100%	0.19	0.12	mg/L	Z	0.19	mg/L	No	Yes (▼)
	MW-32	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-32	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-32	Arsenic, total	8	100%	11.2	10.7	ug/L	LN	0.462	ug/L	Yes	No
	MW-32	Iron, total	8	100%	0.94	0.82	mg/L	LN	0.30	mg/L	Yes	No
	MW-32	Manganese, total	8	100%	3.3	2.7	mg/L	LN	0.05	mg/L	Yes	No
	MW-32	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-32	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-32	Trichloroethene	8	87.5%	0.71	0.57	ug/L	Z	1.0	ug/L	No	No
	MW-32	Vinyl Chloride	8	100%	0.36	0.32	ug/L	LN	0.20	ug/L	Yes	Yes (▼)
	MW-32	Ammonia as N	8	87.5%	0.12	0.07	mg/L	Z	0.19	mg/L	No	No
	MW-33A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-33A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-33A	Arsenic, total	6	100%	0.607	0.696	ug/L	LN	0.462	ug/L	Yes	No
	MW-33A	Iron, total	6	100%	4.6	9.0	mg/L	LN	0.30	mg/L	Yes	No
	MW-33A	Manganese, total	6	100%	0.099	0.099	mg/L	A**	0.05	mg/L	Yes	No
	MW-33A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-33A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-33A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-33A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-33A	Ammonia as N	6	33%	0.21	0.21	mg/L	A	0.19	mg/L	Yes	No

Table 8. 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Downgradient	MW-33C	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-33C	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-33C	Arsenic, total	6	100%	2.89	2.87	ug/L	LN	0.462	ug/L	Yes	Yes (▲)
	MW-33C	Iron, total	6	100%	0.37	0.23	mg/L	Z	0.3	mg/L	No	No
	MW-33C	Manganese, total	6	100%	0.21	0.19	mg/L	N	0.05	mg/L	Yes	No
	MW-33C	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-33C	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-33C	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-33C	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-33C	Ammonia as N	6	17%	0.04	0.04	mg/L	A	0.19	mg/L	No	No
	MW-36A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-36A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-36A	Arsenic, total	6	100%	0.594	0.585	ug/L	LN	0.462	ug/L	Yes	No
	MW-36A	Iron, total	6	50%	0.17	0.17	mg/L	A	0.3	mg/L	No	No
	MW-36A	Manganese, total	6	67%	0.0024	0.003	mg/L	LN	0.05	mg/L	No	No
	MW-36A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-36A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-36A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-36A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-36A	Ammonia as N	6	17%	0.031	0.031	mg/L	A	0.19	mg/L	No	No	

NOTES:

[1] N = number of data points used for UCL calculation of the mean; only SIM results used for Vinyl Chloride (e.g., duplicate results with higher RLs by non-SIM were omitted).

[2] MAX = maximum detected result in the data set; if no detected results, then = maximum reporting limit for non-detect results (indicated with ND).

[3] A 3-year moving data set is used for calculation of the UCL.

[4] ug/L - micrograms per liter; mg/L = milligrams per liter.

[5] Groundwater Cleanup Levels are listed on Table 3 of the October 2010 Draft Cleanup Action Plan.

[6] Trend analysis results are based on data for the period January 2005 through December 2020; arrows indicated increasing or decreasing trends.

A = Detection frequency of data set too low and/or N too few to calculate 95% UCL of mean; therefore, the highest detected result in the data set used to represent 95% UCL of mean.

A* = Same as note "A" except that the highest value in the data set is below the reporting limit of one or more non-detected results; therefore, the highest reporting limit is used to represent the 95% UCL of the r

A** = MTCASat suggests use of lognormal formula but calculation of 95% UCL of mean by Land's formula provides unrealistic result; therefore, the highest detected result is used to represent the 95% UCL of the r

A*** = MTCASat suggests use of the Z-score method but then cites inability to calculate due to presence of censored values; therefore, the highest detected result is used to represent the 95% UCL of the mean.

B = Detection frequency = 0; therefore, the highest reporting limit in the data set is used to represent the 95% UCL of mean.

LN = The 95% UCL of the mean is calculated using Land's formula since lognormal distribution is indicated.

N = The 95% UCL of the mean is calculated using a normal-based t-statistic since a normal distribution is indicated.

Z = the 95% UCL of the mean is calculated using the Z-score method in MTCASat since neither normal nor lognormal distribution can be determined.

Table 9. Groundwater Quality Criteria and Site-Specific Cleanup Level Exceedances
2020 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Comparison Criteria		Field Parameters	General Chemistry				VOCs		
		pH (SU)	Ammonia (mg N/L)	Arsenic, Total (mg/L)	Iron, Total (mg/L)	Manganese, Total (mg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)	
WAC 173-200		6.5< >8.5	10	0.00005	0.3	0.05	3	0.02	
Primary Federal MCL		--	--	0.01	--	--	5	2	
Secondary Federal MCL		6.5< >8.5	--	--	0.3	0.05	--	--	
Site-specific MTCA Cleanup Levels		--	0.19	0.000462	--	--	1	0.2	
Well, Location, and Sample Events									
Upgradient	MW-13A	SA #1	--	NA	NA	NA	NA	NA	
		SA #2	--	--	0.000198	--	--	--	
	MW-13B	SA #1	--	NA	NA	NA	NA	NA	
		SA #2	--	--	0.000347	--	--	--	
	MW-16	SA #1	--	NA	NA	NA	NA	NA	
		SA #2	6.14	--	0.0011	0.88	0.11	--	--
MW-35	SA #1	--	NA	NA	NA	NA	NA		
	SA #2	--	--	0.000115	--	--	--		
MW-19C	SA #1	--	0.43	0.00274	--	1.1	--	--	
	SA #2	--	0.45	0.00294	--	1.2	1.1	0.044	
Compliance Monitoring	MW-15R	SA #1	--	--	0.000219	--	--	--	
		SA #2	6.44	--	0.000229	--	--	--	
	MW-34A	SA #1	6.38	--	0.000465	--	--	--	
		SA #2	6.18	--	0.000492	--	--	--	
	MW-34C	SA #1	--	--	0.0258	46 B	4.8	--	0.022
		SA #2	--	--	0.00902	10	0.87 B	--	0.023
	MW-39	SA #1	--	0.42	0.00253	43 B	0.44	--	--
		SA #2	6.06	0.37	0.00163	36	0.49 B	--	--
	MW-42	SA #1	--	4.0	0.00174	25	4.1	--	0.070
		SA #2	6.45	3.6	0.00197	24	3.9	--	0.079
	MW-43	SA #1	5.86	--	--	0.44	--	--	--
		SA #2	5.60	--	--	--	--	--	--
Downgradient	MW-29A	SA #1	6.17	--	0.00188	4.5	1.5	--	--
		SA #2	6.00	--	0.00211	4.5	1.5	--	--
	MW-32	SA #1	--	--	0.00952	0.62	2.0	--	0.25
		SA #2	--	--	0.0105	0.81	2.6	--	0.23
	MW-33A	SA #1	--	--	0.000441	2.7 B	--	--	--
		SA #2	5.84	0.21	0.000585	4.6	0.099	--	--
	MW-33C	SA #1	--	--	0.00281	0.37 B	0.17	--	--
		SA #2	--	--	0.00289	--	0.21	--	--
MW-36A	SA #1	6.33	--	0.000594	--	--	--	--	
	SA #2	5.90	--	0.000548	--	--	--	--	

Notes:

SA #1 = Semi-annual Event No. 1

SA #2 = Semi-annual Event No. 2

mg N/L = milligrams of Nitrogen per liter

mg/L = milligrams per liter

SU = standard units

µg/L = micrograms per liter

TCE = Trichloroethene

B = estimated value due to potential blank contribution

NA = upgradient monitoring wells were only sampled for Appendix II field parameters during Semi-annual No. 1 Event

0.00141 = exceeds Site-specific MTCA Cleanup Levels

0.035 = exceeds WAC 173-200 Groundwater Quality Criteria

6.44 = exceeds Federal MCL and WAC 173-200 Groundwater Quality Criteria

0.0014 = exceeds Federal MCLs, Site-specific MTCA Cleanup Levels, and WAC 173-200 Criteria

Table 10. Cumulative 2020 Leak Detection System Volumes
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Date	Total Volume (Gals)	Comments
1/31/2020	100	Pumped dry.
2/29/2020	109	Pumped dry.
3/31/2020	125	Pumped dry.
4/30/2020	118	Pumped dry.
5/31/2020	117	LP-LCD sample collected on May 26, 2020.
6/30/2020	129	Pumped dry.
7/31/2020	80	Pumped dry.
8/31/2020	65	Pumped dry.
9/30/2020	70	Pumped dry.
10/31/2020	35	Pumped dry.
11/30/2020	60	LP-LCD sample collected on November 20, 2020.
12/31/2020	125	Pumped dry.
TOTAL	1,133	Volume for period between 1/1/20 through 12/31/2020.

Table 11A. Landfill Gas Measurement Results - Third Quarter 2020
2020 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County Washington

Waste Management Incorporated												
Instrument Readings							Comments					
Location Reference Designation	Date	Time	Pressure (in H ₂ O)	CH ₄ (% vol.)	CO ₂ (% vol.)	O ₂ (% vol.)	CH ₄ Spike Note 1 (% vol.)	CO ₂ Spike Note 1 (% vol.)	Depth to Water TOP (ft)	Exposed Portion of Perforations (Note 2) (ft) (%)		Other
Subsurface Landfill Gas Detection Wells (Gas Probes):												
GP-7	9/21/20	10:53	0.03	0.00	11.50	8.00			15.60	5.00	100.0%	
GP-8	9/21/20	10:29	0.07	0.00	6.30	9.90			17.80	5.00	100.0%	
GP-9S	9/21/20	11:28	0.05	0.00	2.00	19.30						
GP-9D	9/21/20	11:37	0.02	0.00	1.40	19.10			30.81	4.51	90.2%	
GP-10S	9/21/20	11:49	0.04	0.00	0.90	20.30						
GP-10D	9/21/20	11:59	0.03	0.00	0.70	19.60			29.10	5.00	100.0%	Note 6
GP-11S	9/21/20	12:08	0.01	0.00	2.90	18.90						
GP-11D	9/21/20	12:17	0.03	0.00	2.40	18.70			30.30	5.00	100.0%	
GP-12S	9/21/20	12:29	0.07	0.00	0.10	20.90						
GP-12M	9/21/20	12:37	0.07	0.00	1.40	18.70						
GP-12D	9/21/20	12:54	0.14	0.00	1.40	15.80			49.99	4.59	91.8%	
GP-13S	9/21/20	13:13	0.03	0.00	3.90	17.60						
GP-13M	9/21/20	13:20	0.07	0.00	3.80	16.70						
GP-13D	9/21/20	13:35	0.08	0.00	3.70	16.60			52.89	7.69	76.9%	
GP-14	9/21/20	13:47	-0.01	0.00	8.50	6.60			15.30	4.90	98.0%	
GP-15	9/21/20	13:57	-0.04	0.50	11.10	0.10	0.5		12.27	1.87	37.4%	
GP-16	9/21/20	11:14	-0.01	0.00	3.10	18.40			14.86	4.66	93.2%	
Onsite Building Interiors:												
SH-SS	9/21/20	13:00	--	0.00	0.10	20.70						
SH-NS	9/21/20	13:03	--	0.00	0.10	20.80						
SH-IN	9/21/20	13:06	--	0.00	0.10	20.80						
SS-WH	9/21/20	11:18	--	0.00	0.10	20.60						
EL-SH	9/21/20	10:38	--	0.00	0.10	20.60						
TL-OF	9/21/20	10:22	--	0.00	0.10	20.50						
<div style="display: flex; justify-content: space-between;"> <div> <p>Monitoring Date: 9/21/2020</p> <p>Monitored By: P. Bannister (Aspect)</p> <p>Instrument: GEM 2NAV</p> <p>Calibration Date: 9/21/2020</p> </div> <div> <p>Weather Conditions</p> <p>Sky Cover: Party Cloudy</p> <p>Wind/Rain/Snow: 0</p> <p>Temperature (°F): 66</p> <p>Preceding 24-hr Barometric Trend: Steady</p> </div> </div>												
<p>Notes:</p> <ol style="list-style-type: none"> 1. Measurement for spike concentrations of CH₄ and CO₂ are recorded if observed during sampling. 2. Exposed perforations = perforated pipe section not submerged by water. 3. Readings not reported: Screened interval completely submerged. 4. Depth to water measurement not taken this quarter. 5. Station was not monitored this quarter. 6. Depth to water measurement recorded by Aspect exceeds the total length of pipe. Value was adjusted to equal the total length of pipe. 												
<div style="display: flex; justify-content: space-between;"> <div> <p>CH₄ = Methane</p> <p>CO₂ = Carbon Dioxide</p> <p>O₂ = Oxygen</p> <p>GP = Gas Probe</p> <p>S = Shallow Monitoring Zone</p> <p>M = Middle Monitoring Zone</p> <p>D = Deep Monitoring Zone</p> <p>TOP = From Top of Pipe</p> </div> <div> <p>SH-SS = Scale House - South Side Exterior</p> <p>SH-NS = Scale House - North Side Exterior</p> <p>SH-IN = Scale House - Office Interior</p> <p>SS-WH = South Slope Well House</p> <p>EL-SH = Electrical Shed</p> <p>TL-OF = Office</p> <p>-- = Measurements not taken</p> <p>NA = Not Applicable</p> </div> <div> <p>Depressed O₂ < 20.3% vol.</p> <p>Detected CO₂ > 0.3 % vol.</p> <p>Detected CH₄ > 0.3 % vol.</p> </div> </div>												

Table 11B. Landfill Gas Measurement Results - Fourth Quarter 2020
2020 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County Washington

Waste Management Incorporated												
Instrument Readings							Comments					
Location Reference Designation	Date	Time	Pressure (in H ₂ O)	CH ₄ (% vol.)	CO ₂ (% vol.)	O ₂ (% vol.)	CH ₄ Spike Note 1 (% vol.)	CO ₂ Spike Note 1 (% vol.)	Depth to Water TOP (ft)	Exposed Portion of Perforations (Note 2) (ft) (%)		Other
Subsurface Landfill Gas Detection Wells (Gas Probes):												
GP-7	11/18/20	13:08	0.44	0.00	11.20	4.30			13.98	3.38	67.6%	
GP-8	11/18/20	9:33	0.17	0.00	4.40	10.80			17.50	4.70	94.0%	
GP-9S	11/18/20	12:41	0.02	0.00	2.50	19.00						
GP-9D	11/18/20	12:50	0.06	0.00	1.40	19.80			29.89	3.59	71.8%	
GP-10S	11/18/20	12:13	-0.01	0.00	1.10	20.40						
GP-10D	11/18/20	12:21	0.01	0.00	0.90	19.90			29.10	5.00	100.0%	
GP-11S	11/18/20	11:53	0.01	0.00	3.10	18.40						
GP-11D	11/18/20	12:03	0.00	0.00	2.80	18.90			29.20	3.90	78.0%	
GP-12S	11/18/20	11:18	0.02	0.00	1.80	18.30						
GP-12M	11/18/20	11:26	0.04	0.00	1.70	18.90						
GP-12D	11/18/20	11:41	0.01	0.00	1.70	16.90			49.99	4.59	91.8%	
GP-13S	11/18/20	10:31	0.03	0.00	5.30	16.00						
GP-13M	11/18/20	10:39	0.01	0.00	4.50	16.40						
GP-13D	11/18/20	10:54	-0.04	0.00	4.40	16.40			53.59	8.39	83.9%	
GP-14	11/18/20	10:20	0.04	0.00	9.20	3.50			15.30	4.90	98.0%	
GP-15	11/18/20	10:09	4.35	0.00	9.40	0.70			12.26	1.86	37.2%	
GP-16	11/18/20	13:21	0.01	0.00	4.20	16.70			14.84	4.64	92.8%	
Onsite Building Interiors:												
SH-SS	11/18/20	11:03	--	0.00	0.20	21.10						
SH-NS	11/18/20	11:06	--	0.00	0.20	21.10						
SH-IN	11/18/20	11:10	--	0.00	0.20	21.10						
SS-WH	11/18/20	13:01	--	0.00	0.10	21.20						
EL-SH	11/18/20	12:32	--	0.00	0.10	21.30						
TL-OF	11/18/20	9:23	--	0.00	0.20	20.30						
Monitoring Date: 11/18/20			Weather Conditions			Sky Cover: Cloudy						
Monitored By: P. Bannister (Aspect)			Wind/Rain/Snow: Moderate Wind			Temperature (°F): 56						
Instrument: GEM 2NAV			Preceding 24-hr Barometric Trend: Increasing									
Calibration Date: 11/18/20												
Notes:												
1. Measurement for spike concentrations of CH ₄ and CO ₂ are recorded if observed during sampling.												
2. Exposed perforations = perforated pipe section not submerged by water.												
3. Readings not reported: Screened interval completely submerged.												
4. Depth to water measurement not taken this quarter.												
5. Station was not monitored this quarter.												
CH ₄ = Methane				SH-SS = Scale House - South Side Exterior				Depressed O ₂ < 20.3% vol.				
CO ₂ = Carbon Dioxide				SH-NS = Scale House - North Side Exterior				Detected CO ₂ > 0.3 % vol.				
O ₂ = Oxygen				SH-IN = Scale House - Office Interior				Detected CH ₄ > 0.3 % vol.				
GP = Gas Probe				SS-WH = South Slope Well House								
S = Shallow Monitoring Zone				EL-SH = Electrical Shed								
M = Middle Monitoring Zone				TL-OF = Office								
D = Deep Monitoring Zone				-- = Measurements not taken								
TOP = From Top of Pipe				NA = Not Applicable								

Table 12. Landfill Gas Monitoring Results - 2020
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

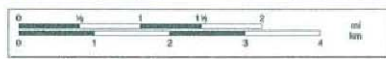
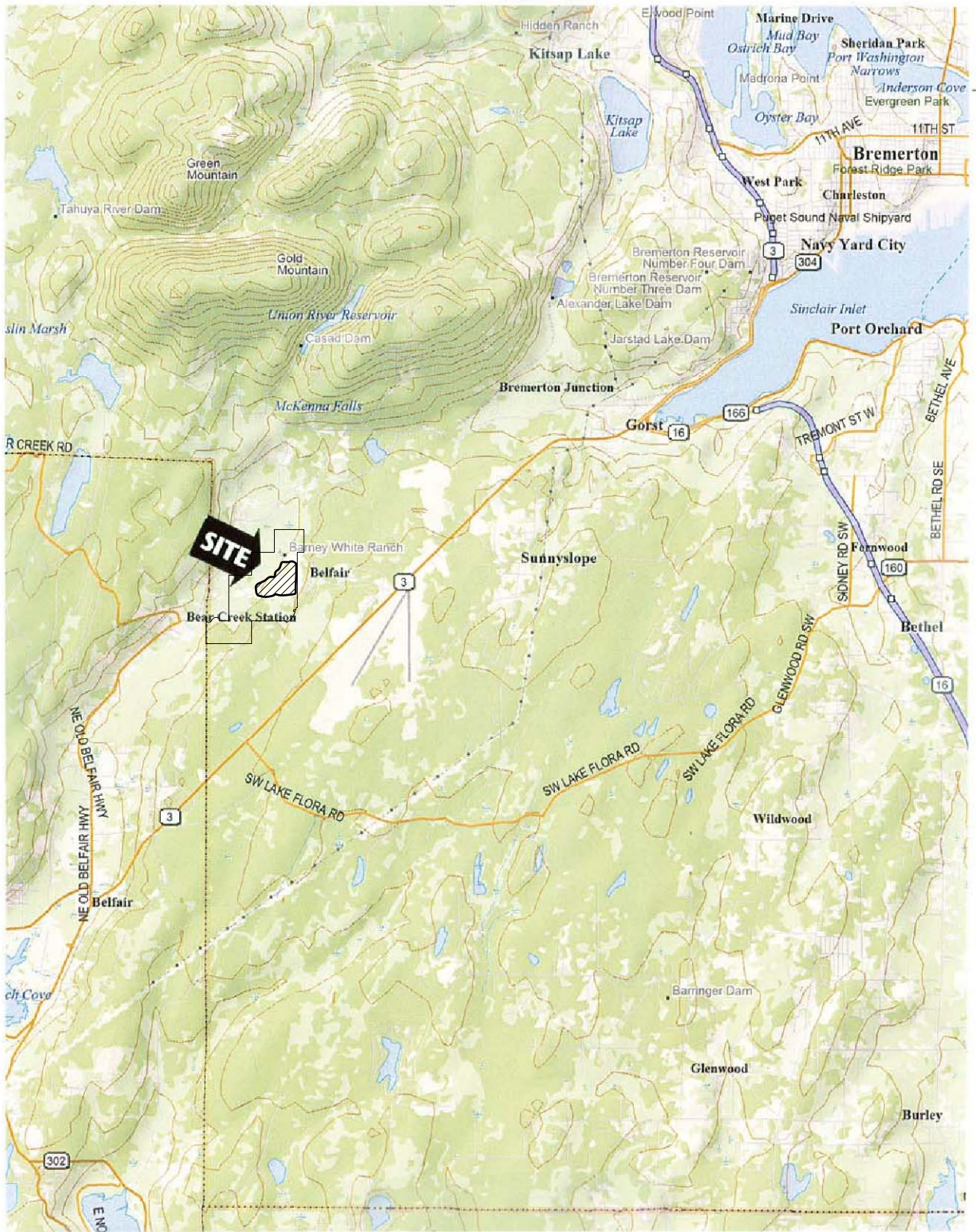
Location	Date	Pressure (in. H ₂ O)	CH ₄ (% vol.)	CO ₂ (% vol.)	O ₂ (% vol.)
GP-7	3/11/2020	0.11	0.0	6.8	4.1
	6/5/2020	-0.01	0.0	8.9	5.8
	9/21/2020	0.03	0.0	11.5	8.0
	11/18/2020	0.44	0.0	11.2	4.3
GP-8	3/11/2020	0.33	0.0	3.0	10.5
	6/5/2020	-0.01	0.0	3.8	9.5
	9/21/2020	0.07	0.0	6.3	9.9
	11/18/2020	0.17	0.0	4.4	10.8
GP-9S	3/11/2020	0.10	0.0	2.2	19.1
	6/5/2020	0.02	0.0	2.2	17.9
	9/21/2020	0.05	0.0	2.0	19.3
	11/18/2020	0.02	0.0	2.5	19.0
GP-9D	3/11/2020	-0.01	0.0	1.5	18.7
	6/5/2020	-0.02	0.0	1.4	18.6
	9/21/2020	0.02	0.0	1.4	19.1
	11/18/2020	0.06	0.0	1.4	19.8
GP-10S	3/11/2020	-0.01	0.0	0.9	20.7
	6/5/2020	0.0	0.0	0.8	19.7
	9/21/2020	0.04	0.0	0.9	20.3
	11/18/2020	-0.01	0.0	1.1	20.4
GP-10D	3/11/2020	-0.01	0.0	0.8	19.0
	6/5/2020	0.11	0.0	0.7	18.8
	9/21/2020	0.03	0.0	0.7	19.6
	11/18/2020	0.01	0.0	0.9	19.9
GP-11S	3/11/2020	-0.01	0.0	2.7	18.9
	6/5/2020	0.02	0.0	3.0	17.7
	9/21/2020	0.01	0.0	2.9	18.9
	11/18/2020	0.01	0.0	3.1	18.4
GP-11D	3/11/2020	--	--	--	--
	6/5/2020	-0.01	0.0	2.1	18.3
	9/21/2020	0.03	0.0	2.4	18.7
	11/18/2020	0.00	0.0	2.8	18.9
GP-12S	3/11/2020	-0.09	0.0	1.1	21.0
	6/5/2020	0.03	0.0	1.3	18.5
	9/21/2020	0.07	0.0	0.1	20.9
	11/18/2020	0.02	0.0	1.8	18.3
GP-12M	3/11/2020	0.00	0.0	1.4	20.5
	6/5/2020	0.00	0.0	1.2	19.0
	9/21/2020	0.07	0.0	1.4	18.7
	11/18/2020	0.04	0.0	1.7	18.9
GP-12D	3/11/2020	--	--	--	--
	6/5/2020	0.01	0.0	1.0	17.9
	9/21/2020	0.14	0.0	1.4	15.8
	11/18/2020	0.01	0.0	1.7	16.9

Table 12. Landfill Gas Monitoring Results - 2020
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Location	Date	Pressure (in. H ₂ O)	CH ₄ (% vol.)	CO ₂ (% vol.)	O ₂ (% vol.)
GP-13S	3/11/2020	-0.01	0.0	4.5	17.2
	6/5/2020	0.02	0.0	4.3	16.5
	9/21/2020	0.03	0.0	3.9	17.6
	11/18/2020	0.03	0.0	5.3	16.0
GP-13M	3/11/2020	-0.15	0.0	3.8	17.7
	6/5/2020	0.07	0.0	3.3	17.0
	9/21/2020	0.07	0.0	3.8	16.7
	11/18/2020	0.01	0.0	4.5	16.4
GP-13D	3/11/2020	-0.18	0.0	3.5	18.1
	6/5/2020	0.12	0.0	3.2	17.2
	9/21/2020	0.08	0.0	3.7	16.6
	11/18/2020	-0.04	0.0	4.4	16.4
GP-14	3/11/2020	0.00	0.0	5.0	7.1
	6/5/2020	0.02	0.0	6.1	5.0
	9/21/2020	-0.01	0.0	8.5	6.6
	11/18/2020	0.04	0.0	9.2	3.5
GP-15	3/11/2020	-0.04	0.0	5.7	0.3
	6/5/2020	0.08	1.9	6.1	0.2
	9/21/2020	-0.04	0.5	11.1	0.1
	11/18/2020	4.35	0.0	9.4	0.7
GP-16	3/11/2020	0.06	0.0	2.5	18.2
	6/5/2020	0.00	0.0	4.3	16.1
	9/21/2020	-0.01	0.0	3.1	18.4
	11/18/2020	0.01	0.0	4.2	16.7

Figures





1" = 1.58 mi

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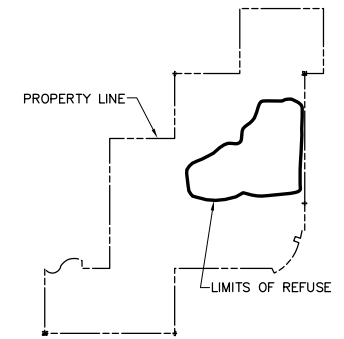
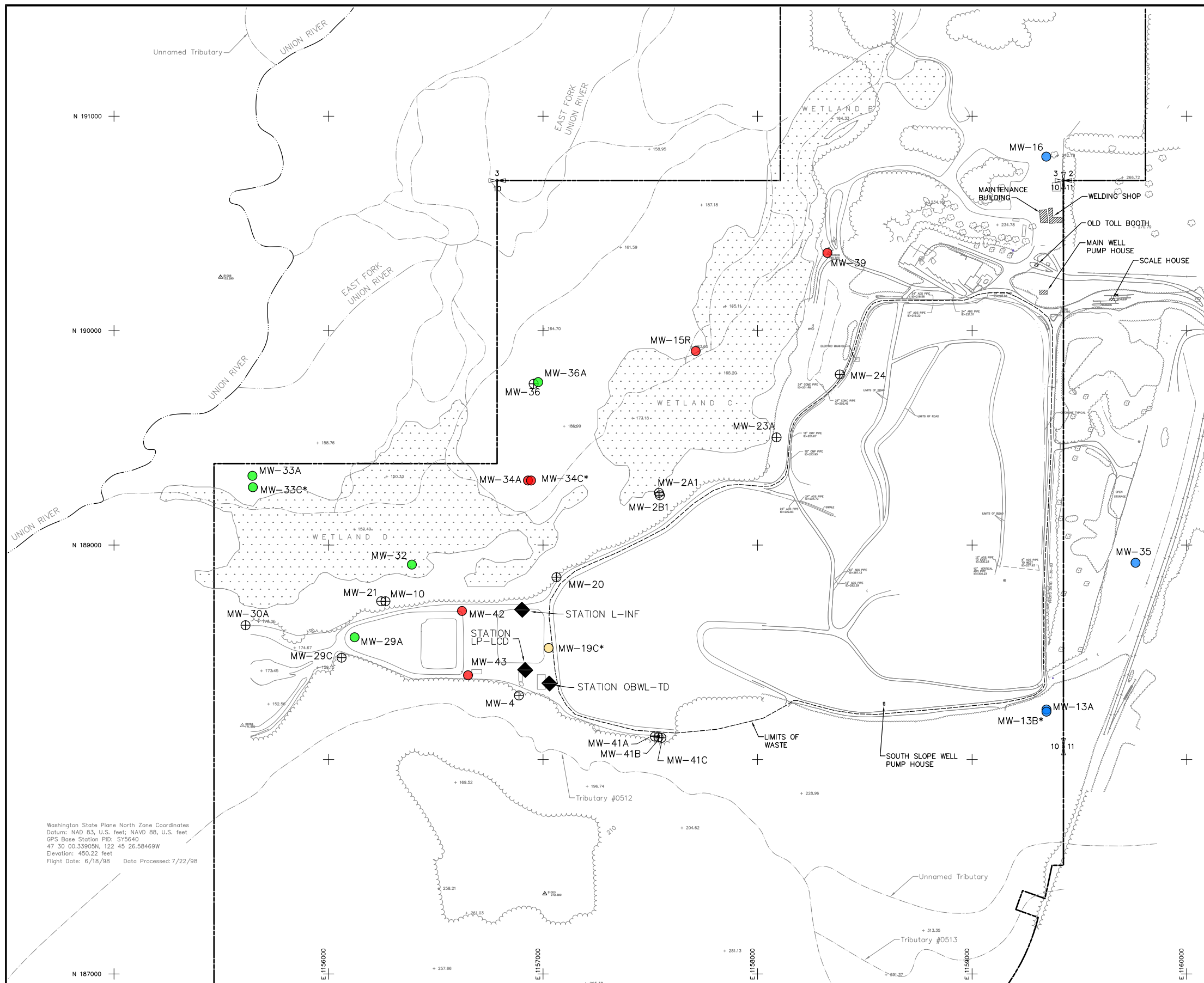
Environmental Consultants and Contractors
 2405 140th Avenue NE, Suite 107
 Bellevue, Washington 98005
 (425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04204027.24	DES BY S.G.
SCALE 1:100,000	CHK BY S.G.
CAD FILE FIGURE 1	APP BY D.V.

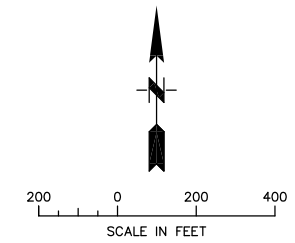
SITE LOCATION MAP OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON

DATE
FEBRUARY 2021

FIGURE
1



LEGEND	
	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL MW-35
	DOWNGRADIENT GROUNDWATER MONITORING WELL MW-32
	PERFORMANCE GROUNDWATER MONITORING WELL MW-19C
	COMPLIANCE GROUNDWATER MONITORING WELL MW-43
	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY) MW-10
	SHALLOW MONITORING WELL MW-32
	DEEP MONITORING WELL *
	LEACHATE MONITORING STATION L-INF
	PROPERTY LINE (ASSUMED)



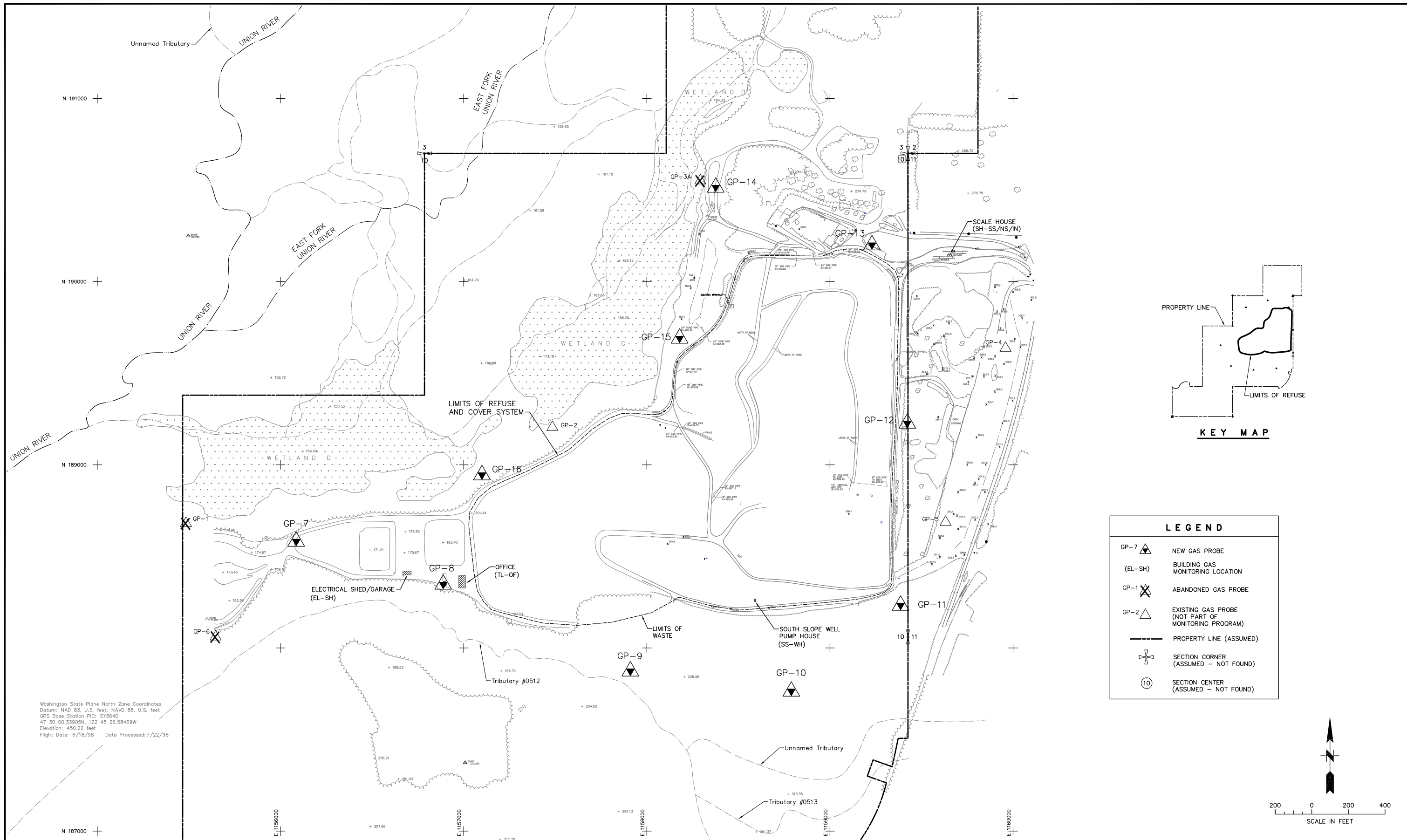
Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: SY9640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98

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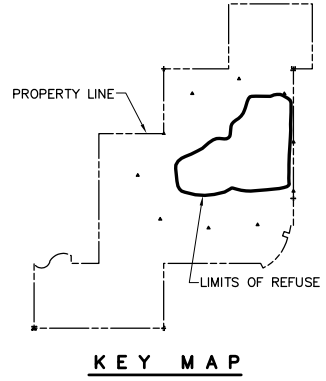
PROJECT NO.	04204027.24	DES BY	S.G.
SCALE	AS SHOWN	CHK BY	S.G.
CAD FILE	FIGURE 2	APP BY	D.V.

GROUNDWATER MONITORING WELL NETWORK
 AND LEACHATE MONITORING LOCATIONS
 OLYMPIC VIEW SANITARY LANDFILL
 KITSAP COUNTY, WASHINGTON

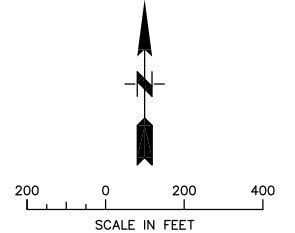
DATE
 FEBRUARY 2021
 FIGURE
2



Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: SY5640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98



LEGEND	
GP-7 ▲	NEW GAS PROBE
(EL-SH)	BUILDING GAS MONITORING LOCATION
GP-1 ✕	ABANDONED GAS PROBE
GP-2 ▲	EXISTING GAS PROBE (NOT PART OF MONITORING PROGRAM)
---	PROPERTY LINE (ASSUMED)
+	SECTION CORNER (ASSUMED - NOT FOUND)
⊙	SECTION CENTER (ASSUMED - NOT FOUND)

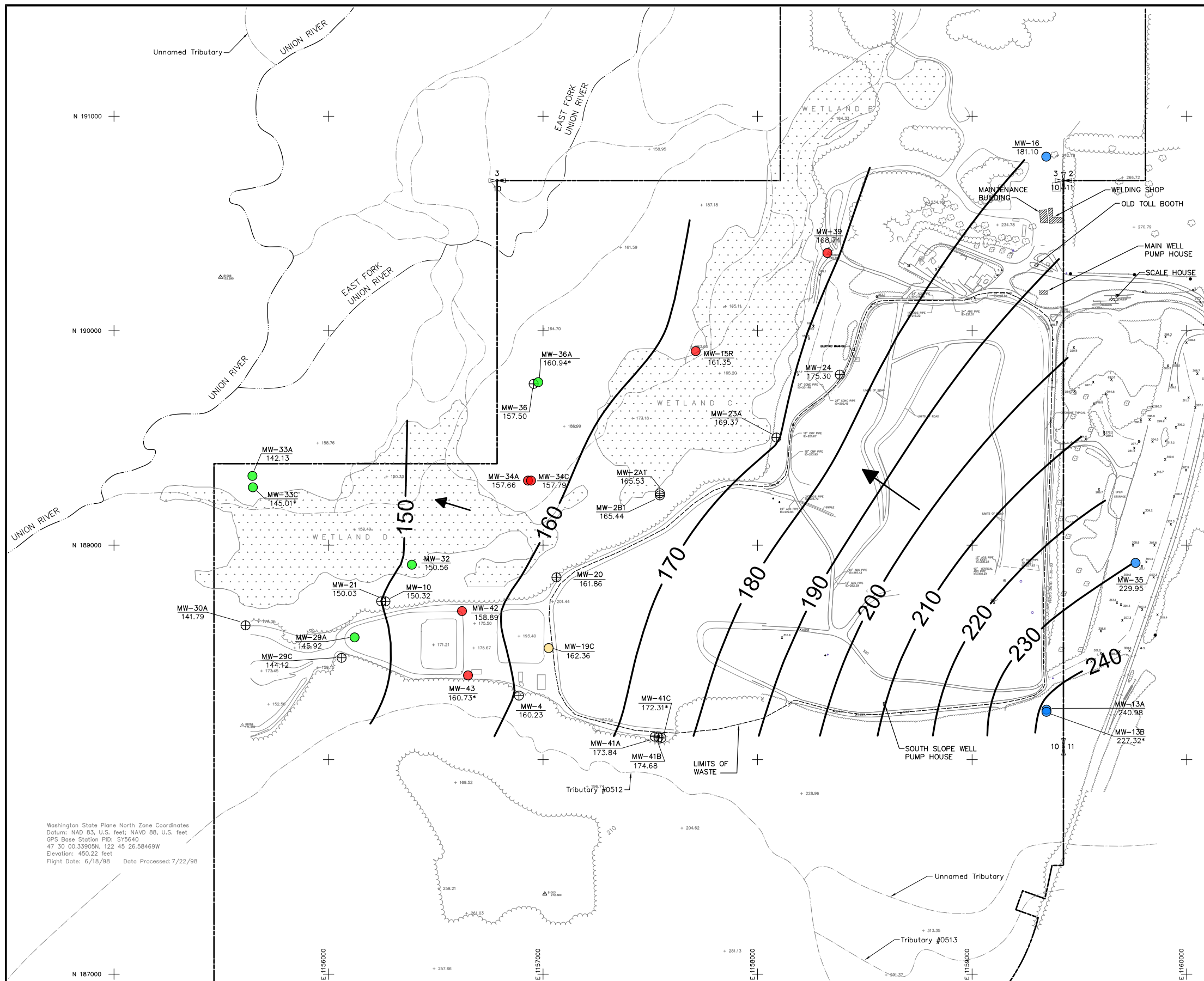


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PROJECT NO.	04204027.24	DES BY	T.M.
SCALE	AS SHOWN	CHK BY	S.G.
CAD FILE	FIGURE 3	APP BY	D.V.

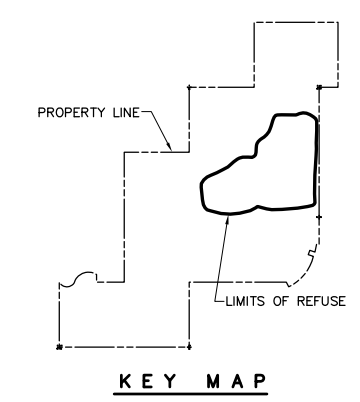
SUBSURFACE GAS MIGRATION MONITORING PROBES AND BUILDING MONITORING LOCATIONS
 OLYMPIC VIEW SANITARY LANDFILL
 PORT ORCHARD, WASHINGTON

DATE	FEBRUARY 2021
FIGURE	3



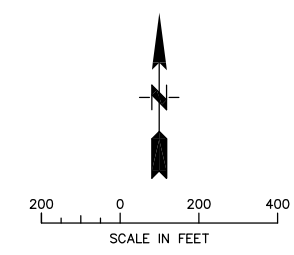
Note:
 Water level contours were generated using depth to water and reference elevation data from wells screened between 89 and 200 ft-msl. The water level elevations for the following locations have not been used for contouring.

- Wells MW-13B, MW-33C and MW-41C have screen elevations outside the 89 to 200 ft-msl range.



LEGEND	
	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
	DOWNGRADIENT GROUNDWATER MONITORING WELL
	PERFORMANCE GROUNDWATER MONITORING WELL
	COMPLIANCE GROUNDWATER MONITORING WELL
	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
	MONITORING WELL WATER LEVEL ELEVATION, FT-MSL
	ESTIMATED GROUNDWATER ELEVATION CONTOUR IN FEET-MSL CONTOUR INTERVAL = 10 FT
	GROUNDWATER FLOW DIRECTION
	WATER LEVEL ELEVATION NOT NOT USED IN CONTOURING
	PROPERTY LINE (ASSUMED)

Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: SY9640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98

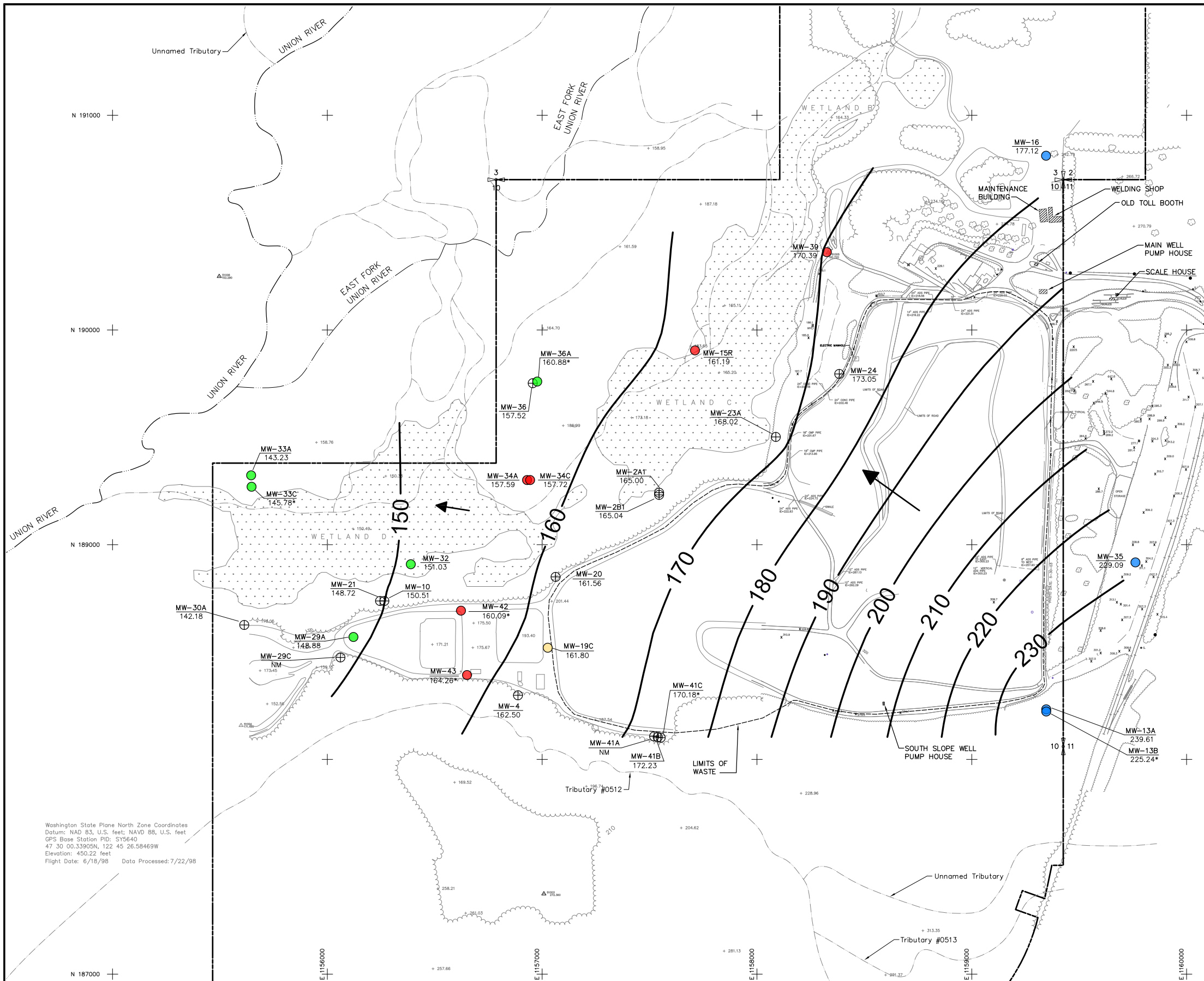


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PROJECT NO.	04204027.24	DES BY	S.G.
SCALE	AS SHOWN	CHK BY	D.V.
CAD FILE	FIGURE 4A	APP BY	D.V.

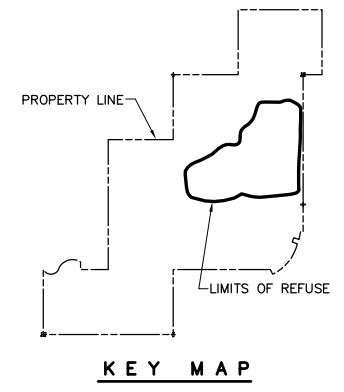
WATER LEVEL CONTOUR MAP
 MAY 2020
 OLYMPIC VIEW SANITARY LANDFILL
 KITSAP COUNTY, WASHINGTON

DATE
 FEBRUARY 2021
 FIGURE
4A



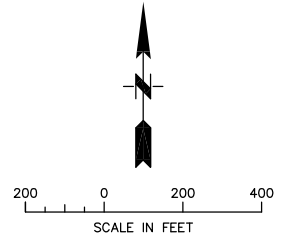
Note:
 Water level contours were generated using depth to water and reference elevation data from wells screened between 89 and 200 ft-msl. The water level elevations for the following locations have not been used for contouring.

- Wells MW-13B, MW-33C and MW-41C have screen elevations outside the 89 to 200 ft-msl range.



LEGEND	
	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
	DOWNGRADIENT GROUNDWATER MONITORING WELL
	PERFORMANCE GROUNDWATER MONITORING WELL
	COMPLIANCE GROUNDWATER MONITORING WELL
	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
	MONITORING WELL WATER LEVEL ELEVATION, FT-MSL
	ESTIMATED GROUNDWATER ELEVATION CONTOUR IN FEET-MSL CONTOUR INTERVAL = 10 FT
	GROUNDWATER FLOW DIRECTION
	WATER LEVEL ELEVATION NOT NOT USED IN CONTOURING
	PROPERTY LINE (ASSUMED)
	NOT MEASURED, HIT OBSTRUCTION

Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: SY9640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98



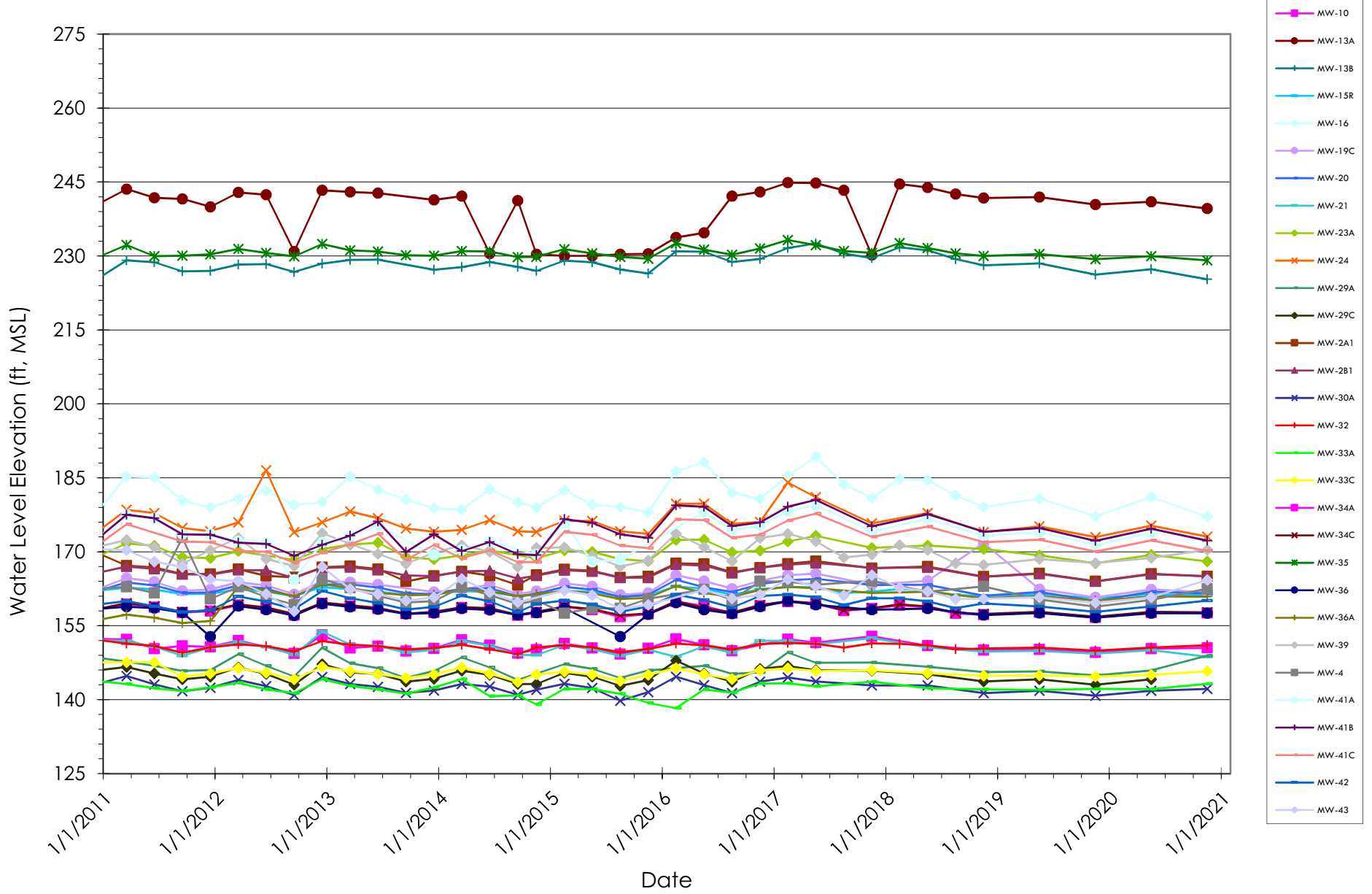
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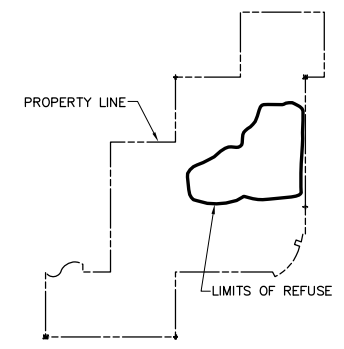
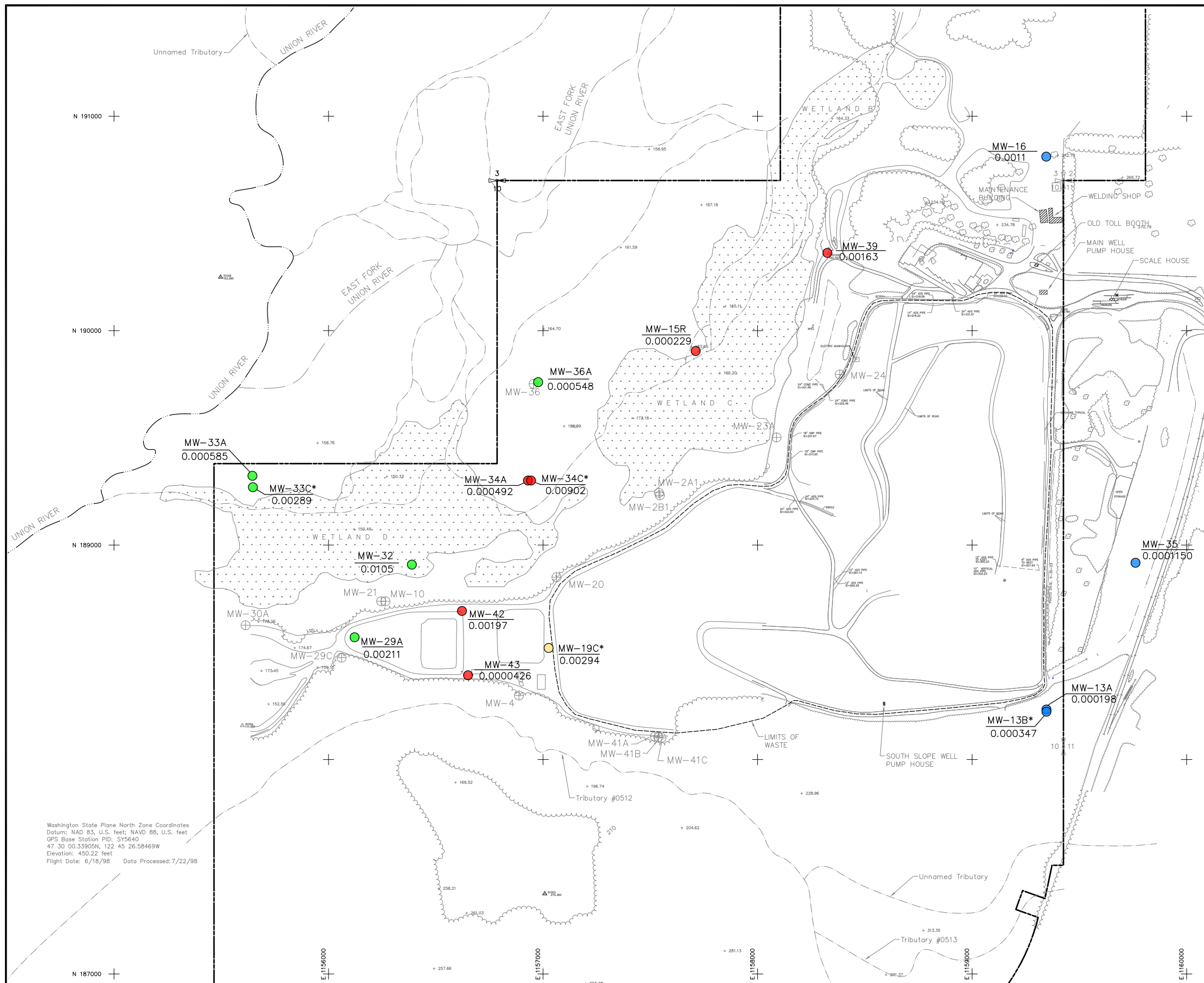
PROJECT NO.	04204027.24	DES BY	S.G.
SCALE	AS SHOWN	CHK BY	D.V.
CAD FILE	FIGURE 4B	APP BY	D.V.

WATER LEVEL CONTOUR MAP
 NOVEMBER 2020
 OLYMPIC VIEW SANITARY LANDFILL
 KITSAP COUNTY, WASHINGTON

DATE
 FEBRUARY 2021
 FIGURE
4B

Figure 5. Historical Groundwater Elevations
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

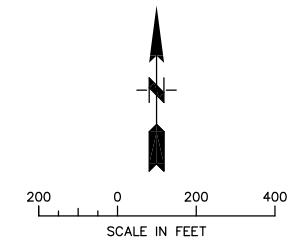




KEY MAP

LEGEND	
	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
	DOWNGRADIENT GROUNDWATER MONITORING WELL
	PERFORMANCE GROUNDWATER MONITORING WELL
	COMPLIANCE GROUNDWATER MONITORING WELL
	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
	SHALLOW MONITORING WELL ARSENIC, TOTAL (mg/L)
	DEEP MONITORING WELL
	PROPERTY LINE (ASSUMED)
	NOT SAMPLED

Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: S79640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98

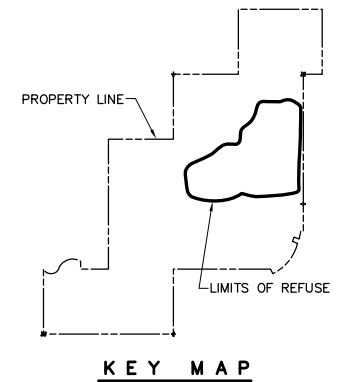
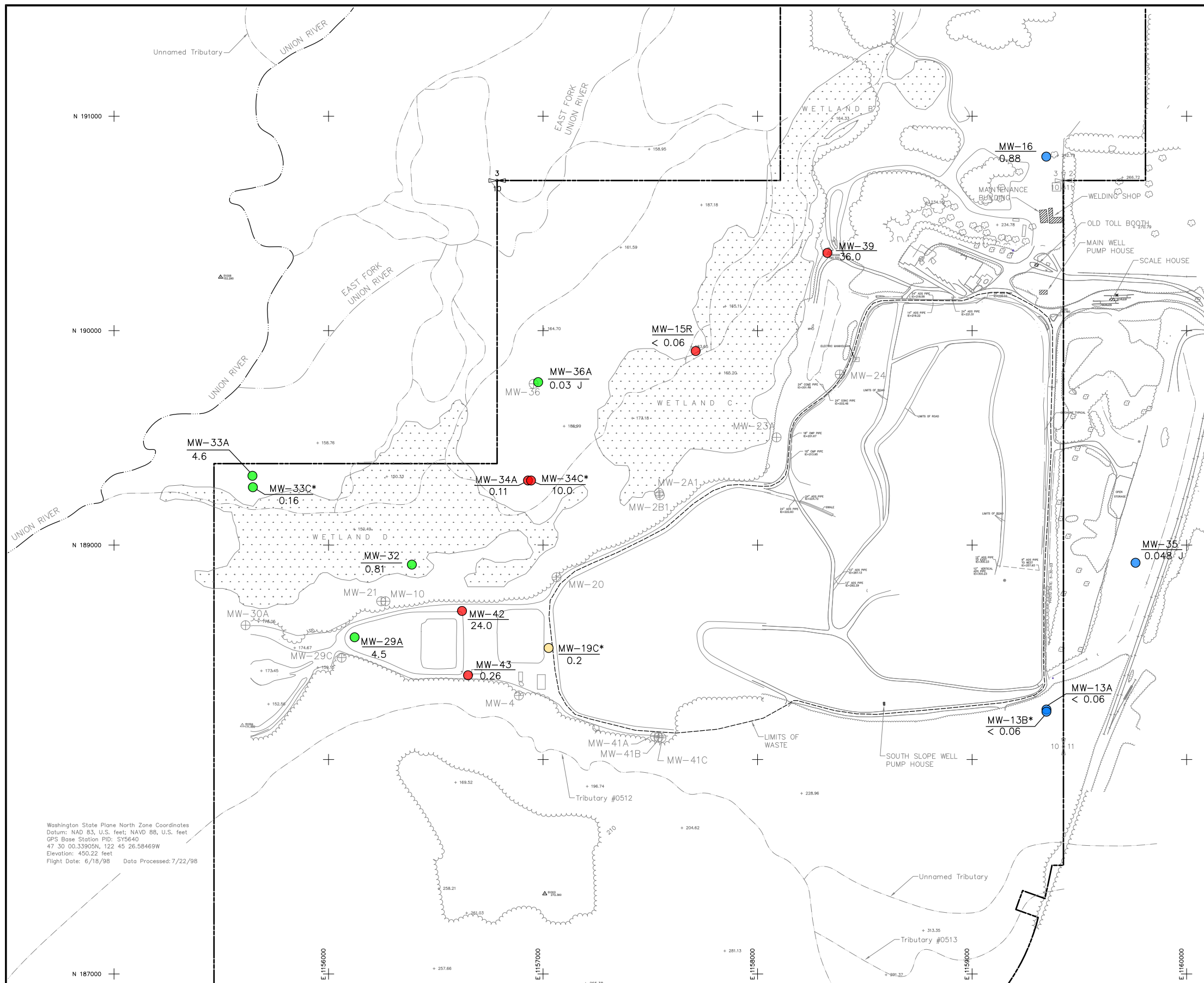


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PROJECT NO.	04204027.24	DES BY	A.L.
SCALE	AS SHOWN	CHK BY	S.G.
CAD FILE	FIGURE 6A	APP BY	D.V.

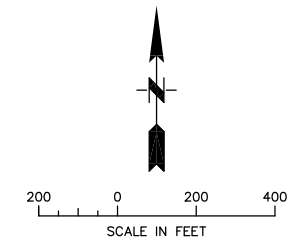
TOTAL ARSENIC CONCENTRATION MAP
 NOVEMBER 2020
 OLYMPIC VIEW SANITARY LANDFILL
 KITSAP COUNTY, WASHINGTON

DATE
 FEBRUARY 2021
 FIGURE
6A



LEGEND	
● MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
● MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
● MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
● MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
⊕ MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-32 / 0.81	SHALLOW MONITORING WELL IRON, TOTAL (mg/L)
*	DEEP MONITORING WELL
---	PROPERTY LINE (ASSUMED)
J	RESULT IS LESS THAN THE RL BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE
NS	NOT SAMPLED

Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: S79640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98

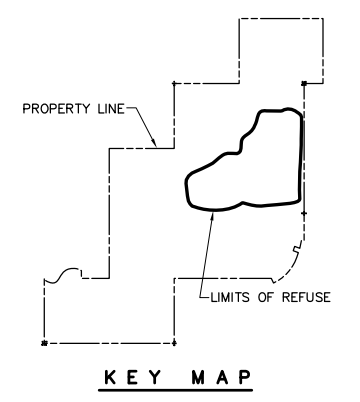
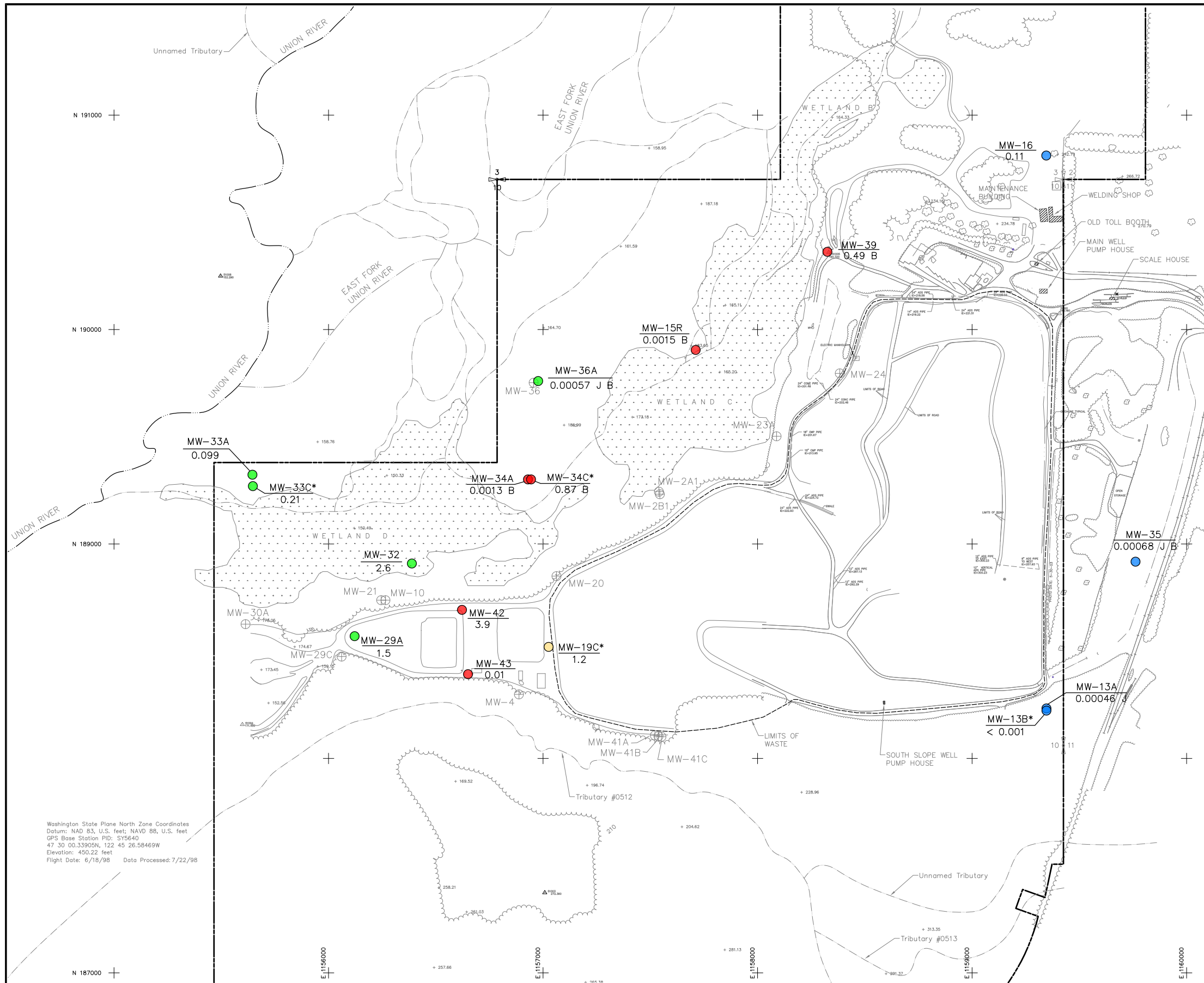


SCS ENGINEERS
 Environmental Consultants and Contractors
 2405 140th Avenue NE, Suite 107
 Bellevue, Washington 98005
 (425) 746-4600 FAX: (425) 746-6747

PROJECT NO.	04204027.24	DES BY	A.L.
SCALE	AS SHOWN	CHK BY	S.G.
CAD FILE	FIGURE 6B	APP BY	D.V.

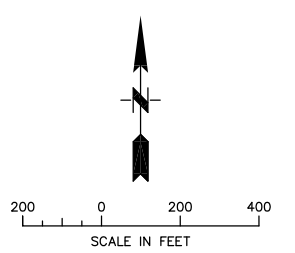
TOTAL IRON CONCENTRATION MAP
 NOVEMBER 2020
 OLYMPIC VIEW SANITARY LANDFILL
 KITSAP COUNTY, WASHINGTON

DATE
 FEBRUARY 2021
 FIGURE
6B



LEGEND	
● MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
● MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
● MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
● MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
⊕ MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
<u>MW-32</u> 2.6	SHALLOW MONITORING WELL MANGANESE, TOTAL (mg/L)
*	DEEP MONITORING WELL
---	PROPERTY LINE (ASSUMED)
B	COMPOUND WAS FOUND IN THE BLANK AND THE SAMPLE
J	RESULT IS LESS THAN THE RL BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE
NS	NOT SAMPLED

Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: S79640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98

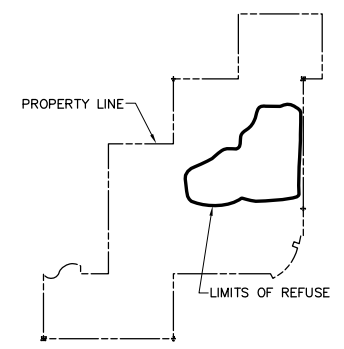
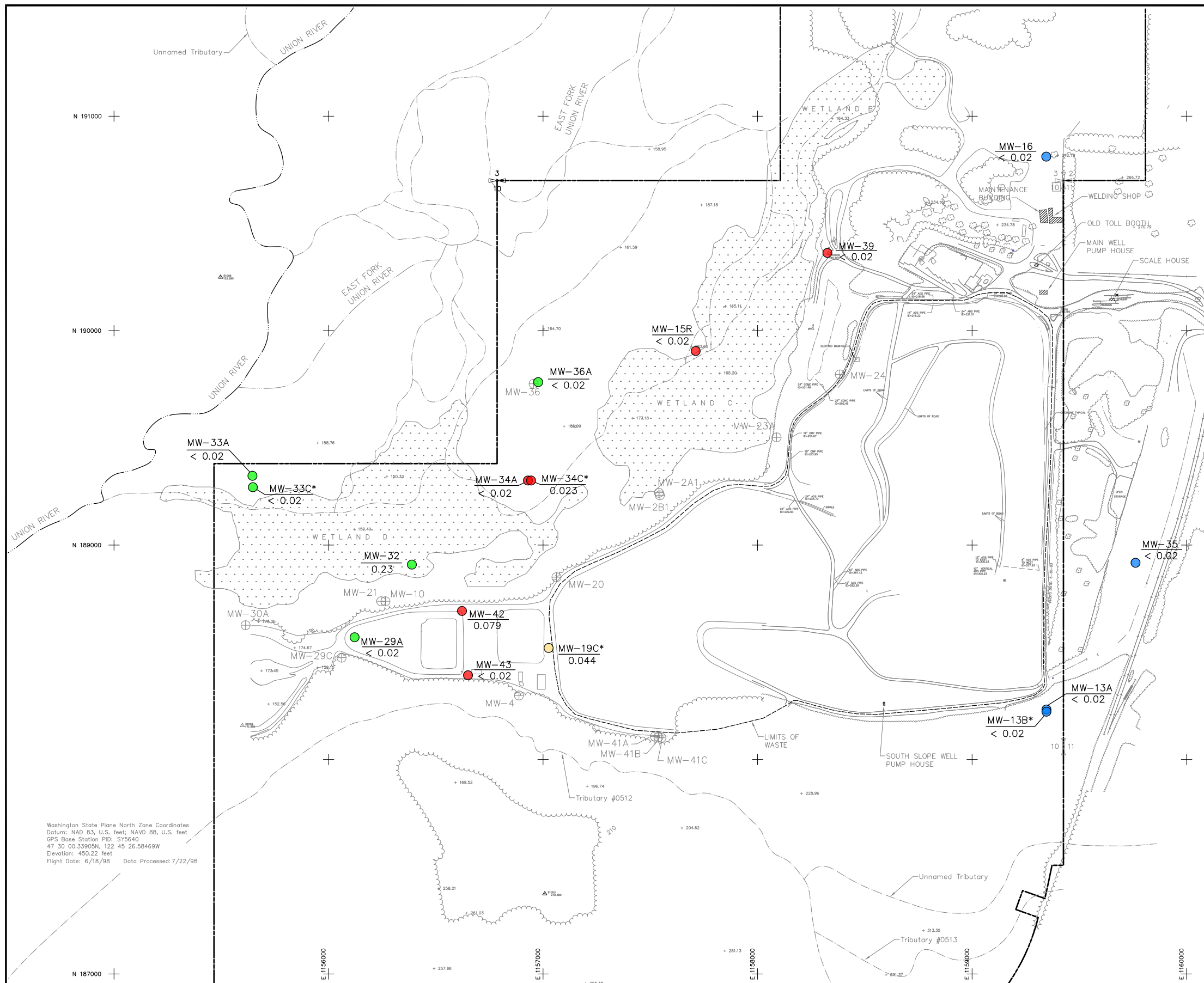


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PROJECT NO.	04204027.24	DES BY	A.L.
SCALE	AS SHOWN	CHK BY	S.G.
CAD FILE	FIGURE 6C	APP BY	D.V.

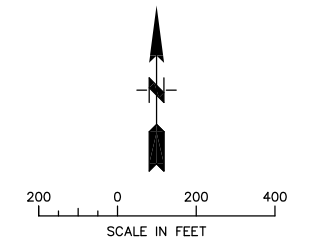
TOTAL MANGANESE CONCENTRATION MAP	
NOVEMBER 2020	
OLYMPIC VIEW SANITARY LANDFILL	
KITSAP COUNTY, WASHINGTON	

DATE	FEBRUARY 2021
FIGURE	6C



KEY MAP

LEGEND	
	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
	DOWNGRADIENT GROUNDWATER MONITORING WELL
	PERFORMANCE GROUNDWATER MONITORING WELL
	COMPLIANCE GROUNDWATER MONITORING WELL
	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
	SHALLOW MONITORING WELL VINYL CHLORIDE, TOTAL (ug/L)
	DEEP MONITORING WELL
	PROPERTY LINE (ASSUMED)
	NOT SAMPLED



Washington State Plane North Zone Coordinates
 Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
 GPS Base Station PID: SY9640
 47 30 00.33905N, 122 45 26.58469W
 Elevation: 450.22 feet
 Flight Date: 6/18/98 Data Processed: 7/22/98

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PROJECT NO.	04204027.24	DES BY	A.L.
SCALE	AS SHOWN	CHK BY	S.G.
CAD FILE	FIGURE 6D	APP BY	D.V.

VINYL CHLORIDE CONCENTRATION MAP
 NOVEMBER 2020
 OLYMPIC VIEW SANITARY LANDFILL
 KITSAP COUNTY, WASHINGTON

DATE	FEBRUARY 2021
FIGURE	6D

Figure 7. Leachate Generation (2007 - 2020)
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

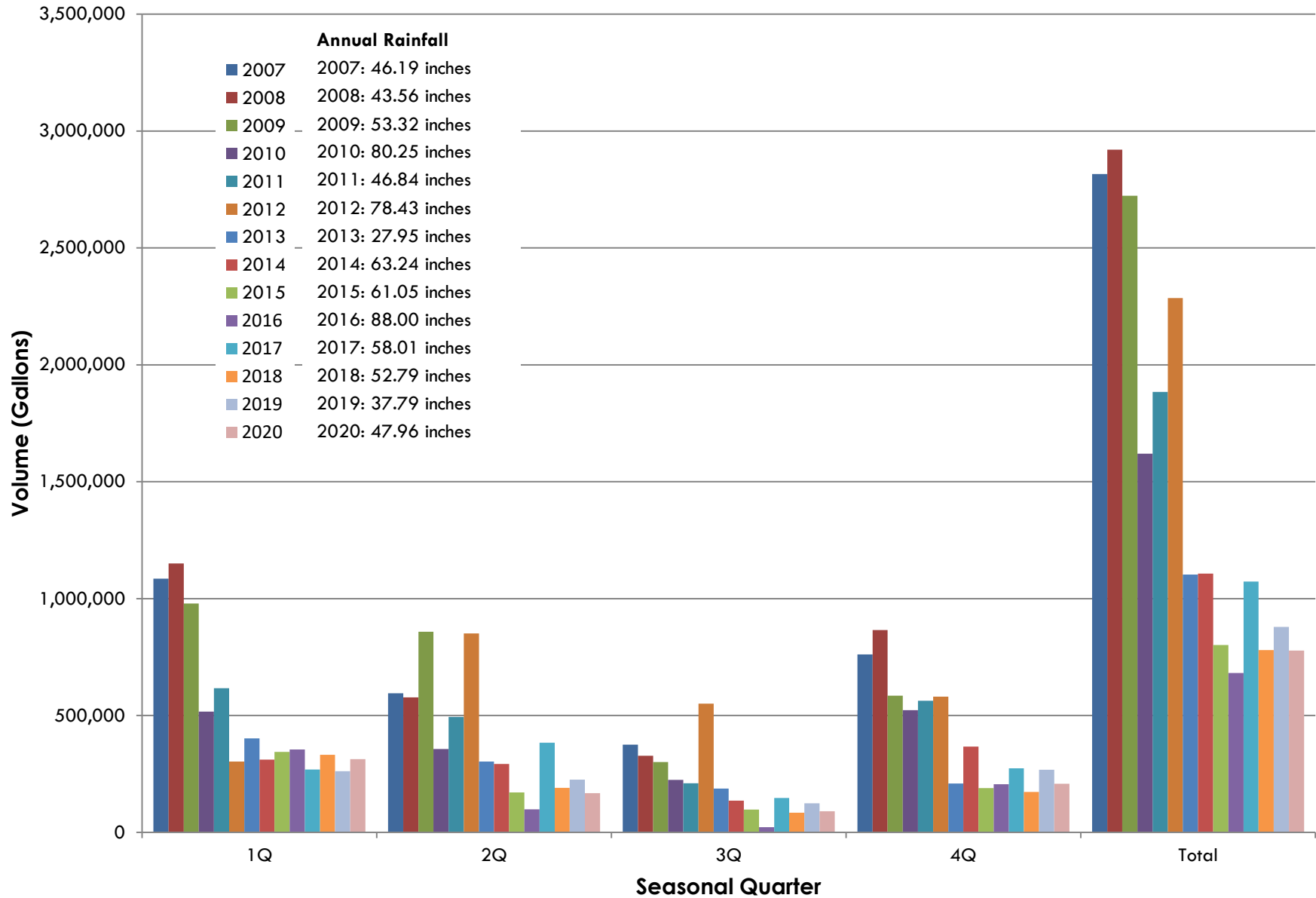
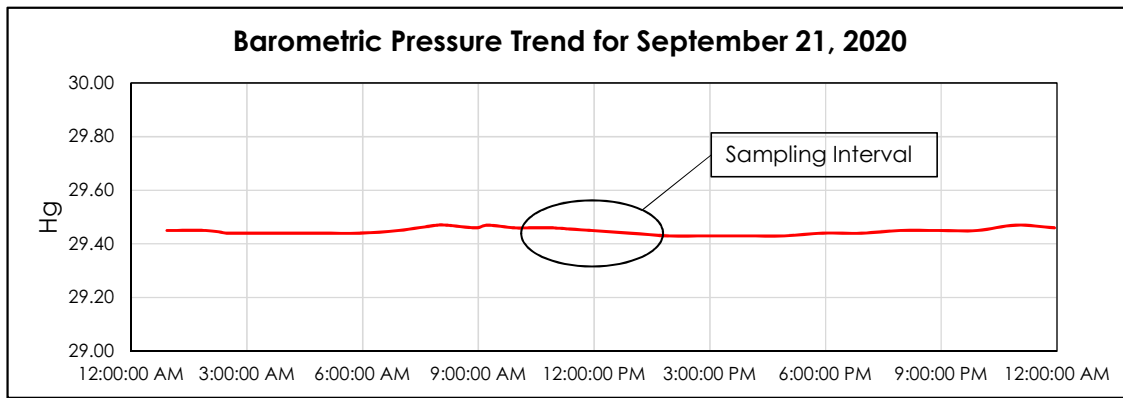
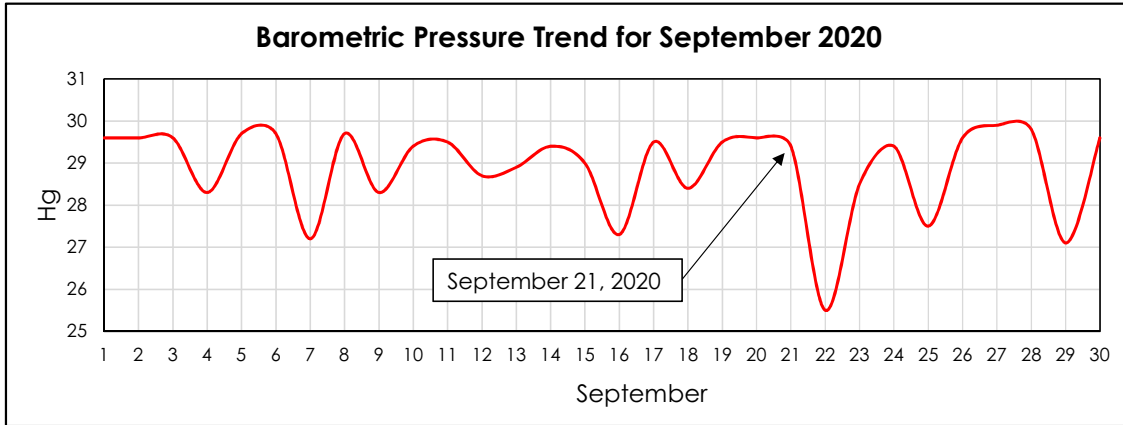


Figure 8A. Barometric Pressure during LFG Migration Monitoring - Third Quarter 2020
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington



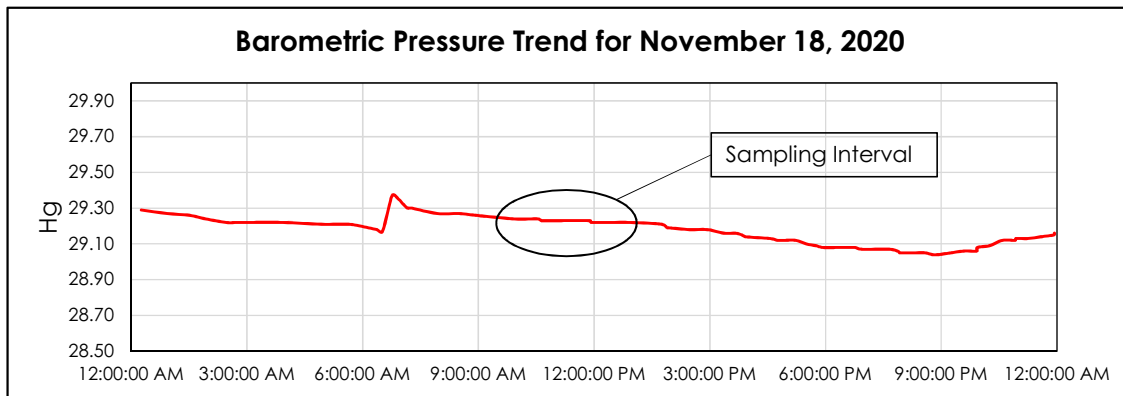
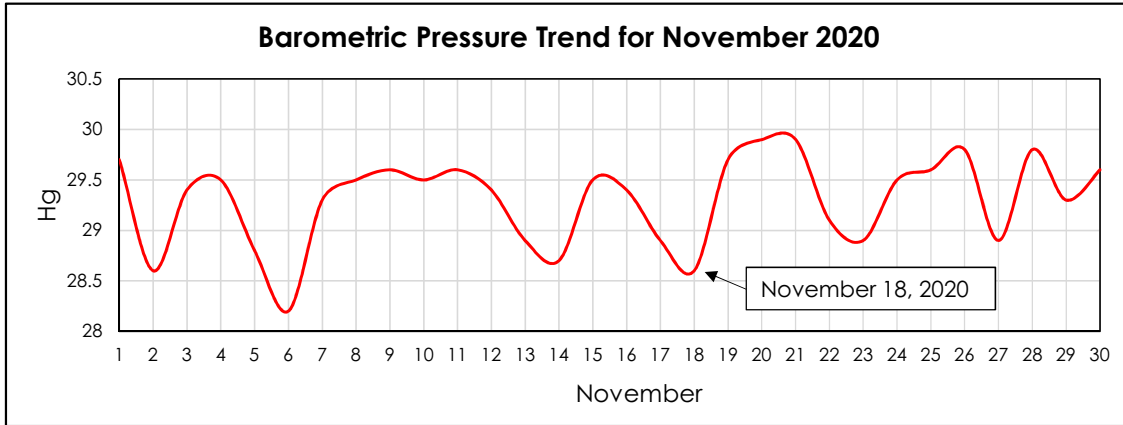
Monthly Data Source: Bremerton National Station
 Lat: 47.49 Long: 122.76 Elev: 436 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/port-orchard/KPWT/date/2020-9>

Daily Data Source: Bremerton National Station
 Lat: 47.49 Long: 122.76 Elev: 436 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/port-orchard/KPWT/date/2020-9-21>

Figure 8B. Barometric Pressure during LFG Migration Monitoring - Fourth Quarter 2020
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington




Monthly Data Source: Bremerton National Station
 Lat: 47.49 Long: 122.76 Elev: 436 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/port-orchard/KPWT/date/2020-11>

Daily Data Source: Bremerton National Station
 Lat: 47.49 Long: 122.76 Elev: 436 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/port-orchard/KPWT/date/2020-11-18>



Appendix A
November 2020 Field Documentation



November 23, 2020
File No. 04204027.23

Subject: **2020 Semi-Annual #2 Compliance Monitoring Event**
Olympic View Sanitary Landfill, Kitsap County, Washington

NOTES/SAMPLE DECODING:

Event Dates: November 19 & 20, 2020
Field Staff: Sam Graber & Travis Berdahl

- The gate code to access the site is: 72369
- This event served as the second semi-annual monitoring event.
- Duplicate samples were collected at MW-19C (DUP 1) and MW-15R (DUP 2).
- Samples were collected for chemical analysis from the upgradient monitoring wells.
- A geotech water level meter was used to record all water level elevations.
- The samples were sent to TestAmerica Denver for analysis at the close of each sampling day, except samples for low level arsenic which were retained until the end of the sampling event and provided to Analytical Resources, Inc. in Tukwila, Washington.

Sample Date	Sample Number	Well ID
11/19/20	1120-01	MW-36A
11/19/20	1120-02	MW-15R
11/19/20	1120-03	Dup 2 (MW-15R)
11/19/20	1120-04	MW-34A
11/19/20	1120-05	MW-34C
11/19/20	1120-06	MW-39
11/19/20	1120-07	MW-35
11/19/20	1120-08	MW-13A
11/19/20	1120-09	MW-13B
11/19/20	1120-10	MW-19C
11/19/20	1120-11	Dup 1 (MW-19C)
11/19/20	1120-12	MW-42
11/19/20	1120-13	MW-29A
11/19/20	1120-14	MW-43
11/20/20	1120-15	MW-33A
11/20/20	1120-16	MW-33C
11/20/20	1120-17	MW-16
11/20/20	1120-18	MW-32

11/20/20	1120-19	LP-LCD
11/20/20	1120-20	L-INF
11/20/20	1120-21	OBWL-TD

Notes: L-INF and OBWL-TD samples collected by Aspect Consulting

FIELD INFORMATION FORM



Site Name: 052 M60-36A
 Site No.:
 Sample Point: M60-36A
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE: 11/19/20 PURGE TIME: 10:05 ELAPSED HRS:
 WATER VOL IN CASING: ACTUAL VOL PURGED: WELL VOLS PURGED:
(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons)

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLING EQUIPMENT
 Purging and Sampling Equipment: Y or N Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Purging Device: C A-Submersible Pump D-Bailer Filter Type: A A-In-line Disposable C-Vacuum
 B-Peristaltic Pump E-Piston Pump B-Pressure X-Other
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle A-Teflon C-PVC X-Other:
 X-Other: Sample Tube Type: D B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 3180 (ft) Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft) Casing ID: 02 (in) Casing Material: PVC
Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
10:05	300	537	121	879		628	2461	
10:10		571	120	880		338	2416	
10:15		575	119	881		331	2390	
10:16		579	118	881		326	2372	
10:19		584	119	880		324	2335	
10:22		589	117	879		382	2303	
10:25		590	119	879	100	324	2278	3240

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20 pH (std): 590 CONDUCTANCE (μ mhos/cm @ 25°C): 119 TEMP. (°C): 879 TURBIDITY (ntu): 100 DO (mg/L-ppm): 324 eH/ORP (mV): 2278 Other: DTW Units: 3180

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Graber SCS
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: **0USC**
 Site No.: **NW-15R**
 Sample Point: **NW-15R**
Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO

PURGE DATE <small>(MM DD YY)</small>	PURGE TIME <small>(2400 Hr Clock)</small>	ELAPSED HRS <small>(hrs:min)</small>	WATER VOL IN CASING <small>(Gallons)</small>	ACTUAL VOL PURGED <small>(Gallons)</small>	WELL VOLS PURGED
<u>111920</u>	<u>1050</u>	<u> </u> <u>20</u>	<u> </u>	<u> </u>	<u> </u>

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: (Y) or (N)

Filter Device: (Y) or (N) 0.45 μ or _____ μ (circle or fill in)

Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other: _____

Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____

Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA

Well Elevation (at TOC) _____ (ft/msl) Depth to Water (DTW) (from TOC) 1947 (ft) Groundwater Elevation (site datum, from TOC) _____ (ft/msl)

Total Well Depth (from TOC) _____ (ft) Stick Up (from ground elevation) _____ (ft) Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time <small>(2400 Hr Clock)</small>	Rate/Unit <small>mL/min</small>	pH <small>(std)</small>	Conductance (SC/EC) <small>(μmhos/cm@25°C)</small>	Temp. <small>(°C)</small>	Turbidity <small>(ntu)</small>	D.O. <small>(mg/L - ppm)</small>	eH/ORP <small>(mV)</small>	DTW <small>(ft)</small>
<u>10:50</u>	<u>300</u> 1 st	<u>6.36</u> 1 st	<u>153</u> 1 st	<u>9.17</u>		<u>8.12</u>	<u>2210</u>	
<u>10:55</u>	<u> </u> 2 nd	<u>6.47</u> 2 nd	<u>155</u> 2 nd	<u>9.25</u>		<u>0.76</u>	<u>2100.3</u>	
<u>10:58</u>	<u> </u> 3 rd	<u>6.47</u> 3 rd	<u>156</u> 3 rd	<u>9.27</u>		<u>0.59</u>	<u>1965</u>	
<u>11:01</u>	<u> </u> 4 th	<u>6.46</u> 4 th	<u>156</u> 4 th	<u>9.29</u>		<u>0.54</u>	<u>1946</u>	
<u>11:04</u>	<u> </u>	<u>6.46</u>	<u>156</u>	<u>9.29</u>		<u>0.51</u>	<u>1925</u>	
<u>11:07</u>	<u> </u>	<u>6.45</u>	<u>156</u>	<u>9.24</u>		<u>0.46</u>	<u>1896</u>	
<u>11:10</u>	<u> </u>	<u>6.44</u>	<u>156</u>	<u>9.26</u>	<u>0.83</u>	<u>0.44</u>	<u>1883</u>	<u>1962</u>
<u> </u>								
<u> </u>								
<u> </u>								

Suggested range for 3 consec. readings or note Permit/State requirements:

pH: +/- 0.2	Conductance: +/- 3%	Temp: --	Turbidity: --	D.O.: +/- 10%	eH/ORP: +/- 25 mV	DTW: Stabilize
-------------	---------------------	----------	---------------	---------------	-------------------	----------------

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA

SAMPLE DATE <small>(MM DD YY)</small>	pH <small>(std)</small>	CONDUCTANCE <small>(umhos/cm @ 25°C)</small>	TEMP. <small>(°C)</small>	TURBIDITY <small>(ntu)</small>	DO <small>(mg/L-ppm)</small>	eH/ORP <small>(mV)</small>	Other: <u>DTW</u> <small>Units</small>
<u>111920</u>	<u>6.44</u>	<u>156</u>	<u>9.26</u>	<u>0.83</u>	<u>0.44</u>	<u>1883</u>	<u>19.47</u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: - Color: - Other: -
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: - Outlook: - Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):
Dup 2 collected at 1115

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11.19.20 Sara Graber [Signature] SC5
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: OU5C
 Site No.: Sample Point: MW-34A
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE: 11/19/20 PURGE TIME: 12:25 ELAPSED HRS: 20
 WATER VOL IN CASING: ACTUAL VOL PURGED: WELL VOLS PURGED:
(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons)
 Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other:
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 4036 (ft) Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft) Casing ID: 04 (in) Casing Material: PVC
 Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit (L/min)	pH (std)	Conductance (SC/EC) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>12:25</u>	<u>300</u>	<u>6.75</u>	<u>201</u>	<u>11.19</u>		<u>5.22</u>	<u>109.3</u>
	<u>12:30</u>		<u>6.36</u>	<u>207</u>	<u>11.36</u>		<u>0.57</u>	<u>110.1</u>	
	<u>12:33</u>		<u>6.28</u>	<u>193</u>	<u>11.30</u>		<u>0.69</u>	<u>116.2</u>	
	<u>12:36</u>		<u>6.22</u>	<u>189</u>	<u>11.23</u>		<u>0.80</u>	<u>122.3</u>	
	<u>12:39</u>		<u>6.20</u>	<u>186</u>	<u>11.25</u>		<u>0.79</u>	<u>128.1</u>	
	<u>12:42</u>		<u>6.14</u>	<u>186</u>	<u>11.24</u>		<u>0.76</u>	<u>130.7</u>	
	<u>12:45</u>	<u>Y</u>	<u>6.18</u>	<u>186</u>	<u>11.25</u>	<u>1.56</u>	<u>0.77</u>	<u>132.0</u>	<u>4040</u>

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: - Turbidity: - D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20 pH (std): 6.18 CONDUCTANCE (umhos/cm @ 25°C): 186 TEMP. (°C): 11.25 TURBIDITY (ntu): 1.56 DO (mg/L-ppm): 0.77 eH/ORP (mV): 132.0 Other: DTW Units: 4036
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: - Color: - Other: -
 Weather Conditions (required daily, or as conditions change): - Direction/Speed: - Outlook: - Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Baber [Signature] SCS
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: OVSC
 Site No.: Sample Point: MW-34C
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED
11/19/20	11:40	20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: Y or N

Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other:

Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other:
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA

Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 42.17 (ft) Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft) Casing ID 04 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ML/min)	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
11:40	300	6.62	191	16.3		7.90	182.8	
11:45		6.71	194	12.17		10.53	145.2	
11:48		6.70	193	12.15		10.43	240	
11:51		6.70	193	12.17		10.40	165	
11:54		6.68	193	12.19	2010	10.57	12.9	
11:57		6.69	194	12.10	1290	10.36	9.7	
12:00		6.67	192	12.10	813	10.34	2.7	42.21

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: - Turbidity: - D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: <u>DTW</u>
11/19/20	6.67	192	12.10	813	10.34	2.7	42.17

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Orange particulate Odor: - Color: - Other: -

Weather Conditions (required daily, or as conditions change): - Direction/Speed: - Outlook: - Precipitation: R or N

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/19/20 Sam Graber [Signature] SCS

 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: 005L
 Site No.:
 Sample Point: MW-39
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11 19 20
 PURGE TIME (2400 Hr Clock): 13:28
 ELAPSED HRS (hrs:min): : 20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other:
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 1953 (ft)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 02 (in) Casing Material PVC
Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ml/min)	pH (std)	Conductance (SC/EC) (μ mhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:28	300	6.08	298	10.37		3.49	56	
13:33		6.19	295	10.73		0.46	-270	
13:36		6.18	288	10.83		0.33	-324	
13:39		6.15	284	10.84		0.32	-312	
13:42		6.12	280	10.85		0.31	-308	
13:45		6.09	275	10.87		0.31	-279	
13:48		6.06	268	10.82	2.39	0.31	-250	21.05

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11 19 20
 pH (std): 6.06
 CONDUCTANCE (umhos/cm @ 25°C): 268
 TEMP. (°C): 10.82
 TURBIDITY (ntu): 2.39
 DO (mg/L-ppm): 0.31
 eH/ORP (mV): -250
 Other: DTW
 Units: 19.53
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11.19.20 Sam Graber [Signature] SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 055L
 Site No.:
 Sample Point: MW-35
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE: 11/19/20 (MM DD YY)
 PURGE TIME: 14:30 (2400 Hr Clock)
 ELAPSED HRS: : 20 (hrs:min)
 WATER VOL IN CASING: (Gallons)
 ACTUAL VOL PURGED: (Gallons)
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other:
 Filter Device: Y or N | 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl)
 Depth to Water (DTW) (from TOC): 7360 (ft)
 Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft)
 Stick Up (from ground elevation): (ft)
 Casing ID: 04 (in) Casing Material: PVC
Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
14:30	150	673	155	9.67		507	70	
14:35		706	156	9.51		482	44	
14:38		708	156	9.48		512	118	
14:41		711	156	9.45		556	170	
14:44		718	156	9.49		561	254	
14:47		719	156	9.53		562	283	7360
14:50		720	156	9.58	131	564	315	

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20
 pH (std): 720
 CONDUCTANCE (μ mhos/cm @ 25°C): 156
 TEMP. (°C): 9.58
 TURBIDITY (ntu): 131
 DO (mg/L-ppm): 564
 eH/ORP (mV): 315
 Other: DTW
 Units: 7360
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
11/19/20 150 ml/min 5 minutes to get water

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Graber SCJ
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 0052

This Waste Management Field Information Form is Required

This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

Site No.: Sample Point: MW-13A
Sample ID

PURGE INFO
PURGE DATE: 11/19/20 PURGE TIME: 10:10 ELAPSED HRS: 20
WATER VOL IN CASING (Gallons) ACTUAL VOL PURGED (Gallons) WELL VOLs PURGED

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
Purging and Sampling Equipment... Dedicated: (Y) or (N)
Filter Device: (Y) or (N) 0.45 μ or μ (circle or fill in)
Filter Type: A
Sample Tube Type: D

WELL DATA
Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) (ft)
Groundwater Elevation (site datum, from TOC) (ft/msl)
Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
Casing ID: 02 (in) Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional) table with columns: Sample Time (2400 Hr Clock), Rate/Unit (mc/min), pH (std), Conductance (SC/EC) (μmhos/cm@25°C), Temp. (°C), Turbidity (ntu), D.O. (mg/L - ppm), eH/ORP (mV), DTW (ft). Includes suggested ranges and permit requirements.

FIELD DATA table with columns: SAMPLE DATE (MM DD YY), pH (std), CONDUCTANCE (umhos/cm @ 25°C), TEMP. (°C), TURBIDITY (ntu), DO (mg/L-ppm), eH/ORP (mV), Other: DTW Units: ft. Includes final field readings.

Sample Appearance: Clear Odor: Color: Other: Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required): 10/5 45 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
Date: 11/19/20 Name: Travis Berndak Signature: Company: SCJ

FIELD INFORMATION FORM



Site Name: OU5L
 Site No.:
 Sample Point: MW-13B
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE: 11/19/20 (MM DD YY)
 PURGE TIME: 10:50 (2400 Hr Clock)
 ELAPSED HRS: 20 (hrs:min)
 WATER VOL IN CASING: (Gallons)
 ACTUAL VOL PURGED: (Gallons)
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment...Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other:
 Filter Device: Y or N 0.45 µ or µ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 6342 (ft)
 Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft)
 Casing ID: 02 (in) Casing Material: PVC
Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit (ML/MIN)	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		10:50	300	724	171	9.6	2.82	1050	3086
	10:55		674	172	9.6	290	886	3051	
	10:58		723	172	9.5	310	840	2935	
	11:01		751	171	9.5	277	881	2886	
	11:04		756	170	9.5	277	886	2864	
	11:07		762	170	9.5	283	889	2839	
	11:10		764	170	9.5	279	889	2827	6342

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20 pH (std): 764 CONDUCTANCE (µmhos/cm @ 25°C): 170 TEMP. (°C): 9.5
 TURBIDITY (ntu): 279 DO (mg/L - ppm): 889 eH/ORP (mV): 2827 Other: DTW
 Units: ft. DTW: 6342
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
10/5 4.5 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Berndahl
 Date Name Signature Company
DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: MVSL

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

Site No.: _____ Sample Point: MW-19C
 Sample ID

PURGE INFO

<u>11</u> <u>19</u> <u>20</u>	<u>12</u> <u>03</u>	<u>26</u>	_____	_____	_____
PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment... Dedicated: Y or N

Filter Device: Y or N 0.45 µ or _____ µ (circle or fill in)

Purging Device: C A-Submersible Pump D-Bailer
 B B-Peristaltic Pump E-Piston Pump
 F F-Dipper/Bottle

Filter Type: A A-In-line Disposable C-Vacuum
 B B-Pressure X-Other _____

Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle

X-Other: _____

Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B B-Stainless Steel D-Polypropylene

WELL DATA

Well Elevation (at TOC) _____ (ft/msl) Depth to Water (DTW) 3516 (ft) Groundwater Elevation (site datum, from TOC) _____ (ft/msl)

Total Well Depth (from TOC) _____ (ft) Stick Up (from ground elevation) _____ (ft) Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (M/L/MIN)	pH (std)	Conductance (SC/EC) (µmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
<u>12:03</u>	<u>300</u>	<u>6.90</u>	<u>153</u>	<u>10.8</u>	<u>338</u>	<u>3.60</u>	<u>2657</u>	
<u>12:08</u>		<u>6.74</u>	<u>167</u>	<u>10.7</u>	<u>315</u>	<u>0.94</u>	<u>785</u>	
<u>12:11</u>		<u>6.76</u>	<u>168</u>	<u>10.7</u>	<u>326</u>	<u>0.66</u>	<u>640</u>	
<u>12:14</u>		<u>6.75</u>	<u>167</u>	<u>10.4</u>	<u>361</u>	<u>0.23</u>	<u>497</u>	
<u>12:17</u>		<u>6.75</u>	<u>167</u>	<u>10.4</u>	<u>321</u>	<u>0.19</u>	<u>456</u>	
<u>12:20</u>		<u>6.75</u>	<u>167</u>	<u>10.4</u>	<u>310</u>	<u>0.15</u>	<u>401</u>	
<u>12:23</u>	<u>✓</u>	<u>6.75</u>	<u>167</u>	<u>10.4</u>	<u>321</u>	<u>0.13</u>	<u>386</u>	<u>3516</u>
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: <u>DTW</u> Units <u>ft</u>
<u>111920</u>	<u>6.75</u>	<u>167</u>	<u>10.4</u>	<u>321</u>	<u>0.13</u>	<u>386</u>	<u>3516</u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: _____ Color: _____ Other: _____

Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

FIELD COMMENTS

Specific Comments (including purge/well volume calculations if required):
9/6 60psi
DUP 1 collected at 1230

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11, 19, 20 Travis Berndahl J-C SCJ

 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: OU-5L
 Site No.:
 Sample Point: MW-42
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 13:01
 ELAPSED HRS (hrs:min): :20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other: _____
 Filter Device: Y or N 0.45 μ or _____ μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): _____ (ft/msl) Depth to Water (DTW) (from TOC): 27.34 (ft)
 Groundwater Elevation (site datum, from TOC): _____ (ft/msl)
 Total Well Depth (from TOC): _____ (ft) Stick Up (from ground elevation): _____ (ft)
 Casing ID: 02 (in) Casing Material: PVC
 Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

Sample Time (2400 Hr Clock)	Rate/Unit (g/L/min)	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:01	300	6.41	467	12.1	4.11	0.79	-256	
13:06		6.41	466	12.1	4.14	0.23	-351	
13:09		6.43	466	12.1	3.65	0.13	-407	
13:12		6.43	466	12.1	3.59	0.11	-422	
13:15		6.44	466	12.1	3.39	0.09	-443	
13:18		6.44	466	12.0	3.47	0.07	-458	
13:21	✓	6.45	465	12.0	3.44	0.05	-480	27.34
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: - Turbidity: - D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20
 pH (std): 6.45
 CONDUCTANCE (umhos/cm @ 25°C): 465
 TEMP. (°C): 12.0
 TURBIDITY (ntu): 3.44
 DO (mg/L-ppm): 0.05
 eH/ORP (mV): -480
 Other: DTW
 Units: ft.
 Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: _____ Color: _____ Other: _____
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
9/6 40 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Berndahl _____ _____
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 0USL

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

Site No.: Sample Point: MW-29A
 Sample ID

PURGE INFO

<u>111920</u>	<u>1350</u>	<u> 20</u>	<u> </u>	<u> </u>	<u> </u>
PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: Y or N

Filter Device: Y or N 0.45 μ or _____ μ (circle or fill in)

Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump

Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle

X-Other: _____

Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____

Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA

Well Elevation (at TOC) _____ (ft/msl) Depth to Water (DTW) 1133 (ft) Groundwater Elevation (site datum, from TOC) _____ (ft/msl)

Total Well Depth (from TOC) _____ (ft) Stick Up (from ground elevation) _____ (ft) Casing ID 02 (in) Casing Material Pvc

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit <i>(ML/min)</i>	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>13:50</u>	<u>300</u>	<u>6.30</u>	<u>106</u>	<u>11.6</u>	<u>8.10</u>	<u>11.5</u>	<u>83.8</u>
	<u>13:55</u>		<u>6.04</u>	<u>108</u>	<u>11.6</u>	<u>3.91</u>	<u>0.24</u>	<u>61.9</u>	
	<u>13:58</u>		<u>6.02</u>	<u>108</u>	<u>11.6</u>	<u>3.71</u>	<u>0.17</u>	<u>59.8</u>	
	<u>14:01</u>		<u>6.00</u>	<u>108</u>	<u>11.6</u>	<u>3.09</u>	<u>0.13</u>	<u>56.7</u>	
	<u>14:04</u>		<u>6.010</u>	<u>107</u>	<u>11.6</u>	<u>2.98</u>	<u>0.11</u>	<u>55.9</u>	
	<u>14:07</u>		<u>6.010</u>	<u>107</u>	<u>11.6</u>	<u>3.10</u>	<u>0.10</u>	<u>55.1</u>	
	<u>14:10</u>		<u>6.00</u>	<u>107</u>	<u>11.6</u>	<u>3.01</u>	<u>0.08</u>	<u>54.3</u>	<u>11.33</u>

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: - Turbidity: - D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: <u>DTW</u> Units: <u>ft</u>
	<u>111920</u>	<u>6.00</u>	<u>107</u>	<u>11.6</u>	<u>3.01</u>	<u>0.08</u>	<u>54.3</u>	<u>11.33</u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: _____ Color: _____ Other: _____

Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):
10/5 20 psi

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/19/20 Travis Berndahl _____ _____ _____

Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 055L

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

Site No.: _____ Sample Point: M/W-43
 Sample ID

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED
<u>11/19/20</u>	<u>14:45</u>	<u>20</u>			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment... Dedicated: or N

Filter Device: or N | 0.45 μ or _____ μ (circle or fill in)

Purging Device: C | A-Submersible Pump | D-Bailer | Filter Type: A | A-In-line Disposable | C-Vacuum

Sampling Device: C | B-Peristaltic Pump | E-Piston Pump | B-Pressure | X-Other _____

X-Other: _____ | C-QED Bladder Pump | F-Dipper/Bottle | A-Teflon | C-PVC | X-Other: _____

Sample Tube Type: 0 | B-Stainless Steel | D-Polypropylene

WELL DATA

Well Elevation (at TOC): _____ (ft/msl) | Depth to Water (DTW) (from TOC): 2216 (ft) | Groundwater Elevation (site datum, from TOC): _____ (ft/msl)

Total Well Depth (from TOC): _____ (ft) | Stick Up (from ground elevation): _____ (ft) | Casing ID: 02 (in) | Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ml/min)	pH (std)	Conductance (SC/EC) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
<u>14:45</u>	<u>300</u>	<u>590</u>	<u>64</u>	<u>118</u>	<u>2010</u>	<u>570</u>	<u>2288</u>	
<u>14:50</u>		<u>561</u>	<u>61</u>	<u>119</u>	<u>1680</u>	<u>427</u>	<u>2560</u>	
<u>14:53</u>		<u>559</u>	<u>60</u>	<u>119</u>	<u>1410</u>	<u>394</u>	<u>2804</u>	
<u>14:56</u>		<u>559</u>	<u>60</u>	<u>119</u>	<u>1010</u>	<u>374</u>	<u>2682</u>	
<u>14:59</u>		<u>559</u>	<u>60</u>	<u>119</u>	<u>981</u>	<u>360</u>	<u>2749</u>	
<u>15:02</u>		<u>560</u>	<u>60</u>	<u>119</u>	<u>989</u>	<u>356</u>	<u>2790</u>	
<u>15:05</u>		<u>560</u>	<u>60</u>	<u>119</u>	<u>971</u>	<u>348</u>	<u>2841</u>	<u>2216</u>

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: DTW Units
<u>11/19/20</u>	<u>560</u>	<u>60</u>	<u>119</u>	<u>971</u>	<u>348</u>	<u>2841</u>	<u>ft</u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: From filter clear | Odor: _____ | Color: _____ | Other: _____

Weather Conditions (required daily, or as conditions change): _____ | Direction/Speed: _____ | Outlook: _____ | Precipitation: Y or N

FIELD COMMENTS

Specific Comments (including purge/well volume calculations if required):
9/6 30 psi | Sample clear

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/19/20 | Travis Berndahl | [Signature] | SCS

Date | Name | Signature | Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: DUSL
 Site No.: MW-33A
 Sample Point: MW-33A
 Sample ID: _____

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO: 11/20/20 9:33 20
 PURGE DATE (MM DD YY) PURGE TIME (2400 Hr Clock) ELAPSED HRS (hrs:min)
 WATER VOL IN CASING (Gallons) ACTUAL VOL PURGED (Gallons) WELL VOLS PURGED

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT: Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: _____ C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 µ or _____ µ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA: Well Elevation (at TOC) _____ (ft/msl) Depth to Water (DTW) (from TOC) 445 (ft) Groundwater Elevation (site datum, from TOC) _____ (ft/msl)
 Total Well Depth (from TOC) _____ (ft) Stick Up (from ground elevation) _____ (ft) Casing ID 02 (in) Casing Material PVC
 Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>9:33</u>	<u>300</u>	<u>5.44</u>	<u>87</u>	<u>9.48</u>		<u>12.37</u>	<u>119.16</u>
	<u>9:38</u>		<u>5.58</u>	<u>79</u>	<u>9.19</u>		<u>11.14</u>	<u>113.71</u>	
	<u>9:41</u>		<u>5.65</u>	<u>86</u>	<u>9.15</u>		<u>10.80</u>	<u>111.83</u>	
	<u>9:44</u>		<u>5.72</u>	<u>94</u>	<u>9.09</u>		<u>10.62</u>	<u>97.0</u>	
	<u>9:47</u>		<u>5.75</u>	<u>94</u>	<u>9.08</u>		<u>10.50</u>	<u>86.1</u>	
	<u>9:50</u>		<u>5.79</u>	<u>94</u>	<u>9.07</u>		<u>10.41</u>	<u>73.3</u>	
	<u>9:53</u>		<u>5.84</u>	<u>98</u>	<u>9.04</u>	<u>613</u>	<u>0.35</u>	<u>63.1</u>	

Suggested range for 3 consec. readings or note Permit/State requirements:

+/- 0.2

+/- 3%

--

--

+/- 10%

+/- 25 mV

Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA: SAMPLE DATE (MM DD YY) 11/20/20 pH (std) 5.84 CONDUCTANCE (µmhos/cm @ 25°C) 98 TEMP. (°C) 9.04 TURBIDITY (ntu) 613 DO (mg/L-ppm) 0.35 eH/ORP (mV) 63.1 Other: DTW Units: 4.45

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: _____ Color: _____ Other: _____
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):
10/3/20

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11, 20, 20 Sam Graber [Signature] SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: DVSL
 Site No.: Sample Point: MW-330
Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO
 PURGE DATE: 11/20/20 PURGE TIME: 10:13 ELAPSED HRS: 020
(MM DD YY) (2400 Hr Clock) (hrs:min)
 WATER VOL IN CASING: _____ ACTUAL VOL PURGED: _____ WELL VOLS PURGED: _____
(Gallons) (Gallons)
 Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: or
 Filter Device: or 0.45 μ or _____ μ (circle or fill in)
 Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other: _____
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): _____ (ft/msl) Depth to Water (DTW) (from TOC): 181 (ft)
 Groundwater Elevation (site datum, from TOC): _____ (ft/msl)
 Total Well Depth (from TOC): _____ (ft) Stick Up (from ground elevation): _____ (ft)
 Casing ID: 02 (in) Casing Material: PVC
 Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit <small>(gpm/min)</small>	pH (std)	Conductance (SC/EC) <small>(μmhos/cm @ 25°C)</small>	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>10:13</u>	<u>300</u> 1 st	<u>6.40</u> 1 st	<u>156</u>	<u>8.49</u>		<u>0.50</u>	<u>459</u>
	<u>10:18</u>	<u>1</u> 2 nd	<u>7.18</u> 2 nd	<u>157</u>	<u>8.72</u>		<u>0.51</u>	<u>152</u>	
	<u>10:21</u>	<u>1</u> 3 rd	<u>7.31</u> 3 rd	<u>158</u>	<u>8.30</u>		<u>0.38</u>	<u>-101</u>	
	<u>10:24</u>	<u>1</u> 4 th	<u>7.56</u> 4 th	<u>158</u>	<u>8.20</u>		<u>0.25</u>	<u>-357</u>	
	<u>10:27</u>	<u>1</u>	<u>7.30</u>	<u>159</u>	<u>8.28</u>		<u>0.25</u>	<u>-456</u>	
	<u>10:30</u>	<u>1</u>	<u>7.63</u>	<u>160</u>	<u>8.28</u>		<u>0.24</u>	<u>-529</u>	
	<u>10:33</u>	<u>1</u>	<u>7.67</u>	<u>158</u>	<u>8.30</u>	<u>246</u>	<u>0.23</u>	<u>-617</u>	

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: - D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE: 11/20/20 pH: 7.67 CONDUCTANCE: 158 TEMP.: 8.30 TURBIDITY: 246 DO: 0.23 eH/ORP: -617 Other: 1.81
(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

FIELD COMMENTS
 Sample Appearance: Clear Odor: - Color: - Other: particulates in sample
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required): _____

 I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Sam Grabe [Signature] SCS

 Date Name Signature Company
 DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 02SL
 Site No.: Sample Point: NW-116
Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO
 PURGE DATE: 11/20/20 PURGE TIME: 11:32 ELAPSED HRS: 20
 WATER VOL IN CASING (Gallons): ACTUAL VOL PURGED (Gallons): WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: _____
 Filter Device: Y or N 0.45 μ or _____ μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 62.89 (ft)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft)
 Casing ID: 02 (in) Casing Material: PVC
Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit <u>M/min</u>	pH (std)	Conductance (SC/EC) (μ mhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>11:32</u>	<u>300</u>	<u>6.72</u>	<u>131</u>	<u>8.65</u>		<u>1.95</u>	<u>103.2</u>
	<u>11:37</u>		<u>6.23</u>	<u>148</u>	<u>8.76</u>		<u>1.86</u>	<u>127.4</u>	
	<u>11:40</u>		<u>6.20</u>	<u>148</u>	<u>8.53</u>		<u>1.62</u>	<u>131.0</u>	
	<u>11:43</u>		<u>6.17</u>	<u>148</u>	<u>8.60</u>		<u>1.55</u>	<u>136.1</u>	
	<u>11:46</u>		<u>6.16</u>	<u>148</u>	<u>8.59</u>		<u>1.53</u>	<u>139.8</u>	
	<u>11:49</u>		<u>6.15</u>	<u>148</u>	<u>8.59</u>		<u>1.53</u>	<u>143.1</u>	
	<u>11:52</u>	<u>↓</u>	<u>6.14</u>	<u>151</u>	<u>8.57</u>	<u>9.34</u>	<u>1.52</u>	<u>146.1</u>	

Suggested range for 3 consec. readings or note Permit/State requirements: pH ± 0.2 , Conductance $\pm 3\%$, D.O. $\pm 10\%$, eH/ORP ± 25 mV, Turbidity Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/20/20 pH (std): 6.14 CONDUCTANCE (μ mhos/cm @ 25°C): 151 TEMP. (°C): 8.57 TURBIDITY (ntu): 9.34 DO (mg/L-ppm): 1.52 eH/ORP (mV): 146.1 Other: DTW
 Units: 62.89
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: _____ Color: _____ Other: _____
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
9/6/45
DTW: 63.21 5 minutes after sampling

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Sam Graber [Signature] SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 055L
 Site No.: Sample Point: MW-32
Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/20/20 PURGE TIME (2400 Hr Clock): 12:35 ELAPSED HRS (hrs:min): :20
 WATER VOL IN CASING (Gallons): ACTUAL VOL PURGED (Gallons): WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other:
 Filter Device: Y or N | 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other:
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 133 (ft) Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft) Casing ID: 02 (in) Casing Material: PVC
Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (umhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>12:35</u>	<u>300</u>	<u>6.29</u>	<u>308</u>	<u>1073</u>		<u>4.71</u>	<u>146.1</u>
	<u>12:40</u>		<u>6.62</u>	<u>333</u>	<u>1082</u>		<u>0.66</u>	<u>39.6</u>	
	<u>12:43</u>		<u>6.63</u>	<u>331</u>	<u>1083</u>		<u>0.57</u>	<u>33.2</u>	
	<u>12:46</u>		<u>6.64</u>	<u>329</u>	<u>1084</u>		<u>0.51</u>	<u>10.6</u>	
	<u>12:49</u>		<u>6.63</u>	<u>329</u>	<u>1085</u>		<u>0.49</u>	<u>5.3</u>	
	<u>12:52</u>		<u>6.62</u>	<u>329</u>	<u>1084</u>		<u>0.48</u>	<u>2.2</u>	
	<u>12:55</u>	<u>↓</u>	<u>6.62</u>	<u>329</u>	<u>1084</u>	<u>2.02</u>	<u>0.47</u>	<u>0.4</u>	

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/20/20 pH (std): 6.62 CONDUCTANCE (umhos/cm @ 25°C): 329 TEMP. (°C): 10.84 TURBIDITY (ntu): 2.02 DO (mg/L-ppm): 0.47 eH/ORP (mV): 0.4 Other: 0.2 Units: 1.33
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Sam Graber SCS
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: 025C
 Site No.: LP-LCD
 Sample Point: LP-LCD
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE: 11/20/20 (MM DD YY)
 PURGE TIME: 1345 (2400 Hr Clock)
 ELAPSED HRS: 00 (hrs:min)
 WATER VOL IN CASING: _____ (Gallons)
 ACTUAL VOL PURGED: _____ (Gallons)
 WELL VOLS PURGED: _____

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: (Y) or (N)
 Purging Device: _____ A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: _____ C-QED Bladder Pump F-Dipper/Bottle
 X-Other: _____
 Filter Device: (Y) or (N) 0.45 μ or _____ μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other: _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): _____ (ft/msl)
 Depth to Water (DTW) (from TOC): _____ (ft)
 Groundwater Elevation (site datum, from TOC): _____ (ft/msl)
 Total Well Depth (from TOC): _____ (ft)
 Stick Up (from ground elevation): _____ (ft)
 Casing ID: _____ (in) Casing Material: _____
 Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	1st	<u>1345</u>		<u>7.41</u>	<u>3627</u>	<u>9.26</u>	<u>8.22</u>	<u>8.42</u>	<u>1013</u>
2nd									
3rd									
4th									

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/20/20
 pH (std): 7.41
 CONDUCTANCE (umhos/cm @ 25°C): 3627
 TEMP. (°C): 9.26
 TURBIDITY (ntu): 8.22
 DO (mg/L-ppm): 8.42
 eH/ORP (mV): 1013
 Other: _____ Units: _____
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.)

Sample Appearance: yellowish Odor: --- Color: --- Other: ---
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: --- Outlook: --- Precipitation: (Y) or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Sam Greber _____ _____ SCS
 _____ _____ _____ _____
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: WM-0VSL
 Site No.:
 Sample Point: L-1NF
L-1NF Sample # 112020

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO	<u>112020</u>	<u>1000</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

Purging and Sampling Equipment... Dedicated: Y or N

Purging Device: B A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: B C-QED Bladder Pump F-Dipper/Bottle
 X-Other:

Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) (ft) Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft) Casing ID (in) Casing Material

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>10:00</u>	<u>1st</u>	<u>7.11</u>	<u>5228</u>	<u>12.1</u>	<u>4.2</u>	<u>1.2</u>	<u>-36.5</u>
		2 nd							
		3 rd							
		4 th							

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
<u>112020</u>	<u>7.11</u>	<u>5228</u>	<u>12.1</u>	<u>4.2</u>	<u>1.2</u>	<u>-36.5</u>	<u> </u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: N/A Color: yellow Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: 0mph Outlook: cloudy Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/20/20 Dylan Branscum Dylan Bunn Aspect Consulting
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: WM-0VSL
 Site No.: [][][][][][]
 Sample Point: OBWL-TD
OBWL-TD-112020

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO
 PURGE DATE: 11/20/20 (MM DD YY)
 PURGE TIME: 09:00 (2400 Hr Clock)
 ELAPSED HRS: [][]:[][] (hrs:min)
 WATER VOL IN CASING: [][][][][][] (Gallons)
 ACTUAL VOL PURGED: [][][][][][] (Gallons)
 WELL VOLS PURGED: [][][][][][]

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: B A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: B C-QED Bladder Pump F-Dipper/Bottle
 X-Other: _____
 Filter Device: Y or N | 0.45 μ | or [][] μ (circle or fill in)
 Filter Type: _____
 Sample Tube Type: _____
 A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____
 A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): [][][][][][] (ft/msl)
 Depth to Water (DTW) (from TOC): [][][][][][] (ft)
 Groundwater Elevation (site datum, from TOC): [][][][][][] (ft/msl)
 Total Well Depth (from TOC): [][][][][][] (ft)
 Stick Up (from ground elevation): [][][][][][] (ft)
 Casing ID: [][] (in) Casing Material: _____
 Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
<u>09:00</u>	[][] 1 st	<u>7.62</u>	<u>599.4</u>	<u>9.5</u>	<u>3.2</u>	<u>10.5</u>	<u>14.0</u>	<u>8.2</u>
[][]	[][] 2 nd	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][] 3 rd	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][] 4 th	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]
[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]	[][]

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
<u>11/20/20</u>	<u>7.62</u>	<u>599.4</u>	<u>9.5</u>	<u>3.2</u>	<u>10.5</u>	<u>14.0</u>	[][][][]

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: none Color: clear Other: _____
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: 0mph Outlook: Cloudy, 45°F Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required): _____

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Dylan Branscum Dylan Branscum Aspect Consulting
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

	Conductivity	pH4	pH 7	DO	Turbidity	Comments/Exceptions
Date	11/19/20					
Time	4:30					
Weather (sky or precip, temp)	cloudy					
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1421	4.04	7.01			
Post Cal Reading	1413	4.00	7.00	8.5		
Discrepancy	None					
Calib. Successful?	yes					
Calibration by	SEB					
Instrument Type, ID	MP20 / YSI 556		MicoTPW / KACH2000			
Calibration Location	OJSL					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM


Conductivity		pH4	pH 7	DO	Turbidity	Comments/Exceptions
Date	11/19/20					
Time	930					
Weather (sky or precip, temp)	Cloudy					
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1410	4.03	6.90			
Post Cal Reading	1413	4.00	7.00	8.5		
Discrepancy	None					
Calib. Successful?	yes					
Calibration by	SEB					
Instrument Type, ID	MP20 / YSI 556		Penta 1		MicoTPW / HACH2000	
Calibration Location	OUST					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Conductivity	pH4	pH 7	DO	Turbidity	Comments/Exceptions
Date	11/20/20				
Time	830				
Weather (sky or precip, temp)	rainy				
Type of Calibration	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5 1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1398	4.02	6.93	9.53	
Post Cal Reading	1413	4.00	7.00	8.5	
Discrepancy	No				
Calib. Successful?	YES				
Calibration by	SEB				
Instrument Type, ID	MP20	/	YSI 556	MicoTPW (HACH2000)	
Calibration Location	DWSL				

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)



Appendix B

November 2020 Data Validation & Analytical Data Reports



**DATA VALIDATION REPORT – OLYMPIC VIEW SANITARY LANDFILL
2020 – SEMI-ANNUAL EVENT NO. 2**

Project Details

Project No.	04204027.23	Site Name	Olympic View Sanitary Landfill
Data Validator	Sam Graber	Data Level	Level II
Date	1/15/21	DV Tier	Tier I
QA Document	Olympic View Sanitary Landfill Sampling Analysis Plan-rev 1.1, August 2, 2017		

Sample Login Summary

Sample Group	Sample Login Comments	Analytical Lab (Primary)
280-143032-1	Because the original TDS result from MW-43 was not consistent with historic results, reanalysis for this parameter was analyzed outside the specified holding time. Only the reanalysis result was reported in the final submission.	TestAmerica, Denver CO
280-143078-1	No comments.	TestAmerica, Denver CO
280-143079-1	No comments.	TestAmerica, Denver CO
280-143080-1	No comments.	TestAmerica, Denver CO

Analytical Summary

Sample Group	Analyses					
	Qtrly General Chemistry ¹	Qtrly Metals	Qtrly VOCs	TSS	BOD/COD	L Pond Analytes ²
280-143032-1	X	X	X	X	--	--
280-143078-1	X	X	X	X	--	--
280-143079-1	X	X	X	X	X	--
280-143080-1	X	X	X	X	X	X

¹ General Chemistry (NO₃, Cl, SO₄, NH₄, Alkalinity, Bicarbonate, TDS, TOC)

² L Pond analytes (pH, Total metals, TSS, BOD, COD) - not collected by SCS

Laboratory Quality Assurance Samples

Lab QA Samples	Notes	Comments
Surrogates/Organics	See case narrative.	The LP-LCD sample was analyzed at a dilution for Method 8260C due to a foamy matrix. As a result, the reporting limits were elevated (280-143079-1, 280-143080-1).
MB	See case narrative.	All data acceptable and/or within established control limits.
DUP	See case narrative.	No comments.
LCS/LCSD	See case narrative.	The Biochemical Oxygen Demand Method 5210B glucose-glutamic standard (LCS) recovered slightly below the lower control limit specified in the method. Because the 48-hour holding time expired, reanalysis was not performed (280-143079-1, 280-143080-1).
MS/MSD	See case narrative.	All data acceptable and/or within established control limits.
General Chemistry	See case narrative.	All data acceptable and/or within established control limits.
Metals	See case narrative.	All data acceptable and/or within established control limits.

Field Quality Assurance Samples

Field QA Samples	Sample Group	Analytes	Notes
Trip Blank	280-143080-1	Tetrahydrofuran	Tetrahydrofuran was detected at a level above the requested reporting limit. The analyte was also found in the associated sample, L-INF, at a level 5 times greater than the trip blank. Therefore, no corrective action was taken.

Detailed Field Replicate Evaluation

Analyte	Units	MW-19C	MW-19C (DUP-1)	RPD (%)	MW-15R	MW-15R (DUP-2)	RPD (%)
Alkalinity, Bicarbonate (As CaCO ₃)	mg/L	81	80	1.24	75	83	10.13
Alkalinity, Total (As CaCO ₃)	mg/L	81	80	1.24	75	83	10.13
Ammonia (as N)	mg/L	0.45	0.46	2.20	NA	NA	NA
Antimony, Total	mg/L	NA	NA	NA	0.001 U	0.001	0.00
Barium, Total	mg/L	0.004	0.0058	36.73	0.0043	0.0041	4.76
Beryllium, Total	mg/L	NA	NA	NA	0.001 U	0.0002 J	133.33
Calcium, Dissolved	mg/L	14	14	0.00	14	14	0.00
Chromium, Total	mg/L	NA	NA	NA	0.00056 J	0.0005 J	11.32
Iron, Dissolved	mg/L	0.13	0.13	0.00	NA	NA	NA
Iron, Total	mg/L	0.2	0.2	0.00	NA	NA	NA
Magnesium, Dissolved	mg/L	7.1	7.1	0.00	8.6	8.5	1.17
Manganese, Dissolved	mg/L	1	1	0.00	0.0013 B	0.0012 B	8.00
Manganese, Total	mg/L	1.2	1.2	0.00	0.0015	0.0015	0.00
Nickel, Total	mg/L	0.00032 J B	0.00038 J B	17.14	0.0012 J B	0.0012 J B	0.00
Potassium, Dissolved	mg/L	1.2	1.2	0.00	0.72 J	0.73 J	1.38
Silver, Total	mg/L	NA	NA	NA	0.002 U	0.000037 J	192.73
Sodium, Dissolved	mg/L	6.5	6.5	0.00	5.6	5.6	0.00
Sulfate	mg/L	NA	NA	NA	5	5 U	0.00
Total Dissolved Solids (TDS)	mg/L	130	130	0.00	140	100	33.33
Trichloroethene	ug/L	1.1	1.2	8.70	NA	NA	NA
Vanadium, Total	mg/L	NA	NA	NA	0.0039	0.0037	5.26
Vinyl chloride	ug/L	0.044	0.047	6.59	NA	NA	NA

* RPD based on result as compared to the Reporting Limit (RL) for a non-detection in the compared sample

U = Result was not detected at or above a concentration greater than the RL. Value provided is the RL for the given sample.

NA = Not applicable. Compared samples were below the RL for a given parameter.

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B = Compound was found in the blank and sample.

Lab Qualifier Definitions

Lab Qualifiers	Description	Lab Group
B	Compound was found in the blank and sample.	280-143032-1, 280-143078-1, 280-143079-1, 280-143080-1
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	280-143032-1, 280-143078-1, 280-143079-1, 280-143080-1

Lab Qualifiers	Description	Lab Group
E	Result exceeded calibration range.	280-143032-1, 280-143078-1
F1	MS and/or MSD Recovery is outside acceptance limits.	280-143032-1, 280-143078-1, 280-143079-1, 280-143080-1
F2	MS/MSD RPD exceeds control limits	
H	Sample was prepped or analyzed beyond the specified holding time.	280-143032-1
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.	280-143032-1, 280-143078-1, 280-143079-1, 280-143080-1
*	LCS or LCSD is outside acceptance limits.	280-143079-1, 280-143080-1
^	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrumental related QC is outside acceptance limits.	280-143032-1, 280-143078-1, 280-143079-1, 280-143080-1

Additional Qualifier Definitions

Qualifiers	Description	Lab Group
U	Analyte was not detected above the applicable RL or MDL.	

Additional Items of Note

The analytes Acrolein, Acrylonitrile, and 2-Chloroethyl Vinyl Ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limits for the analytes is not reliable or defensible.

Qualified Data and Usability

Lab qualifiers are noted. All data, as qualified, are acceptable for use.

ANALYTICAL REPORT

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-143032-1

Client Project/Site: WA02|Olympic View Sanitary LF -
Groundwater

Sampling Event: Semiannual GW Appl/II - May Nov

For:

Waste Management
2615 Davis Street
San Leandro, California 94577

Attn: Mr. Patrick Madej



Authorized for release by:
12/18/2020 10:55:56 AM

Betsy Sara, Project Manager II
(303)736-0189
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Eurofins TestAmerica, Denver

Definitions/Glossary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

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Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Job ID: 280-143032-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF - Groundwater

Report Number: 280-143032-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The samples were received on 11/20/2020; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 3.5° C, 4.8° C, 4.8° C and 5.5° C.

Holding Times

Due to an anomalous concentration relative to historical Total Dissolved Solids (TDS) in the sample MW-43, reanalysis was performed six days outside of the 7-day holding time. The reanalysis result reflected the historical TDS result for this sample, and therefore the reanalysis result is reported in this submission. The original anomalous result for TDS was 140 mg/L. The reanalysis result for TDS was 33 mg/L.

All other holding times were within established control limits.

Method Blanks

Total Manganese and Total Nickel Method 6020B were detected in the Method Blank below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

All other Method Blank recoveries were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Trichloroethene Method 8260C and Chloride Method 300.0. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

Sample MW-15R was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Barium, Total Cadmium, Total Chromium, Total Copper, Total Lead and Total Nickel below the lower control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Job ID: 280-143032-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Sulfate Method 300.0 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

All other MS and MSD samples were within established control limits.

Organics

The analytes Acrolein, Acrylonitrile and 2-chloroethyl vinyl ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limits for the analytes Acrolein, Acrylonitrile and 2-chloroethyl vinyl ether is not reliable or defensible.

Metals

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Thallium. Because the data are considered biased high and Total Thallium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Antimony. Because the data are considered biased high and Total Antimony was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

General Comments

The analysis for Volatile Organics by Method 8260C was performed by TestAmerica Buffalo. Their address and phone number are:
TestAmerica Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228
Phone: 716-691-2600

The analysis for Arsenic Method 200.8 was performed by ARI. ARI is not a TestAmerica approved subcontract laboratory and assumes no liability for the data. Their address and phone number are:
Analytical Resources, Inc.
4611 S. 134th Place
Tukwila, WA 98168-3240
Phone: 206-695-6200

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-36A

Lab Sample ID: 280-143032-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.030	J	0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	8.8		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.1		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.83	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	6.3		1.0	0.37	mg/L	1		6010D	Dissolved
Antimony, Total	0.00082	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Barium, Total	0.0023		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.010		0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.00057	J B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0014	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0028		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Nitrate as N	0.64		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	61		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	61		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	120		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	31.80				ft	1		Field Sampling	Total/NA
Specific Conductivity	119				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	3.24				mg/L	1		Field Sampling	Total/NA
eH	227.8				millivolts	1		Field Sampling	Total/NA
Turbidity	1.00				NTU	1		Field Sampling	Total/NA
Temperature	8.79				Degrees C	1		Field Sampling	Total/NA
pH	5.90				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-15R

Lab Sample ID: 280-143032-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	14		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.6		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.72	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.6		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0043	F1	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00056	J F1	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.0015	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0012	J F1 B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0039		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0013		0.0010	0.00031	mg/L	1		6020B	Dissolved
Sulfate	5.0		5.0	5.0	mg/L	1		300.0	Total/NA
Alkalinity, Total (As CaCO3)	75		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	75		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	140		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	19.47				ft	1		Field Sampling	Total/NA
Specific Conductivity	156				umhos/cm	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-15R (Continued)

Lab Sample ID: 280-143032-2

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Dissolved Oxygen	0.44				mg/L	1		Field Sampling	Total/NA
eH	188.3				millivolts	1		Field Sampling	Total/NA
Turbidity	0.83				NTU	1		Field Sampling	Total/NA
Temperature	9.26				Degrees C	1		Field Sampling	Total/NA
pH	6.44				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP2

Lab Sample ID: 280-143032-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	14		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.5		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.73	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.6		1.0	0.37	mg/L	1		6010D	Dissolved
Antimony, Total	0.0010		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Barium, Total	0.0041		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.00020	J	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00050	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.0015	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0012	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Silver, Total	0.000037	J	0.0020	0.000033	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0037		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0012		0.0010	0.00031	mg/L	1		6020B	Dissolved
Alkalinity, Total (As CaCO3)	83		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	83		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	100		5.0	5.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-34C

Lab Sample ID: 280-143032-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.023		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Iron, Total	10		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	19		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.59		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.2		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.80	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	10		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.052		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.00023	J	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00052	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0025		0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.00024	J	0.0010	0.00018	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-34C (Continued)

Lab Sample ID: 280-143032-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese, Total	0.87	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00058	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0015	J	0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.51		0.0010	0.00031	mg/L	1		6020B	Dissolved
Alkalinity, Total (As CaCO3)	95		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	95		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	150		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	30		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Depth to water	42.17				ft	1		Field Sampling	Total/NA
Specific Conductivity	192				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.34				mg/L	1		Field Sampling	Total/NA
eH	2.7				millivolts	1		Field Sampling	Total/NA
Turbidity	81.3				NTU	1		Field Sampling	Total/NA
Temperature	12.10				Degrees C	1		Field Sampling	Total/NA
pH	6.67				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-34A

Lab Sample ID: 280-143032-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.11		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	16		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.5		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.61	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	9.3		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0036		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0017	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.0013	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0016	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0043		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00035	J	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.51		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	88		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	88		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	140		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	40.36				ft	1		Field Sampling	Total/NA
Specific Conductivity	186				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.77				mg/L	1		Field Sampling	Total/NA
eH	132.0				millivolts	1		Field Sampling	Total/NA
Turbidity	1.56				NTU	1		Field Sampling	Total/NA
Temperature	11.25				Degrees C	1		Field Sampling	Total/NA
pH	6.18				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-39

Lab Sample ID: 280-143032-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0076		0.0030	0.0012	mg/L	1		6010D	Total Recoverable
Iron, Total	36		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	37		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.5		0.050	0.026	mg/L	1		6010D	Dissolved
Sodium, Dissolved	9.2		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.014		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00077	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.49	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0030	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0013	J	0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.50		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	4.6		3.0	3.0	mg/L	1		300.0	Total/NA
Ammonia (as N)	0.37		0.030	0.030	mg/L	1		350.1	Total/NA
Nitrate as N	0.11		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	110		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	110		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	180		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	12		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	2.9		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	19.53				ft	1		Field Sampling	Total/NA
Specific Conductivity	268				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.31				mg/L	1		Field Sampling	Total/NA
eH	-25.0				millivolts	1		Field Sampling	Total/NA
Turbidity	2.39				NTU	1		Field Sampling	Total/NA
Temperature	10.82				Degrees C	1		Field Sampling	Total/NA
pH	6.06				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-35

Lab Sample ID: 280-143032-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.048	J	0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.6		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.52	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.2		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0029		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0023	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0015	J	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.00068	J B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0043		0.0020	0.0012	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-35 (Continued)

Lab Sample ID: 280-143032-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc, Total	0.0020	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00033	J	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.43		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	85		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	85		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	110		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	73.60				ft	1		Field Sampling	Total/NA
Specific Conductivity	156				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	5.64				mg/L	1		Field Sampling	Total/NA
eH	31.5				millivolts	1		Field Sampling	Total/NA
Turbidity	1.31				NTU	1		Field Sampling	Total/NA
Temperature	9.58				Degrees C	1		Field Sampling	Total/NA
pH	7.20				SU	1		Field Sampling	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143032-8

No Detections.

Client Sample ID: MW-13B

Lab Sample ID: 280-143032-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	16		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.0		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.46	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.3		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0032		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0028	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0056		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Nitrate as N	0.35		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	84		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	84		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	120		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	63.42				ft	1		Field Sampling	Total/NA
Specific Conductivity	170				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	8.89				mg/L	1		Field Sampling	Total/NA
eH	282.7				millivolts	1		Field Sampling	Total/NA
Turbidity	2.79				NTU	1		Field Sampling	Total/NA
Temperature	9.5				Degrees C	1		Field Sampling	Total/NA
pH	7.64				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-19C

Lab Sample ID: 280-143032-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.044		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Trichloroethene	1.1		1.0	0.46	ug/L	1		8260C	Total/NA
Iron, Total	0.20		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.13		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	7.1		0.050	0.026	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-19C (Continued)

Lab Sample ID: 280-143032-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium, Dissolved	1.2		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	6.5		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0040		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	1.2		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00032	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	1.0		0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.45		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	81		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	81		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	130		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	35.16				ft	1		Field Sampling	Total/NA
Specific Conductivity	167				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.13				mg/L	1		Field Sampling	Total/NA
eH	38.6				millivolts	1		Field Sampling	Total/NA
Turbidity	3.21				NTU	1		Field Sampling	Total/NA
Temperature	10.4				Degrees C	1		Field Sampling	Total/NA
pH	6.75				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-42

Lab Sample ID: 280-143032-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.079		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Cobalt, Total	0.0012	J	0.0030	0.0012	mg/L	1		6010D	Total Recoverable
Iron, Total	24		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	34		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	22		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	12		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	7.3		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	18		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.089		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00070	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	3.9		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0013	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	3.7		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	5.9		3.0	3.0	mg/L	1		300.0	Total/NA
Sulfate	6.6		5.0	5.0	mg/L	1		300.0	Total/NA
Ammonia (as N)	3.6		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	210		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	210		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	250		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	17		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	5.6		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	27.34				ft	1		Field Sampling	Total/NA
Specific Conductivity	465				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.05				mg/L	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-42 (Continued)

Lab Sample ID: 280-143032-11

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
eH	-48.0				millivolts	1		Field Sampling	Total/NA
Turbidity	3.44				NTU	1		Field Sampling	Total/NA
Temperature	12.0				Degrees C	1		Field Sampling	Total/NA
pH	6.45				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-29A

Lab Sample ID: 280-143032-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0026	J	0.0030	0.0012	mg/L	1		6010D	Total Recoverable
Iron, Total	4.5		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	7.0		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	4.1		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	4.1		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.30	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	3.8		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0067		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	1.5		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0021	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	1.4		0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.056		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	44		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	44		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	75		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	1.6		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	11.33				ft	1		Field Sampling	Total/NA
Specific Conductivity	107				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.08				mg/L	1		Field Sampling	Total/NA
eH	54.3				millivolts	1		Field Sampling	Total/NA
Turbidity	3.01				NTU	1		Field Sampling	Total/NA
Temperature	11.6				Degrees C	1		Field Sampling	Total/NA
pH	6.00				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-43

Lab Sample ID: 280-143032-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.81	J	1.0	0.19	ug/L	1		8260C	Total/NA
Iron, Total	0.26		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	4.9		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	2.1		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.59	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	3.0		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0046		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.010		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0077		0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.94		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	23		10	10	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-43 (Continued)

Lab Sample ID: 280-143032-13

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity, Bicarbonate (As CaCO3)	23		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	33	H	5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	1.3		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	22.16				ft	1		Field Sampling	Total/NA
Specific Conductivity	60				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	3.48				mg/L	1		Field Sampling	Total/NA
eH	284.1				millivolts	1		Field Sampling	Total/NA
Turbidity	9.71				NTU	1		Field Sampling	Total/NA
Temperature	11.9				Degrees C	1		Field Sampling	Total/NA
pH	5.60				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP1

Lab Sample ID: 280-143032-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.047		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Trichloroethene	1.2		1.0	0.46	ug/L	1		8260C	Total/NA
Iron, Total	0.20		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.13		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	7.1		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	1.2		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	6.5		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0058		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	1.2		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00038	J B	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	1.0		0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.46		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	80		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	80		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	130		5.0	5.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-13A

Lab Sample ID: 280-143032-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	15		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.7		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.50	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.3		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0025		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0022	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.00046	J	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0037		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Nitrate as N	0.42		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	84		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	84		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	130		5.0	5.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-13A (Continued)

Lab Sample ID: 280-143032-15

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Depth to water	49.13				ft	1		Field Sampling	Total/NA
Specific Conductivity	168				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	8.25				mg/L	1		Field Sampling	Total/NA
eH	298.8				millivolts	1		Field Sampling	Total/NA
Turbidity	2.83				NTU	1		Field Sampling	Total/NA
Temperature	9.4				Degrees C	1		Field Sampling	Total/NA
pH	6.99				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver



Method Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010D	Metals (ICP)	SW846	TAL DEN
6020B	Metals (ICP/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
353.2	Nitrate	EPA	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
Field Sampling	Field Sampling	EPA	TAL DEN
Subcontract	Total Arsenic (ARI)	None	SC0056
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200
- TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
- TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-143032-1	MW-36A	Water	11/19/20 10:25	11/20/20 10:00	
280-143032-2	MW-15R	Water	11/19/20 11:10	11/20/20 10:00	
280-143032-3	DUP2	Water	11/19/20 11:15	11/20/20 10:00	
280-143032-4	MW-34C	Water	11/19/20 12:00	11/20/20 10:00	
280-143032-5	MW-34A	Water	11/19/20 12:45	11/20/20 10:00	
280-143032-6	MW-39	Water	11/19/20 13:48	11/20/20 10:00	
280-143032-7	MW-35	Water	11/19/20 14:50	11/20/20 10:00	
280-143032-8	TRIP BLANK	Water	11/19/20 10:25	11/20/20 10:00	
280-143032-9	MW-13B	Water	11/19/20 11:10	11/20/20 10:00	
280-143032-10	MW-19C	Water	11/19/20 12:23	11/20/20 10:00	
280-143032-11	MW-42	Water	11/19/20 13:21	11/20/20 10:00	
280-143032-12	MW-29A	Water	11/19/20 14:10	11/20/20 10:00	
280-143032-13	MW-43	Water	11/19/20 15:05	11/20/20 10:00	
280-143032-14	DUP1	Water	11/19/20 12:30	11/20/20 10:00	
280-143032-15	MW-13A	Water	11/19/20 10:30	11/20/20 10:00	

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/25/20 22:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		50 - 150					11/25/20 22:31	1
TBA-d9 (Surr)	81		50 - 150					11/25/20 22:31	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/25/20 22:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		50 - 150					11/25/20 22:55	1
TBA-d9 (Surr)	82		50 - 150					11/25/20 22:55	1

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/25/20 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	112		50 - 150					11/25/20 23:19	1
TBA-d9 (Surr)	97		50 - 150					11/25/20 23:19	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.023		0.020	0.0040	ug/L			11/25/20 23:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		50 - 150					11/25/20 23:43	1
TBA-d9 (Surr)	94		50 - 150					11/25/20 23:43	1

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 00:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		50 - 150					11/26/20 00:07	1
TBA-d9 (Surr)	80		50 - 150					11/26/20 00:07	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 00:31	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		50 - 150		11/26/20 00:31	1
TBA-d9 (Surr)	76		50 - 150		11/26/20 00:31	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L	-		11/26/20 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		50 - 150		11/26/20 00:56	1
TBA-d9 (Surr)	73		50 - 150		11/26/20 00:56	1

Client Sample ID: TRIP BLANK
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L	-		11/26/20 01:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		50 - 150		11/26/20 01:20	1
TBA-d9 (Surr)	78		50 - 150		11/26/20 01:20	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L	-		11/26/20 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		50 - 150		11/26/20 01:44	1
TBA-d9 (Surr)	79		50 - 150		11/26/20 01:44	1

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.044		0.020	0.0040	ug/L	-		11/26/20 02:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		50 - 150		11/26/20 02:09	1
TBA-d9 (Surr)	71		50 - 150		11/26/20 02:09	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.079		0.020	0.0040	ug/L	-		11/26/20 02:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	103		50 - 150		11/26/20 02:33	1
TBA-d9 (Surr)	81		50 - 150		11/26/20 02:33	1

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Client Sample Results

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		50 - 150					11/26/20 02:57	1
TBA-d9 (Surr)	96		50 - 150					11/26/20 02:57	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		50 - 150					11/26/20 03:21	1
TBA-d9 (Surr)	86		50 - 150					11/26/20 03:21	1

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.047		0.020	0.0040	ug/L			11/26/20 03:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	104		50 - 150					11/26/20 03:45	1
TBA-d9 (Surr)	79		50 - 150					11/26/20 03:45	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 04:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		50 - 150					11/26/20 04:09	1
TBA-d9 (Surr)	80		50 - 150					11/26/20 04:09	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 13:12	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 13:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 13:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 13:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 13:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 13:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 13:12	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 13:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 13:12	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 13:12	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 13:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 13:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 13:12	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 13:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 13:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 13:12	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 13:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 13:12	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 13:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 13:12	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 13:12	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 13:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 13:12	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 13:12	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 13:12	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 13:12	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 13:12	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 13:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 13:12	1
Acetone	ND		10	3.0	ug/L			11/27/20 13:12	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 13:12	1
Acrolein	ND		20	0.91	ug/L			11/27/20 13:12	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 13:12	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 13:12	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 13:12	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 13:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 13:12	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 13:12	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 13:12	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 13:12	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 13:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 13:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 13:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 13:12	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 13:12	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 13:12	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 13:12	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 13:12	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 13:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 13:12	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 13:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 13:12	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 13:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 13:12	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 13:12	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 13:12	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 13:12	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 13:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 13:12	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 13:12	1
Hexane	ND		10	0.40	ug/L			11/27/20 13:12	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 13:12	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 13:12	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 13:12	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 13:12	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 13:12	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 13:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 13:12	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 13:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 13:12	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 13:12	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 13:12	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 13:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 13:12	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 13:12	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 13:12	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 13:12	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 13:12	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 13:12	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 13:12	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 13:12	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 13:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 13:12	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 13:12	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 13:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 13:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 13:12	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 13:12	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 13:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 13:12	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 13:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 13:12	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Hexachloroethane TIC</i>	<i>ND</i>		<i>ug/L</i>			<i>67-72-1</i>		<i>11/27/20 13:12</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>98</i>		<i>77 - 120</i>		<i>11/27/20 13:12</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>91</i>		<i>73 - 120</i>		<i>11/27/20 13:12</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>94</i>		<i>80 - 120</i>		<i>11/27/20 13:12</i>	<i>1</i>

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 13:36	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 13:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 13:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 13:36	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 13:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 13:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 13:36	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 13:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 13:36	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 13:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 13:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 13:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 13:36	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 13:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 13:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 13:36	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 13:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 13:36	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 13:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 13:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 13:36	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 13:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 13:36	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 13:36	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 13:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 13:36	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 13:36	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 13:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 13:36	1
Acetone	ND		10	3.0	ug/L			11/27/20 13:36	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 13:36	1
Acrolein	ND		20	0.91	ug/L			11/27/20 13:36	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 13:36	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 13:36	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 13:36	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 13:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 13:36	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 13:36	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 13:36	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 13:36	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 13:36	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 13:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 13:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 13:36	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 13:36	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 13:36	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 13:36	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 13:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 13:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 13:36	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 13:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 13:36	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 13:36	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 13:36	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 13:36	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 13:36	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 13:36	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 13:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 13:36	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 13:36	1
Hexane	ND		10	0.40	ug/L			11/27/20 13:36	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 13:36	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 13:36	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 13:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 13:36	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 13:36	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 13:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 13:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 13:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 13:36	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 13:36	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 13:36	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 13:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 13:36	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 13:36	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 13:36	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 13:36	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 13:36	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 13:36	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 13:36	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 13:36	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 13:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 13:36	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 13:36	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 13:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 13:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 13:36	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 13:36	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 13:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 13:36	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 13:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 13:36	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/27/20 13:36	1
4-Bromofluorobenzene (Surr)	92		73 - 120		11/27/20 13:36	1
Toluene-d8 (Surr)	96		80 - 120		11/27/20 13:36	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 14:01	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 14:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 14:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 14:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 14:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 14:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 14:01	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 14:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 14:01	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 14:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 14:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 14:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 14:01	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 14:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 14:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 14:01	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 14:01	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 14:01	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 14:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 14:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 14:01	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 14:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 14:01	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 14:01	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 14:01	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 14:01	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 14:01	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 14:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 14:01	1
Acetone	ND		10	3.0	ug/L			11/27/20 14:01	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 14:01	1
Acrolein	ND		20	0.91	ug/L			11/27/20 14:01	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 14:01	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 14:01	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 14:01	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 14:01	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 14:01	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 14:01	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 14:01	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 14:01	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 14:01	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 14:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 14:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 14:01	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 14:01	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 14:01	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 14:01	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 14:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 14:01	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 14:01	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 14:01	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 14:01	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 14:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 14:01	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 14:01	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 14:01	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 14:01	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 14:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 14:01	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 14:01	1
Hexane	ND		10	0.40	ug/L			11/27/20 14:01	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 14:01	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 14:01	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 14:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 14:01	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 14:01	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 14:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 14:01	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 14:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 14:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 14:01	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 14:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 14:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 14:01	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 14:01	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 14:01	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 14:01	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 14:01	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 14:01	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 14:01	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 14:01	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 14:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 14:01	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 14:01	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 14:01	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 14:01	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 14:01	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 14:01	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 14:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 14:01	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 14:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 14:01	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 14:01	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/27/20 14:01	1
4-Bromofluorobenzene (Surr)	103		73 - 120		11/27/20 14:01	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		11/27/20 14:01	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 14:27	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 14:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 14:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 14:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 14:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 14:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 14:27	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 14:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 14:27	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 14:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 14:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 14:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 14:27	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 14:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 14:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 14:27	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 14:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 14:27	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 14:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 14:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 14:27	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 14:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 14:27	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 14:27	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 14:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 14:27	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 14:27	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 14:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 14:27	1
Acetone	ND		10	3.0	ug/L			11/27/20 14:27	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 14:27	1
Acrolein	ND		20	0.91	ug/L			11/27/20 14:27	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 14:27	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 14:27	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 14:27	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 14:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 14:27	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 14:27	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 14:27	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 14:27	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 14:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 14:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 14:27	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 14:27	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 14:27	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 14:27	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 14:27	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 14:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 14:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 14:27	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 14:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 14:27	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 14:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 14:27	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 14:27	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 14:27	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 14:27	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 14:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 14:27	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 14:27	1
Hexane	ND		10	0.40	ug/L			11/27/20 14:27	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 14:27	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 14:27	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 14:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 14:27	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 14:27	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 14:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 14:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 14:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 14:27	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 14:27	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 14:27	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 14:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 14:27	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 14:27	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 14:27	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 14:27	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 14:27	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 14:27	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 14:27	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 14:27	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 14:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 14:27	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 14:27	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 14:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 14:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 14:27	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 14:27	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 14:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 14:27	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 14:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 14:27	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 14:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					11/27/20 14:27	1
4-Bromofluorobenzene (Surr)	96		73 - 120					11/27/20 14:27	1
Toluene-d8 (Surr)	96		80 - 120					11/27/20 14:27	1

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 14:52	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 14:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 14:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 14:52	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 14:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 14:52	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 14:52	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 14:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 14:52	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 14:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 14:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 14:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 14:52	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 14:52	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 14:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 14:52	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 14:52	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 14:52	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 14:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 14:52	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 14:52	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 14:52	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 14:52	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 14:52	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 14:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 14:52	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 14:52	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 14:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 14:52	1
Acetone	ND		10	3.0	ug/L			11/27/20 14:52	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 14:52	1
Acrolein	ND		20	0.91	ug/L			11/27/20 14:52	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 14:52	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 14:52	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 14:52	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 14:52	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 14:52	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 14:52	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 14:52	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 14:52	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 14:52	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 14:52	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 14:52	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 14:52	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 14:52	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 14:52	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 14:52	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 14:52	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 14:52	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 14:52	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 14:52	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 14:52	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 14:52	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 14:52	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 14:52	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 14:52	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 14:52	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 14:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 14:52	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 14:52	1
Hexane	ND		10	0.40	ug/L			11/27/20 14:52	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 14:52	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 14:52	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 14:52	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 14:52	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 14:52	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 14:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 14:52	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 14:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 14:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 14:52	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 14:52	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 14:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 14:52	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 14:52	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 14:52	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 14:52	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 14:52	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 14:52	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 14:52	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 14:52	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 14:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 14:52	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 14:52	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 14:52	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 14:52	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 14:52	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 14:52	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 14:52	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 14:52	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 14:52	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 14:52	1
Tentatively Identified Compound									
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 14:52	1
Surrogate									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					11/27/20 14:52	1
4-Bromofluorobenzene (Surr)	101		73 - 120					11/27/20 14:52	1
Toluene-d8 (Surr)	101		80 - 120					11/27/20 14:52	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 15:16	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 15:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 15:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 15:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 15:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 15:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 15:16	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 15:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 15:16	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 15:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 15:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 15:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 15:16	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 15:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 15:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 15:16	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 15:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 15:16	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 15:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 15:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 15:16	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 15:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 15:16	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 15:16	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 15:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 15:16	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 15:16	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 15:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 15:16	1
Acetone	ND		10	3.0	ug/L			11/27/20 15:16	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 15:16	1
Acrolein	ND		20	0.91	ug/L			11/27/20 15:16	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 15:16	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 15:16	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 15:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 15:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 15:16	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 15:16	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 15:16	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 15:16	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 15:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 15:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 15:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 15:16	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 15:16	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 15:16	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 15:16	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 15:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 15:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 15:16	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 15:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 15:16	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 15:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 15:16	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 15:16	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 15:16	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 15:16	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 15:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 15:16	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 15:16	1
Hexane	ND		10	0.40	ug/L			11/27/20 15:16	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 15:16	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 15:16	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 15:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 15:16	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 15:16	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 15:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 15:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 15:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 15:16	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 15:16	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 15:16	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 15:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 15:16	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 15:16	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 15:16	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 15:16	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 15:16	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 15:16	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 15:16	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 15:16	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 15:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 15:16	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 15:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.51	ug/L			11/27/20 15:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 15:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 15:16	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 15:16	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 15:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 15:16	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 15:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 15:16	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/27/20 15:16	1
4-Bromofluorobenzene (Surr)	91		73 - 120		11/27/20 15:16	1
Toluene-d8 (Surr)	93		80 - 120		11/27/20 15:16	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 15:41	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 15:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 15:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 15:41	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 15:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 15:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 15:41	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 15:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 15:41	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 15:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 15:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 15:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 15:41	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 15:41	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 15:41	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 15:41	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 15:41	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 15:41	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 15:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 15:41	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 15:41	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 15:41	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 15:41	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 15:41	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 15:41	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 15:41	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 15:41	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 15:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 15:41	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			11/27/20 15:41	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 15:41	1
Acrolein	ND		20	0.91	ug/L			11/27/20 15:41	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 15:41	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 15:41	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 15:41	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 15:41	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 15:41	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 15:41	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 15:41	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 15:41	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 15:41	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 15:41	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 15:41	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 15:41	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 15:41	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 15:41	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 15:41	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 15:41	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 15:41	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 15:41	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 15:41	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 15:41	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 15:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 15:41	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 15:41	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 15:41	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 15:41	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 15:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 15:41	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 15:41	1
Hexane	ND		10	0.40	ug/L			11/27/20 15:41	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 15:41	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 15:41	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 15:41	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 15:41	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 15:41	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 15:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 15:41	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 15:41	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 15:41	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 15:41	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 15:41	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 15:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 15:41	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 15:41	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 15:41	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 15:41	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 15:41	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 15:41	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 15:41	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 15:41	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 15:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 15:41	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 15:41	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 15:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 15:41	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 15:41	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 15:41	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 15:41	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 15:41	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 15:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 15:41	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		11/27/20 15:41	1
4-Bromofluorobenzene (Surr)	100		73 - 120		11/27/20 15:41	1
Toluene-d8 (Surr)	99		80 - 120		11/27/20 15:41	1

Client Sample ID: TRIP BLANK
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 16:06	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 16:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 16:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 16:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 16:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 16:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 16:06	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 16:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 16:06	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 16:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 16:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 16:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 16:06	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 16:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 16:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 16:06	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 16:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 16:06	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 16:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 16:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 16:06	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 16:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 16:06	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK

Date Collected: 11/19/20 10:25

Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 16:06	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 16:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 16:06	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 16:06	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 16:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 16:06	1
Acetone	ND		10	3.0	ug/L			11/27/20 16:06	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 16:06	1
Acrolein	ND		20	0.91	ug/L			11/27/20 16:06	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 16:06	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 16:06	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 16:06	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 16:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 16:06	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 16:06	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 16:06	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 16:06	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 16:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 16:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 16:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 16:06	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 16:06	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 16:06	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 16:06	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 16:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 16:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 16:06	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 16:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 16:06	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 16:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 16:06	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 16:06	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 16:06	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 16:06	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 16:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 16:06	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 16:06	1
Hexane	ND		10	0.40	ug/L			11/27/20 16:06	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 16:06	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 16:06	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 16:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 16:06	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 16:06	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 16:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 16:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 16:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 16:06	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 16:06	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 16:06	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 16:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 16:06	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 16:06	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 16:06	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 16:06	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 16:06	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 16:06	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 16:06	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 16:06	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 16:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 16:06	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 16:06	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 16:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 16:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 16:06	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 16:06	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 16:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 16:06	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 16:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 16:06	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 16:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		11/27/20 16:06	1
4-Bromofluorobenzene (Surr)	90		73 - 120		11/27/20 16:06	1
Toluene-d8 (Surr)	96		80 - 120		11/27/20 16:06	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 16:31	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 16:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 16:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 16:31	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 16:31	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 16:31	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 16:31	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 16:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 16:31	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 16:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 16:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 16:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 16:31	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 16:31	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 16:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 16:31	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 16:31	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 16:31	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 16:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 16:31	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 16:31	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 16:31	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 16:31	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 16:31	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 16:31	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 16:31	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 16:31	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 16:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 16:31	1
Acetone	ND		10	3.0	ug/L			11/27/20 16:31	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 16:31	1
Acrolein	ND		20	0.91	ug/L			11/27/20 16:31	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 16:31	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 16:31	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 16:31	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 16:31	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 16:31	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 16:31	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 16:31	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 16:31	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 16:31	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 16:31	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 16:31	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 16:31	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 16:31	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 16:31	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 16:31	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 16:31	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 16:31	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 16:31	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 16:31	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 16:31	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 16:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 16:31	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 16:31	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 16:31	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 16:31	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 16:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 16:31	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 16:31	1
Hexane	ND		10	0.40	ug/L			11/27/20 16:31	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 16:31	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 16:31	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 16:31	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 16:31	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 16:31	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 16:31	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 16:31	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 16:31	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 16:31	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 16:31	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 16:31	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 16:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 16:31	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 16:31	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 16:31	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 16:31	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 16:31	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 16:31	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 16:31	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 16:31	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 16:31	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 16:31	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 16:31	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 16:31	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 16:31	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 16:31	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 16:31	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 16:31	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 16:31	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 16:31	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 16:31	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Hexachloroethane TIC</i>	<i>ND</i>		<i>ug/L</i>			<i>67-72-1</i>		<i>11/27/20 16:31</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>105</i>		<i>77 - 120</i>		<i>11/27/20 16:31</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>100</i>		<i>73 - 120</i>		<i>11/27/20 16:31</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>97</i>		<i>80 - 120</i>		<i>11/27/20 16:31</i>	<i>1</i>

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 16:56	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 16:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 16:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 16:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 16:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 16:56	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 16:56	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 16:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 16:56	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 16:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 16:56	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 16:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 16:56	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 16:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 16:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 16:56	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 16:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 16:56	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 16:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 16:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 16:56	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 16:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 16:56	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 16:56	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 16:56	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 16:56	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 16:56	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 16:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 16:56	1
Acetone	ND		10	3.0	ug/L			11/27/20 16:56	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 16:56	1
Acrolein	ND		20	0.91	ug/L			11/27/20 16:56	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 16:56	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 16:56	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 16:56	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 16:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 16:56	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 16:56	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 16:56	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 16:56	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 16:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 16:56	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 16:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 16:56	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 16:56	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 16:56	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 16:56	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 16:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 16:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 16:56	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 16:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 16:56	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 16:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 16:56	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 16:56	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 16:56	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 16:56	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 16:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 16:56	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 16:56	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	ND		10	0.40	ug/L			11/27/20 16:56	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 16:56	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 16:56	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 16:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 16:56	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 16:56	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 16:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 16:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 16:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 16:56	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 16:56	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 16:56	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 16:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 16:56	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 16:56	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 16:56	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 16:56	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 16:56	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 16:56	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 16:56	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 16:56	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 16:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 16:56	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 16:56	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 16:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 16:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 16:56	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 16:56	1
Trichloroethene	1.1		1.0	0.46	ug/L			11/27/20 16:56	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 16:56	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 16:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 16:56	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Hexachloroethane TIC</i>	<i>ND</i>		<i>ug/L</i>			<i>67-72-1</i>		<i>11/27/20 16:56</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>105</i>		<i>77 - 120</i>		<i>11/27/20 16:56</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>98</i>		<i>73 - 120</i>		<i>11/27/20 16:56</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>98</i>		<i>80 - 120</i>		<i>11/27/20 16:56</i>	<i>1</i>

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 17:21	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 17:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 17:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 17:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 17:21	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 17:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 17:21	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 17:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 17:21	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 17:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 17:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 17:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 17:21	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 17:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 17:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 17:21	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 17:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 17:21	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 17:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 17:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 17:21	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 17:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 17:21	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 17:21	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 17:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 17:21	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 17:21	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 17:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 17:21	1
Acetone	ND		10	3.0	ug/L			11/27/20 17:21	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 17:21	1
Acrolein	ND		20	0.91	ug/L			11/27/20 17:21	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 17:21	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 17:21	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 17:21	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 17:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 17:21	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 17:21	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 17:21	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 17:21	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 17:21	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 17:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 17:21	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 17:21	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 17:21	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 17:21	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 17:21	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 17:21	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 17:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 17:21	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 17:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 17:21	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 17:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 17:21	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 17:21	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 17:21	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 17:21	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 17:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 17:21	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 17:21	1
Hexane	ND		10	0.40	ug/L			11/27/20 17:21	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 17:21	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 17:21	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 17:21	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 17:21	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 17:21	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 17:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 17:21	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 17:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 17:21	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 17:21	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 17:21	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 17:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 17:21	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 17:21	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 17:21	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 17:21	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 17:21	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 17:21	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 17:21	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 17:21	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 17:21	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 17:21	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 17:21	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 17:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 17:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 17:21	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 17:21	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 17:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 17:21	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 17:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 17:21	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		11/27/20 17:21	1
4-Bromofluorobenzene (Surr)	92		73 - 120		11/27/20 17:21	1
Toluene-d8 (Surr)	95		80 - 120		11/27/20 17:21	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 17:45	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 17:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 17:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 17:45	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 17:45	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 17:45	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 17:45	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 17:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 17:45	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 17:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 17:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 17:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 17:45	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 17:45	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 17:45	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 17:45	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 17:45	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 17:45	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 17:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 17:45	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 17:45	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 17:45	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 17:45	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 17:45	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 17:45	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 17:45	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 17:45	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 17:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 17:45	1
Acetone	ND		10	3.0	ug/L			11/27/20 17:45	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 17:45	1
Acrolein	ND		20	0.91	ug/L			11/27/20 17:45	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 17:45	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 17:45	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 17:45	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 17:45	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 17:45	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 17:45	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 17:45	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 17:45	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 17:45	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 17:45	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 17:45	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 17:45	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 17:45	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 17:45	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 17:45	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 17:45	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 17:45	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 17:45	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 17:45	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 17:45	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 17:45	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 17:45	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 17:45	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 17:45	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 17:45	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 17:45	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 17:45	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 17:45	1
Hexane	ND		10	0.40	ug/L			11/27/20 17:45	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 17:45	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 17:45	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 17:45	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 17:45	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 17:45	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 17:45	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 17:45	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 17:45	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 17:45	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 17:45	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 17:45	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 17:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 17:45	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 17:45	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 17:45	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 17:45	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 17:45	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 17:45	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 17:45	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 17:45	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 17:45	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 17:45	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 17:45	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 17:45	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 17:45	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 17:45	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 17:45	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 17:45	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 17:45	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 17:45	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 17:45	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		11/27/20 17:45	1
4-Bromofluorobenzene (Surr)	92		73 - 120		11/27/20 17:45	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		11/27/20 17:45	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 18:11	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 18:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 18:11	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 18:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 18:11	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 18:11	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 18:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 18:11	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 18:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 18:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 18:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 18:11	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 18:11	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 18:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 18:11	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 18:11	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 18:11	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 18:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 18:11	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 18:11	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 18:11	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 18:11	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 18:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 18:11	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 18:11	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 18:11	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 18:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 18:11	1
Acetone	ND		10	3.0	ug/L			11/27/20 18:11	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 18:11	1
Acrolein	ND		20	0.91	ug/L			11/27/20 18:11	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 18:11	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 18:11	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 18:11	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 18:11	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 18:11	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 18:11	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 18:11	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 18:11	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 18:11	1
Carbon disulfide	0.81	J	1.0	0.19	ug/L			11/27/20 18:11	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 18:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 18:11	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 18:11	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 18:11	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 18:11	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 18:11	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 18:11	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 18:11	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 18:11	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 18:11	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 18:11	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 18:11	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 18:11	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 18:11	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 18:11	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 18:11	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 18:11	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 18:11	1
Hexane	ND		10	0.40	ug/L			11/27/20 18:11	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 18:11	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 18:11	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 18:11	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 18:11	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 18:11	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 18:11	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 18:11	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 18:11	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 18:11	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 18:11	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 18:11	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 18:11	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 18:11	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 18:11	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 18:11	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 18:11	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 18:11	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 18:11	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 18:11	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 18:11	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 18:11	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 18:11	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 18:11	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 18:11	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 18:11	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 18:11	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 18:11	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 18:11	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 18:11	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 18:11	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 18:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 18:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					11/27/20 18:11	1
4-Bromofluorobenzene (Surr)	97		73 - 120					11/27/20 18:11	1
Toluene-d8 (Surr)	95		80 - 120					11/27/20 18:11	1

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 18:36	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 18:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 18:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 18:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 18:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 18:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 18:36	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 18:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 18:36	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 18:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 18:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 18:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 18:36	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 18:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 18:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 18:36	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 18:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 18:36	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 18:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 18:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 18:36	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 18:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 18:36	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 18:36	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 18:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 18:36	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 18:36	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 18:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 18:36	1
Acetone	ND		10	3.0	ug/L			11/27/20 18:36	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 18:36	1
Acrolein	ND		20	0.91	ug/L			11/27/20 18:36	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 18:36	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 18:36	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 18:36	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 18:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 18:36	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 18:36	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 18:36	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 18:36	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 18:36	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 18:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 18:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 18:36	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 18:36	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 18:36	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 18:36	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 18:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 18:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 18:36	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 18:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 18:36	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 18:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 18:36	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 18:36	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 18:36	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 18:36	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 18:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 18:36	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 18:36	1
Hexane	ND		10	0.40	ug/L			11/27/20 18:36	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 18:36	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 18:36	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 18:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 18:36	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 18:36	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 18:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 18:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 18:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 18:36	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 18:36	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 18:36	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 18:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 18:36	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 18:36	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 18:36	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 18:36	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 18:36	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 18:36	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 18:36	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 18:36	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 18:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 18:36	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 18:36	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 18:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 18:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 18:36	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 18:36	1
Trichloroethene	1.2		1.0	0.46	ug/L			11/27/20 18:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 18:36	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 18:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 18:36	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Hexachloroethane TIC</i>	<i>ND</i>		<i>ug/L</i>			<i>67-72-1</i>		<i>11/27/20 18:36</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>103</i>		<i>77 - 120</i>					<i>11/27/20 18:36</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>89</i>		<i>73 - 120</i>					<i>11/27/20 18:36</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>94</i>		<i>80 - 120</i>					<i>11/27/20 18:36</i>	<i>1</i>

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 19:00	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 19:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 19:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 19:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 19:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 19:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 19:00	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 19:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 19:00	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 19:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 19:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 19:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 19:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 19:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 19:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 19:00	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 19:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 19:00	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 19:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 19:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 19:00	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 19:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 19:00	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 19:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 19:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 19:00	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 19:00	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 19:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 19:00	1
Acetone	ND		10	3.0	ug/L			11/27/20 19:00	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 19:00	1
Acrolein	ND		20	0.91	ug/L			11/27/20 19:00	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 19:00	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 19:00	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 19:00	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 19:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 19:00	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 19:00	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 19:00	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 19:00	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 19:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 19:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 19:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 19:00	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 19:00	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 19:00	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 19:00	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 19:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 19:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 19:00	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 19:00	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 19:00	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 19:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 19:00	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 19:00	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 19:00	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 19:00	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 19:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 19:00	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 19:00	1
Hexane	ND		10	0.40	ug/L			11/27/20 19:00	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 19:00	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 19:00	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 19:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 19:00	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 19:00	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 19:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 19:00	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 19:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 19:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 19:00	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 19:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 19:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 19:00	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 19:00	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 19:00	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 19:00	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 19:00	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 19:00	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 19:00	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 19:00	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 19:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 19:00	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 19:00	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.51	ug/L			11/27/20 19:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 19:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 19:00	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 19:00	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 19:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 19:00	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 19:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 19:00	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		11/27/20 19:00	1
4-Bromofluorobenzene (Surr)	99		73 - 120		11/27/20 19:00	1
Toluene-d8 (Surr)	98		80 - 120		11/27/20 19:00	1

Method: 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:00	1
Iron, Total	0.030	J	0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:00	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:16	1
Iron, Total	ND		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:16	1

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:20	1
Iron, Total	ND		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:20	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:23	1
Iron, Total	10		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:23	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:27	1
Iron, Total	0.11		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:27	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0076		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:30	1
Iron, Total	36		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:30	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:33	1
Iron, Total	0.048	J	0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:33	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:37	1
Iron, Total	ND		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:37	1

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:40	1
Iron, Total	0.20		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:40	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0012	J	0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 21:57	1
Iron, Total	24		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 21:57	1

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0026	J	0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:00	1
Iron, Total	4.5		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:00	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:04	1
Iron, Total	0.26		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:04	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:07	1
Iron, Total	0.20		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:07	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:10	1
Iron, Total	ND		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:10	1

Method: 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	8.8		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:15	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:15	1
Magnesium, Dissolved	6.1		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:15	1
Potassium, Dissolved	0.83	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:15	1
Sodium, Dissolved	6.3		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 20:47	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:19	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:19	1
Magnesium, Dissolved	8.6		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:19	1
Potassium, Dissolved	0.72	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:19	1
Sodium, Dissolved	5.6		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 20:50	1

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:33	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:33	1
Magnesium, Dissolved	8.5		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:33	1
Potassium, Dissolved	0.73	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:33	1
Sodium, Dissolved	5.6		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:07	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	19		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:36	1
Iron, Dissolved	0.59		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:36	1
Magnesium, Dissolved	8.2		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:36	1
Potassium, Dissolved	0.80	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:36	1
Sodium, Dissolved	10		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	16		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:54	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:54	1
Magnesium, Dissolved	8.5		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:54	1
Potassium, Dissolved	0.61	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:54	1
Sodium, Dissolved	9.3		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:27	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:58	1
Iron, Dissolved	37		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:58	1
Magnesium, Dissolved	8.5		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:58	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:58	1
Sodium, Dissolved	9.2		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:31	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:01	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:01	1
Magnesium, Dissolved	8.6		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:01	1
Potassium, Dissolved	0.52	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:01	1
Sodium, Dissolved	5.2		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:34	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	16		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:05	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:05	1
Magnesium, Dissolved	8.0		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:05	1
Potassium, Dissolved	0.46	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:05	1
Sodium, Dissolved	5.3		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:37	1

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:08	1
Iron, Dissolved	0.13		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:08	1
Magnesium, Dissolved	7.1		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:08	1
Potassium, Dissolved	1.2		1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:08	1
Sodium, Dissolved	6.5		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:41	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	34		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:12	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6010D - Metals (ICP) - Dissolved (Continued)

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	22		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:12	1
Magnesium, Dissolved	12		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:12	1
Potassium, Dissolved	7.3		1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:12	1
Sodium, Dissolved	18		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:44	1

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	7.0		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:30	1
Iron, Dissolved	4.1		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:30	1
Magnesium, Dissolved	4.1		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:30	1
Potassium, Dissolved	0.30	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:30	1
Sodium, Dissolved	3.8		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:47	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	4.9		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:33	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:33	1
Magnesium, Dissolved	2.1		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:33	1
Potassium, Dissolved	0.59	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:33	1
Sodium, Dissolved	3.0		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:51	1

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:37	1
Iron, Dissolved	0.13		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:37	1
Magnesium, Dissolved	7.1		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:37	1
Potassium, Dissolved	1.2		1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:37	1
Sodium, Dissolved	6.5		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:54	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	15		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 23:40	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 23:40	1
Magnesium, Dissolved	8.7		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 23:40	1
Potassium, Dissolved	0.50	J	1.0	0.24	mg/L		12/02/20 15:40	12/03/20 23:40	1
Sodium, Dissolved	5.3		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 21:57	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	0.00082	J	0.0010	0.00040	mg/L		12/02/20 15:40	12/10/20 01:47	1
Barium, Total	0.0023		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 02:56	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 01:47	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 02:56	1
Chromium, Total	0.010		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 02:56	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 02:56	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 02:56	1
Manganese, Total	0.00057	J B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 02:56	1
Nickel, Total	0.0014	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 02:56	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 01:47	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 01:47	1
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:10	1
Vanadium, Total	0.0028		0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 02:56	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 10:04	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/10/20 01:50	1
Barium, Total	0.0043	F1	0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:00	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 01:50	1
Cadmium, Total	ND	F1	0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:00	1
Chromium, Total	0.00056	J F1	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:00	1
Copper, Total	ND	F1	0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:00	1
Lead, Total	ND	F1	0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:00	1
Manganese, Total	0.0015	B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 03:00	1
Nickel, Total	0.0012	J F1 B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:00	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 01:50	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 01:50	1
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:21	1
Vanadium, Total	0.0039		0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 03:00	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 10:07	1

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	0.0010		0.0010	0.00040	mg/L		12/02/20 15:40	12/10/20 02:09	1
Barium, Total	0.0041		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:18	1
Beryllium, Total	0.00020	J	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:09	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:18	1
Chromium, Total	0.00050	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:18	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:18	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:18	1
Manganese, Total	0.0015	B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 03:18	1
Nickel, Total	0.0012	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:18	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:09	1
Silver, Total	0.000037	J	0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:09	1
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:32	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium, Total	0.0037		0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 03:18	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 10:26	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND	^	0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:29	1
Barium, Total	0.052		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:29	1
Beryllium, Total	0.00023	J	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:20	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:29	1
Chromium, Total	0.00052	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:29	1
Copper, Total	0.0025		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:29	1
Lead, Total	0.00024	J	0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:29	1
Manganese, Total	0.87	B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 03:29	1
Nickel, Total	0.00058	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:29	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:20	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:20	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:32	1
Vanadium, Total	0.0015	J	0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 03:29	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 03:29	1

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND	^	0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:33	1
Barium, Total	0.0036		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:33	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:23	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:33	1
Chromium, Total	0.0017	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:33	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:33	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:33	1
Manganese, Total	0.0013	B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 03:33	1
Nickel, Total	0.0016	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:33	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:23	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:23	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:35	1
Vanadium, Total	0.0043		0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 03:33	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 03:33	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND	^	0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:37	1
Barium, Total	0.014		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:37	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:27	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:37	1
Chromium, Total	0.00077	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:37	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:37	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:37	1
Manganese, Total	0.49	B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 03:37	1
Nickel, Total	0.0030	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:37	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:27	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:27	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:39	1
Vanadium, Total	0.0013	J	0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 03:37	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 03:37	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND	^	0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:40	1
Barium, Total	0.0029		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:40	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:31	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:40	1
Chromium, Total	0.0023	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:40	1
Copper, Total	0.0015	J	0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:40	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:40	1
Manganese, Total	0.00068	J B	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 03:40	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:40	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:31	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:31	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:50	1
Vanadium, Total	0.0043		0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 03:40	1
Zinc, Total	0.0020	J	0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 03:40	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:52	1
Barium, Total	0.0032		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:52	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:34	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:52	1
Chromium, Total	0.0028	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:52	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:52	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:52	1
Manganese, Total	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/10/20 02:34	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:52	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:34	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:34	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:54	1
Vanadium, Total	0.0056		0.0020	0.0012	mg/L		12/02/20 15:40	12/10/20 02:34	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 10:59	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:55	1
Barium, Total	0.0040		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:55	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:38	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:55	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:55	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:55	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:55	1
Manganese, Total	1.2		0.0010	0.00031	mg/L		12/02/20 15:40	12/10/20 02:38	1
Nickel, Total	0.00032	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:55	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 02:38	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:38	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:57	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/10/20 02:38	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 11:03	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 03:59	1
Barium, Total	0.089		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 03:59	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:49	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 03:59	1
Chromium, Total	0.00070	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 03:59	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 03:59	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 03:59	1
Manganese, Total	3.9		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 11:18	1
Nickel, Total	0.0013	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 03:59	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 11:18	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:49	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 14:01	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 11:18	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 11:18	1

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:03	1
Barium, Total	0.0067		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:03	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:53	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:03	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:03	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:03	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 04:03	1
Manganese, Total	1.5		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 11:21	1
Nickel, Total	0.0021	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:03	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 11:21	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:53	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 14:05	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 11:21	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 11:21	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:07	1
Barium, Total	0.0046		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:07	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 02:56	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:07	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:07	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:07	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 04:07	1
Manganese, Total	0.010		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 11:25	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:07	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 11:25	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 02:56	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 14:08	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 11:25	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 11:25	1

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:10	1
Barium, Total	0.0058		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:10	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:00	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:10	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:10	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:10	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 04:10	1
Manganese, Total	1.2		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 11:29	1
Nickel, Total	0.00038	J B	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:10	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 11:29	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 03:00	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 14:12	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 11:29	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 11:29	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:14	1
Barium, Total	0.0025		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:14	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:03	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:14	1
Chromium, Total	0.0022	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:14	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:14	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 04:14	1
Manganese, Total	0.00046	J	0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 11:32	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:14	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 11:32	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 03:03	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 14:16	1
Vanadium, Total	0.0037		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 11:32	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 11:32	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 00:20	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0013		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 07:35	1

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0012		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 07:38	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.51		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 07:48	1

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.00035	J	0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 07:59	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.50		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:02	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.00033	J	0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:06	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:10	1

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	1.0		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:13	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	3.7		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:17	1

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	1.4		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:20	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0077		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:24	1

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	1.0		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:27	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 08:31	1

General Chemistry

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 03:51	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 03:51	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry (Continued)

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 11:57	1
Nitrate as N	0.64		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	61		10	10	mg/L			11/25/20 15:05	1
Alkalinity, Bicarbonate (As CaCO3)	61		10	10	mg/L			11/25/20 15:05	1
Total Dissolved Solids (TDS)	120		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 16:30	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 04:08	1
Sulfate	5.0		5.0	5.0	mg/L			12/13/20 04:08	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:03	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	75		10	10	mg/L			11/25/20 15:10	1
Alkalinity, Bicarbonate (As CaCO3)	75		10	10	mg/L			11/25/20 15:10	1
Total Dissolved Solids (TDS)	140		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 17:15	1

Client Sample ID: DUP2
Date Collected: 11/19/20 11:15
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-3
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 04:25	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 04:25	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:05	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	83		10	10	mg/L			11/25/20 15:25	1
Alkalinity, Bicarbonate (As CaCO3)	83		10	10	mg/L			11/25/20 15:25	1
Total Dissolved Solids (TDS)	100		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 17:30	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 04:43	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 04:43	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:07	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	95		10	10	mg/L			11/25/20 15:31	1
Alkalinity, Bicarbonate (As CaCO3)	95		10	10	mg/L			11/25/20 15:31	1
Total Dissolved Solids (TDS)	150		5.0	5.0	mg/L			11/23/20 13:37	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry (Continued)

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	30		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 17:45	1

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 05:00	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 05:00	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:09	1
Nitrate as N	0.51		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	88		10	10	mg/L			11/25/20 15:36	1
Alkalinity, Bicarbonate (As CaCO3)	88		10	10	mg/L			11/25/20 15:36	1
Total Dissolved Solids (TDS)	140		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 18:01	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		3.0	3.0	mg/L			12/13/20 05:18	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 05:18	1
Ammonia (as N)	0.37		0.030	0.030	mg/L			12/05/20 12:11	1
Nitrate as N	0.11		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	110		10	10	mg/L			11/25/20 15:41	1
Alkalinity, Bicarbonate (As CaCO3)	110		10	10	mg/L			11/25/20 15:41	1
Total Dissolved Solids (TDS)	180		5.0	5.0	mg/L			11/24/20 07:53	1
Total Suspended Solids	12		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	2.9		1.0	1.0	mg/L			12/15/20 18:18	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 05:35	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 05:35	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:13	1
Nitrate as N	0.43		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	85		10	10	mg/L			11/25/20 15:46	1
Alkalinity, Bicarbonate (As CaCO3)	85		10	10	mg/L			11/25/20 15:46	1
Total Dissolved Solids (TDS)	110		5.0	5.0	mg/L			11/24/20 07:53	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 18:33	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 07:20	1
Sulfate	ND		5.0	5.0	mg/L			12/15/20 09:55	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:15	1
Nitrate as N	0.35		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	84		10	10	mg/L			11/25/20 15:51	1
Alkalinity, Bicarbonate (As CaCO3)	84		10	10	mg/L			11/25/20 15:51	1
Total Dissolved Solids (TDS)	120		5.0	5.0	mg/L			11/24/20 07:53	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 19:18	1

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 07:37	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 13:48	1
Ammonia (as N)	0.45		0.030	0.030	mg/L			12/05/20 12:29	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	81		10	10	mg/L			11/25/20 15:56	1
Alkalinity, Bicarbonate (As CaCO3)	81		10	10	mg/L			11/25/20 15:56	1
Total Dissolved Solids (TDS)	130		5.0	5.0	mg/L			11/24/20 07:53	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 19:33	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		3.0	3.0	mg/L			12/13/20 07:55	1
Sulfate	6.6		5.0	5.0	mg/L			12/16/20 14:06	1
Ammonia (as N)	3.6		0.030	0.030	mg/L			12/05/20 12:31	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	210		10	10	mg/L			11/25/20 16:02	1
Alkalinity, Bicarbonate (As CaCO3)	210		10	10	mg/L			11/25/20 16:02	1
Total Dissolved Solids (TDS)	250		5.0	5.0	mg/L			11/24/20 07:53	1
Total Suspended Solids	17		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	5.6		1.0	1.0	mg/L			12/15/20 19:47	1

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 08:12	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 14:23	1
Ammonia (as N)	0.056		0.030	0.030	mg/L			12/05/20 12:33	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	44		10	10	mg/L			11/25/20 16:07	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry (Continued)

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Bicarbonate (As CaCO3)	44		10	10	mg/L			11/25/20 16:07	1
Total Dissolved Solids (TDS)	75		5.0	5.0	mg/L			11/24/20 07:53	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	1.6		1.0	1.0	mg/L			12/15/20 20:02	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 08:30	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 14:41	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:39	1
Nitrate as N	0.94		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	23		10	10	mg/L			11/25/20 16:12	1
Alkalinity, Bicarbonate (As CaCO3)	23		10	10	mg/L			11/25/20 16:12	1
Total Dissolved Solids (TDS)	33	H	5.0	5.0	mg/L			12/02/20 11:35	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	1.3		1.0	1.0	mg/L			12/15/20 20:49	1

Client Sample ID: DUP1
Date Collected: 11/19/20 12:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-14
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 08:47	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 16:26	1
Ammonia (as N)	0.46		0.030	0.030	mg/L			12/05/20 12:41	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	80		10	10	mg/L			11/25/20 16:40	1
Alkalinity, Bicarbonate (As CaCO3)	80		10	10	mg/L			11/25/20 16:40	1
Total Dissolved Solids (TDS)	130		5.0	5.0	mg/L			11/24/20 07:51	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 21:04	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 09:05	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 16:43	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 12:43	1
Nitrate as N	0.42		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	84		10	10	mg/L			11/25/20 16:50	1
Alkalinity, Bicarbonate (As CaCO3)	84		10	10	mg/L			11/25/20 16:50	1
Total Dissolved Solids (TDS)	130		5.0	5.0	mg/L			11/24/20 07:51	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 21:19	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: Field Sampling - Field Sampling

Client Sample ID: MW-36A
Date Collected: 11/19/20 10:25
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-1
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	31.80				ft			11/19/20 11:25	1
Specific Conductivity	119				umhos/cm			11/19/20 11:25	1
Dissolved Oxygen	3.24				mg/L			11/19/20 11:25	1
eH	227.8				millivolts			11/19/20 11:25	1
Turbidity	1.00				NTU			11/19/20 11:25	1
Temperature	8.79				Degrees C			11/19/20 11:25	1
pH	5.90				SU			11/19/20 11:25	1

Client Sample ID: MW-15R
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-2
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	19.47				ft			11/19/20 12:10	1
Specific Conductivity	156				umhos/cm			11/19/20 12:10	1
Dissolved Oxygen	0.44				mg/L			11/19/20 12:10	1
eH	188.3				millivolts			11/19/20 12:10	1
Turbidity	0.83				NTU			11/19/20 12:10	1
Temperature	9.26				Degrees C			11/19/20 12:10	1
pH	6.44				SU			11/19/20 12:10	1

Client Sample ID: MW-34C
Date Collected: 11/19/20 12:00
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-4
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	42.17				ft			11/19/20 13:00	1
Specific Conductivity	192				umhos/cm			11/19/20 13:00	1
Dissolved Oxygen	0.34				mg/L			11/19/20 13:00	1
eH	2.7				millivolts			11/19/20 13:00	1
Turbidity	81.3				NTU			11/19/20 13:00	1
Temperature	12.10				Degrees C			11/19/20 13:00	1
pH	6.67				SU			11/19/20 13:00	1

Client Sample ID: MW-34A
Date Collected: 11/19/20 12:45
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-5
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	40.36				ft			11/19/20 13:45	1
Specific Conductivity	186				umhos/cm			11/19/20 13:45	1
Dissolved Oxygen	0.77				mg/L			11/19/20 13:45	1
eH	132.0				millivolts			11/19/20 13:45	1
Turbidity	1.56				NTU			11/19/20 13:45	1
Temperature	11.25				Degrees C			11/19/20 13:45	1
pH	6.18				SU			11/19/20 13:45	1

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	19.53				ft			11/19/20 14:48	1
Specific Conductivity	268				umhos/cm			11/19/20 14:48	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: Field Sampling - Field Sampling (Continued)

Client Sample ID: MW-39
Date Collected: 11/19/20 13:48
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-6
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Oxygen	0.31				mg/L			11/19/20 14:48	1
eH	-25.0				millivolts			11/19/20 14:48	1
Turbidity	2.39				NTU			11/19/20 14:48	1
Temperature	10.82				Degrees C			11/19/20 14:48	1
pH	6.06				SU			11/19/20 14:48	1

Client Sample ID: MW-35
Date Collected: 11/19/20 14:50
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-7
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	73.60				ft			11/19/20 15:50	1
Specific Conductivity	156				umhos/cm			11/19/20 15:50	1
Dissolved Oxygen	5.64				mg/L			11/19/20 15:50	1
eH	31.5				millivolts			11/19/20 15:50	1
Turbidity	1.31				NTU			11/19/20 15:50	1
Temperature	9.58				Degrees C			11/19/20 15:50	1
pH	7.20				SU			11/19/20 15:50	1

Client Sample ID: MW-13B
Date Collected: 11/19/20 11:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-9
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	63.42				ft			11/19/20 12:10	1
Specific Conductivity	170				umhos/cm			11/19/20 12:10	1
Dissolved Oxygen	8.89				mg/L			11/19/20 12:10	1
eH	282.7				millivolts			11/19/20 12:10	1
Turbidity	2.79				NTU			11/19/20 12:10	1
Temperature	9.5				Degrees C			11/19/20 12:10	1
pH	7.64				SU			11/19/20 12:10	1

Client Sample ID: MW-19C
Date Collected: 11/19/20 12:23
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-10
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	35.16				ft			11/19/20 13:23	1
Specific Conductivity	167				umhos/cm			11/19/20 13:23	1
Dissolved Oxygen	0.13				mg/L			11/19/20 13:23	1
eH	38.6				millivolts			11/19/20 13:23	1
Turbidity	3.21				NTU			11/19/20 13:23	1
Temperature	10.4				Degrees C			11/19/20 13:23	1
pH	6.75				SU			11/19/20 13:23	1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	27.34				ft			11/19/20 14:21	1
Specific Conductivity	465				umhos/cm			11/19/20 14:21	1
Dissolved Oxygen	0.05				mg/L			11/19/20 14:21	1
eH	-48.0				millivolts			11/19/20 14:21	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: Field Sampling - Field Sampling (Continued)

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	3.44				NTU			11/19/20 14:21	1
Temperature	12.0				Degrees C			11/19/20 14:21	1
pH	6.45				SU			11/19/20 14:21	1

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	11.33				ft			11/19/20 15:10	1
Specific Conductivity	107				umhos/cm			11/19/20 15:10	1
Dissolved Oxygen	0.08				mg/L			11/19/20 15:10	1
eH	54.3				millivolts			11/19/20 15:10	1
Turbidity	3.01				NTU			11/19/20 15:10	1
Temperature	11.6				Degrees C			11/19/20 15:10	1
pH	6.00				SU			11/19/20 15:10	1

Client Sample ID: MW-43
Date Collected: 11/19/20 15:05
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-13
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	22.16				ft			11/19/20 16:05	1
Specific Conductivity	60				umhos/cm			11/19/20 16:05	1
Dissolved Oxygen	3.48				mg/L			11/19/20 16:05	1
eH	284.1				millivolts			11/19/20 16:05	1
Turbidity	9.71				NTU			11/19/20 16:05	1
Temperature	11.9				Degrees C			11/19/20 16:05	1
pH	5.60				SU			11/19/20 16:05	1

Client Sample ID: MW-13A
Date Collected: 11/19/20 10:30
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-15
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	49.13				ft			11/19/20 11:30	1
Specific Conductivity	168				umhos/cm			11/19/20 11:30	1
Dissolved Oxygen	8.25				mg/L			11/19/20 11:30	1
eH	298.8				millivolts			11/19/20 11:30	1
Turbidity	2.83				NTU			11/19/20 11:30	1
Temperature	9.4				Degrees C			11/19/20 11:30	1
pH	6.99				SU			11/19/20 11:30	1

Surrogate Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (77-120)	BFB (73-120)	TOL (80-120)
280-143032-1	MW-36A	98	91	94
280-143032-2	MW-15R	104	92	96
280-143032-3	DUP2	104	103	101
280-143032-4	MW-34C	104	96	96
280-143032-5	MW-34A	104	101	101
280-143032-6	MW-39	104	91	93
280-143032-7	MW-35	105	100	99
280-143032-8	TRIP BLANK	102	90	96
280-143032-9	MW-13B	105	100	97
280-143032-10	MW-19C	105	98	98
280-143032-11	MW-42	103	92	95
280-143032-12	MW-29A	102	92	97
280-143032-13	MW-43	103	97	95
280-143032-14	DUP1	103	89	94
280-143032-15	MW-13A	105	99	98
480-178683-B-4 MS	Matrix Spike	99	97	99
480-178683-B-4 MSD	Matrix Spike Duplicate	99	107	100
LCS 480-561027/6	Lab Control Sample	99	98	98
MB 480-561027/8	Method Blank	99	90	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DBFM (50-150)	TBA (50-150)
280-143032-1	MW-36A	100	81
280-143032-2	MW-15R	101	82
280-143032-3	DUP2	112	97
280-143032-4	MW-34C	106	94
280-143032-5	MW-34A	101	80
280-143032-6	MW-39	102	76
280-143032-7	MW-35	102	73
280-143032-8	TRIP BLANK	102	78
280-143032-9	MW-13B	102	79
280-143032-10	MW-19C	101	71
280-143032-11	MW-42	103	81
280-143032-12	MW-29A	109	96
280-143032-13	MW-43	105	86
280-143032-14	DUP1	104	79
280-143032-15	MW-13A	102	80
LCS 480-560978/6	Lab Control Sample	105	94
LCSD 480-560978/7	Lab Control Sample Dup	105	103
MB 480-560978/9	Method Blank	103	79

Surrogate Legend

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Surrogate Summary

Client: Waste Management

Project/Site: WA02|Olympic View Sanitary LF - Groundwater

DBFM = Dibromofluoromethane (Surr)

TBA = TBA-d9 (Surr)

Job ID: 280-143032-1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-561027/8
Matrix: Water
Analysis Batch: 561027

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 11:24	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 11:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 11:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 11:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 11:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 11:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 11:24	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 11:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 11:24	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 11:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 11:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 11:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 11:24	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 11:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 11:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 11:24	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 11:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 11:24	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 11:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 11:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 11:24	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 11:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 11:24	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 11:24	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 11:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 11:24	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 11:24	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 11:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 11:24	1
Acetone	ND		10	3.0	ug/L			11/27/20 11:24	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 11:24	1
Acrolein	ND		20	0.91	ug/L			11/27/20 11:24	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 11:24	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 11:24	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 11:24	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 11:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 11:24	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 11:24	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 11:24	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 11:24	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 11:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 11:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 11:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 11:24	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 11:24	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 11:24	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 11:24	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 11:24	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561027/8
Matrix: Water
Analysis Batch: 561027

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 11:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 11:24	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 11:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 11:24	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 11:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 11:24	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 11:24	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 11:24	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 11:24	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 11:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 11:24	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 11:24	1
Hexane	ND		10	0.40	ug/L			11/27/20 11:24	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 11:24	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 11:24	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 11:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 11:24	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 11:24	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 11:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 11:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 11:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 11:24	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 11:24	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 11:24	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 11:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 11:24	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 11:24	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 11:24	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 11:24	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 11:24	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 11:24	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 11:24	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 11:24	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 11:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 11:24	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 11:24	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 11:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 11:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 11:24	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 11:24	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 11:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 11:24	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 11:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 11:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		11/27/20 11:24	1
4-Bromofluorobenzene (Surr)	90		73 - 120		11/27/20 11:24	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561027/8
Matrix: Water
Analysis Batch: 561027

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)		94		80 - 120		11/27/20 11:24	1

Lab Sample ID: LCS 480-561027/6
Matrix: Water
Analysis Batch: 561027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.3		ug/L		105	80 - 120
1,1,1-Trichloroethane	25.0	25.1		ug/L		101	73 - 126
1,1,2,2-Tetrachloroethane	25.0	21.4		ug/L		86	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.7		ug/L		99	61 - 148
1,1,2-Trichloroethane	25.0	24.1		ug/L		96	76 - 122
1,1-Dichloroethane	25.0	24.5		ug/L		98	77 - 120
1,1-Dichloroethene	25.0	23.2		ug/L		93	66 - 127
1,1-Dichloropropene	25.0	25.1		ug/L		100	72 - 122
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	75 - 123
1,2,3-Trichloropropane	25.0	21.1		ug/L		85	68 - 122
1,2,4-Trichlorobenzene	25.0	24.8		ug/L		99	79 - 122
1,2,4-Trimethylbenzene	25.0	24.2		ug/L		97	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	20.1		ug/L		81	56 - 134
1,2-Dibromoethane (EDB)	25.0	24.2		ug/L		97	77 - 120
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	25.2		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	24.7		ug/L		99	76 - 120
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	77 - 121
1,3-Dichlorobenzene	25.0	24.6		ug/L		98	77 - 120
1,3-Dichloropropane	25.0	24.5		ug/L		98	75 - 120
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 120
1,4-Dioxane	500	412		ug/L		82	50 - 150
2,2-Dichloropropane	25.0	29.1		ug/L		117	63 - 136
2-Butanone (MEK)	125	109		ug/L		87	57 - 140
2-Chloroethyl vinyl ether	25.0	20.5		ug/L		82	70 - 129
2-Hexanone	125	119		ug/L		95	65 - 127
4-Methyl-2-pentanone (MIBK)	125	118		ug/L		94	71 - 125
Acetone	125	107		ug/L		85	56 - 142
Acrolein	125	107		ug/L		86	52 - 143
Acrylonitrile	250	206		ug/L		82	63 - 125
Benzene	25.0	23.7		ug/L		95	71 - 124
Bromobenzene	25.0	24.2		ug/L		97	78 - 120
Bromochloromethane	25.0	25.5		ug/L		102	72 - 130
Bromodichloromethane	25.0	26.3		ug/L		105	80 - 122
Bromoform	25.0	22.1		ug/L		88	61 - 132
Bromomethane	25.0	24.0		ug/L		96	55 - 144
Butyl alcohol, tert-	250	228		ug/L		91	75 - 125
Carbon disulfide	25.0	23.4		ug/L		94	59 - 134
Carbon tetrachloride	25.0	24.2		ug/L		97	72 - 134
Chlorobenzene	25.0	24.7		ug/L		99	80 - 120
Chloroethane	25.0	23.2		ug/L		93	69 - 136

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-561027/6
Matrix: Water
Analysis Batch: 561027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	25.0	23.5		ug/L		94	73 - 127
Chloromethane	25.0	21.1		ug/L		84	68 - 124
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	74 - 124
cis-1,3-Dichloropropene	25.0	24.0		ug/L		96	74 - 124
Cyclohexane	25.0	23.0		ug/L		92	59 - 135
Dibromochloromethane	25.0	26.0		ug/L		104	75 - 125
Dibromomethane	25.0	24.8		ug/L		99	76 - 127
Dichlorodifluoromethane	25.0	25.7		ug/L		103	59 - 135
Dichlorofluoromethane	25.0	22.5		ug/L		90	76 - 127
Ethyl ether	25.0	23.7		ug/L		95	76 - 123
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123
Hexachlorobutadiene	25.0	25.7		ug/L		103	68 - 131
Iodomethane	25.0	24.2		ug/L		97	78 - 123
Isobutanol	625	521		ug/L		83	51 - 150
Isopropylbenzene	25.0	25.5		ug/L		102	77 - 122
Methyl acetate	50.0	40.2		ug/L		80	74 - 133
Methyl tert-butyl ether	25.0	24.8		ug/L		99	77 - 120
Methylcyclohexane	25.0	23.2		ug/L		93	68 - 134
Methylene Chloride	25.0	24.0		ug/L		96	75 - 124
m-Xylene & p-Xylene	25.0	25.9		ug/L		104	76 - 122
Naphthalene	25.0	21.1		ug/L		84	66 - 125
n-Butylbenzene	25.0	24.1		ug/L		96	71 - 128
N-Propylbenzene	25.0	24.8		ug/L		99	75 - 127
o-Chlorotoluene	25.0	24.4		ug/L		98	76 - 121
o-Xylene	25.0	26.5		ug/L		106	76 - 122
p-Chlorotoluene	25.0	25.6		ug/L		102	77 - 121
p-Cymene	25.0	24.2		ug/L		97	73 - 120
sec-Butylbenzene	25.0	23.9		ug/L		96	74 - 127
Styrene	25.0	27.1		ug/L		108	80 - 120
tert-Butylbenzene	25.0	23.5		ug/L		94	75 - 123
Tetrachloroethene	25.0	25.0		ug/L		100	74 - 122
Tetrahydrofuran	50.0	41.9		ug/L		84	62 - 132
Toluene	25.0	24.5		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	73 - 127
trans-1,3-Dichloropropene	25.0	24.4		ug/L		98	80 - 120
trans-1,4-Dichloro-2-butene	25.0	20.4		ug/L		82	41 - 131
Trichloroethene	25.0	24.3		ug/L		97	74 - 123
Trichlorofluoromethane	25.0	24.1		ug/L		96	62 - 150
Vinyl acetate	50.0	49.5		ug/L		99	50 - 144
Vinyl chloride	25.0	20.8		ug/L		83	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		77 - 120
4-Bromofluorobenzene (Surr)	98		73 - 120
Toluene-d8 (Surr)	98		80 - 120

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-178683-B-4 MS

Matrix: Water
Analysis Batch: 561027

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,1,1-Trichloroethane	ND		125	133		ug/L		106	73 - 126	
1,1-Dichloroethene	ND		125	129		ug/L		103	66 - 127	
Chloroform	ND		125	121		ug/L		97	73 - 127	
cis-1,2-Dichloroethene	ND		125	130		ug/L		104	74 - 124	
Tetrachloroethene	ND		125	135		ug/L		108	74 - 122	
trans-1,2-Dichloroethene	ND		125	131		ug/L		104	73 - 127	
Trichloroethene	220	F1	125	295	F1	ug/L		63	74 - 123	
MS MS										
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	99		77 - 120							
4-Bromofluorobenzene (Surr)	97		73 - 120							
Toluene-d8 (Surr)	99		80 - 120							

Lab Sample ID: 480-178683-B-4 MSD

Matrix: Water
Analysis Batch: 561027

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
1,1,1-Trichloroethane	ND		125	124		ug/L		99	73 - 126	7	15		
1,1-Dichloroethene	ND		125	119		ug/L		95	66 - 127	8	16		
Chloroform	ND		125	113		ug/L		91	73 - 127	7	20		
cis-1,2-Dichloroethene	ND		125	120		ug/L		96	74 - 124	7	15		
Tetrachloroethene	ND		125	127		ug/L		102	74 - 122	6	20		
trans-1,2-Dichloroethene	ND		125	119		ug/L		95	73 - 127	10	20		
Trichloroethene	220	F1	125	280	F1	ug/L		51	74 - 123	5	16		
MSD MSD													
Surrogate	%Recovery	Qualifier	Limits										
1,2-Dichloroethane-d4 (Surr)	99		77 - 120										
4-Bromofluorobenzene (Surr)	107		73 - 120										
Toluene-d8 (Surr)	100		80 - 120										

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-560978/9

Matrix: Water
Analysis Batch: 560978

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Vinyl chloride	ND		0.020	0.0040	ug/L			11/25/20 21:37	1	
MB MB										
Surrogate	%Recovery	Qualifier	Limits							
Dibromofluoromethane (Surr)	103		50 - 150							
TBA-d9 (Surr)	79		50 - 150							

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QC Sample Results

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-560978/6
Matrix: Water
Analysis Batch: 560978

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.200	0.238		ug/L		119	50 - 150
Surrogate	%Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	105		50 - 150				
TBA-d9 (Surr)	94		50 - 150				

Lab Sample ID: LCSD 480-560978/7
Matrix: Water
Analysis Batch: 560978

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.200	0.244		ug/L		122	50 - 150	3	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
Dibromofluoromethane (Surr)	105		50 - 150						
TBA-d9 (Surr)	103		50 - 150						

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-518276/1-A
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 20:33	1
Iron, Total	ND		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 20:33	1

Lab Sample ID: LCS 280-518276/2-A
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt, Total	1.00	0.963		mg/L		96	89 - 111
Iron, Total	10.0	9.80		mg/L		98	89 - 115

Lab Sample ID: 280-143102-C-1-B MS
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt, Total	0.0079		1.00	1.00		mg/L		100	82 - 119
Iron, Total	47		10.0	54.7	4	mg/L		82	75 - 125

Lab Sample ID: 280-143102-C-1-C MSD
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt, Total	0.0079		1.00	1.02		mg/L		101	82 - 119	2	20

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-143102-C-1-C MSD
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron, Total	47		10.0	55.6	4	mg/L		91	75 - 125	2	20

Lab Sample ID: MB 280-518471/1-A
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.078	mg/L		12/02/20 15:40	12/03/20 22:08	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 22:08	1
Magnesium, Dissolved	ND		0.050	0.026	mg/L		12/02/20 15:40	12/03/20 22:08	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/02/20 15:40	12/03/20 22:08	1

Lab Sample ID: MB 280-518471/1-A
Matrix: Water
Analysis Batch: 519594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium, Dissolved	ND		1.0	0.37	mg/L		12/02/20 15:40	12/07/20 20:40	1

Lab Sample ID: LCS 280-518471/2-A
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Dissolved	50.0	48.5		mg/L		97	90 - 111
Iron, Dissolved	10.0	9.67		mg/L		97	89 - 115
Magnesium, Dissolved	50.0	48.7		mg/L		97	90 - 113
Potassium, Dissolved	50.0	49.0		mg/L		98	89 - 114

Lab Sample ID: LCS 280-518471/2-A
Matrix: Water
Analysis Batch: 519594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium, Dissolved	50.0	50.6		mg/L		101	90 - 115

Lab Sample ID: 280-143032-2 MS
Matrix: Water
Analysis Batch: 519423

Client Sample ID: MW-15R
Prep Type: Dissolved
Prep Batch: 518471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Dissolved	14		50.0	61.4		mg/L		96	75 - 125
Iron, Dissolved	ND		10.0	9.57		mg/L		96	75 - 125
Magnesium, Dissolved	8.6		50.0	56.8		mg/L		97	75 - 125
Potassium, Dissolved	0.72	J	50.0	49.3		mg/L		97	76 - 125

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-143032-2 MS
Matrix: Water
Analysis Batch: 519594

Client Sample ID: MW-15R
Prep Type: Dissolved
Prep Batch: 518471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium, Dissolved	5.6		50.0	55.6		mg/L		100	75 - 125

Lab Sample ID: 280-143032-2 MSD
Matrix: Water
Analysis Batch: 519423

Client Sample ID: MW-15R
Prep Type: Dissolved
Prep Batch: 518471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium, Dissolved	14		50.0	62.0		mg/L		97	75 - 125	1	20
Iron, Dissolved	ND		10.0	9.68		mg/L		97	75 - 125	1	20
Magnesium, Dissolved	8.6		50.0	57.4		mg/L		98	75 - 125	1	20
Potassium, Dissolved	0.72	J	50.0	50.0		mg/L		99	76 - 125	1	20

Lab Sample ID: 280-143032-2 MSD
Matrix: Water
Analysis Batch: 519594

Client Sample ID: MW-15R
Prep Type: Dissolved
Prep Batch: 518471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium, Dissolved	5.6		50.0	56.4		mg/L		102	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-518461/1-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Total	ND		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 02:49	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 02:49	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 02:49	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 02:49	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/09/20 02:49	1
Manganese, Total	0.000347	J	0.0010	0.00031	mg/L		12/02/20 15:40	12/09/20 02:49	1
Nickel, Total	0.000367	J	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 02:49	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 02:49	1

Lab Sample ID: MB 280-518461/1-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/10/20 01:39	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 01:39	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/10/20 01:39	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/10/20 01:39	1

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-518461/1-A
Matrix: Water
Analysis Batch: 520129

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 09:56	1

Lab Sample ID: MB 280-518461/1-A
Matrix: Water
Analysis Batch: 520313

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:03	1

Lab Sample ID: LCS 280-518461/2-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium, Total	0.0400	0.0407		mg/L		102	92 - 117
Cadmium, Total	0.0400	0.0393		mg/L		98	91 - 114
Chromium, Total	0.0400	0.0416		mg/L		104	91 - 114
Copper, Total	0.0400	0.0379		mg/L		95	89 - 116
Lead, Total	0.0400	0.0391		mg/L		98	95 - 116
Manganese, Total	0.0400	0.0428		mg/L		107	89 - 119
Nickel, Total	0.0400	0.0385		mg/L		96	92 - 116
Vanadium, Total	0.0400	0.0432		mg/L		108	91 - 114

Lab Sample ID: LCS 280-518461/2-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Total	0.0400	0.0391		mg/L		98	80 - 111
Beryllium, Total	0.0400	0.0420		mg/L		105	87 - 118
Selenium, Total	0.0400	0.0419		mg/L		105	90 - 115
Silver, Total	0.0400	0.0425		mg/L		106	93 - 118

Lab Sample ID: LCS 280-518461/2-A
Matrix: Water
Analysis Batch: 520129

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc, Total	0.0400	0.0450		mg/L		113	86 - 120

Lab Sample ID: LCS 280-518461/2-A
Matrix: Water
Analysis Batch: 520313

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium, Total	0.0400	0.0394	^	mg/L		98	94 - 115

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-143032-2 MS
Matrix: Water
Analysis Batch: 519749

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Barium, Total	0.0043	F1	0.0400	0.0387	F1	mg/L		86		92 - 117
Cadmium, Total	ND	F1	0.0400	0.0344	F1	mg/L		86		91 - 114
Chromium, Total	0.00056	J F1	0.0400	0.0362	F1	mg/L		89		91 - 114
Copper, Total	ND	F1	0.0400	0.0340	F1	mg/L		85		89 - 116
Lead, Total	ND	F1	0.0400	0.0346	F1	mg/L		86		95 - 116
Manganese, Total	0.0015	B	0.0400	0.0394		mg/L		95		89 - 119
Nickel, Total	0.0012	J F1 B	0.0400	0.0352	F1	mg/L		85		92 - 116
Vanadium, Total	0.0039		0.0400	0.0412		mg/L		93		91 - 114

Lab Sample ID: 280-143032-2 MS
Matrix: Water
Analysis Batch: 519990

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Antimony, Total	ND		0.0400	0.0395		mg/L		99		80 - 111
Beryllium, Total	ND		0.0400	0.0432		mg/L		108		87 - 118
Selenium, Total	ND		0.0400	0.0418		mg/L		105		90 - 115
Silver, Total	ND		0.0400	0.0422		mg/L		105		93 - 118

Lab Sample ID: 280-143032-2 MS
Matrix: Water
Analysis Batch: 520129

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Zinc, Total	ND		0.0400	0.0392		mg/L		98		86 - 120

Lab Sample ID: 280-143032-2 MS
Matrix: Water
Analysis Batch: 520313

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Thallium, Total	ND	^	0.0400	0.0416	^	mg/L		104		94 - 115

Lab Sample ID: 280-143032-2 MSD
Matrix: Water
Analysis Batch: 519749

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Barium, Total	0.0043	F1	0.0400	0.0436		mg/L		98		92 - 117	12	20
Cadmium, Total	ND	F1	0.0400	0.0364		mg/L		91		91 - 114	6	20
Chromium, Total	0.00056	J F1	0.0400	0.0398		mg/L		98		91 - 114	10	20
Copper, Total	ND	F1	0.0400	0.0361		mg/L		90		89 - 116	6	20
Lead, Total	ND	F1	0.0400	0.0369	F1	mg/L		92		95 - 116	7	20
Manganese, Total	0.0015	B	0.0400	0.0421		mg/L		102		89 - 119	7	20
Nickel, Total	0.0012	J F1 B	0.0400	0.0367	F1	mg/L		89		92 - 116	4	20
Vanadium, Total	0.0039		0.0400	0.0444		mg/L		101		91 - 114	7	20

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-143032-2 MSD
Matrix: Water
Analysis Batch: 519990

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Antimony, Total	ND		0.0400	0.0411		mg/L		103	80 - 111	4	20
Beryllium, Total	ND		0.0400	0.0432		mg/L		108	87 - 118	0	20
Selenium, Total	ND		0.0400	0.0416		mg/L		104	90 - 115	1	20
Silver, Total	ND		0.0400	0.0423		mg/L		106	93 - 118	0	20

Lab Sample ID: 280-143032-2 MSD
Matrix: Water
Analysis Batch: 520129

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Zinc, Total	ND		0.0400	0.0391		mg/L		98	86 - 120	0	20

Lab Sample ID: 280-143032-2 MSD
Matrix: Water
Analysis Batch: 520313

Client Sample ID: MW-15R
Prep Type: Total Recoverable
Prep Batch: 518461

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Thallium, Total	ND	^	0.0400	0.0415	^	mg/L		104	94 - 115	0	20

Lab Sample ID: MB 280-518477/1-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518477

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 00:13	1

Lab Sample ID: LCS 280-518477/2-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518477

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Result
Manganese, Dissolved	0.0400	0.0426		mg/L		106	89 - 119

Lab Sample ID: 280-143032-1 MS
Matrix: Water
Analysis Batch: 519616

Client Sample ID: MW-36A
Prep Type: Dissolved
Prep Batch: 518477

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Manganese, Dissolved	ND		0.0400	0.0411		mg/L		103	89 - 119

Lab Sample ID: 280-143032-1 MSD
Matrix: Water
Analysis Batch: 519616

Client Sample ID: MW-36A
Prep Type: Dissolved
Prep Batch: 518477

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Manganese, Dissolved	ND		0.0400	0.0395		mg/L		99	89 - 119	4	20

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-520246/52
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/13/20 06:28	1
Sulfate	ND		5.0	5.0	mg/L			12/13/20 06:28	1

Lab Sample ID: MB 280-520246/6
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/12/20 12:46	1
Sulfate	ND		5.0	5.0	mg/L			12/12/20 12:46	1

Lab Sample ID: LCS 280-520246/4
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	95.3		mg/L		95	90 - 110
Sulfate	100	95.7		mg/L		96	90 - 110

Lab Sample ID: LCS 280-520246/50
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	94.6		mg/L		95	90 - 110
Sulfate	100	92.4		mg/L		92	90 - 110

Lab Sample ID: LCSD 280-520246/5
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	95.4		mg/L		95	90 - 110	0	10
Sulfate	100	95.4		mg/L		95	90 - 110	0	10

Lab Sample ID: LCSD 280-520246/51
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	95.1		mg/L		95	90 - 110	0	10
Sulfate	100	92.7		mg/L		93	90 - 110	0	10

Lab Sample ID: MRL 280-520246/3
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.53		mg/L		91	50 - 150
Sulfate	5.00	ND		mg/L		89	50 - 150

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 280-143018-B-12 MS
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12	F1	50.0	11.8	F1	mg/L		-0.2	80 - 120

Lab Sample ID: 280-143018-B-12 MSD
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12	F1	50.0	11.8	F1	mg/L		-0.4	80 - 120	1	20

Lab Sample ID: 280-143018-B-12 DU
Matrix: Water
Analysis Batch: 520246

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	12	F1	11.8		mg/L		1	15

Lab Sample ID: MB 280-520423/6
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/14/20 19:54	1
Sulfate	ND		5.0	5.0	mg/L			12/14/20 19:54	1

Lab Sample ID: LCS 280-520423/4
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	95.5		mg/L		96	90 - 110
Sulfate	100	95.1		mg/L		95	90 - 110

Lab Sample ID: LCSD 280-520423/5
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	95.4		mg/L		95	90 - 110	0	10
Sulfate	100	94.5		mg/L		95	90 - 110	1	10

Lab Sample ID: MRL 280-520423/3
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.62		mg/L		92	50 - 150
Sulfate	5.00	ND		mg/L		97	50 - 150

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-143051-C-1 MS
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	170		50.0	219	E	mg/L		103	80 - 120
Sulfate	1700	E	50.0	1750	E 4	mg/L		54	80 - 120

Lab Sample ID: 280-143051-C-1 MSD
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	170		50.0	218	E	mg/L		101	80 - 120	0	20
Sulfate	1700	E	50.0	1760	E 4	mg/L		61	80 - 120	0	20

Lab Sample ID: 280-143051-C-1 DU
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	170		166		mg/L		0.4	15
Sulfate	1700	E	1720	E	mg/L		0.1	15

Lab Sample ID: MB 280-520672/6
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/16/20 12:38	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 12:38	1

Lab Sample ID: LCS 280-520672/4
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	98.1		mg/L		98	90 - 110
Sulfate	100	97.7		mg/L		98	90 - 110

Lab Sample ID: LCSD 280-520672/5
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	98.5		mg/L		99	90 - 110	0	10
Sulfate	100	97.8		mg/L		98	90 - 110	0	10

Lab Sample ID: MRL 280-520672/3
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.62		mg/L		92	50 - 150
Sulfate	5.00	ND		mg/L		92	50 - 150

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 280-143032-13 MS
Matrix: Water
Analysis Batch: 520672

Client Sample ID: MW-43
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	ND		50.0	53.4		mg/L		107	80 - 120

Lab Sample ID: 280-143032-13 MSD
Matrix: Water
Analysis Batch: 520672

Client Sample ID: MW-43
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	ND		50.0	54.1		mg/L		108	80 - 120	1	20

Lab Sample ID: 280-143032-13 DU
Matrix: Water
Analysis Batch: 520672

Client Sample ID: MW-43
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	ND		ND		mg/L		NC	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-519372/19
Matrix: Water
Analysis Batch: 519372

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/05/20 11:55	1

Lab Sample ID: LCS 280-519372/18
Matrix: Water
Analysis Batch: 519372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.51		mg/L		100	90 - 110

Lab Sample ID: 280-143032-1 MS
Matrix: Water
Analysis Batch: 519372

Client Sample ID: MW-36A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	ND		0.500	0.451		mg/L		90	90 - 110

Lab Sample ID: 280-143032-1 MSD
Matrix: Water
Analysis Batch: 519372

Client Sample ID: MW-36A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND		0.500	0.450		mg/L		90	90 - 110	0	10

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-143032-12 MS
Matrix: Water
Analysis Batch: 519372

Client Sample ID: MW-29A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.056		0.500	0.528		mg/L		94	90 - 110

Lab Sample ID: 280-143032-12 MSD
Matrix: Water
Analysis Batch: 519372

Client Sample ID: MW-29A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.056		0.500	0.520		mg/L		93	90 - 110	2	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-520140/1
Matrix: Water
Analysis Batch: 520140

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-518549/31
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/25/20 16:35	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/25/20 16:35	1

Lab Sample ID: MB 280-518549/5
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/25/20 14:08	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/25/20 14:08	1

Lab Sample ID: LCS 280-518549/30
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total (As CaCO3)	200	195		mg/L		98	89 - 109

Lab Sample ID: LCS 280-518549/4
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total (As CaCO3)	200	192		mg/L		96	89 - 109

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 280-143032-14 DU
 Matrix: Water
 Analysis Batch: 518549

Client Sample ID: DUP1
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	80		80.0		mg/L		0.3	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-517842/1
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/23/20 13:37	1

Lab Sample ID: LCS 280-517842/2
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	479		mg/L		96	93 - 110

Lab Sample ID: 280-142945-B-1 DU
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	17000		16800		mg/L		1	10

Lab Sample ID: MB 280-517937/1
 Matrix: Water
 Analysis Batch: 517937

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/24/20 07:51	1

Lab Sample ID: LCS 280-517937/2
 Matrix: Water
 Analysis Batch: 517937

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	483		mg/L		97	93 - 110

Lab Sample ID: 280-143047-A-1 DU
 Matrix: Water
 Analysis Batch: 517937

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	83		85.0		mg/L		2	10

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 280-517938/1
Matrix: Water
Analysis Batch: 517938

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/24/20 07:53	1

Lab Sample ID: LCS 280-517938/2
Matrix: Water
Analysis Batch: 517938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	465		mg/L		93	93 - 110

Lab Sample ID: 280-143047-A-2 DU
Matrix: Water
Analysis Batch: 517938

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	82		88.0		mg/L		7	10

Lab Sample ID: MB 280-518881/1
Matrix: Water
Analysis Batch: 518881

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			12/02/20 11:35	1

Lab Sample ID: LCS 280-518881/2
Matrix: Water
Analysis Batch: 518881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	473		mg/L		95	93 - 110

Lab Sample ID: 280-143081-B-1 DU
Matrix: Water
Analysis Batch: 518881

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	2500		2540		mg/L		3	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-517887/2
Matrix: Water
Analysis Batch: 517887

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 280-517887/1
 Matrix: Water
 Analysis Batch: 517887

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	88.8		mg/L		89	79 - 114

Lab Sample ID: 280-143032-15 DU
 Matrix: Water
 Analysis Batch: 517887

Client Sample ID: MW-13A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	ND		ND		mg/L		NC	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-520661/4
 Matrix: Water
 Analysis Batch: 520661

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 15:58	1

Lab Sample ID: LCS 280-520661/3
 Matrix: Water
 Analysis Batch: 520661

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	25.0	24.6		mg/L		99	88 - 112

Lab Sample ID: 280-143032-1 MS
 Matrix: Water
 Analysis Batch: 520661

Client Sample ID: MW-36A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	ND		25.0	25.0		mg/L		100	88 - 112

Lab Sample ID: 280-143032-1 MSD
 Matrix: Water
 Analysis Batch: 520661

Client Sample ID: MW-36A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Average	ND		25.0	25.1		mg/L		100	88 - 112	0	15

Lab Sample ID: 280-143032-12 MS
 Matrix: Water
 Analysis Batch: 520661

Client Sample ID: MW-29A
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	1.6		25.0	26.4		mg/L		99	88 - 112

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 280-143032-12 MSD
Matrix: Water
Analysis Batch: 520661

Client Sample ID: MW-29A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Average	1.6		25.0	26.1		mg/L		98	88 - 112	1	15

- 1
- 2
- 3
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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

GC/MS VOA

Analysis Batch: 560978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	8260C SIM	
280-143032-2	MW-15R	Total/NA	Water	8260C SIM	
280-143032-3	DUP2	Total/NA	Water	8260C SIM	
280-143032-4	MW-34C	Total/NA	Water	8260C SIM	
280-143032-5	MW-34A	Total/NA	Water	8260C SIM	
280-143032-6	MW-39	Total/NA	Water	8260C SIM	
280-143032-7	MW-35	Total/NA	Water	8260C SIM	
280-143032-8	TRIP BLANK	Total/NA	Water	8260C SIM	
280-143032-9	MW-13B	Total/NA	Water	8260C SIM	
280-143032-10	MW-19C	Total/NA	Water	8260C SIM	
280-143032-11	MW-42	Total/NA	Water	8260C SIM	
280-143032-12	MW-29A	Total/NA	Water	8260C SIM	
280-143032-13	MW-43	Total/NA	Water	8260C SIM	
280-143032-14	DUP1	Total/NA	Water	8260C SIM	
280-143032-15	MW-13A	Total/NA	Water	8260C SIM	
MB 480-560978/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-560978/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-560978/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 561027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	8260C	
280-143032-2	MW-15R	Total/NA	Water	8260C	
280-143032-3	DUP2	Total/NA	Water	8260C	
280-143032-4	MW-34C	Total/NA	Water	8260C	
280-143032-5	MW-34A	Total/NA	Water	8260C	
280-143032-6	MW-39	Total/NA	Water	8260C	
280-143032-7	MW-35	Total/NA	Water	8260C	
280-143032-8	TRIP BLANK	Total/NA	Water	8260C	
280-143032-9	MW-13B	Total/NA	Water	8260C	
280-143032-10	MW-19C	Total/NA	Water	8260C	
280-143032-11	MW-42	Total/NA	Water	8260C	
280-143032-12	MW-29A	Total/NA	Water	8260C	
280-143032-13	MW-43	Total/NA	Water	8260C	
280-143032-14	DUP1	Total/NA	Water	8260C	
280-143032-15	MW-13A	Total/NA	Water	8260C	
MB 480-561027/8	Method Blank	Total/NA	Water	8260C	
LCS 480-561027/6	Lab Control Sample	Total/NA	Water	8260C	
480-178683-B-4 MS	Matrix Spike	Total/NA	Water	8260C	
480-178683-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Metals

Prep Batch: 518276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	3005A	
280-143032-2	MW-15R	Total Recoverable	Water	3005A	
280-143032-3	DUP2	Total Recoverable	Water	3005A	
280-143032-4	MW-34C	Total Recoverable	Water	3005A	
280-143032-5	MW-34A	Total Recoverable	Water	3005A	
280-143032-6	MW-39	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Metals (Continued)

Prep Batch: 518276 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-7	MW-35	Total Recoverable	Water	3005A	
280-143032-9	MW-13B	Total Recoverable	Water	3005A	
280-143032-10	MW-19C	Total Recoverable	Water	3005A	
280-143032-11	MW-42	Total Recoverable	Water	3005A	
280-143032-12	MW-29A	Total Recoverable	Water	3005A	
280-143032-13	MW-43	Total Recoverable	Water	3005A	
280-143032-14	DUP1	Total Recoverable	Water	3005A	
280-143032-15	MW-13A	Total Recoverable	Water	3005A	
MB 280-518276/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518276/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143102-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-143102-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 518461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	3005A	
280-143032-2	MW-15R	Total Recoverable	Water	3005A	
280-143032-3	DUP2	Total Recoverable	Water	3005A	
280-143032-4	MW-34C	Total Recoverable	Water	3005A	
280-143032-5	MW-34A	Total Recoverable	Water	3005A	
280-143032-6	MW-39	Total Recoverable	Water	3005A	
280-143032-7	MW-35	Total Recoverable	Water	3005A	
280-143032-9	MW-13B	Total Recoverable	Water	3005A	
280-143032-10	MW-19C	Total Recoverable	Water	3005A	
280-143032-11	MW-42	Total Recoverable	Water	3005A	
280-143032-12	MW-29A	Total Recoverable	Water	3005A	
280-143032-13	MW-43	Total Recoverable	Water	3005A	
280-143032-14	DUP1	Total Recoverable	Water	3005A	
280-143032-15	MW-13A	Total Recoverable	Water	3005A	
MB 280-518461/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518461/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143032-2 MS	MW-15R	Total Recoverable	Water	3005A	
280-143032-2 MSD	MW-15R	Total Recoverable	Water	3005A	

Prep Batch: 518471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Dissolved	Water	3005A	
280-143032-2	MW-15R	Dissolved	Water	3005A	
280-143032-3	DUP2	Dissolved	Water	3005A	
280-143032-4	MW-34C	Dissolved	Water	3005A	
280-143032-5	MW-34A	Dissolved	Water	3005A	
280-143032-6	MW-39	Dissolved	Water	3005A	
280-143032-7	MW-35	Dissolved	Water	3005A	
280-143032-9	MW-13B	Dissolved	Water	3005A	
280-143032-10	MW-19C	Dissolved	Water	3005A	
280-143032-11	MW-42	Dissolved	Water	3005A	
280-143032-12	MW-29A	Dissolved	Water	3005A	
280-143032-13	MW-43	Dissolved	Water	3005A	
280-143032-14	DUP1	Dissolved	Water	3005A	
280-143032-15	MW-13A	Dissolved	Water	3005A	
MB 280-518471/1-A	Method Blank	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Metals (Continued)

Prep Batch: 518471 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-518471/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143032-2 MS	MW-15R	Dissolved	Water	3005A	
280-143032-2 MSD	MW-15R	Dissolved	Water	3005A	

Prep Batch: 518477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Dissolved	Water	3005A	
280-143032-2	MW-15R	Dissolved	Water	3005A	
280-143032-3	DUP2	Dissolved	Water	3005A	
280-143032-4	MW-34C	Dissolved	Water	3005A	
280-143032-5	MW-34A	Dissolved	Water	3005A	
280-143032-6	MW-39	Dissolved	Water	3005A	
280-143032-7	MW-35	Dissolved	Water	3005A	
280-143032-9	MW-13B	Dissolved	Water	3005A	
280-143032-10	MW-19C	Dissolved	Water	3005A	
280-143032-11	MW-42	Dissolved	Water	3005A	
280-143032-12	MW-29A	Dissolved	Water	3005A	
280-143032-13	MW-43	Dissolved	Water	3005A	
280-143032-14	DUP1	Dissolved	Water	3005A	
280-143032-15	MW-13A	Dissolved	Water	3005A	
MB 280-518477/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518477/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143032-1 MS	MW-36A	Dissolved	Water	3005A	
280-143032-1 MSD	MW-36A	Dissolved	Water	3005A	

Analysis Batch: 518272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	6010D	518276
280-143032-2	MW-15R	Total Recoverable	Water	6010D	518276
280-143032-3	DUP2	Total Recoverable	Water	6010D	518276
280-143032-4	MW-34C	Total Recoverable	Water	6010D	518276
280-143032-5	MW-34A	Total Recoverable	Water	6010D	518276
280-143032-6	MW-39	Total Recoverable	Water	6010D	518276
280-143032-7	MW-35	Total Recoverable	Water	6010D	518276
280-143032-9	MW-13B	Total Recoverable	Water	6010D	518276
280-143032-10	MW-19C	Total Recoverable	Water	6010D	518276
280-143032-11	MW-42	Total Recoverable	Water	6010D	518276
280-143032-12	MW-29A	Total Recoverable	Water	6010D	518276
280-143032-13	MW-43	Total Recoverable	Water	6010D	518276
280-143032-14	DUP1	Total Recoverable	Water	6010D	518276
280-143032-15	MW-13A	Total Recoverable	Water	6010D	518276
MB 280-518276/1-A	Method Blank	Total Recoverable	Water	6010D	518276
LCS 280-518276/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518276
280-143102-C-1-B MS	Matrix Spike	Total Recoverable	Water	6010D	518276
280-143102-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	518276

Analysis Batch: 519423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Dissolved	Water	6010D	518471
280-143032-2	MW-15R	Dissolved	Water	6010D	518471
280-143032-3	DUP2	Dissolved	Water	6010D	518471

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Metals (Continued)

Analysis Batch: 519423 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-4	MW-34C	Dissolved	Water	6010D	518471
280-143032-5	MW-34A	Dissolved	Water	6010D	518471
280-143032-6	MW-39	Dissolved	Water	6010D	518471
280-143032-7	MW-35	Dissolved	Water	6010D	518471
280-143032-9	MW-13B	Dissolved	Water	6010D	518471
280-143032-10	MW-19C	Dissolved	Water	6010D	518471
280-143032-11	MW-42	Dissolved	Water	6010D	518471
280-143032-12	MW-29A	Dissolved	Water	6010D	518471
280-143032-13	MW-43	Dissolved	Water	6010D	518471
280-143032-14	DUP1	Dissolved	Water	6010D	518471
280-143032-15	MW-13A	Dissolved	Water	6010D	518471
MB 280-518471/1-A	Method Blank	Total Recoverable	Water	6010D	518471
LCS 280-518471/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518471
280-143032-2 MS	MW-15R	Dissolved	Water	6010D	518471
280-143032-2 MSD	MW-15R	Dissolved	Water	6010D	518471

Analysis Batch: 519594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Dissolved	Water	6010D	518471
280-143032-2	MW-15R	Dissolved	Water	6010D	518471
280-143032-3	DUP2	Dissolved	Water	6010D	518471
280-143032-4	MW-34C	Dissolved	Water	6010D	518471
280-143032-5	MW-34A	Dissolved	Water	6010D	518471
280-143032-6	MW-39	Dissolved	Water	6010D	518471
280-143032-7	MW-35	Dissolved	Water	6010D	518471
280-143032-9	MW-13B	Dissolved	Water	6010D	518471
280-143032-10	MW-19C	Dissolved	Water	6010D	518471
280-143032-11	MW-42	Dissolved	Water	6010D	518471
280-143032-12	MW-29A	Dissolved	Water	6010D	518471
280-143032-13	MW-43	Dissolved	Water	6010D	518471
280-143032-14	DUP1	Dissolved	Water	6010D	518471
280-143032-15	MW-13A	Dissolved	Water	6010D	518471
MB 280-518471/1-A	Method Blank	Total Recoverable	Water	6010D	518471
LCS 280-518471/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518471
280-143032-2 MS	MW-15R	Dissolved	Water	6010D	518471
280-143032-2 MSD	MW-15R	Dissolved	Water	6010D	518471

Analysis Batch: 519616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Dissolved	Water	6020B	518477
280-143032-2	MW-15R	Dissolved	Water	6020B	518477
280-143032-3	DUP2	Dissolved	Water	6020B	518477
280-143032-4	MW-34C	Dissolved	Water	6020B	518477
280-143032-5	MW-34A	Dissolved	Water	6020B	518477
280-143032-6	MW-39	Dissolved	Water	6020B	518477
280-143032-7	MW-35	Dissolved	Water	6020B	518477
280-143032-9	MW-13B	Dissolved	Water	6020B	518477
280-143032-10	MW-19C	Dissolved	Water	6020B	518477
280-143032-11	MW-42	Dissolved	Water	6020B	518477
280-143032-12	MW-29A	Dissolved	Water	6020B	518477
280-143032-13	MW-43	Dissolved	Water	6020B	518477

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Metals (Continued)

Analysis Batch: 519616 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-14	DUP1	Dissolved	Water	6020B	518477
280-143032-15	MW-13A	Dissolved	Water	6020B	518477
MB 280-518477/1-A	Method Blank	Total Recoverable	Water	6020B	518477
LCS 280-518477/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518477
280-143032-1 MS	MW-36A	Dissolved	Water	6020B	518477
280-143032-1 MSD	MW-36A	Dissolved	Water	6020B	518477

Analysis Batch: 519749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	6020B	518461
280-143032-2	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-3	DUP2	Total Recoverable	Water	6020B	518461
280-143032-4	MW-34C	Total Recoverable	Water	6020B	518461
280-143032-5	MW-34A	Total Recoverable	Water	6020B	518461
280-143032-6	MW-39	Total Recoverable	Water	6020B	518461
280-143032-7	MW-35	Total Recoverable	Water	6020B	518461
280-143032-9	MW-13B	Total Recoverable	Water	6020B	518461
280-143032-10	MW-19C	Total Recoverable	Water	6020B	518461
280-143032-11	MW-42	Total Recoverable	Water	6020B	518461
280-143032-12	MW-29A	Total Recoverable	Water	6020B	518461
280-143032-13	MW-43	Total Recoverable	Water	6020B	518461
280-143032-14	DUP1	Total Recoverable	Water	6020B	518461
280-143032-15	MW-13A	Total Recoverable	Water	6020B	518461
MB 280-518461/1-A	Method Blank	Total Recoverable	Water	6020B	518461
LCS 280-518461/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518461
280-143032-2 MS	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-2 MSD	MW-15R	Total Recoverable	Water	6020B	518461

Analysis Batch: 519990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	6020B	518461
280-143032-2	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-3	DUP2	Total Recoverable	Water	6020B	518461
280-143032-4	MW-34C	Total Recoverable	Water	6020B	518461
280-143032-5	MW-34A	Total Recoverable	Water	6020B	518461
280-143032-6	MW-39	Total Recoverable	Water	6020B	518461
280-143032-7	MW-35	Total Recoverable	Water	6020B	518461
280-143032-9	MW-13B	Total Recoverable	Water	6020B	518461
280-143032-10	MW-19C	Total Recoverable	Water	6020B	518461
280-143032-11	MW-42	Total Recoverable	Water	6020B	518461
280-143032-12	MW-29A	Total Recoverable	Water	6020B	518461
280-143032-13	MW-43	Total Recoverable	Water	6020B	518461
280-143032-14	DUP1	Total Recoverable	Water	6020B	518461
280-143032-15	MW-13A	Total Recoverable	Water	6020B	518461
MB 280-518461/1-A	Method Blank	Total Recoverable	Water	6020B	518461
LCS 280-518461/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518461
280-143032-2 MS	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-2 MSD	MW-15R	Total Recoverable	Water	6020B	518461

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Metals

Analysis Batch: 520129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	6020B	518461
280-143032-2	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-3	DUP2	Total Recoverable	Water	6020B	518461
280-143032-9	MW-13B	Total Recoverable	Water	6020B	518461
280-143032-10	MW-19C	Total Recoverable	Water	6020B	518461
280-143032-11	MW-42	Total Recoverable	Water	6020B	518461
280-143032-12	MW-29A	Total Recoverable	Water	6020B	518461
280-143032-13	MW-43	Total Recoverable	Water	6020B	518461
280-143032-14	DUP1	Total Recoverable	Water	6020B	518461
280-143032-15	MW-13A	Total Recoverable	Water	6020B	518461
MB 280-518461/1-A	Method Blank	Total Recoverable	Water	6020B	518461
LCS 280-518461/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518461
280-143032-2 MS	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-2 MSD	MW-15R	Total Recoverable	Water	6020B	518461

Analysis Batch: 520148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-4	MW-34C	Total Recoverable	Water	6020B	518461
280-143032-5	MW-34A	Total Recoverable	Water	6020B	518461
280-143032-6	MW-39	Total Recoverable	Water	6020B	518461
280-143032-7	MW-35	Total Recoverable	Water	6020B	518461
280-143032-9	MW-13B	Total Recoverable	Water	6020B	518461
280-143032-10	MW-19C	Total Recoverable	Water	6020B	518461
280-143032-11	MW-42	Total Recoverable	Water	6020B	518461
280-143032-12	MW-29A	Total Recoverable	Water	6020B	518461
280-143032-13	MW-43	Total Recoverable	Water	6020B	518461
280-143032-14	DUP1	Total Recoverable	Water	6020B	518461
280-143032-15	MW-13A	Total Recoverable	Water	6020B	518461

Analysis Batch: 520313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total Recoverable	Water	6020B	518461
280-143032-2	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-3	DUP2	Total Recoverable	Water	6020B	518461
MB 280-518461/1-A	Method Blank	Total Recoverable	Water	6020B	518461
LCS 280-518461/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518461
280-143032-2 MS	MW-15R	Total Recoverable	Water	6020B	518461
280-143032-2 MSD	MW-15R	Total Recoverable	Water	6020B	518461

General Chemistry

Analysis Batch: 517842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	SM 2540C	
280-143032-2	MW-15R	Total/NA	Water	SM 2540C	
280-143032-3	DUP2	Total/NA	Water	SM 2540C	
280-143032-4	MW-34C	Total/NA	Water	SM 2540C	
280-143032-5	MW-34A	Total/NA	Water	SM 2540C	
MB 280-517842/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-517842/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-142945-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Denver

QC Association Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry

Analysis Batch: 517887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	SM 2540D	
280-143032-2	MW-15R	Total/NA	Water	SM 2540D	
280-143032-3	DUP2	Total/NA	Water	SM 2540D	
280-143032-4	MW-34C	Total/NA	Water	SM 2540D	
280-143032-5	MW-34A	Total/NA	Water	SM 2540D	
280-143032-6	MW-39	Total/NA	Water	SM 2540D	
280-143032-7	MW-35	Total/NA	Water	SM 2540D	
280-143032-9	MW-13B	Total/NA	Water	SM 2540D	
280-143032-10	MW-19C	Total/NA	Water	SM 2540D	
280-143032-11	MW-42	Total/NA	Water	SM 2540D	
280-143032-12	MW-29A	Total/NA	Water	SM 2540D	
280-143032-13	MW-43	Total/NA	Water	SM 2540D	
280-143032-14	DUP1	Total/NA	Water	SM 2540D	
280-143032-15	MW-13A	Total/NA	Water	SM 2540D	
MB 280-517887/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-517887/1	Lab Control Sample	Total/NA	Water	SM 2540D	
280-143032-15 DU	MW-13A	Total/NA	Water	SM 2540D	

Analysis Batch: 517937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-14	DUP1	Total/NA	Water	SM 2540C	
280-143032-15	MW-13A	Total/NA	Water	SM 2540C	
MB 280-517937/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-517937/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-143047-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 517938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-6	MW-39	Total/NA	Water	SM 2540C	
280-143032-7	MW-35	Total/NA	Water	SM 2540C	
280-143032-9	MW-13B	Total/NA	Water	SM 2540C	
280-143032-10	MW-19C	Total/NA	Water	SM 2540C	
280-143032-11	MW-42	Total/NA	Water	SM 2540C	
280-143032-12	MW-29A	Total/NA	Water	SM 2540C	
MB 280-517938/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-517938/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-143047-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 518549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	SM 2320B	
280-143032-2	MW-15R	Total/NA	Water	SM 2320B	
280-143032-3	DUP2	Total/NA	Water	SM 2320B	
280-143032-4	MW-34C	Total/NA	Water	SM 2320B	
280-143032-5	MW-34A	Total/NA	Water	SM 2320B	
280-143032-6	MW-39	Total/NA	Water	SM 2320B	
280-143032-7	MW-35	Total/NA	Water	SM 2320B	
280-143032-9	MW-13B	Total/NA	Water	SM 2320B	
280-143032-10	MW-19C	Total/NA	Water	SM 2320B	
280-143032-11	MW-42	Total/NA	Water	SM 2320B	
280-143032-12	MW-29A	Total/NA	Water	SM 2320B	

Eurofins TestAmerica, Denver

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry (Continued)

Analysis Batch: 518549 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-13	MW-43	Total/NA	Water	SM 2320B	
280-143032-14	DUP1	Total/NA	Water	SM 2320B	
280-143032-15	MW-13A	Total/NA	Water	SM 2320B	
MB 280-518549/31	Method Blank	Total/NA	Water	SM 2320B	
MB 280-518549/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-518549/30	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 280-518549/4	Lab Control Sample	Total/NA	Water	SM 2320B	
280-143032-14 DU	DUP1	Total/NA	Water	SM 2320B	

Analysis Batch: 518881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-13	MW-43	Total/NA	Water	SM 2540C	
MB 280-518881/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-518881/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-143081-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 519372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	350.1	
280-143032-2	MW-15R	Total/NA	Water	350.1	
280-143032-3	DUP2	Total/NA	Water	350.1	
280-143032-4	MW-34C	Total/NA	Water	350.1	
280-143032-5	MW-34A	Total/NA	Water	350.1	
280-143032-6	MW-39	Total/NA	Water	350.1	
280-143032-7	MW-35	Total/NA	Water	350.1	
280-143032-9	MW-13B	Total/NA	Water	350.1	
280-143032-10	MW-19C	Total/NA	Water	350.1	
280-143032-11	MW-42	Total/NA	Water	350.1	
280-143032-12	MW-29A	Total/NA	Water	350.1	
280-143032-13	MW-43	Total/NA	Water	350.1	
280-143032-14	DUP1	Total/NA	Water	350.1	
280-143032-15	MW-13A	Total/NA	Water	350.1	
MB 280-519372/19	Method Blank	Total/NA	Water	350.1	
LCS 280-519372/18	Lab Control Sample	Total/NA	Water	350.1	
280-143032-1 MS	MW-36A	Total/NA	Water	350.1	
280-143032-1 MSD	MW-36A	Total/NA	Water	350.1	
280-143032-12 MS	MW-29A	Total/NA	Water	350.1	
280-143032-12 MSD	MW-29A	Total/NA	Water	350.1	

Analysis Batch: 520140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	353.2	
280-143032-2	MW-15R	Total/NA	Water	353.2	
280-143032-3	DUP2	Total/NA	Water	353.2	
280-143032-4	MW-34C	Total/NA	Water	353.2	
280-143032-5	MW-34A	Total/NA	Water	353.2	
280-143032-6	MW-39	Total/NA	Water	353.2	
280-143032-7	MW-35	Total/NA	Water	353.2	
280-143032-9	MW-13B	Total/NA	Water	353.2	
280-143032-10	MW-19C	Total/NA	Water	353.2	
280-143032-11	MW-42	Total/NA	Water	353.2	

Eurofins TestAmerica, Denver

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry (Continued)

Analysis Batch: 520140 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-12	MW-29A	Total/NA	Water	353.2	
280-143032-13	MW-43	Total/NA	Water	353.2	
280-143032-14	DUP1	Total/NA	Water	353.2	
280-143032-15	MW-13A	Total/NA	Water	353.2	
MB 280-520140/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 520246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	300.0	
280-143032-2	MW-15R	Total/NA	Water	300.0	
280-143032-3	DUP2	Total/NA	Water	300.0	
280-143032-4	MW-34C	Total/NA	Water	300.0	
280-143032-5	MW-34A	Total/NA	Water	300.0	
280-143032-6	MW-39	Total/NA	Water	300.0	
280-143032-7	MW-35	Total/NA	Water	300.0	
280-143032-9	MW-13B	Total/NA	Water	300.0	
280-143032-10	MW-19C	Total/NA	Water	300.0	
280-143032-11	MW-42	Total/NA	Water	300.0	
280-143032-12	MW-29A	Total/NA	Water	300.0	
280-143032-13	MW-43	Total/NA	Water	300.0	
280-143032-14	DUP1	Total/NA	Water	300.0	
280-143032-15	MW-13A	Total/NA	Water	300.0	
MB 280-520246/52	Method Blank	Total/NA	Water	300.0	
MB 280-520246/6	Method Blank	Total/NA	Water	300.0	
LCS 280-520246/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 280-520246/50	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-520246/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 280-520246/51	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-520246/3	Lab Control Sample	Total/NA	Water	300.0	
280-143018-B-12 MS	Matrix Spike	Total/NA	Water	300.0	
280-143018-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-143018-B-12 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 520423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-9	MW-13B	Total/NA	Water	300.0	
MB 280-520423/6	Method Blank	Total/NA	Water	300.0	
LCS 280-520423/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-520423/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-520423/3	Lab Control Sample	Total/NA	Water	300.0	
280-143051-C-1 MS	Matrix Spike	Total/NA	Water	300.0	
280-143051-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-143051-C-1 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 520661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	SM 5310B	
280-143032-2	MW-15R	Total/NA	Water	SM 5310B	
280-143032-3	DUP2	Total/NA	Water	SM 5310B	
280-143032-4	MW-34C	Total/NA	Water	SM 5310B	
280-143032-5	MW-34A	Total/NA	Water	SM 5310B	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

General Chemistry (Continued)

Analysis Batch: 520661 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-6	MW-39	Total/NA	Water	SM 5310B	
280-143032-7	MW-35	Total/NA	Water	SM 5310B	
280-143032-9	MW-13B	Total/NA	Water	SM 5310B	
280-143032-10	MW-19C	Total/NA	Water	SM 5310B	
280-143032-11	MW-42	Total/NA	Water	SM 5310B	
280-143032-12	MW-29A	Total/NA	Water	SM 5310B	
280-143032-13	MW-43	Total/NA	Water	SM 5310B	
280-143032-14	DUP1	Total/NA	Water	SM 5310B	
280-143032-15	MW-13A	Total/NA	Water	SM 5310B	
MB 280-520661/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-520661/3	Lab Control Sample	Total/NA	Water	SM 5310B	
280-143032-1 MS	MW-36A	Total/NA	Water	SM 5310B	
280-143032-1 MSD	MW-36A	Total/NA	Water	SM 5310B	
280-143032-12 MS	MW-29A	Total/NA	Water	SM 5310B	
280-143032-12 MSD	MW-29A	Total/NA	Water	SM 5310B	

Analysis Batch: 520672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-10	MW-19C	Total/NA	Water	300.0	
280-143032-11	MW-42	Total/NA	Water	300.0	
280-143032-12	MW-29A	Total/NA	Water	300.0	
280-143032-13	MW-43	Total/NA	Water	300.0	
280-143032-14	DUP1	Total/NA	Water	300.0	
280-143032-15	MW-13A	Total/NA	Water	300.0	
MB 280-520672/6	Method Blank	Total/NA	Water	300.0	
LCS 280-520672/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-520672/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-520672/3	Lab Control Sample	Total/NA	Water	300.0	
280-143032-13 MS	MW-43	Total/NA	Water	300.0	
280-143032-13 MSD	MW-43	Total/NA	Water	300.0	
280-143032-13 DU	MW-43	Total/NA	Water	300.0	

Field Service / Mobile Lab

Analysis Batch: 518225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143032-1	MW-36A	Total/NA	Water	Field Sampling	
280-143032-2	MW-15R	Total/NA	Water	Field Sampling	
280-143032-4	MW-34C	Total/NA	Water	Field Sampling	
280-143032-5	MW-34A	Total/NA	Water	Field Sampling	
280-143032-6	MW-39	Total/NA	Water	Field Sampling	
280-143032-7	MW-35	Total/NA	Water	Field Sampling	
280-143032-9	MW-13B	Total/NA	Water	Field Sampling	
280-143032-10	MW-19C	Total/NA	Water	Field Sampling	
280-143032-11	MW-42	Total/NA	Water	Field Sampling	
280-143032-12	MW-29A	Total/NA	Water	Field Sampling	
280-143032-13	MW-43	Total/NA	Water	Field Sampling	
280-143032-15	MW-13A	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-36A

Lab Sample ID: 280-143032-1

Date Collected: 11/19/20 10:25

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 13:12	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/25/20 22:31	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 20:47	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 22:15	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:00	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 00:20	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 02:56	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 01:47	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 10:04	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520313	12/11/20 17:10	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 03:51	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 11:57	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:05	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 16:30	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 11:25	K11	TAL DEN

Client Sample ID: MW-15R

Lab Sample ID: 280-143032-2

Date Collected: 11/19/20 11:10

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 13:36	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/25/20 22:55	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 20:50	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 22:19	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:16	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 07:35	LMT	TAL DEN

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-15R

Lab Sample ID: 280-143032-2

Date Collected: 11/19/20 11:10

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:00	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 01:50	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 10:07	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520313	12/11/20 17:21	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 04:08	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:03	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:10	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 17:15	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 12:10	K11	TAL DEN

Client Sample ID: DUP2

Lab Sample ID: 280-143032-3

Date Collected: 11/19/20 11:15

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 14:01	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/25/20 23:19	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:07	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 22:33	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:20	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 07:38	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:18	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:09	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 10:26	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520313	12/11/20 17:32	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 04:25	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:05	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: DUP2

Lab Sample ID: 280-143032-3

Date Collected: 11/19/20 11:15

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:25	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 17:30	RAF	TAL DEN

Client Sample ID: MW-34C

Lab Sample ID: 280-143032-4

Date Collected: 11/19/20 12:00

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 14:27	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/25/20 23:43	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:11	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 22:36	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:23	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 07:48	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:29	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:20	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:32	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 04:43	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:07	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:31	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 17:45	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 13:00	K11	TAL DEN

Client Sample ID: MW-34A

Lab Sample ID: 280-143032-5

Date Collected: 11/19/20 12:45

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 14:52	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 00:07	WJD	TAL BUF

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-34A

Lab Sample ID: 280-143032-5

Date Collected: 11/19/20 12:45

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:27	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 22:54	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:27	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 07:59	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:33	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:23	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:35	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 05:00	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:09	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:36	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 18:01	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 13:45	K11	TAL DEN

Client Sample ID: MW-39

Lab Sample ID: 280-143032-6

Date Collected: 11/19/20 13:48

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 15:16	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 00:31	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:31	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 22:58	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:30	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:02	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:37	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:27	LMT	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-39

Lab Sample ID: 280-143032-6

Date Collected: 11/19/20 13:48

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:39	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 05:18	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:11	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:41	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517938	11/24/20 07:53	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 18:18	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 14:48	K1I	TAL DEN

Client Sample ID: MW-35

Lab Sample ID: 280-143032-7

Date Collected: 11/19/20 14:50

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 15:41	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 00:56	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:34	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:01	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:33	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:06	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:40	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:31	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:50	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 05:35	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:13	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:46	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517938	11/24/20 07:53	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 18:33	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 15:50	K1I	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143032-8

Date Collected: 11/19/20 10:25

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 16:06	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 01:20	WJD	TAL BUF

Client Sample ID: MW-13B

Lab Sample ID: 280-143032-9

Date Collected: 11/19/20 11:10

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 16:31	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 01:44	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:37	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:05	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:37	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:10	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:52	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:34	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 10:59	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:54	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 07:20	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520423	12/15/20 09:55	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:15	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:51	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517938	11/24/20 07:53	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 19:18	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 12:10	K1I	TAL DEN

Client Sample ID: MW-19C

Lab Sample ID: 280-143032-10

Date Collected: 11/19/20 12:23

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 16:56	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 02:09	WJD	TAL BUF

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-19C

Lab Sample ID: 280-143032-10

Date Collected: 11/19/20 12:23

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:41	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:08	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:40	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:13	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:55	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:38	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 11:03	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:57	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 07:37	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 13:48	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:29	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 15:56	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517938	11/24/20 07:53	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 19:33	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 13:23	K1I	TAL DEN

Client Sample ID: MW-42

Lab Sample ID: 280-143032-11

Date Collected: 11/19/20 13:21

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 17:21	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 02:33	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:44	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:12	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 21:57	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:17	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 03:59	LMT	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-42
Date Collected: 11/19/20 13:21
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:49	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 11:18	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 14:01	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 07:55	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 14:06	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:31	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 16:02	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517938	11/24/20 07:53	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 19:47	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 14:21	K1I	TAL DEN

Client Sample ID: MW-29A
Date Collected: 11/19/20 14:10
Date Received: 11/20/20 10:00

Lab Sample ID: 280-143032-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 17:45	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 02:57	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:47	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:30	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:00	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:20	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 04:03	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:53	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 11:21	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 14:05	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 08:12	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 14:23	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:33	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-29A

Lab Sample ID: 280-143032-12

Date Collected: 11/19/20 14:10

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 16:07	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517938	11/24/20 07:53	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 20:02	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 15:10	K11	TAL DEN

Client Sample ID: MW-43

Lab Sample ID: 280-143032-13

Date Collected: 11/19/20 15:05

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 18:11	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 03:21	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:51	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:33	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:04	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:24	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 04:07	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 02:56	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 11:25	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 14:08	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 08:30	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 14:41	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:39	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 16:12	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	518881	12/02/20 11:35	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 20:49	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 16:05	K11	TAL DEN

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: DUP1

Lab Sample ID: 280-143032-14

Date Collected: 11/19/20 12:30

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 18:36	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 03:45	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:54	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:37	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:07	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:27	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 04:10	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:00	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 11:29	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 14:12	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 08:47	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 16:26	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:41	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 16:40	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517937	11/24/20 07:51	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 21:04	RAF	TAL DEN

Client Sample ID: MW-13A

Lab Sample ID: 280-143032-15

Date Collected: 11/19/20 10:30

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561027	11/27/20 19:00	OMI	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 04:09	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519594	12/07/20 21:57	MRJ	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518471	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519423	12/03/20 23:40	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:10	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518477	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 08:31	LMT	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143032-1

Client Sample ID: MW-13A

Lab Sample ID: 280-143032-15

Date Collected: 11/19/20 10:30

Matrix: Water

Date Received: 11/20/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 04:14	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:03	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520129	12/11/20 11:32	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518461	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 14:16	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520246	12/13/20 09:05	CJ	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 16:43	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519372	12/05/20 12:43	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 16:50	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517937	11/24/20 07:51	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 21:19	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518225	11/19/20 11:30	K1I	TAL DEN

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



17 December 2020

Betsy Sara
Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: OVSL

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
20K0382	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 20K0382
 Turn-around Requested: Standard
 ARI Client Company: SCS Engineers
 Phone: 612-940-2980
 Client Contact: Dan Venchiarutti
 Client Project Name: OVSL
 Client Project #: 04204027.23
 Samplers: SG & TB

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)



Date: 11/20/20
 Page: 1 of 2
 No. of Coolers: 3 Cooler Temps: 3.4

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
MW-36A	11/19/20	1025	Ground water	2					
MW-15R		1110							
MW-34A		1245							
MW-34C		1200							
MW-39		1348							
MW-35		1450							
MW-13A		1030							
MW-13B		1110							
DuP 2		1115							
MW-19C		1223							
Comments/Special Instructions	Relinquished by: (Signature) <u>[Signature]</u> Printed Name: <u>Dan Venchiarutti</u> Company: <u>SCS</u> Date & Time: <u>11/23/20 11:15 AM</u>				Relinquished by: (Signature) <u>[Signature]</u> Printed Name: <u>Kerry Dang</u> Company: <u>ARI</u> Date & Time: <u>11/23/20 11:15</u>				Received by: (Signature) <u>[Signature]</u> Printed Name: _____ Company: _____ Date & Time: _____

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: **2020382**
 ARI Client Company: **SCS Engineers**
 Client Contact: **Dan Venchiarutti**
 Client Project Name: **OVSL**



Turn-around Requested: **Standard**
 Phone: **612-940-2980**
 Date: **11/20/20**
 Page: **2** of **2**
 No. of Coolers: **1** Cooler Temps: **3.4**

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
					Received by (Signature)	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	
Dup 1	11/19/20	1230	ground water	1					
MW-42		1321							
MW-29A		1410							
MW-43		1505							
MW-33A	11/20/20	953							
MW-33C		1033							
MW-16		1152							
MW-32		1255							
LP-LCD		1345	leachate						
Comments/Special Instructions	Relinquished by: <i>[Signature]</i> Relinquished by (Signature): Printed Name: DAN VENCHIARUTTI Company: SCS Date & Time: 11/23 11:15 AM				Received by: <i>[Signature]</i> Received by (Signature): Printed Name: Kenny Dang Company: ARI Date & Time: 11/20/20 1119				

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36A	20K0382-01	Water	19-Nov-2020 10:25	23-Nov-2020 11:15
MW-15R	20K0382-02	Water	19-Nov-2020 11:10	23-Nov-2020 11:15
MW-34A	20K0382-03	Water	19-Nov-2020 12:45	23-Nov-2020 11:15
MW-34C	20K0382-04	Water	19-Nov-2020 12:00	23-Nov-2020 11:15
MW-39	20K0382-05	Water	19-Nov-2020 13:48	23-Nov-2020 11:15
MW-35	20K0382-06	Water	19-Nov-2020 14:50	23-Nov-2020 11:15
MW-13A	20K0382-07	Water	19-Nov-2020 10:30	23-Nov-2020 11:15
MW-13B	20K0382-08	Water	19-Nov-2020 11:10	23-Nov-2020 11:15
DUP 2	20K0382-09	Water	19-Nov-2020 11:15	23-Nov-2020 11:15
MW-19C	20K0382-10	Water	19-Nov-2020 12:23	23-Nov-2020 11:15
DUP 1	20K0382-11	Water	19-Nov-2020 12:30	23-Nov-2020 11:15
MW-42	20K0382-12	Water	19-Nov-2020 13:21	23-Nov-2020 11:15
MW-29A	20K0382-13	Water	19-Nov-2020 14:10	23-Nov-2020 11:15
MW-43	20K0382-14	Water	19-Nov-2020 15:05	23-Nov-2020 11:15
MW-33A	20K0382-15	Water	20-Nov-2020 09:53	23-Nov-2020 11:15
MW-33C	20K0382-16	Water	20-Nov-2020 10:33	23-Nov-2020 11:15
MW-16	20K0382-17	Water	20-Nov-2020 11:52	23-Nov-2020 11:15
MW-32	20K0382-18	Water	20-Nov-2020 12:55	23-Nov-2020 11:15
LP-LCD	20K0382-19	Water	20-Nov-2020 13:45	23-Nov-2020 11:15





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Work Order Case Narrative

Sample receipt

Samples as listed on the preceding page were received 23-Nov-2020 11:15 under ARI work order 20K0382. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Arsenic - EPA Method 200.8

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank was clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.





WORK ORDER

20K0382

Client: Test America - Denver

Project Manager: Amanda Volgardsen Johnson

Project: OVSL

Project Number: 04204027.20

Preservation Confirmation

Container ID	Container Type	pH	
20K0382-01 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-02 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-03 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-04 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-05 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-06 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-07 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-08 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-09 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-10 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-11 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-12 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-13 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-14 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-15 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-16 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-17 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-18 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-19 A	Miscellaneous container, 1:1 HN03	<2	Pass

SC

Preservation Confirmed By

11/24/2020

Date

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15



Cooler Receipt Form

ARI Client: SOS Engineers

Project Name: OVSL

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 20K0382

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1311 3.4

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: KD Date: 11/23/20 Time: 1115

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI NA _____

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD SC Date: 11/23/20 Time: 1319 Labels checked by: KD

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

MW-36A
20K0382-01 (Water)

Metals and Metallic Compounds

Method: EPA 200.8

Sampled: 11/19/2020 10:25

Instrument: ICPMS1 Analyst: MCB

Analyzed: 12/04/2020 19:35

Sample Preparation:

Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Extract ID: 20K0382-01 A 01

Preparation Batch: BIL0117

Sample Size: 100 mL

Prepared: 12/04/2020

Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000548	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-15R
20K0382-02 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:39
Sample Preparation:	Extract ID: 20K0382-02 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000229	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-34A
20K0382-03 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:45
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:44
Sample Preparation:	Extract ID: 20K0382-03 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000492	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-34C
20K0382-04 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Instrument: ICPMS1	Analyst: MCB	Sampled: 11/19/2020 12:00
Sample Preparation:	Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	Preparation Batch: BIL0117	Analyzed: 12/04/2020 19:48
	Prepared: 12/04/2020	Sample Size: 100 mL	Extract ID: 20K0382-04 A 01
		Final Volume: 20 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00902	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-39
20K0382-05 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 13:48
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:52
Sample Preparation:	Extract ID: 20K0382-05 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00163	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-35
20K0382-06 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 14:50
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:56
Sample Preparation:	Extract ID: 20K0382-06 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000115	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-13A
20K0382-07 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 10:30
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:01
Sample Preparation:	Extract ID: 20K0382-07 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000198	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-13B
20K0382-08 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:07
Sample Preparation:	Extract ID: 20K0382-08 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000347	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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DUP 2
20K0382-09 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:15
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:14
Sample Preparation:	Extract ID: 20K0382-09 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000240	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-19C
20K0382-10 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:23
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:41
Sample Preparation:	Extract ID: 20K0382-10 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00294	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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DUP 1
20K0382-11 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:30
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:45
Sample Preparation:	Extract ID: 20K0382-11 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00290	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-42
20K0382-12 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 13:21
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/07/2020 13:45
Sample Preparation:	Extract ID: 20K0382-12 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.00197	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-29A
20K0382-13 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 14:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:54
Sample Preparation:	Extract ID: 20K0382-13 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00211	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-43
20K0382-14 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 15:05
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:58
Sample Preparation:	Extract ID: 20K0382-14 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.0000426	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-33A
20K0382-15 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 09:53
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:02
Sample Preparation:	Extract ID: 20K0382-15 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000585	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-33C
20K0382-16 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Instrument: ICPMS1	Analyst: MCB	Sampled: 11/20/2020 10:33
Sample Preparation:	Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	Preparation Batch: BIL0081	Analyzed: 12/04/2020 21:07
	Prepared: 12/03/2020	Sample Size: 100 mL	Extract ID: 20K0382-16 A 01
		Final Volume: 20 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00289	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-16
20K0382-17 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 11:52
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:19
Sample Preparation:	Extract ID: 20K0382-17 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000800	0.00110	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-32
20K0382-18 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 12:55
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:12
Sample Preparation:	Extract ID: 20K0382-18 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.0105	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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LP-LCD
20K0382-19 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 13:45
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 22:10
Sample Preparation:	Extract ID: 20K0382-19 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.0140	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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Metals and Metallic Compounds - Quality Control

Batch BIL0081 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0081-BLK1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:33					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0081-BS1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:38					
Arsenic	75a	0.00491	0.0000400	mg/L	0.00500		98.3	80-120			





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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Metals and Metallic Compounds - Quality Control

Batch BIL0117 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0117-BLK1)						Prepared: 04-Dec-2020 Analyzed: 04-Dec-2020 15:43					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0117-BS1)						Prepared: 04-Dec-2020 Analyzed: 04-Dec-2020 15:47					
Arsenic	75a	0.00494	0.0000400	mg/L	0.00500		98.8	80-120			





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Certified Analyses included in this Report

Analyte	Certifications
EPA 200.8 in Water	
Arsenic-75a	NELAP,WADOE,DoD-ELAP
Arsenic-75a	NELAP,WA-DW,DoD-ELAP
Arsenic-75a	WADOE,WA-DW,DoD-ELAP
Arsenic-75a	NELAP,WADOE,WA-DW,DoD-ELAP
Arsenic-75b	NELAP
Arsenic-75b	NELAP
Arsenic-75b	
Arsenic-75b	NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Notes and Definitions

- D The reported value is from a dilution
- J Estimated concentration value detected below the reporting limit.
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.



Chain of Custody Record

1891 4173 3939
 1891 4173 3939
 1891 4173 3939

Client Information Client Contact: Mr. Patrick Madej Company: Waste Management Address: 2615 Davis Street City: San Leandro State/Zip: CA, 94577 Phone: 612 940 2980 Email: Sforabed@csengineering.com Project Name: WA02/Olympic View Sanitary LF Event Desc: Semi/Annual GW Appl/II - May Nov Site: Washington			Sampler: S.G. + TB Lab PM: Sara, Betsy A Phone: 7 E-Mail: Betsy.Sara@Eurofins.com Carier Tracking No(s): 1891 4173 3939 COC No: 280-17318-3224.1 Page: 1 of 2 Job #: 01204027.23		
Due Date Requested: Standard TAT Requested (days): PO #: WO #: Project #: 28002692 SSOW#:			Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)		
Sample Identification MW-36A MW-15R Dup 2 MW-34C MW-34A MW-39 MW-35 Trip Blank MW-13B MW-19C MW-42			Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) TDS/Alks/Cl/SO4/NO3(cad) Dissolved Metals Ammonia/TOC 8260B - long list (TA Buffalo) 8260B SIM (TA Buffalo) Total Metals TSS Total Arsenic (direct sub to ARI)		
Sample Date 11/19/20 1110 1115 1200 1245 1348 1450 - 11/19/20 11/19/20 11/19/20			Sample Time 1025 1110 1115 1200 1245 1348 1450 - 1110 1203 1321		
Sample Type (C=Comp, G=grab) G - G G G - G G G			Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air) W - W W W W - W W W		
Preservation Code: G - - - - - - - - -			Special Instructions/Note: Short Hold: NO3(cad) Arsenic - Direct sub to ARI * Include samples from both loc's in one report deliverable 2 please *		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Deliverable Requested: I, II, III, IV, Other (specify)			Special Instructions/QC Requirements:		
Empty Kit Relinquished by:			Method of Shipment:		
Relinquished by: [Signature] Date: 11/19/20 1630 Company: SCS			Received by: [Signature] Date/Time: 11/20/20 1000 Company: Eurofins		
Relinquished by: [Signature] Date/Time:			Received by: [Signature] Date/Time:		
Relinquished by: [Signature] Date/Time:			Received by: [Signature] Date/Time:		
Custody Seal No.: 1498999, 1498996, 1498997, 1498996 Custody Seals Intact: Δ Yes Δ No			Cooler Temperature(s) °C and Other Remarks: 38.1, 5.2, 1.5, 8.8, 20.1, 11.0, 3		

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Chain of Custody Record

Client Information Client Contact: Mr. Patrick Madej Company: Waste Management Address: 2615 Davis Street City: San Leandro State, Zip: CA, 94577 Phone: (612) 940-2980 Email: patrick.madej@waste.com Project Name: WAO2(Olympic View Sanitary LF) Event Desc: Semi-Annual GW App/III - May Nov Site: Washington		Lab PM: Sara, Betsy A E-Mail: Betsy.Sara@Eurofinset.com Sampler: SG + TB Phone:		Carrier Tracking No(s): COC No: 280-17318-3224-1 Page: 2 of 2 Job #: 0420402, 33	
Due Date Requested: TAT Requested (days): 5 Standard PO #: WO #: Project #: 28002692 SSOW#:		Analysis Requested			
Sample Identification MW-29A MW-43 DUP1 MW-13A		Sample Date 11/19/20 11/19/20 11/19/20	Sample Time 1410 1505 1630 1030	Sample Type (C=Comp, G=grab) G G G G	Matrix (W=water, S=solid, O=wastefoil, BT=TISSUE, A=Air) W W W W
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No TDS/AIks/CSO4/NO3(cad) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Dissolved Metals <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Ammonia/TOC <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 8260B - long list (TA Buffalo) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 8260B SIM (TA Buffalo) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Metals <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No TSS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Arsenic (direct sub to ARI) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Total Number of Containers 11		Special Instructions/Note: Short Hold: NO3(cad) Arsenic - Direct sub to ARI Include Samples from Both CoC; in one report deliverable please	
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:					
Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4.5 Z - other (specify)					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input checked="" type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by:		Date/Time: 11/19/20 1630		Received by:	
Relinquished by:		Date/Time:		Received by:	
Relinquished by:		Date/Time:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					



FIELD INFORMATION FORM



Site Name: 052 MW-36A
 Site No.:
 Sample Point: MW-36A
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 10:05
 ELAPSED HRS (hrs:min):
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 31.80 (ft)
 Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (L/Min)	pH (std)	Conductance (SC/EC) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
11:05	300	5.37	1121	8.79		6.25	246.1	
11:10		5.71	1120	8.80		3.38	241.6	
11:13		5.75	1119	8.81		3.31	239.0	
11:16		5.79	1118	8.81		3.26	237.2	
11:19		5.84	1119	8.80		3.24	233.5	
11:22		5.89	1117	8.79		3.32	230.3	
11:25		5.90	1119	8.79	1.00	3.24	227.8	32.40
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Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20
 pH (std): 5.90
 CONDUCTANCE (μmhos/cm @ 25°C): 1119
 TEMP. (°C): 8.79
 TURBIDITY (ntu): 1.00
 DO (mg/L-ppm): 3.24
 eH/ORP (mV): 227.8
 Other: DTW
 Units: 31.80

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Graber [Signature] SCS
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: OVSL
 Site No.:
 Sample Point: MW-15R
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 16:50
 ELAPSED HRS (hrs:min): 20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 19.47 (ft)
 Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 0.2 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
10:50	300	6.36	153	9.17		0.12	220	
10:55	1	6.47	155	9.35		0.76	2003	
10:58		6.47	156	9.27		0.59	1965	
11:01		6.46	156	9.22		0.59	1946	
11:04		6.46	156	9.29		0.51	1925	
11:07		6.45	156	9.24		0.76	1896	
11:10	↓	6.44	156	9.26	0.83	0.44	1823	19.62
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Suggested range for 3 conse. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L - ppm)	eH/ORP (mV)	Other: Units
11/19/20	6.44	156	9.26	0.83	0.44	1823	19.47

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: - Color: - Other: -
 Weather Conditions (required daily, or as conditions change): - Direction/Speed: - Outlook: - Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):
Dup 2 collected at 1115

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Graber [Signature] SC5
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: DUCL
 Site No.:
 Sample Point: MW-34A
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/ Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 12:25
 ELAPSED HRS (hrs:min): :20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Filter Device: Y or N, 0.45 μ or μ (circle or fill in)
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other:
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 4036 (ft)
 Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft)
 Casing ID: 04 (in) Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>12:25</u>	<u>300</u>	<u>6.75</u>	<u>201</u>	<u>11.19</u>		<u>5.22</u>	<u>109.3</u>
	<u>12:30</u>		<u>6.36</u>	<u>207</u>	<u>11.36</u>		<u>0.57</u>	<u>110.1</u>	
	<u>12:33</u>		<u>6.28</u>	<u>119.8</u>	<u>11.30</u>		<u>0.69</u>	<u>116.2</u>	
	<u>12:36</u>		<u>6.22</u>	<u>118.9</u>	<u>11.23</u>		<u>0.80</u>	<u>122.3</u>	
	<u>12:39</u>		<u>6.20</u>	<u>118.6</u>	<u>11.25</u>		<u>0.79</u>	<u>128.1</u>	
	<u>12:42</u>		<u>6.14</u>	<u>136</u>	<u>11.24</u>		<u>0.76</u>	<u>130.7</u>	
	<u>12:45</u>	<u>Y</u>	<u>6.18</u>	<u>181.6</u>	<u>11.25</u>	<u>1.56</u>	<u>0.77</u>	<u>132.0</u>	<u>4040</u>
	:								
	:								
	:								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20
 pH (std): 6.18
 CONDUCTANCE (umhos/cm @ 25°C): 186
 TEMP. (°C): 11.25
 TURBIDITY (ntu): 1.56
 DO (mg/L - ppm): 0.77
 eH/ORP (mV): 132.0
 Other: DTW
 Units: 4036

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Baber SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 05SL
 Site No.: 111920
 Sample Point: MW-39
 Sample ID: _____

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 13:28
 ELAPSED HRS (hrs:min): 0:00
 WATER VOL IN CASING (Gallons): _____
 ACTUAL VOL PURGED (Gallons): _____
 WELL VOLS PURGED: _____

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment: Dedicated or Non-Dedicated
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: _____
 Filter Device: or 0.45 μ or _____ μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other: _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): _____ (ft/msl)
 Depth to Water (DTW) (from TOC): 19.53 (ft)
 Groundwater Elevation (site datum, from TOC): _____ (ft/msl)
 Total Well Depth (from TOC): _____ (ft)
 Stick Up (from ground elevation): _____ (ft)
 Casing ID: 0.2 (in)
 Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (min)	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:28	3:00	6.08	298	10.37		3.9	56	
13:33		6.19	295	10.73		0.46	-127.0	
13:36		6.18	288	10.83		0.33	-132.4	
13:39		6.15	284	10.84		0.32	-131.2	
13:42		6.12	280	10.85		0.31	-130.8	
13:45		6.09	275	10.87		0.31	-127.9	
13:48		6.06	268	10.82	2.39	0.31	-250	21.05
:								
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:								

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: ± 0.2
 Conductance: $\pm 3\%$
 Temp: --
 Turbidity: --
 D.O.: $\pm 10\%$
 eH/ORP: ± 25 mV
 DTW: Stabilize

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L - ppm)	eH/ORP (mV)	Other: <u>DTW</u> Units
11/19/20	6.06	268	10.82	2.39	0.31	-250	19.53

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

Sample Appearance: clear Odor: _____ Color: _____ Other: _____
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required): _____

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Graber [Signature] SCF
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 055C
 Site No.:
 Sample Point: MW-35
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 14:30
 ELAPSED HRS (hrs:min): : 20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOL'S PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N | 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) | Depth to Water (DTW) (from TOC) 73.60 (ft) | Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) | Stick Up (from ground elevation) (ft) | Casing ID 04 (in) | Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Bar/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
14:30	ISO	6.73	1155	9.62		5.07	170	
14:35		7.06	1156	9.51		4.82	144	
14:38		7.08	1156	9.48		5.12	1118	
14:41		7.11	1156	9.45		5.56	1170	
14:44		7.18	1156	9.49		5.61	1254	
14:47		7.19	1156	9.53		5.62	1233	73.60
14:50	V	7.20	1156	9.58	1.31	5.64	1315	
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L - ppm)	eH/ORP (mV)	Other: <u>DTW</u> Units
11/19/20	7.20	1156	9.58	1.31	5.64	1315	73.60

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

Sample Appearance: clear | Odor: | Color: | Other:
 Weather Conditions (required daily, or as conditions change): | Direction/Speed: | Outlook: | Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
11/19/20 ISO 6.73/min 5 minutes to get water

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Sam Graber SCJ
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: OU-2
 Site No.:
 Sample Point: MW-13A
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 10:50
 ELAPSED HRS (hrs:min): 20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other:
 Sample Tube Type: 0 A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 6342 (ft)
 Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft)
 Casing ID: 02 (in) Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ML/MIN)	pH (std)	Conductance (SC/EC) (umhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
10:50	300	7.24	171	9.6	2.92	10.50	308.6	
10:55		6.74	172	9.6	2.96	8.86	305.1	
10:58		7.23	172	9.5	3.10	8.40	293.5	
11:01		7.51	171	9.5	2.77	8.81	288.6	
11:04		7.56	170	9.5	2.77	8.86	286.4	
11:07		7.62	170	9.5	2.83	8.89	283.9	
11:10		7.64	170	9.5	2.79	8.89	282.7	6342
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements: +/- 0.2 +/- 3% -- -- +/- 10% +/- 25 mV Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20 pH (std): 7.64 CONDUCTANCE (umhos/cm @ 25°C): 170 TEMP. (°C): 9.5 TURBIDITY (ntu): 2.79 DO (mg/L-ppm): 8.89 eH/ORP (mV): 282.7 Other: DTW
 Units: ft

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):
10/5 Ys as:

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Berndahl
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM



Site Name: DUJL
 Site No.:
 Sample Point: MW-19C
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 12:03
 ELAPSED HRS (hrs:min): :26
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 µ or µ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 3516 (ft)
 Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by State/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ML/M.F)	pH (std)	Conductance (SC/EC) (µmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
12:03	SDJ	6.90	153	10.8	338	3.60	265.7	
12:08		6.74	167	10.7	315	0.99	28.5	
12:11		6.76	168	10.7	326	0.66	64.0	
12:14		6.75	167	10.4	361	0.23	49.7	
12:17		6.75	167	10.4	321	0.19	45.6	
12:20		6.75	167	10.4	310	0.15	40.1	
12:23	W	6.75	167	10.4	321	0.13	38.6	3516
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (µmhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L - ppm)	eH/ORP (mV)	Other: DTW Units
11/19/20	6.75	167	10.4	321	0.13	38.6	3516

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
9/16 60 psi
DUJL collected at 12:30
DUP 1

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Berndt J-C SDJ
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 0052

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

Site No.: _____ Sample Point: MW-42
Sample ID

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20 PURGE TIME (2400 Hr Clock): 13:01 ELAPSED HRS (hrs:min): 20
 WATER VOL IN CASING (Gallons): _____ ACTUAL VOL PURGED (Gallons): _____ WELL VOLS PURGED: _____

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: _____ C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 μ or _____ μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) _____ (ft/msl) Depth to Water (DTW) (from TOC) 27.34 (ft) Groundwater Elevation (site datum, from TOC) _____ (ft/msl)
 Total Well Depth (from TOC) _____ (ft) Stick Up (from ground elevation) _____ (ft) Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (g/L/min)	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:01	300	6.41	467	12.1	4.11	0.79	-25.6	
13:06		6.41	466	12.1	4.14	0.23	-35.1	
13:09		6.43	466	12.1	3.65	0.13	-40.7	
13:12		6.43	466	12.1	3.89	0.11	-42.2	
13:15		6.44	466	12.1	3.39	0.09	-44.3	
13:18		6.44	466	12.0	3.47	0.07	-45.8	
13:21	✓	6.45	465	12.0	3.44	0.05	-48.0	27.34
:								
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Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L - ppm)	eH/ORP (mV)	Other: <u>DTW</u> Units <u>ft</u>
11/19/20	6.45	465	12.0	3.44	0.05	-48.0	27.34

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: _____ Color: _____ Other: _____
Weather Conditions (required daily, or as conditions change): Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):
4/6 40 ml

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Berndahl _____ SCS

 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM



Site Name: OUSL

This Waste Management Field Information Form is Required. This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

Site No.: [] [] [] []

Sample Point: MW-29A
Sample ID

PURGE INFO	111920	1350	20			
	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	Filter Device: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	<input type="checkbox"/> 0.45 μ or <input type="checkbox"/> μ (circle or fill in)
	Purging Device: <input type="checkbox"/> C A-Submersible Pump <input type="checkbox"/> D-Bailer	Filter Type: <input type="checkbox"/> A	A-In-line Disposable C-Vacuum
	Sampling Device: <input type="checkbox"/> C B-Peristaltic Pump <input type="checkbox"/> E-Piston Pump		B-Pressure X-Other: _____
	X-Other: _____	Sample Tube Type: <input type="checkbox"/> D	A-Teflon C-PVC X-Other: _____ B-Stainless Steel D-Polypropylene

WELL DATA	Well Elevation (at TOC) [] [] [] [] (ft/msl)	Depth to Water (DTW) (from TOC) 1133 (ft)	Groundwater Elevation (site datum, from TOC) [] [] [] [] (ft/msl)
	Total Well Depth (from TOC) [] [] [] [] (ft)	Stick Up (from ground elevation) [] [] [] [] (ft)	Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit (ML/MIN)	pH (std)	Conductance (SC/EC) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		13:50	300	6.30	106	11.6	810	1.15	83.8
	13:55		6.04	108	11.6	371	1.024	61.9	
	13:58		6.02	108	11.6	371	0.17	5.88	
	14:01		6.00	108	11.6	309	0.13	56.7	
	14:04		6.00	107	11.6	298	0.11	55.9	
	14:07		6.00	107	11.6	310	0.10	55.1	
	14:10		6.00	107	11.6	301	0.08	54.3	11.33
	:								
	:								
	:								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: DTW Units: Ft
111920	6.00	107	11.6	301	0.08	54.3	11.33

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

Sample Appearance: Clear Odor: - Color: - Other: -

Weather Conditions (required daily, or as conditions change): Direction/Speed: - Outlook: - Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS: 10/5 20 pr:

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/19/20 Travis Berndahl [Signature] JCF

Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM



Site Name: 0VSL
 Site No.:
 Sample Point: MW-143
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 14:45
 ELAPSED HRS (hrs:min): :20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment: Dedicated or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 X-Other: C-QED Bladder Pump F-Dipper/Bottle
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other:
 Sample Tube Type: O A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC): (ft/msl) Depth to Water (DTW) (from TOC): 2216 (ft) Groundwater Elevation (site datum, from TOC): (ft/msl)
 Total Well Depth (from TOC): (ft) Stick Up (from ground elevation): (ft) Casing ID: 02 (in) Casing Material: PVC
Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ml/min)	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
14:45	300	5.90	64	11.8	2010	5.70	228.8	
14:50		5.61	61	11.9	1680	4.27	250.0	
14:53		5.59	60	11.9	1410	3.94	280.4	
14:56		5.59	60	11.9	1010	3.74	268.2	
14:59		5.59	60	11.9	9.91	3.66	274.9	
15:02		5.60	60	11.9	9.89	3.56	279.0	
15:05		5.60	60	11.9	9.71	3.48	284.1	2216
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20 pH (std): 5.60 CONDUCTANCE (μ mhos/cm @ 25°C): 60 TEMP. (°C): 11.9 TURBIDITY (ntu): 9.71 DO (mg/L - ppm): 3.48 eH/ORP (mV): 284.1 Other: DTW
 Units: ft

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required): 9/6 30psi Sample clear

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Derndahl SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 0052
 Site No.:
 Sample Point: MW-13A
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/19/20
 PURGE TIME (2400 Hr Clock): 1610
 ELAPSED HRS (hrs:min): 20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: C A-Submersible Pump D-Bailer
 Sampling Device: B-Peristaltic Pump E-Piston Pump
 X-Other:
 Filter Device: Y or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 49.13 (ft)
 Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit (ml/min)	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
11:10	300	22.9	168	9.7	2.80	9.21	305.3	
11:15		6.95	169	9.5	2.83	8.40	310.9	
11:18		6.95	168	9.4	2.84	8.33	304.7	
11:21		6.96	168	9.4	2.83	8.31	302.8	
11:24		6.97	168	9.4	2.80	8.24	301.1	
11:27		6.98	168	9.4	2.82	8.27	299.7	
11:30	4	6.99	168	9.4	2.83	8.25	298.8	302.9
:								49.13
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/19/20
 pH (std): 6.99
 CONDUCTANCE (μ mhos/cm @ 25°C): 168
 TEMP. (°C): 9.4
 TURBIDITY (ntu): 2.83
 DO (mg/L - ppm): 8.25
 eH/ORP (mV): 298.8
 Other: DTW
 Units: ft

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):
10/5 4.5 gal.

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/19/20 Travis Berndahl SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

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280-143032 Waybill

TO
 EUROFINS TESTAMERICA DENVER
 4955 YARROW STREET
 ARVADA CO 800024517
 (303) 736-0100
 REF: \$280-103850

No Seal



FedEx Express
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FedEx
 TRK# 0221 1891 4173 3940
 FRI - 20 NOV 10:30A
 PRIORITY OVERNIGHT

XH LAAA **(5.1)** 80002
 CO-US DEN



#837409 11/19 568J5/BA39/B766

TO
 EUROFINS TESTAMERICA DENVER
 4955 YARROW STREET

ARVADA CO 800024517
 (303) 736-0100
 REF: \$280-103850

3.8

SIGNATURE
 DATE 11/19
 eurofins Environment Testing TestAmerica
 Custody 1498999
 FedEx E

FedEx
 TRK# 0221 1891 4173 3928

FRI - 20 NOV 10:
 PRIORITY OVERNIGHT

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TO
EUROFINS TESTAMERICA DENVER
4955 YARROW STREET
ARVADA CO 800024517

5.1

(303) 738-0100
REF: \$280 - 103850

RMA: ||| ||| |||

euofins | Environment Testing
TestAmerica

1498997



FedEx
TRK# 1891 4173 3939
0221

FRI - 20 NOV 10:30A
PRIORITY OVERNIGHT

XH LAAA

80002
CO-US DEN



UNITED STATES US

TO
EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517

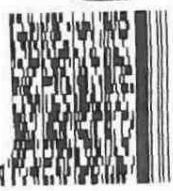
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(303) 738-0100
REF: \$280 - 103850

RMA: ||| ||| |||

euofins | Environment Testing
TestAmerica

1498996

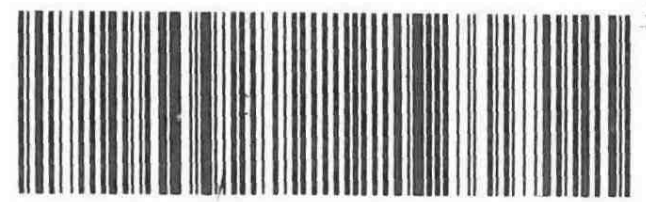


FedEx
TRK# 1891 4173 3917
0221

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PRIORITY OVERNIGHT

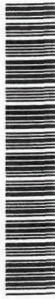
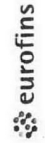
XH LAAA

80002
CO-US DEN



837409 11/19 563J5/8889/2766

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-548289.1					
Shipping/Receiving		E-Mail:	Betsy.Sara@Eurofinset.com	State of Origin:	Washington					
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Page:	Page 1 of 2					
Address: 10 Hazelwood Drive, City: Amherst State, Zip: NY, 14228-2298 Phone: 716-691-2600(Tel) 716-691-7991(Fax) Email:		Due Date Requested: 12/11/2020 TAT Requested (days):								
Project Name: WA02Olympic View Sanitary LF Site: WA02Olympic View Sanitary LF		PO #:								
Project #: 28002692 SSOW#:		WO #:								
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefl, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C SIM/5030C (MOD) Local Method	8260C/5030C (MOD) Appendix II Volatiles	Total Number of Containers	Special Instructions/Note:
MW-36A (280-143032-1)	11/19/20	10:25 Pacific		Water	X	X	X	X	6	
MW-15R (280-143032-2)	11/19/20	11:10 Pacific		Water	X	X	X	X	6	
DUP2 (280-143032-3)	11/19/20	11:15 Pacific		Water	X	X	X	X	6	
MW-34C (280-143032-4)	11/19/20	12:00 Pacific		Water	X	X	X	X	6	
MW-34A (280-143032-5)	11/19/20	12:45 Pacific		Water	X	X	X	X	6	
MW-39 (280-143032-6)	11/19/20	13:48 Pacific		Water	X	X	X	X	6	
MW-35 (280-143032-7)	11/19/20	14:50 Pacific		Water	X	X	X	X	6	
TRIP BLANK (280-143032-8)	11/19/20	10:25 Pacific		Water	X	X	X	X	2	
MW-13B (280-143032-9)	11/19/20	11:10 Pacific		Water	X	X	X	X	6	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>										
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____</p> <p>Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: <i>Bul B</i> Date: 11/23/2020 1:35 PM</p> <p>Relinquished by: _____ Date: _____</p> <p>Relinquished by: _____ Date: _____</p> <p>Custody Seals Intact: _____ (Custody Seal No.: _____)</p> <p>Δ Yes Δ No</p>										
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements: _____</p> <p>Method of Shipment: _____</p> <p>Received by: <i>ChunKow Chow</i> Date/Time: 11/24/20 10:44 AM Company: _____</p> <p>Received by: _____ Date/Time: _____ Company: _____</p> <p>Received by: _____ Date/Time: _____ Company: _____</p> <p>Cooler Temperature(s) °C and Other Remarks: 21.2 # 1 ICE</p>										



Eurofins TestAmerica, Denver

4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record



Client Information (Sub Contract Lab)
 Client Contact: Sara, Betsy A
 Shipping/Receiving: Betsy.Sara@Eurofinset.com
 Company: TestAmerica Laboratories, Inc.
 Address: 10 Hazelwood Drive, Amherst, NY, 14228-2298
 Phone: 716-691-2600(Tel) 716-691-7991(Fax)
 Email: [Redacted]
 Project Name: WAO2|Olympic View Sanitary LF
 Site: WAO2|Olympic View Sanitary LF

Due Date Requested: 12/11/2020
 TAT Requested (days):
 PO #:
 WO #:
 Project #: 28002692
 SSOW#:

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=soil, O=water/soil, BT=TISSUE, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C_SIM/5030C (MOD) Local Method	8260C_5030C (MOD) Appendix II Volatiles	Analysis Requested	Total Number of Containers	Special Instructions/Note:
MW-19C (280-143032-10)	11/19/20	12:23 Pacific	Water	Water	X	X	X	X	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	6	
MW-42 (280-143032-11)	11/19/20	13:21 Pacific	Water	Water	X	X	X	X		6	
MW-29A (280-143032-12)	11/19/20	14:10 Pacific	Water	Water	X	X	X	X		6	
MW-43 (280-143032-13)	11/19/20	15:05 Pacific	Water	Water	X	X	X	X		6	
DUP1 (280-143032-14)	11/19/20	12:30 Pacific	Water	Water	X	X	X	X		6	
MW-13A (280-143032-15)	11/19/20	10:30 Pacific	Water	Water	X	X	X	X		6	

Carrier Tracking No(s):
 State of Origin: Washington
 Job #: 280-143032-1
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/ests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify)
 Primary Deliverable Rank: 2
 Empty Kit Relinquished by:
 Relinquished by: [Signature] Date: [Redacted]
 Relinquished by: [Redacted] Date: [Redacted]
 Relinquished by: [Redacted] Date: [Redacted]
 Custody Seals Intact: Yes No
 Custody Seal No.:

Relinquished by:	Date:	Company	Method of Shipment:
[Signature]	11/23/20	Company	Received by: PGI
[Redacted]	13:55	Company	Received by:
[Redacted]		Company	Received by:



Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143032-1

Login Number: 143032

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Collins, Janice S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	False	Not Present on 1/4 (MW-34C, MW34A, MW-39)
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143032-1

Login Number: 143032

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

List Creation: 11/25/20 04:48 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2 ICE IR GUN #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

ANALYTICAL REPORT

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-143078-1

Client Project/Site: WA02|Olympic View Sanitary LF -
Groundwater

Sampling Event: Semiannual GW Appl/II - May Nov

For:

Waste Management
2615 Davis Street
San Leandro, California 94577

Attn: Mr. Patrick Madej



Authorized for release by:
12/17/2020 4:45:08 PM

Betsy Sara, Project Manager II
(303)736-0189

Betsy.Sara@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Job ID: 280-143078-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF - Groundwater

Report Number: 280-143078-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The samples were received on 11/21/2020; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.8° C and 3.3° C.

Holding Times

All holding times were within established control limits.

Method Blanks

Total Beryllium, Total Lead, Total Selenium and Total Silver Method 6020B were detected in the Method Blank below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

All other Method Blank recoveries were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Sample L-INF-112020 (143080) was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Cadmium, Total Copper and Total Nickel below the lower control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample L-INF-112020 (143080) were outside control limits for Total Manganese Method 6020B because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

Sample MW-33A was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Dissolved Manganese below the lower control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Job ID: 280-143078-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

interference and no corrective action was taken.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for Ammonia Method 350.1. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

Organics

The analytes Acrolein, Acrylonitrile and 2-chloroethyl vinyl ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limits for the analytes Acrolein, Acrylonitrile and 2-chloroethyl vinyl ether is not reliable or defensible.

Metals

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Beryllium. Because the data are considered biased high and Total Beryllium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Selenium. Because the data are considered biased high and Total Selenium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

General Comments

The analysis for Volatile Organics by Method 8260C was performed by TestAmerica Buffalo. Their address and phone number are:
TestAmerica Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228
Phone: 716-691-2600

The analysis for Arsenic Method 200.8 was performed by ARI. ARI is not a TestAmerica approved subcontract laboratory and assumes no liability for the data. Their address and phone number are:
Analytical Resources, Inc.
4611 S. 134th Place
Tukwila, WA 98168-3240
Phone: 206-695-6200

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Client Sample ID: MW-33C

Lab Sample ID: 280-143078-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.16		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	17		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.051	J	0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.8		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	1.2		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	4.0		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0042		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.21		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.13		0.0010	0.00031	mg/L	1		6020B	Dissolved
Sulfate	8.1		5.0	5.0	mg/L	1		300.0	Total/NA
Alkalinity, Total (As CaCO3)	74		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	74		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	97		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	4.45				ft	1		Field Sampling	Total/NA
Specific Conductivity	98				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.35				mg/L	1		Field Sampling	Total/NA
eH	63.1				millivolts	1		Field Sampling	Total/NA
Turbidity	6.13				NTU	1		Field Sampling	Total/NA
Temperature	9.09				Degrees C	1		Field Sampling	Total/NA
pH	5.89				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-33A

Lab Sample ID: 280-143078-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	4.6		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	9.7		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	2.1		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	4.3		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.56	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	3.3		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0035		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0014	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.00094	J	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.099		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00079	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0037		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0027	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.093	F1	0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.21		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	47		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	47		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	73		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	10		4.0	4.0	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Client Sample ID: MW-33A (Continued)

Lab Sample ID: 280-143078-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon - Average	2.3		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	1.81				ft	1		Field Sampling	Total/NA
Specific Conductivity	158				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.23				mg/L	1		Field Sampling	Total/NA
eH	-61.7				millivolts	1		Field Sampling	Total/NA
Turbidity	2.46				NTU	1		Field Sampling	Total/NA
Temperature	8.30				Degrees C	1		Field Sampling	Total/NA
pH	7.67				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-16

Lab Sample ID: 280-143078-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0020	J	0.0030	0.0012	mg/L	1		6010D	Total Recoverable
Iron, Total	0.88		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	13		0.20	0.078	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	7.4		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.79	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.6		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0055		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.019		0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0018	J	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.00092	J B	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.11		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0055		0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0090		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00035	J	0.0010	0.00031	mg/L	1		6020B	Dissolved
Alkalinity, Total (As CaCO3)	85		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	85		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	100		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	62.89				ft	1		Field Sampling	Total/NA
Specific Conductivity	151				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	5.52				mg/L	1		Field Sampling	Total/NA
eH	146.1				millivolts	1		Field Sampling	Total/NA
Turbidity	9.34				NTU	1		Field Sampling	Total/NA
Temperature	8.57				Degrees C	1		Field Sampling	Total/NA
pH	6.14				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-32

Lab Sample ID: 280-143078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.23		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Trichloroethene	0.51	J	1.0	0.46	ug/L	1		8260C	Total/NA
Iron, Total	0.81		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	32		0.20	0.078	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Client Sample ID: MW-32 (Continued)

Lab Sample ID: 280-143078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	0.74		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	16		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	1.1		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	13		1.0	0.37	mg/L	1		6010D	Dissolved
Barium, Total	0.0050		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Copper, Total	0.00066	J	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Manganese, Total	2.6		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0015	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	2.4		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	8.8		3.0	3.0	mg/L	1		300.0	Total/NA
Sulfate	13		5.0	5.0	mg/L	1		300.0	Total/NA
Ammonia (as N)	0.057		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	150		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	150		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	210		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	1.6		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	1.33				ft	1		Field Sampling	Total/NA
Specific Conductivity	329				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.47				mg/L	1		Field Sampling	Total/NA
eH	0.4				millivolts	1		Field Sampling	Total/NA
Turbidity	2.02				NTU	1		Field Sampling	Total/NA
Temperature	10.84				Degrees C	1		Field Sampling	Total/NA
pH	6.62				SU	1		Field Sampling	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143078-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Method Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010D	Metals (ICP)	SW846	TAL DEN
6020B	Metals (ICP/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
353.2	Nitrate	EPA	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
Field Sampling	Field Sampling	EPA	TAL DEN
Subcontract	Total Arsenic (ARI)	None	SC0056
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200
- TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
- TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-143078-1	MW-33C	Water	11/20/20 10:33	11/21/20 09:45	
280-143078-2	MW-33A	Water	11/20/20 09:53	11/21/20 09:45	
280-143078-3	MW-16	Water	11/20/20 11:52	11/21/20 09:45	
280-143078-4	MW-32	Water	11/20/20 12:55	11/21/20 09:45	
280-143078-5	TRIP BLANK	Water	11/20/20 09:53	11/21/20 09:45	

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 04:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	103		50 - 150					11/26/20 04:34	1
TBA-d9 (Surr)	79		50 - 150					11/26/20 04:34	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 04:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	104		50 - 150					11/26/20 04:58	1
TBA-d9 (Surr)	80		50 - 150					11/26/20 04:58	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/26/20 05:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	116		50 - 150					11/26/20 05:21	1
TBA-d9 (Surr)	100		50 - 150					11/26/20 05:21	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.23		0.020	0.0040	ug/L			11/27/20 15:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		50 - 150					11/27/20 15:37	1
TBA-d9 (Surr)	81		50 - 150					11/27/20 15:37	1

Client Sample ID: TRIP BLANK
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/27/20 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	103		50 - 150					11/27/20 16:02	1
TBA-d9 (Surr)	84		50 - 150					11/27/20 16:02	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 23:32	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 23:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 23:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 23:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 23:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 23:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 23:32	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 23:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:32	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 23:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 23:32	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 23:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 23:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 23:32	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 23:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 23:32	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 23:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 23:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 23:32	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 23:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 23:32	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 23:32	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 23:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 23:32	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 23:32	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 23:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 23:32	1
Acetone	ND		10	3.0	ug/L			11/27/20 23:32	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 23:32	1
Acrolein	ND		20	0.91	ug/L			11/27/20 23:32	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 23:32	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 23:32	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 23:32	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 23:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 23:32	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 23:32	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 23:32	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 23:32	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 23:32	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 23:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 23:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 23:32	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 23:32	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 23:32	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 23:32	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 23:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 23:32	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 23:32	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 23:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 23:32	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 23:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 23:32	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 23:32	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 23:32	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 23:32	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 23:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 23:32	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 23:32	1
Hexane	ND		10	0.40	ug/L			11/27/20 23:32	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 23:32	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 23:32	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 23:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 23:32	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 23:32	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 23:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 23:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 23:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 23:32	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 23:32	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 23:32	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 23:32	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 23:32	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 23:32	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 23:32	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 23:32	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 23:32	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:32	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 23:32	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 23:32	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 23:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 23:32	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 23:32	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 23:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 23:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 23:32	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 23:32	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 23:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 23:32	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 23:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 23:32	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 23:32	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		11/27/20 23:32	1
4-Bromofluorobenzene (Surr)	89		73 - 120		11/27/20 23:32	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		80 - 120		11/27/20 23:32	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 23:57	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 23:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 23:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 23:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 23:57	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 23:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 23:57	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 23:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:57	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 23:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 23:57	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 23:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 23:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 23:57	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 23:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 23:57	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 23:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 23:57	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 23:57	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 23:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 23:57	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 23:57	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 23:57	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 23:57	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 23:57	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 23:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 23:57	1
Acetone	ND		10	3.0	ug/L			11/27/20 23:57	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 23:57	1
Acrolein	ND		20	0.91	ug/L			11/27/20 23:57	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 23:57	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 23:57	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 23:57	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 23:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 23:57	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 23:57	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 23:57	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 23:57	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 23:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 23:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 23:57	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 23:57	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 23:57	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 23:57	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 23:57	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 23:57	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 23:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 23:57	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 23:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 23:57	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 23:57	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 23:57	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 23:57	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 23:57	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 23:57	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 23:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 23:57	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 23:57	1
Hexane	ND		10	0.40	ug/L			11/27/20 23:57	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 23:57	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 23:57	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 23:57	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 23:57	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 23:57	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 23:57	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 23:57	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 23:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 23:57	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 23:57	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 23:57	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 23:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 23:57	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 23:57	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 23:57	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 23:57	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 23:57	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:57	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 23:57	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 23:57	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 23:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 23:57	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 23:57	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 23:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 23:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 23:57	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 23:57	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 23:57	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 23:57	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 23:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 23:57	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachloroethane TIC	ND		ug/L			67-72-1		11/27/20 23:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120					11/27/20 23:57	1
4-Bromofluorobenzene (Surr)	105		73 - 120					11/27/20 23:57	1
Toluene-d8 (Surr)	101		80 - 120					11/27/20 23:57	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/28/20 00:21	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/28/20 00:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/28/20 00:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/28/20 00:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/28/20 00:21	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/28/20 00:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/28/20 00:21	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/28/20 00:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 00:21	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/28/20 00:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 00:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/28/20 00:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/28/20 00:21	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/28/20 00:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/28/20 00:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/28/20 00:21	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/28/20 00:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/28/20 00:21	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/28/20 00:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/28/20 00:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/28/20 00:21	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/28/20 00:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/28/20 00:21	1
1,4-Dioxane	ND		40	9.3	ug/L			11/28/20 00:21	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/28/20 00:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/28/20 00:21	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/28/20 00:21	1
2-Hexanone	ND		5.0	1.2	ug/L			11/28/20 00:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/28/20 00:21	1
Acetone	ND		10	3.0	ug/L			11/28/20 00:21	1
Acetonitrile	ND		15	4.9	ug/L			11/28/20 00:21	1
Acrolein	ND		20	0.91	ug/L			11/28/20 00:21	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/28/20 00:21	1
Benzene	ND		1.0	0.41	ug/L			11/28/20 00:21	1
Bromobenzene	ND		1.0	0.80	ug/L			11/28/20 00:21	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/28/20 00:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/28/20 00:21	1
Bromoform	ND		1.0	0.26	ug/L			11/28/20 00:21	1
Bromomethane	ND		1.0	0.69	ug/L			11/28/20 00:21	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/28/20 00:21	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/28/20 00:21	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		1.0	0.19	ug/L			11/28/20 00:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/28/20 00:21	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/28/20 00:21	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/28/20 00:21	1
Chloroethane	ND		1.0	0.32	ug/L			11/28/20 00:21	1
Chloroform	ND		1.0	0.34	ug/L			11/28/20 00:21	1
Chloromethane	ND		1.0	0.35	ug/L			11/28/20 00:21	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/28/20 00:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/28/20 00:21	1
Cyclohexane	ND		1.0	0.18	ug/L			11/28/20 00:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/28/20 00:21	1
Dibromomethane	ND		1.0	0.41	ug/L			11/28/20 00:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/28/20 00:21	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/28/20 00:21	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/28/20 00:21	1
Ethyl ether	ND		1.0	0.72	ug/L			11/28/20 00:21	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/28/20 00:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/20 00:21	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/28/20 00:21	1
Hexane	ND		10	0.40	ug/L			11/28/20 00:21	1
Iodomethane	ND		1.0	0.30	ug/L			11/28/20 00:21	1
Isobutanol	ND		25	4.8	ug/L			11/28/20 00:21	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/28/20 00:21	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/28/20 00:21	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/28/20 00:21	1
Methyl acetate	ND		2.5	1.3	ug/L			11/28/20 00:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/28/20 00:21	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/28/20 00:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/28/20 00:21	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/28/20 00:21	1
Naphthalene	ND		1.0	0.43	ug/L			11/28/20 00:21	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/28/20 00:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/28/20 00:21	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/28/20 00:21	1
o-Xylene	ND		1.0	0.76	ug/L			11/28/20 00:21	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/28/20 00:21	1
p-Cymene	ND		1.0	0.31	ug/L			11/28/20 00:21	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/28/20 00:21	1
Styrene	ND		1.0	0.73	ug/L			11/28/20 00:21	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/28/20 00:21	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/28/20 00:21	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/28/20 00:21	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/28/20 00:21	1
Toluene	ND		1.0	0.51	ug/L			11/28/20 00:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/28/20 00:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/28/20 00:21	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/28/20 00:21	1
Trichloroethene	ND		1.0	0.46	ug/L			11/28/20 00:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/28/20 00:21	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		5.0	0.85	ug/L			11/28/20 00:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/28/20 00:21	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		11/28/20 00:21	1
4-Bromofluorobenzene (Surr)	90		73 - 120		11/28/20 00:21	1
Toluene-d8 (Surr)	96		80 - 120		11/28/20 00:21	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/28/20 00:46	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/28/20 00:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/28/20 00:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/28/20 00:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/28/20 00:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/28/20 00:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/28/20 00:46	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/28/20 00:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 00:46	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/28/20 00:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 00:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/28/20 00:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/28/20 00:46	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/28/20 00:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/28/20 00:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/28/20 00:46	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/28/20 00:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/28/20 00:46	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/28/20 00:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/28/20 00:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/28/20 00:46	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/28/20 00:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/28/20 00:46	1
1,4-Dioxane	ND		40	9.3	ug/L			11/28/20 00:46	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/28/20 00:46	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/28/20 00:46	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/28/20 00:46	1
2-Hexanone	ND		5.0	1.2	ug/L			11/28/20 00:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/28/20 00:46	1
Acetone	ND		10	3.0	ug/L			11/28/20 00:46	1
Acetonitrile	ND		15	4.9	ug/L			11/28/20 00:46	1
Acrolein	ND		20	0.91	ug/L			11/28/20 00:46	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/28/20 00:46	1
Benzene	ND		1.0	0.41	ug/L			11/28/20 00:46	1
Bromobenzene	ND		1.0	0.80	ug/L			11/28/20 00:46	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.87	ug/L			11/28/20 00:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/28/20 00:46	1
Bromoform	ND		1.0	0.26	ug/L			11/28/20 00:46	1
Bromomethane	ND		1.0	0.69	ug/L			11/28/20 00:46	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/28/20 00:46	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/28/20 00:46	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/28/20 00:46	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/28/20 00:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/28/20 00:46	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/28/20 00:46	1
Chloroethane	ND		1.0	0.32	ug/L			11/28/20 00:46	1
Chloroform	ND		1.0	0.34	ug/L			11/28/20 00:46	1
Chloromethane	ND		1.0	0.35	ug/L			11/28/20 00:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/28/20 00:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/28/20 00:46	1
Cyclohexane	ND		1.0	0.18	ug/L			11/28/20 00:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/28/20 00:46	1
Dibromomethane	ND		1.0	0.41	ug/L			11/28/20 00:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/28/20 00:46	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/28/20 00:46	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/28/20 00:46	1
Ethyl ether	ND		1.0	0.72	ug/L			11/28/20 00:46	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/28/20 00:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/20 00:46	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/28/20 00:46	1
Hexane	ND		10	0.40	ug/L			11/28/20 00:46	1
Iodomethane	ND		1.0	0.30	ug/L			11/28/20 00:46	1
Isobutanol	ND		25	4.8	ug/L			11/28/20 00:46	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/28/20 00:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/28/20 00:46	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/28/20 00:46	1
Methyl acetate	ND		2.5	1.3	ug/L			11/28/20 00:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/28/20 00:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/28/20 00:46	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/28/20 00:46	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/28/20 00:46	1
Naphthalene	ND		1.0	0.43	ug/L			11/28/20 00:46	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/28/20 00:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/28/20 00:46	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/28/20 00:46	1
o-Xylene	ND		1.0	0.76	ug/L			11/28/20 00:46	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/28/20 00:46	1
p-Cymene	ND		1.0	0.31	ug/L			11/28/20 00:46	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/28/20 00:46	1
Styrene	ND		1.0	0.73	ug/L			11/28/20 00:46	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/28/20 00:46	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/28/20 00:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/28/20 00:46	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/28/20 00:46	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.51	ug/L			11/28/20 00:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/28/20 00:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/28/20 00:46	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/28/20 00:46	1
Trichloroethene	0.51	J	1.0	0.46	ug/L			11/28/20 00:46	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/28/20 00:46	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/28/20 00:46	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/28/20 00:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/28/20 00:46	1
4-Bromofluorobenzene (Surr)	101		73 - 120		11/28/20 00:46	1
Toluene-d8 (Surr)	99		80 - 120		11/28/20 00:46	1

Client Sample ID: TRIP BLANK
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/28/20 01:11	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/28/20 01:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/28/20 01:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/28/20 01:11	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/28/20 01:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/28/20 01:11	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/28/20 01:11	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/28/20 01:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 01:11	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/28/20 01:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 01:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/28/20 01:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/28/20 01:11	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/28/20 01:11	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/28/20 01:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/28/20 01:11	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/28/20 01:11	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/28/20 01:11	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/28/20 01:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/28/20 01:11	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/28/20 01:11	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/28/20 01:11	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/28/20 01:11	1
1,4-Dioxane	ND		40	9.3	ug/L			11/28/20 01:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/28/20 01:11	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/28/20 01:11	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/28/20 01:11	1
2-Hexanone	ND		5.0	1.2	ug/L			11/28/20 01:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/28/20 01:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK

Date Collected: 11/20/20 09:53

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			11/28/20 01:11	1
Acetonitrile	ND		15	4.9	ug/L			11/28/20 01:11	1
Acrolein	ND		20	0.91	ug/L			11/28/20 01:11	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/28/20 01:11	1
Benzene	ND		1.0	0.41	ug/L			11/28/20 01:11	1
Bromobenzene	ND		1.0	0.80	ug/L			11/28/20 01:11	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/28/20 01:11	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/28/20 01:11	1
Bromoform	ND		1.0	0.26	ug/L			11/28/20 01:11	1
Bromomethane	ND		1.0	0.69	ug/L			11/28/20 01:11	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/28/20 01:11	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/28/20 01:11	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/28/20 01:11	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/28/20 01:11	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/28/20 01:11	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/28/20 01:11	1
Chloroethane	ND		1.0	0.32	ug/L			11/28/20 01:11	1
Chloroform	ND		1.0	0.34	ug/L			11/28/20 01:11	1
Chloromethane	ND		1.0	0.35	ug/L			11/28/20 01:11	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/28/20 01:11	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/28/20 01:11	1
Cyclohexane	ND		1.0	0.18	ug/L			11/28/20 01:11	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/28/20 01:11	1
Dibromomethane	ND		1.0	0.41	ug/L			11/28/20 01:11	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/28/20 01:11	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/28/20 01:11	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/28/20 01:11	1
Ethyl ether	ND		1.0	0.72	ug/L			11/28/20 01:11	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/28/20 01:11	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/20 01:11	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/28/20 01:11	1
Hexane	ND		10	0.40	ug/L			11/28/20 01:11	1
Iodomethane	ND		1.0	0.30	ug/L			11/28/20 01:11	1
Isobutanol	ND		25	4.8	ug/L			11/28/20 01:11	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/28/20 01:11	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/28/20 01:11	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/28/20 01:11	1
Methyl acetate	ND		2.5	1.3	ug/L			11/28/20 01:11	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/28/20 01:11	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/28/20 01:11	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/28/20 01:11	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/28/20 01:11	1
Naphthalene	ND		1.0	0.43	ug/L			11/28/20 01:11	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/28/20 01:11	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/28/20 01:11	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/28/20 01:11	1
o-Xylene	ND		1.0	0.76	ug/L			11/28/20 01:11	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/28/20 01:11	1
p-Cymene	ND		1.0	0.31	ug/L			11/28/20 01:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/28/20 01:11	1
Styrene	ND		1.0	0.73	ug/L			11/28/20 01:11	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/28/20 01:11	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/28/20 01:11	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/28/20 01:11	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/28/20 01:11	1
Toluene	ND		1.0	0.51	ug/L			11/28/20 01:11	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/28/20 01:11	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/28/20 01:11	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/28/20 01:11	1
Trichloroethene	ND		1.0	0.46	ug/L			11/28/20 01:11	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/28/20 01:11	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/28/20 01:11	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/28/20 01:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		11/28/20 01:11	1
4-Bromofluorobenzene (Surr)	92		73 - 120		11/28/20 01:11	1
Toluene-d8 (Surr)	96		80 - 120		11/28/20 01:11	1

Method: 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:14	1
Iron, Total	0.16		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:14	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:17	1
Iron, Total	4.6		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:17	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0020	J	0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:20	1
Iron, Total	0.88		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:20	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 22:24	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6010D - Metals (ICP) - Total Recoverable (Continued)

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	0.81		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 22:24	1

Method: 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	17		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:09	1
Iron, Dissolved	0.051	J	0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:09	1
Magnesium, Dissolved	6.8		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:09	1
Potassium, Dissolved	1.2		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:09	1
Sodium, Dissolved	4.0		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:09	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	9.7		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:22	1
Iron, Dissolved	2.1		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:22	1
Magnesium, Dissolved	4.3		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:22	1
Potassium, Dissolved	0.56	J	1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:22	1
Sodium, Dissolved	3.3		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:22	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	13		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:39	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:39	1
Magnesium, Dissolved	7.4		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:39	1
Potassium, Dissolved	0.79	J	1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:39	1
Sodium, Dissolved	5.6		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:39	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	32		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:43	1
Iron, Dissolved	0.74		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:43	1
Magnesium, Dissolved	16		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:43	1
Potassium, Dissolved	1.1		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:43	1
Sodium, Dissolved	13		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:43	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 05:03	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Total	0.0042		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 05:03	1
Beryllium, Total	ND	^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:51	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 05:03	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 05:03	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 05:03	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 13:13	1
Manganese, Total	0.21		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 13:13	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 05:03	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 13:13	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 13:13	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:13	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 13:13	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 05:03	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 05:07	1
Barium, Total	0.0035		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 05:07	1
Beryllium, Total	ND	^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:55	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 05:07	1
Chromium, Total	0.0014	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 05:07	1
Copper, Total	0.00094	J	0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 05:07	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 13:17	1
Manganese, Total	0.099		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 13:17	1
Nickel, Total	0.00079	J	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 05:07	1
Selenium, Total	ND	^	0.0010	0.00037	mg/L		12/02/20 15:40	12/09/20 05:07	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 13:17	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:17	1
Vanadium, Total	0.0037		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 13:17	1
Zinc, Total	0.0027	J	0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 05:07	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 05:11	1
Barium, Total	0.0055		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 05:11	1
Beryllium, Total	ND	^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:59	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 05:11	1
Chromium, Total	0.019		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 05:11	1
Copper, Total	0.0018	J	0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 05:11	1
Lead, Total	0.00092	J B	0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 13:21	1
Manganese, Total	0.11		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 13:21	1
Nickel, Total	0.0055		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 05:11	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 13:21	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 13:21	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:21	1
Vanadium, Total	0.0090		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 13:21	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 05:11	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 05:14	1
Barium, Total	0.0050		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 05:14	1
Beryllium, Total	ND	^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 04:02	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 05:14	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 05:14	1
Copper, Total	0.00066	J	0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 05:14	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 13:24	1
Manganese, Total	2.6		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 13:24	1
Nickel, Total	0.0015	J	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 05:14	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 13:24	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 13:24	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:24	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 13:24	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 05:14	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.13		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:20	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.093	F1	0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:24	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.00035	J	0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:49	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	2.4		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:52	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

General Chemistry

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/15/20 06:08	1
Sulfate	8.1		5.0	5.0	mg/L			12/15/20 06:08	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/20 14:08	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	74		10	10	mg/L			11/25/20 21:20	1
Alkalinity, Bicarbonate (As CaCO3)	74		10	10	mg/L			11/25/20 21:20	1
Total Dissolved Solids (TDS)	97		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/24/20 07:30	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/13/20 00:53	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/15/20 06:26	1
Sulfate	ND		5.0	5.0	mg/L			12/15/20 06:26	1
Ammonia (as N)	0.21		0.030	0.030	mg/L			12/09/20 11:50	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	47		10	10	mg/L			11/25/20 21:25	1
Alkalinity, Bicarbonate (As CaCO3)	47		10	10	mg/L			11/25/20 21:25	1
Total Dissolved Solids (TDS)	73		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	10		4.0	4.0	mg/L			11/24/20 07:30	1
Total Organic Carbon - Average	2.3		1.0	1.0	mg/L			12/15/20 21:35	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/15/20 07:18	1
Sulfate	ND		5.0	5.0	mg/L			12/15/20 07:18	1
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/20 14:12	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	85		10	10	mg/L			11/25/20 21:30	1
Alkalinity, Bicarbonate (As CaCO3)	85		10	10	mg/L			11/25/20 21:30	1
Total Dissolved Solids (TDS)	100		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/24/20 07:30	1
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/13/20 01:30	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.8		3.0	3.0	mg/L			12/15/20 07:36	1
Sulfate	13		5.0	5.0	mg/L			12/15/20 07:36	1
Ammonia (as N)	0.057		0.030	0.030	mg/L			12/08/20 14:18	1
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1
Alkalinity, Total (As CaCO3)	150		10	10	mg/L			11/25/20 21:36	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

General Chemistry (Continued)

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Bicarbonate (As CaCO3)	150		10	10	mg/L			11/25/20 21:36	1
Total Dissolved Solids (TDS)	210		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	ND		4.0	4.0	mg/L			11/24/20 07:30	1
Total Organic Carbon - Average	1.6		1.0	1.0	mg/L			12/13/20 02:20	1

Method: Field Sampling - Field Sampling

Client Sample ID: MW-33C
Date Collected: 11/20/20 10:33
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-1
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	4.45				ft			11/20/20 11:33	1
Specific Conductivity	98				umhos/cm			11/20/20 11:33	1
Dissolved Oxygen	0.35				mg/L			11/20/20 11:33	1
eH	63.1				millivolts			11/20/20 11:33	1
Turbidity	6.13				NTU			11/20/20 11:33	1
Temperature	9.09				Degrees C			11/20/20 11:33	1
pH	5.89				SU			11/20/20 11:33	1

Client Sample ID: MW-33A
Date Collected: 11/20/20 09:53
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-2
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	1.81				ft			11/20/20 10:53	1
Specific Conductivity	158				umhos/cm			11/20/20 10:53	1
Dissolved Oxygen	0.23				mg/L			11/20/20 10:53	1
eH	-61.7				millivolts			11/20/20 10:53	1
Turbidity	2.46				NTU			11/20/20 10:53	1
Temperature	8.30				Degrees C			11/20/20 10:53	1
pH	7.67				SU			11/20/20 10:53	1

Client Sample ID: MW-16
Date Collected: 11/20/20 11:52
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-3
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	62.89				ft			11/20/20 12:52	1
Specific Conductivity	151				umhos/cm			11/20/20 12:52	1
Dissolved Oxygen	5.52				mg/L			11/20/20 12:52	1
eH	146.1				millivolts			11/20/20 12:52	1
Turbidity	9.34				NTU			11/20/20 12:52	1
Temperature	8.57				Degrees C			11/20/20 12:52	1
pH	6.14				SU			11/20/20 12:52	1

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	1.33				ft			11/20/20 13:55	1
Specific Conductivity	329				umhos/cm			11/20/20 13:55	1
Dissolved Oxygen	0.47				mg/L			11/20/20 13:55	1

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Client Sample Results

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: Field Sampling - Field Sampling (Continued)

Client Sample ID: MW-32
Date Collected: 11/20/20 12:55
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143078-4
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
eH	0.4				millivolts			11/20/20 13:55	1
Turbidity	2.02				NTU			11/20/20 13:55	1
Temperature	10.84				Degrees C			11/20/20 13:55	1
pH	6.62				SU			11/20/20 13:55	1

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	TOL
		(77-120)	(73-120)	(80-120)
280-143078-1	MW-33C	101	89	95
280-143078-2	MW-33A	106	105	101
280-143078-3	MW-16	101	90	96
280-143078-4	MW-32	104	101	99
280-143078-5	TRIP BLANK	102	92	96
480-178559-K-1 MS	Matrix Spike	101	106	101
480-178559-K-1 MSD	Matrix Spike Duplicate	102	103	99
LCS 480-561110/6	Lab Control Sample	101	99	97
MB 480-561110/8	Method Blank	104	97	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBFM	TBA
		(50-150)	(50-150)
280-143078-1	MW-33C	103	79
280-143078-2	MW-33A	104	80
280-143078-3	MW-16	116	100
280-143078-4	MW-32	101	81
280-143078-5	TRIP BLANK	103	84
LCS 480-560978/6	Lab Control Sample	105	94
LCS 480-561082/6	Lab Control Sample	100	80
LCSD 480-560978/7	Lab Control Sample Dup	105	103
LCSD 480-561082/7	Lab Control Sample Dup	98	85
MB 480-560978/9	Method Blank	103	79
MB 480-561082/9	Method Blank	105	87

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TBA = TBA-d9 (Surr)

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 23:07	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 23:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 23:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 23:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 23:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 23:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 23:07	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 23:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 23:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 23:07	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 23:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 23:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 23:07	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 23:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 23:07	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 23:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 23:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 23:07	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 23:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 23:07	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 23:07	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 23:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 23:07	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 23:07	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 23:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 23:07	1
Acetone	ND		10	3.0	ug/L			11/27/20 23:07	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 23:07	1
Acrolein	ND		20	0.91	ug/L			11/27/20 23:07	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 23:07	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 23:07	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 23:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 23:07	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 23:07	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 23:07	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 23:07	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 23:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 23:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 23:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 23:07	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 23:07	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 23:07	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 23:07	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 23:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 23:07	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 23:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 23:07	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 23:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 23:07	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 23:07	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 23:07	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 23:07	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 23:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 23:07	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 23:07	1
Hexane	ND		10	0.40	ug/L			11/27/20 23:07	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 23:07	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 23:07	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 23:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 23:07	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 23:07	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 23:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 23:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 23:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 23:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 23:07	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 23:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 23:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 23:07	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 23:07	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 23:07	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 23:07	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 23:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 23:07	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 23:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 23:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 23:07	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 23:07	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 23:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 23:07	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 23:07	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 23:07	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 23:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 23:07	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 23:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 23:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/27/20 23:07	1
4-Bromofluorobenzene (Surr)	97		73 - 120		11/27/20 23:07	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

<i>Surrogate</i>	<i>MB</i>	<i>MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	95	<i>Qualifier</i>	80 - 120		11/27/20 23:07	1

Lab Sample ID: LCS 480-561110/6
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>
<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>	<i>Limits</i>
1,1,1,2-Tetrachloroethane	25.0	25.8		ug/L		103	80 - 120
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	20.3		ug/L		81	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.3		ug/L		97	61 - 148
1,1,2-Trichloroethane	25.0	23.1		ug/L		92	76 - 122
1,1-Dichloroethane	25.0	23.8		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	23.0		ug/L		92	66 - 127
1,1-Dichloropropene	25.0	24.4		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	25.0	24.0		ug/L		96	75 - 123
1,2,3-Trichloropropane	25.0	20.7		ug/L		83	68 - 122
1,2,4-Trichlorobenzene	25.0	24.0		ug/L		96	79 - 122
1,2,4-Trimethylbenzene	25.0	23.6		ug/L		94	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.0		ug/L		76	56 - 134
1,2-Dibromoethane (EDB)	25.0	23.2		ug/L		93	77 - 120
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		101	77 - 121
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	77 - 120
1,3-Dichloropropane	25.0	23.5		ug/L		94	75 - 120
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 120
1,4-Dioxane	500	316		ug/L		63	50 - 150
2,2-Dichloropropane	25.0	25.4		ug/L		102	63 - 136
2-Butanone (MEK)	125	100		ug/L		80	57 - 140
2-Chloroethyl vinyl ether	25.0	19.9		ug/L		80	70 - 129
2-Hexanone	125	111		ug/L		89	65 - 127
4-Methyl-2-pentanone (MIBK)	125	111		ug/L		89	71 - 125
Acetone	125	96.3		ug/L		77	56 - 142
Acrolein	125	102		ug/L		81	52 - 143
Acrylonitrile	250	197		ug/L		79	63 - 125
Benzene	25.0	23.2		ug/L		93	71 - 124
Bromobenzene	25.0	23.4		ug/L		94	78 - 120
Bromochloromethane	25.0	24.8		ug/L		99	72 - 130
Bromodichloromethane	25.0	25.6		ug/L		102	80 - 122
Bromoform	25.0	21.6		ug/L		86	61 - 132
Bromomethane	25.0	24.6		ug/L		98	55 - 144
Butyl alcohol, tert-	250	202		ug/L		81	75 - 125
Carbon disulfide	25.0	22.8		ug/L		91	59 - 134
Carbon tetrachloride	25.0	23.7		ug/L		95	72 - 134
Chlorobenzene	25.0	23.9		ug/L		96	80 - 120
Chloroethane	25.0	22.8		ug/L		91	69 - 136

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-561110/6
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	25.0	23.0		ug/L		92	73 - 127
Chloromethane	25.0	22.0		ug/L		88	68 - 124
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	22.8		ug/L		91	74 - 124
Cyclohexane	25.0	22.6		ug/L		90	59 - 135
Dibromochloromethane	25.0	25.0		ug/L		100	75 - 125
Dibromomethane	25.0	23.8		ug/L		95	76 - 127
Dichlorodifluoromethane	25.0	26.5		ug/L		106	59 - 135
Dichlorofluoromethane	25.0	23.2		ug/L		93	76 - 127
Ethyl ether	25.0	23.0		ug/L		92	76 - 123
Ethylbenzene	25.0	24.6		ug/L		98	77 - 123
Hexachlorobutadiene	25.0	24.5		ug/L		98	68 - 131
Iodomethane	25.0	23.8		ug/L		95	78 - 123
Isobutanol	625	467		ug/L		75	51 - 150
Isopropylbenzene	25.0	24.7		ug/L		99	77 - 122
Methyl acetate	50.0	37.6		ug/L		75	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120
Methylcyclohexane	25.0	22.5		ug/L		90	68 - 134
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124
m-Xylene & p-Xylene	25.0	25.1		ug/L		100	76 - 122
Naphthalene	25.0	20.4		ug/L		82	66 - 125
n-Butylbenzene	25.0	23.1		ug/L		92	71 - 128
N-Propylbenzene	25.0	24.0		ug/L		96	75 - 127
o-Chlorotoluene	25.0	23.6		ug/L		94	76 - 121
o-Xylene	25.0	25.4		ug/L		102	76 - 122
p-Chlorotoluene	25.0	24.6		ug/L		98	77 - 121
p-Cymene	25.0	23.3		ug/L		93	73 - 120
sec-Butylbenzene	25.0	23.1		ug/L		93	74 - 127
Styrene	25.0	26.4		ug/L		106	80 - 120
tert-Butylbenzene	25.0	22.7		ug/L		91	75 - 123
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Tetrahydrofuran	50.0	38.7		ug/L		77	62 - 132
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	73 - 127
trans-1,3-Dichloropropene	25.0	23.2		ug/L		93	80 - 120
trans-1,4-Dichloro-2-butene	25.0	20.1		ug/L		80	41 - 131
Trichloroethene	25.0	23.5		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	25.1		ug/L		100	62 - 150
Vinyl acetate	50.0	46.4		ug/L		93	50 - 144
Vinyl chloride	25.0	23.1		ug/L		92	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Toluene-d8 (Surr)	97		80 - 120

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-178559-K-1 MS

Matrix: Water
Analysis Batch: 561110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,1-Dichloroethene	ND		1250	1310		ug/L		104	66 - 127	
1,2-Dichloroethane	ND		1250	1260		ug/L		101	75 - 120	
2-Butanone (MEK)	270	J	6250	5340		ug/L		81	57 - 140	
Benzene	ND		1250	1260		ug/L		101	71 - 124	
Carbon tetrachloride	ND		1250	1310		ug/L		105	72 - 134	
Chlorobenzene	ND		1250	1280		ug/L		102	80 - 120	
Chloroform	ND		1250	1230		ug/L		98	73 - 127	
Tetrachloroethene	ND		1250	1330		ug/L		106	74 - 122	
Trichloroethene	ND		1250	1280		ug/L		102	74 - 123	
Vinyl chloride	ND		1250	1220		ug/L		98	65 - 133	
MS MS										
Surrogate	%Recovery		Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	101			77 - 120						
4-Bromofluorobenzene (Surr)	106			73 - 120						
Toluene-d8 (Surr)	101			80 - 120						

Lab Sample ID: 480-178559-K-1 MSD

Matrix: Water
Analysis Batch: 561110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						Limit	
1,1-Dichloroethene	ND		1250	1230		ug/L		99	66 - 127	6	16	
1,2-Dichloroethane	ND		1250	1250		ug/L		100	75 - 120	1	20	
2-Butanone (MEK)	270	J	6250	5480		ug/L		83	57 - 140	2	20	
Benzene	ND		1250	1220		ug/L		98	71 - 124	3	13	
Carbon tetrachloride	ND		1250	1270		ug/L		102	72 - 134	3	15	
Chlorobenzene	ND		1250	1230		ug/L		98	80 - 120	4	25	
Chloroform	ND		1250	1200		ug/L		96	73 - 127	3	20	
Tetrachloroethene	ND		1250	1280		ug/L		103	74 - 122	4	20	
Trichloroethene	ND		1250	1220		ug/L		98	74 - 123	5	16	
Vinyl chloride	ND		1250	1130		ug/L		90	65 - 133	8	15	
MSD MSD												
Surrogate	%Recovery		Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	102			77 - 120								
4-Bromofluorobenzene (Surr)	103			73 - 120								
Toluene-d8 (Surr)	99			80 - 120								

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-560978/9

Matrix: Water
Analysis Batch: 560978

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	ND		0.020	0.0040	ug/L			11/25/20 21:37	1
MB MB									
Surrogate	%Recovery		Qualifier	Limits					
Dibromofluoromethane (Surr)	103			50 - 150					
						Prepared		Analyzed	Dil Fac
								11/25/20 21:37	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-560978/9
Matrix: Water
Analysis Batch: 560978

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
TBA-d9 (Surr)	79		50 - 150		11/25/20 21:37	1

Lab Sample ID: LCS 480-560978/6
Matrix: Water
Analysis Batch: 560978

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	105		50 - 150
TBA-d9 (Surr)	94		50 - 150

Lab Sample ID: LCSD 480-560978/7
Matrix: Water
Analysis Batch: 560978

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	105		50 - 150
TBA-d9 (Surr)	103		50 - 150

Lab Sample ID: MB 480-561082/9
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	ND		0.020	0.0040	ug/L			11/27/20 14:46	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	105		50 - 150		11/27/20 14:46	1
TBA-d9 (Surr)	87		50 - 150		11/27/20 14:46	1

Lab Sample ID: LCS 480-561082/6
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	100		50 - 150
TBA-d9 (Surr)	80		50 - 150

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-561082/7
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.200	0.200		ug/L		100	50 - 150	11	20
Surrogate									
	%Recovery	LCSD Qualifier	Limits						
Dibromofluoromethane (Surr)	98		50 - 150						
TBA-d9 (Surr)	85		50 - 150						

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-518276/1-A
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		11/30/20 07:59	11/30/20 20:33	1
Iron, Total	ND		0.060	0.022	mg/L		11/30/20 07:59	11/30/20 20:33	1

Lab Sample ID: LCS 280-518276/2-A
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt, Total	1.00	0.963		mg/L		96	89 - 111
Iron, Total	10.0	9.80		mg/L		98	89 - 115

Lab Sample ID: 280-143102-C-1-B MS
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt, Total	0.0079		1.00	1.00		mg/L		100	82 - 119
Iron, Total	47		10.0	54.7	4	mg/L		82	75 - 125

Lab Sample ID: 280-143102-C-1-C MSD
Matrix: Water
Analysis Batch: 518727

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt, Total	0.0079		1.00	1.02		mg/L		101	82 - 119	2	20
Iron, Total	47		10.0	55.6	4	mg/L		91	75 - 125	2	20

Lab Sample ID: MB 280-518473/1-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:02	1
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:02	1
Magnesium, Dissolved	ND		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:02	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:02	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 280-518473/1-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium, Dissolved	ND		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:02	1

Lab Sample ID: LCS 280-518473/2-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Dissolved	50.0	50.5		mg/L		101	90 - 111
Iron, Dissolved	10.0	9.98		mg/L		100	89 - 115
Magnesium, Dissolved	50.0	50.2		mg/L		100	90 - 113
Potassium, Dissolved	50.0	50.6		mg/L		101	89 - 114
Sodium, Dissolved	50.0	49.5		mg/L		99	90 - 115

Lab Sample ID: 280-143078-1 MS
Matrix: Water
Analysis Batch: 519179

Client Sample ID: MW-33C
Prep Type: Dissolved
Prep Batch: 518473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Dissolved	17		50.0	67.6		mg/L		101	75 - 125
Iron, Dissolved	0.051	J	10.0	10.0		mg/L		100	75 - 125
Magnesium, Dissolved	6.8		50.0	57.3		mg/L		101	75 - 125
Potassium, Dissolved	1.2		50.0	52.2		mg/L		102	76 - 125
Sodium, Dissolved	4.0		50.0	53.6		mg/L		99	75 - 125

Lab Sample ID: 280-143078-1 MSD
Matrix: Water
Analysis Batch: 519179

Client Sample ID: MW-33C
Prep Type: Dissolved
Prep Batch: 518473

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium, Dissolved	17		50.0	67.8		mg/L		102	75 - 125	0	20
Iron, Dissolved	0.051	J	10.0	10.0		mg/L		100	75 - 125	0	20
Magnesium, Dissolved	6.8		50.0	57.5		mg/L		101	75 - 125	0	20
Potassium, Dissolved	1.2		50.0	52.6		mg/L		103	76 - 125	1	20
Sodium, Dissolved	4.0		50.0	54.0		mg/L		100	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:25	1
Barium, Total	ND		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:25	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:25	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:25	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:25	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:25	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium, Total	0.000190	J ^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:14	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead, Total	0.000728	J	0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 12:37	1
Manganese, Total	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 12:37	1
Selenium, Total	0.000403	J	0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 12:37	1
Silver, Total	0.0000400	J	0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 12:37	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 12:37	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 12:37	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 520313

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:00	1

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony, Total	0.0400	0.0375		mg/L		94	80 - 111
Barium, Total	0.0400	0.0397		mg/L		99	92 - 117
Cadmium, Total	0.0400	0.0380		mg/L		95	91 - 114
Chromium, Total	0.0400	0.0399		mg/L		100	91 - 114
Copper, Total	0.0400	0.0372		mg/L		93	89 - 116
Nickel, Total	0.0400	0.0371		mg/L		93	92 - 116

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Beryllium, Total	0.0400	0.0396	^	mg/L		99	87 - 118

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Lead, Total	0.0400	0.0399		mg/L		100	95 - 116
Manganese, Total	0.0400	0.0408		mg/L		102	89 - 119
Selenium, Total	0.0400	0.0393		mg/L		98	90 - 115
Silver, Total	0.0400	0.0403		mg/L		101	93 - 118
Thallium, Total	0.0400	0.0393		mg/L		98	94 - 115

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium, Total	0.0400	0.0407		mg/L		102	91 - 114
Zinc, Total	0.0400	0.0402		mg/L		100	86 - 120

Lab Sample ID: 280-143080-F-1-B MS
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Total	0.0030		0.0400	0.0413		mg/L		96	80 - 111
Barium, Total	0.20		0.0400	0.238	4	mg/L		86	92 - 117
Cadmium, Total	ND	F1	0.0400	0.0347	F1	mg/L		87	91 - 114
Chromium, Total	0.0072		0.0400	0.0443		mg/L		93	91 - 114
Copper, Total	ND	F1	0.0400	0.0339	F1	mg/L		85	89 - 116
Nickel, Total	0.054	F1	0.0400	0.0847	F1	mg/L		77	92 - 116

Lab Sample ID: 280-143080-F-1-B MS
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium, Total	ND	^	0.0400	0.0450	^	mg/L		113	87 - 118

Lab Sample ID: 280-143080-F-1-B MS
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead, Total	ND		0.0400	0.0382		mg/L		95	95 - 116
Manganese, Total	2.8		0.0400	2.84	4	mg/L		22	89 - 119
Selenium, Total	0.00043	J B	0.0400	0.0406		mg/L		101	90 - 115
Silver, Total	ND		0.0400	0.0382		mg/L		95	93 - 118
Thallium, Total	ND		0.0400	0.0376		mg/L		94	94 - 115
Vanadium, Total	0.012		0.0400	0.0545		mg/L		106	91 - 114
Zinc, Total	0.0029	J	0.0400	0.0433		mg/L		101	86 - 120

Lab Sample ID: 280-143080-F-1-C MSD
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony, Total	0.0030		0.0400	0.0415		mg/L		96	80 - 111	0	20
Barium, Total	0.20		0.0400	0.240	4	mg/L		89	92 - 117	1	20
Cadmium, Total	ND	F1	0.0400	0.0353	F1	mg/L		88	91 - 114	2	20
Chromium, Total	0.0072		0.0400	0.0453		mg/L		95	91 - 114	2	20
Copper, Total	ND	F1	0.0400	0.0353	F1	mg/L		88	89 - 116	4	20
Nickel, Total	0.054	F1	0.0400	0.0886	F1	mg/L		86	92 - 116	4	20

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-143080-F-1-C MSD
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Beryllium, Total	ND	^	0.0400	0.0459	^	mg/L		115	87 - 118	2	20

Lab Sample ID: 280-143080-F-1-C MSD
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Lead, Total	ND		0.0400	0.0387		mg/L		97	95 - 116	1	20
Manganese, Total	2.8		0.0400	2.88	4	mg/L		113	89 - 119	1	20
Selenium, Total	0.00043	J B	0.0400	0.0408		mg/L		101	90 - 115	0	20
Silver, Total	ND		0.0400	0.0382		mg/L		95	93 - 118	0	20
Thallium, Total	ND		0.0400	0.0382		mg/L		96	94 - 115	2	20
Vanadium, Total	0.012		0.0400	0.0552		mg/L		108	91 - 114	1	20
Zinc, Total	0.0029	J	0.0400	0.0438		mg/L		102	86 - 120	1	20

Lab Sample ID: MB 280-518478/1-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:13	1

Lab Sample ID: LCS 280-518478/2-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	0.0400	0.0400		mg/L		100	89 - 119

Lab Sample ID: 280-143078-2 MS
Matrix: Water
Analysis Batch: 519616

Client Sample ID: MW-33A
Prep Type: Dissolved
Prep Batch: 518478

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	0.093	F1	0.0400	0.131		mg/L		97	89 - 119

Lab Sample ID: 280-143078-2 MSD
Matrix: Water
Analysis Batch: 519616

Client Sample ID: MW-33A
Prep Type: Dissolved
Prep Batch: 518478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Dissolved	0.093	F1	0.0400	0.128	F1	mg/L		88	89 - 119	3	20

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-520423/6
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/14/20 19:54	1
Sulfate	ND		5.0	5.0	mg/L			12/14/20 19:54	1

Lab Sample ID: LCS 280-520423/4
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	95.5		mg/L		96	90 - 110
Sulfate	100	95.1		mg/L		95	90 - 110

Lab Sample ID: LCSD 280-520423/5
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	95.4		mg/L		95	90 - 110	0	10
Sulfate	100	94.5		mg/L		95	90 - 110	1	10

Lab Sample ID: MRL 280-520423/3
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.62		mg/L		92	50 - 150
Sulfate	5.00	ND		mg/L		97	50 - 150

Lab Sample ID: 280-143051-C-1 MS
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	170		50.0	219	E	mg/L		103	80 - 120

Lab Sample ID: 280-143051-C-1 MSD
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	170		50.0	218	E	mg/L		101	80 - 120	0	20

Lab Sample ID: 280-143051-C-1 DU
Matrix: Water
Analysis Batch: 520423

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	170		166		mg/L		0.4	15

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-519734/19
Matrix: Water
Analysis Batch: 519734

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/20 13:33	1

Lab Sample ID: LCS 280-519734/18
Matrix: Water
Analysis Batch: 519734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.43		mg/L		97	90 - 110

Lab Sample ID: 280-143078-3 MS
Matrix: Water
Analysis Batch: 519734

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	ND		1.00	1.03		mg/L		103	90 - 110

Lab Sample ID: 280-143078-3 MSD
Matrix: Water
Analysis Batch: 519734

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND		1.00	1.02		mg/L		102	90 - 110	1	10

Lab Sample ID: MB 280-519803/59
Matrix: Water
Analysis Batch: 519803

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/09/20 11:18	1

Lab Sample ID: LCS 280-519803/57
Matrix: Water
Analysis Batch: 519803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.45		mg/L		98	90 - 110

Lab Sample ID: LCSD 280-519803/58
Matrix: Water
Analysis Batch: 519803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	2.50	2.45		mg/L		98	90 - 110	0	10

Lab Sample ID: 280-143350-A-26 MS
Matrix: Water
Analysis Batch: 519803

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.23	F1	1.00	1.38	F1	mg/L		115	90 - 110

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 280-143350-A-26 MSD
 Matrix: Water
 Analysis Batch: 519803

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.23	F1	1.00	1.35	F1	mg/L		112	90 - 110	2	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-520140/1
 Matrix: Water
 Analysis Batch: 520140

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/11/20 13:12	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-518549/57
 Matrix: Water
 Analysis Batch: 518549

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/25/20 19:12	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/25/20 19:12	1

Lab Sample ID: LCS 280-518549/56
 Matrix: Water
 Analysis Batch: 518549

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total (As CaCO3)	200	197		mg/L		98	89 - 109

Lab Sample ID: 280-143051-C-1 DU
 Matrix: Water
 Analysis Batch: 518549

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	370		396		mg/L		6	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-517842/1
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/23/20 13:37	1

Lab Sample ID: LCS 280-517842/2
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	479		mg/L		96	93 - 110

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 280-142945-B-1 DU
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	17000		16800		mg/L		1	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-517931/1
 Matrix: Water
 Analysis Batch: 517931

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/24/20 07:30	1

Lab Sample ID: LCS 280-517931/2
 Matrix: Water
 Analysis Batch: 517931

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	87.2		mg/L		87	79 - 114

Lab Sample ID: 280-143078-1 DU
 Matrix: Water
 Analysis Batch: 517931

Client Sample ID: MW-33C
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	ND		ND		mg/L		NC	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-520471/4
 Matrix: Water
 Analysis Batch: 520471

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/12/20 19:43	1

Lab Sample ID: LCS 280-520471/3
 Matrix: Water
 Analysis Batch: 520471

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	25.0	25.5		mg/L		102	88 - 112

Lab Sample ID: 280-142967-B-1 MS
 Matrix: Water
 Analysis Batch: 520471

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	1.0		25.0	26.9		mg/L		103	88 - 112

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 280-142967-B-1 MSD

Matrix: Water

Analysis Batch: 520471

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Average	1.0		25.0	26.9		mg/L		104	88 - 112	0	15

Lab Sample ID: MB 280-520661/4

Matrix: Water

Analysis Batch: 520661

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/15/20 15:58	1

Lab Sample ID: LCS 280-520661/3

Matrix: Water

Analysis Batch: 520661

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	25.0	24.6		mg/L		99	88 - 112

Lab Sample ID: 280-143032-C-12 MS

Matrix: Water

Analysis Batch: 520661

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	1.6		25.0	26.4		mg/L		99	88 - 112

Lab Sample ID: 280-143032-C-12 MSD

Matrix: Water

Analysis Batch: 520661

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Average	1.6		25.0	26.1		mg/L		98	88 - 112	1	15

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

GC/MS VOA

Analysis Batch: 560978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	8260C SIM	
280-143078-2	MW-33A	Total/NA	Water	8260C SIM	
280-143078-3	MW-16	Total/NA	Water	8260C SIM	
MB 480-560978/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-560978/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-560978/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 561082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-4	MW-32	Total/NA	Water	8260C SIM	
280-143078-5	TRIP BLANK	Total/NA	Water	8260C SIM	
MB 480-561082/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-561082/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-561082/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 561110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	8260C	
280-143078-2	MW-33A	Total/NA	Water	8260C	
280-143078-3	MW-16	Total/NA	Water	8260C	
280-143078-4	MW-32	Total/NA	Water	8260C	
280-143078-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-561110/8	Method Blank	Total/NA	Water	8260C	
LCS 480-561110/6	Lab Control Sample	Total/NA	Water	8260C	
480-178559-K-1 MS	Matrix Spike	Total/NA	Water	8260C	
480-178559-K-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Metals

Prep Batch: 518276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total Recoverable	Water	3005A	
280-143078-2	MW-33A	Total Recoverable	Water	3005A	
280-143078-3	MW-16	Total Recoverable	Water	3005A	
280-143078-4	MW-32	Total Recoverable	Water	3005A	
MB 280-518276/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518276/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143102-C-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-143102-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 518462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total Recoverable	Water	3005A	
280-143078-2	MW-33A	Total Recoverable	Water	3005A	
280-143078-3	MW-16	Total Recoverable	Water	3005A	
280-143078-4	MW-32	Total Recoverable	Water	3005A	
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Metals

Prep Batch: 518473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Dissolved	Water	3005A	
280-143078-2	MW-33A	Dissolved	Water	3005A	
280-143078-3	MW-16	Dissolved	Water	3005A	
280-143078-4	MW-32	Dissolved	Water	3005A	
MB 280-518473/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518473/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143078-1 MS	MW-33C	Dissolved	Water	3005A	
280-143078-1 MSD	MW-33C	Dissolved	Water	3005A	

Prep Batch: 518478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Dissolved	Water	3005A	
280-143078-2	MW-33A	Dissolved	Water	3005A	
280-143078-3	MW-16	Dissolved	Water	3005A	
280-143078-4	MW-32	Dissolved	Water	3005A	
MB 280-518478/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518478/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143078-2 MS	MW-33A	Dissolved	Water	3005A	
280-143078-2 MSD	MW-33A	Dissolved	Water	3005A	

Analysis Batch: 518272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total Recoverable	Water	6010D	518276
280-143078-2	MW-33A	Total Recoverable	Water	6010D	518276
280-143078-3	MW-16	Total Recoverable	Water	6010D	518276
280-143078-4	MW-32	Total Recoverable	Water	6010D	518276
MB 280-518276/1-A	Method Blank	Total Recoverable	Water	6010D	518276
LCS 280-518276/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518276
280-143102-C-1-B MS	Matrix Spike	Total Recoverable	Water	6010D	518276
280-143102-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	518276

Analysis Batch: 519179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Dissolved	Water	6010D	518473
280-143078-2	MW-33A	Dissolved	Water	6010D	518473
280-143078-3	MW-16	Dissolved	Water	6010D	518473
280-143078-4	MW-32	Dissolved	Water	6010D	518473
MB 280-518473/1-A	Method Blank	Total Recoverable	Water	6010D	518473
LCS 280-518473/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518473
280-143078-1 MS	MW-33C	Dissolved	Water	6010D	518473
280-143078-1 MSD	MW-33C	Dissolved	Water	6010D	518473

Analysis Batch: 519616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Dissolved	Water	6020B	518478
280-143078-2	MW-33A	Dissolved	Water	6020B	518478
280-143078-3	MW-16	Dissolved	Water	6020B	518478
280-143078-4	MW-32	Dissolved	Water	6020B	518478
MB 280-518478/1-A	Method Blank	Total Recoverable	Water	6020B	518478
LCS 280-518478/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518478
280-143078-2 MS	MW-33A	Dissolved	Water	6020B	518478

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Metals (Continued)

Analysis Batch: 519616 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-2 MSD	MW-33A	Dissolved	Water	6020B	518478

Analysis Batch: 519749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total Recoverable	Water	6020B	518462
280-143078-2	MW-33A	Total Recoverable	Water	6020B	518462
280-143078-3	MW-16	Total Recoverable	Water	6020B	518462
280-143078-4	MW-32	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	518462
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	518462

Analysis Batch: 519990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total Recoverable	Water	6020B	518462
280-143078-2	MW-33A	Total Recoverable	Water	6020B	518462
280-143078-3	MW-16	Total Recoverable	Water	6020B	518462
280-143078-4	MW-32	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	518462
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	518462

Analysis Batch: 520148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total Recoverable	Water	6020B	518462
280-143078-2	MW-33A	Total Recoverable	Water	6020B	518462
280-143078-3	MW-16	Total Recoverable	Water	6020B	518462
280-143078-4	MW-32	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	518462
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	518462

Analysis Batch: 520313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462

General Chemistry

Analysis Batch: 517842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	SM 2540C	
280-143078-2	MW-33A	Total/NA	Water	SM 2540C	
280-143078-3	MW-16	Total/NA	Water	SM 2540C	
280-143078-4	MW-32	Total/NA	Water	SM 2540C	
MB 280-517842/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-517842/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-142945-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

General Chemistry

Analysis Batch: 517931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	SM 2540D	
280-143078-2	MW-33A	Total/NA	Water	SM 2540D	
280-143078-3	MW-16	Total/NA	Water	SM 2540D	
280-143078-4	MW-32	Total/NA	Water	SM 2540D	
MB 280-517931/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-517931/2	Lab Control Sample	Total/NA	Water	SM 2540D	
280-143078-1 DU	MW-33C	Total/NA	Water	SM 2540D	

Analysis Batch: 518549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	SM 2320B	
280-143078-2	MW-33A	Total/NA	Water	SM 2320B	
280-143078-3	MW-16	Total/NA	Water	SM 2320B	
280-143078-4	MW-32	Total/NA	Water	SM 2320B	
MB 280-518549/57	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-518549/56	Lab Control Sample	Total/NA	Water	SM 2320B	
280-143051-C-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 519734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	350.1	
280-143078-3	MW-16	Total/NA	Water	350.1	
280-143078-4	MW-32	Total/NA	Water	350.1	
MB 280-519734/19	Method Blank	Total/NA	Water	350.1	
LCS 280-519734/18	Lab Control Sample	Total/NA	Water	350.1	
280-143078-3 MS	MW-16	Total/NA	Water	350.1	
280-143078-3 MSD	MW-16	Total/NA	Water	350.1	

Analysis Batch: 519803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-2	MW-33A	Total/NA	Water	350.1	
MB 280-519803/59	Method Blank	Total/NA	Water	350.1	
LCS 280-519803/57	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-519803/58	Lab Control Sample Dup	Total/NA	Water	350.1	
280-143350-A-26 MS	Matrix Spike	Total/NA	Water	350.1	
280-143350-A-26 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 520140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	353.2	
280-143078-2	MW-33A	Total/NA	Water	353.2	
280-143078-3	MW-16	Total/NA	Water	353.2	
280-143078-4	MW-32	Total/NA	Water	353.2	
MB 280-520140/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 520423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	300.0	
280-143078-2	MW-33A	Total/NA	Water	300.0	
280-143078-3	MW-16	Total/NA	Water	300.0	
280-143078-4	MW-32	Total/NA	Water	300.0	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

General Chemistry (Continued)

Analysis Batch: 520423 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-520423/6	Method Blank	Total/NA	Water	300.0	
LCS 280-520423/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-520423/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-520423/3	Lab Control Sample	Total/NA	Water	300.0	
280-143051-C-1 MS	Matrix Spike	Total/NA	Water	300.0	
280-143051-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-143051-C-1 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 520471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	SM 5310B	
280-143078-3	MW-16	Total/NA	Water	SM 5310B	
280-143078-4	MW-32	Total/NA	Water	SM 5310B	
MB 280-520471/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-520471/3	Lab Control Sample	Total/NA	Water	SM 5310B	
280-142967-B-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-142967-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 520661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-2	MW-33A	Total/NA	Water	SM 5310B	
MB 280-520661/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-520661/3	Lab Control Sample	Total/NA	Water	SM 5310B	
280-143032-C-12 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-143032-C-12 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Field Service / Mobile Lab

Analysis Batch: 518230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143078-1	MW-33C	Total/NA	Water	Field Sampling	
280-143078-2	MW-33A	Total/NA	Water	Field Sampling	
280-143078-3	MW-16	Total/NA	Water	Field Sampling	
280-143078-4	MW-32	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Client Sample ID: MW-33C

Lab Sample ID: 280-143078-1

Date Collected: 11/20/20 10:33

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/27/20 23:32	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 04:34	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:09	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:14	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/07/20 23:20	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 05:03	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:51	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:13	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520423	12/15/20 06:08	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519734	12/08/20 14:08	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 21:20	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517931	11/24/20 07:30	LEB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520471	12/13/20 00:53	JMB	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 11:33	C1A	TAL DEN

Client Sample ID: MW-33A

Lab Sample ID: 280-143078-2

Date Collected: 11/20/20 09:53

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/27/20 23:57	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 04:58	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:22	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:17	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/07/20 23:24	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 05:07	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:55	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:17	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520423	12/15/20 06:26	CJ	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Client Sample ID: MW-33A

Lab Sample ID: 280-143078-2

Date Collected: 11/20/20 09:53

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	519803	12/09/20 11:50	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 21:25	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517931	11/24/20 07:30	LEB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520661	12/15/20 21:35	RAF	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 10:53	C1A	TAL DEN

Client Sample ID: MW-16

Lab Sample ID: 280-143078-3

Date Collected: 11/20/20 11:52

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/28/20 00:21	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	560978	11/26/20 05:21	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:39	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:20	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/07/20 23:49	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 05:11	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:59	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:21	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520423	12/15/20 07:18	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519734	12/08/20 14:12	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 21:30	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517931	11/24/20 07:30	LEB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520471	12/13/20 01:30	JMB	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 12:52	C1A	TAL DEN

Client Sample ID: MW-32

Lab Sample ID: 280-143078-4

Date Collected: 11/20/20 12:55

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/28/20 00:46	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	561082	11/27/20 15:37	WJD	TAL BUF

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - Groundwater

Job ID: 280-143078-1

Client Sample ID: MW-32

Lab Sample ID: 280-143078-4

Date Collected: 11/20/20 12:55

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:43	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518276	11/30/20 07:59	MAB	TAL DEN
Total Recoverable	Analysis	6010D		1			518727	11/30/20 22:24	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/07/20 23:52	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 05:14	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 04:02	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:24	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520423	12/15/20 07:36	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519734	12/08/20 14:18	BWH	TAL DEN
Total/NA	Analysis	353.2		1			520140	12/11/20 13:12	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 21:36	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517931	11/24/20 07:30	LEB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520471	12/13/20 02:20	JMB	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 13:55	C1A	TAL DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143078-5

Date Collected: 11/20/20 09:53

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/28/20 01:11	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	561082	11/27/20 16:02	WJD	TAL BUF

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



17 December 2020

Betsy Sara
Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: OVSL

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
20K0382	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 20K0382
 Turn-around Requested: Standard
 ARI Client Company: SCS Engineers
 Phone: 612-940-2980
 Client Contact: Dan Venchiarutti
 Client Project Name: OVSL
 Client Project #: 04204027.23
 Samplers: SG & TB

Date: 11/20/20
 Page: 1 of 2
 No. of Coolers: 3.4
 Cooler Temps: 3.4

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)



Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
MW-36A	11/19/20	1025	Ground water	2					
MW-15R		1110							
MW-34A		1245							
MW-34C		1200							
MW-39		1348							
MW-35		1450							
MW-13A		1030							
MW-13B		1110							
DuP 2		1115							
MW-19C		1223							
Comments/Special Instructions	Relinquished by: <u>[Signature]</u> (Signature) Printed Name: <u>Dan Venchiarutti</u> Company: <u>SCS</u> Date & Time: <u>11/23/20 11:15 AM</u>				Relinquished by: <u>[Signature]</u> (Signature) Printed Name: <u>Kerry Dang</u> Company: <u>ARI</u> Date & Time: <u>11/23/20 11:15</u>				Received by: <u>[Signature]</u> (Signature) Printed Name: Company: Date & Time:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 2020382
 ARI Client Company: **SCS Engineers**
 Client Contact: **Dan Venchiarutti**
 Client Project Name: **OVSL**



Turn-around Requested: **Standard**
 Phone: **612-940-2980**
 Date: **11/20/20**
 Page: **2** of **2**
 No. of Coolers: **1** Cooler Temps: **3.4**

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
					Received by (Signature)	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	
Dup 1	11/19/20	1230	ground water	1					
MW-42		1321							
MW-29A		1410							
MW-43		1505							
MW-33A	11/20/20	953							
MW-33C		1033							
MW-16		1152							
MW-32		1255							
LP-LCD		1345	leachate						
Comments/Special Instructions	Relinquished by: <i>[Signature]</i> Relinquished by (Signature): Printed Name: DAN VENCHIARUTTI Company: SCS Date & Time: 11/23 11:15 AM				Received by: <i>[Signature]</i> Received by (Signature): Printed Name: Kenny Dang Company: ARI Date & Time: 11/20/20 1119				

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36A	20K0382-01	Water	19-Nov-2020 10:25	23-Nov-2020 11:15
MW-15R	20K0382-02	Water	19-Nov-2020 11:10	23-Nov-2020 11:15
MW-34A	20K0382-03	Water	19-Nov-2020 12:45	23-Nov-2020 11:15
MW-34C	20K0382-04	Water	19-Nov-2020 12:00	23-Nov-2020 11:15
MW-39	20K0382-05	Water	19-Nov-2020 13:48	23-Nov-2020 11:15
MW-35	20K0382-06	Water	19-Nov-2020 14:50	23-Nov-2020 11:15
MW-13A	20K0382-07	Water	19-Nov-2020 10:30	23-Nov-2020 11:15
MW-13B	20K0382-08	Water	19-Nov-2020 11:10	23-Nov-2020 11:15
DUP 2	20K0382-09	Water	19-Nov-2020 11:15	23-Nov-2020 11:15
MW-19C	20K0382-10	Water	19-Nov-2020 12:23	23-Nov-2020 11:15
DUP 1	20K0382-11	Water	19-Nov-2020 12:30	23-Nov-2020 11:15
MW-42	20K0382-12	Water	19-Nov-2020 13:21	23-Nov-2020 11:15
MW-29A	20K0382-13	Water	19-Nov-2020 14:10	23-Nov-2020 11:15
MW-43	20K0382-14	Water	19-Nov-2020 15:05	23-Nov-2020 11:15
MW-33A	20K0382-15	Water	20-Nov-2020 09:53	23-Nov-2020 11:15
MW-33C	20K0382-16	Water	20-Nov-2020 10:33	23-Nov-2020 11:15
MW-16	20K0382-17	Water	20-Nov-2020 11:52	23-Nov-2020 11:15
MW-32	20K0382-18	Water	20-Nov-2020 12:55	23-Nov-2020 11:15
LP-LCD	20K0382-19	Water	20-Nov-2020 13:45	23-Nov-2020 11:15





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Work Order Case Narrative

Sample receipt

Samples as listed on the preceding page were received 23-Nov-2020 11:15 under ARI work order 20K0382. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Arsenic - EPA Method 200.8

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank was clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.





WORK ORDER

20K0382

Client: Test America - Denver

Project Manager: Amanda Volgardsen Johnson

Project: OVSL

Project Number: 04204027.20

Preservation Confirmation

Container ID	Container Type	pH	
20K0382-01 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-02 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-03 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-04 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-05 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-06 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-07 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-08 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-09 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-10 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-11 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-12 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-13 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-14 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-15 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-16 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-17 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-18 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-19 A	Miscellaneous container, 1:1 HN03	<2	Pass

SC

Preservation Confirmed By

11/24/2020

Date



Cooler Receipt Form

ARI Client: SOS Engineers

Project Name: OVSL

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 20K0382

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1311 3.4

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: KD Date: 11/23/20 Time: 1115

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD SC Date: 11/23/20 Time: 1319 Labels checked by: KD

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-36A
20K0382-01 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 10:25
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:35
Sample Preparation:	Extract ID: 20K0382-01 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000548	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-15R
20K0382-02 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:39
Sample Preparation:	Extract ID: 20K0382-02 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000229	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-34A
20K0382-03 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:45
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:44
Sample Preparation:	Extract ID: 20K0382-03 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000492	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-34C
20K0382-04 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:00
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:48
Sample Preparation:	Extract ID: 20K0382-04 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00902	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-39
20K0382-05 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 13:48
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:52
Sample Preparation:	Extract ID: 20K0382-05 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00163	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-35
20K0382-06 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 14:50
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:56
Sample Preparation:	Extract ID: 20K0382-06 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000115	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-13A
20K0382-07 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 10:30
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:01
Sample Preparation:	Extract ID: 20K0382-07 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000198	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-13B
20K0382-08 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:07
Sample Preparation:	Extract ID: 20K0382-08 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000347	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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DUP 2
20K0382-09 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:15
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:14
Sample Preparation:	Extract ID: 20K0382-09 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000240	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-19C
20K0382-10 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:23
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:41
Sample Preparation:	Extract ID: 20K0382-10 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00294	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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DUP 1
20K0382-11 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:30
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:45
Sample Preparation:	Extract ID: 20K0382-11 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00290	mg/L	





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MW-42
20K0382-12 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 13:21
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/07/2020 13:45
Sample Preparation:	Extract ID: 20K0382-12 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.00197	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-29A
20K0382-13 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 14:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:54
Sample Preparation:	Extract ID: 20K0382-13 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00211	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-43
20K0382-14 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 15:05
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:58
Sample Preparation:	Extract ID: 20K0382-14 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.0000426	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-33A
20K0382-15 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 09:53
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:02
Sample Preparation:	Extract ID: 20K0382-15 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000585	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-33C
20K0382-16 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 10:33
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:07
Sample Preparation:	Extract ID: 20K0382-16 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00289	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-16
20K0382-17 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 11:52
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:19
Sample Preparation:	Extract ID: 20K0382-17 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000800	0.00110	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-32
20K0382-18 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 12:55
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:12
Sample Preparation:	Extract ID: 20K0382-18 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.0105	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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LP-LCD
20K0382-19 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 13:45
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 22:10
Sample Preparation:	Extract ID: 20K0382-19 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.0140	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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Metals and Metallic Compounds - Quality Control

Batch BIL0081 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0081-BLK1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:33					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0081-BS1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:38					
Arsenic	75a	0.00491	0.0000400	mg/L	0.00500		98.3	80-120			





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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Metals and Metallic Compounds - Quality Control

Batch BIL0117 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0117-BLK1)						Prepared: 04-Dec-2020 Analyzed: 04-Dec-2020 15:43					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0117-BS1)						Prepared: 04-Dec-2020 Analyzed: 04-Dec-2020 15:47					
Arsenic	75a	0.00494	0.0000400	mg/L	0.00500		98.8	80-120			





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Certified Analyses included in this Report

Analyte	Certifications
EPA 200.8 in Water	
Arsenic-75a	NELAP,WADOE,DoD-ELAP
Arsenic-75a	NELAP,WA-DW,DoD-ELAP
Arsenic-75a	WADOE,WA-DW,DoD-ELAP
Arsenic-75a	NELAP,WADOE,WA-DW,DoD-ELAP
Arsenic-75b	NELAP
Arsenic-75b	NELAP
Arsenic-75b	
Arsenic-75b	NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Notes and Definitions

- D The reported value is from a dilution
- J Estimated concentration value detected below the reporting limit.
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Chain of Custody Record

1891 4173 3972

Client Information Client Contact: Mr. Patrick Madej Company: Waste Management Address: 2615 Davis Street City: San Leandro State/Zip: CA, 94577 Phone: 612-910-2900 Email: Sgorabov@scsengineers.com Project Name: WA02/Olympic View Sanitary LF Event Desc: SemiAnnual GW App/II - May Nov Site: Washington		Sampler: S.G. Phone: 612 910 2900 Lab PM: Sara, Betsy A E-Mail: Betsy.Sara@Eurofinset.com Carmer Tracking No(s): 1891 4173 3972 COC No: 280-17318-3224.1 Page: 1 of 1 Job #: 01204027.23	
Due Date Requested: Standard TAT Requested (days): PO #: WO #: Project #: 28002692 SSOW#:		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N TDS/Ai/ks/Cl/SO4/NO3(cad) <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X Dissolved Metals <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X Ammonia/TOC <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X 826B - long list (TA Buffalo) <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X 826B SIM (TA Buffalo) <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X Total Metals <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X TSS <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X Total Arsenic (direct sub to ARI) <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X Total Number of containers <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12	
Sample Identification MW-33C MW-33A MW-16 MW-32 Trip blank		Matrix (W=water, S=solid, O=waste/soil) Sample Type (C=comp, G=grab) <input checked="" type="checkbox"/> G <input checked="" type="checkbox"/> W Sample Date: 11/20/20 Sample Time: 1033 Preservation Code: W Special Instructions/Note: Short Hold: NO3(cad) Arsenic - Direct sub to ARI	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:			
Empty Kit Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:		Method of Shipment: Date/Time: 11/20/20 1500 Date/Time: 11/21/20 0945 Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: 1464501, 1464500		Cooler Temperature(s) °C and Other Remarks: 3.1, 3.6, 11-0.3	



FIELD INFORMATION FORM



Site Name: DU5L
 Site No.:
 Sample Point: MW-33A
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/20/20
 PURGE TIME (2400 Hr Clock): 9:33
 ELAPSED HRS (hrs:min): :20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLS PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: or N
 Purging Device: A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C-QED Bladder Pump F-Dipper/Bottle
 X-Other:
 Filter Device: or N 0.45 μ or μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other
 Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 445 (ft)
 Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
9:33	200	5.44	87	9.05		12.37	119.16	
9:38	1	5.58	79	9.19		1.14	113.71	
9:41	1	5.65	86	9.15		10.80	115.73	
9:44	1	5.72	94	9.09		0.62	97.10	
9:47	1	5.75	94	9.15		0.58	120.1	
9:50	1	5.79	94	9.07		0.41	75.3	
9:53	↓	5.84	98	9.01	6.13	0.35	63.1	
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirement: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/20/20
 pH (std): 5.84
 CONDUCTANCE (umhos/cm @ 25°C): 98
 TEMP. (°C): 9.01
 TURBIDITY (ntu): 6.13
 DO (mg/L - ppm): 0.35
 eH/ORP (mV): 63.1
 Other: DTW
 Units: 445

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: clear Odor: - Color: - Other: -
 Weather Conditions (required daily, or as conditions change): Direction/Speed: - Outlook: - Precipitation: or N

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS
10/5/20

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Sam Graber SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: DVZL
 Site No.: MW-33C
 Sample Point: MW-33C
 Sample ID

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory)

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY): 11 20 20
 PURGE TIME (2400 Hr Clock): 10 13
 ELAPSED HRS (hrs:min): 00 10
 WATER VOL IN CASING (Gallons): _____
 ACTUAL VOL PURGED (Gallons): _____
 WELL VOLs PURGED: _____

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment... Dedicated: or N

Purging Device: C A-Submersible Pump D-Bailer
 B-Peristaltic Pump E-Piston Pump
 Sampling Device: C C-QED Bladder Pump F-Dipper/Bottle
 X-Other: _____

Filter Device: or N 0.45 μ or _____ μ (circle or fill in)
 Filter Type: A A-In-line Disposable C-Vacuum
 B-Pressure X-Other: _____
 Sample Tube Type: D A-Teflon C-PVC X-Other: _____
 B-Stainless Steel D-Polypropylene

WELL DATA

Well Elevation (at TOC) _____ (ft/msl) Depth to Water (DTW) (from TOC) 101 (ft) Groundwater Elevation (site datum, from TOC) _____ (ft/msl)

Total Well Depth (from TOC) _____ (ft) Stick Up (from ground elevation) _____ (ft) Casing ID 024 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rad/Unit (MVA/MLA)	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
10:13	300 1 st	6.40	156	8.49		0.30	459	
10:18	1 2 nd	7.18	157	8.32		0.30	452	
10:21		7.31	158	8.30		0.38	-110.1	
10:24	1 4 th	7.56	158	8.28		0.25	-33.7	
10:27		7.50	159	8.28		0.25	-45.6	
10:30		7.63	160	8.28		0.24	-52.9	
10:33	↓	7.67	158	8.30	246	0.23	-61.7	
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: ± 0.2 , Conductance: $\pm 3\%$, Temp: ± 0.2 , Turbidity: $\pm 10\%$, eH/ORP: ± 25 mV, DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY): 11 20 20 pH (std): 7.67 CONDUCTANCE (umhos/cm @ 25°C): 158 TEMP. (°C): 8.30 TURBIDITY (ntu): 246 DO (mg/L-ppm): 0.23 eH/ORP (mV): -61.7 Other: DTW Units: ft

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

Sample Appearance: Clear Odor: _____ Color: _____ Other: particulates in stream

Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required): _____

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/20/20 Sam Gruber [Signature] SCS

Date Name Signature Company

FIELD INFORMATION FORM



Site Name: 05SL
 Site No.:
 Sample Point: MW-116
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO
 PURGE DATE (MM DD YY): 11/20/20
 PURGE TIME (2400 Hr Clock): 11:32
 ELAPSED HRS (hrs:min): 20
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLs PURGED:

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Filter Device: Y or N, 0.45 μ or μ (circle or fill in)
 Purging Device: C A-Submersible Pump D-Bailer
 Filter Type: A A-In-line Disposable C-Vacuum
 Sampling Device: C B-Peristaltic Pump E-Piston Pump
 B-Pressure X-Other
 X-Other: Sample Tube Type: D A-Teflon C-PVC X-Other:
 B-Stainless Steel D-Polypropylene

WELL DATA
 Well Elevation (at TOC) (ft/msl) Depth to Water (DTW) (from TOC) 6289 (ft)
 Groundwater Elevation (site datum, from TOC) (ft/msl)
 Total Well Depth (from TOC) (ft) Stick Up (from ground elevation) (ft)
 Casing ID 02 (in) Casing Material PVC

Note: Total Well Depth, Stick Up, Casing Id, etc are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate Unit (min)	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
11:32	300	6.72	131	8.65		9.15	103.2	
11:37	1	6.23	148	8.76		8.56	127.4	
11:40		6.20	148	8.53		16.12	131.0	
11:43		6.17	148	8.60		5.52	136.1	
11:46		6.16	148	8.59		5.53	139.8	
11:49		6.15	148	8.59		5.53	143.1	
11:52	↓	6.14	151	8.57	9.34	5.52	146.1	
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2 Conductance: +/- 3% Temp: -- Turbidity: -- D.O.: +/- 10% eH/ORP: +/- 25 mV DTW: Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/20/20
 pH (std): 6.14
 CONDUCTANCE (umhos/cm @ 25°C): 151
 TEMP. (°C): 8.57
 TURBIDITY (ntu): 9.34
 DO (mg/L - ppm): 5.52
 eH/ORP (mV): 146.1
 Other: DTW
 Units: 6289

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N

FIELD COMMENTS
 Specific Comments (including purge/well volume calculations if required):
9/16/45
MW 63.21 5 minutes after sampling

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Sam Eraber SCS
 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM



Site Name: 05CL
 Site No.:
 Sample Point: MW-32
 Sample ID:

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED
	<u>11/20/20</u>	<u>12:35</u>	<u> </u> : <u> </u>	<u> </u>	<u> </u>	<u> </u>

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below

PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	Filter Device: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	<u>0.45</u> μ or <u> </u> μ (circle or fill in)
	Purging Device: <u>C</u> A-Submersible Pump D-Bailer	Filter Type: <u>A</u> A-In-line Disposable C-Vacuum	
	Sampling Device: <u>C</u> B-Peristaltic Pump E-Piston Pump	B-Pressure X-Other: <u> </u>	
	X-Other: <u> </u> C-QED Bladder Pump F-Dipper/Bottle	Sample Tube Type: <u>D</u> A-Teflon C-PVC X-Other: <u> </u>	
		B-Stainless Steel D-Polypropylene	

WELL DATA	Well Elevation (at TOC) <u> </u> (ft/msl)	Depth to Water (DTW) (from TOC) <u>133</u> (ft)	Groundwater Elevation (site datum, from TOC) <u> </u> (ft/msl)
	Total Well Depth (from TOC) <u> </u> (ft)	Stick Up (from ground elevation) <u> </u> (ft)	Casing ID <u>02</u> (in) Casing Material <u>PVC</u>

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	<u>12:35</u>	<u>300</u> 1"	<u>6.29</u> 1"	<u>308</u>	<u>1073</u>		<u>4.71</u>	<u>1461</u>	
	<u>12:40</u>	<u> </u> 2"	<u>6.62</u> 2"	<u>333</u>	<u>1082</u>		<u>0.66</u>	<u>139.6</u>	
	<u>12:43</u>	<u> </u> 3"	<u>6.63</u> 3"	<u>331</u>	<u>1083</u>		<u>0.57</u>	<u>128.2</u>	
	<u>12:46</u>	<u> </u> 4"	<u>6.64</u> 4"	<u>329</u>	<u>1084</u>		<u>0.51</u>	<u>106</u>	
	<u>12:49</u>	<u> </u>	<u>6.63</u>	<u>329</u>	<u>1085</u>		<u>0.49</u>	<u>153</u>	
	<u>12:52</u>	<u> </u>	<u>6.62</u>	<u>329</u>	<u>1084</u>		<u>0.48</u>	<u>122</u>	
	<u>12:55</u>	<u> </u>	<u>6.62</u>	<u>329</u>	<u>1084</u>	<u>2.02</u>	<u>0.47</u>	<u>0.14</u>	
	<u> </u>								
	<u> </u>								
	<u> </u>								

Suggested range for 3 consec. readings or note Permit/State requirements: pH +/- 0.2, Conductance +/- 3%, Temp. --, Turbidity --, D.O. +/- 10%, eH/ORP +/- 25 mV, DTW Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: <u>02</u> Units
	<u>11/20/20</u>	<u>6.62</u>	<u>329</u>	<u>1084</u>	<u>2.02</u>	<u>0.47</u>	<u>0.4</u>	<u>133</u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Clear Odor: Color: Other:
 Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/20/20 Sam Graber SCS

 Date Name Signature Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy



SDR

FedEx Saturday Delivery

151967 REV 7/08 RRD

SHIP GRABER (760) 746-4600
SCS ENGINEERS
2405 140TH AVENUE NE
SUITE 107
BELLEVUE, WA 98005
UNITED STATES US

SHIP DATE: 13NOV20
ACTWGT: 10.00 LB MAN
CAD: 0886563/CAFE3407

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

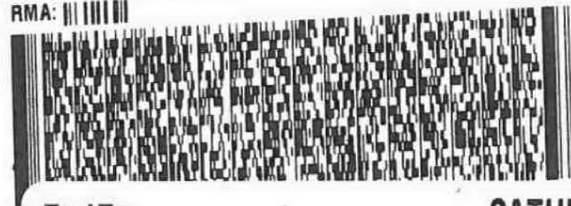
ARVADA CO 800024517

(303) 738-0100
REF: S280-103855

RMA: ||| ||| |||



280-143078 Waybill



FedEx Express



20101011088114

FedEx
TRK# 1891 4173 3983
0221

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US **DEN**



#837409 11/20 568JS/BAB9/B7CC

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- 12
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- 14
- 15

SATURDAY 12:00

IRK# 1891 4173 3972 PRIORITY OVERNIGHT

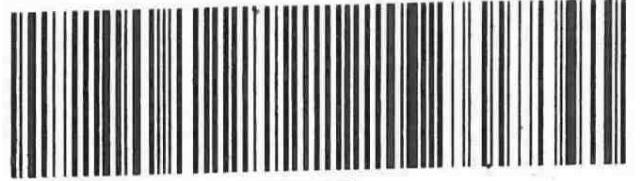
0221

80002

CO-UP

DEN

XO LAAA



445061 21Nov 01:22 MEMH 547C5/BAB9/A17C

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Sara, Betsy A	State of Origin: Washington	280-548291.1
Company: TestAmerica Laboratories, Inc.		E-Mail: Betsy.Sara@Eurofinset.com	Accreditations Required (See note): NELAP - Oregon	Job #: 280-143078-1	Page 1 of 1
Address: 10 Hazelwood Drive, City: Amherst State, Zip: NY, 14228-2298 Phone: 716-691-2600(Tel) 716-691-7991(Fax) Email:		Due Date Requested: 12/11/2020 TAT Requested (days):	Analysis Requested		
PO #:	Project #: 28002692	Field Filtered Sample (Yes or No)	8260C SIM/5030C (MOD) Local Method	8260C/5030C (MOD) Appendix II Volatiles	Total Number of Containers
WO #:	SSOW#:	Perform MS/MSD (Yes or No)			
Project Name: WA02/Olympic View Sanitary LF	Site: WA02/Olympic View Sanitary LF	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)
Sample Identification - Client ID (Lab ID)		Preservation Code:	Special Instructions/Note:		
MW-33C (280-143078-1)	11/20/20	10:33 Pacific		X	Water
MW-33A (280-143078-2)	11/20/20	09:53 Pacific		X	Water
MW-16 (280-143078-3)	11/20/20	11:52 Pacific		X	Water
MW-32 (280-143078-4)	11/20/20	12:55 Pacific		X	Water
TRIP BLANK (280-143078-5)	11/20/20	09:53 Pacific		X	Water
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.					
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Primary Deliverable Rank: 2		Method of Shipment:			
Empty Kit Relinquished by:		Time:			
Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>	
Date/Time: 11/23/20 13:55		Date/Time: 11/24/20 16:00		Company: <i>[Signature]</i>	
Relinquished by:		Received by:		Company:	
Date/Time:		Received by:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 212# ICE			



Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143078-1

Login Number: 143078

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143078-1

Login Number: 143078

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

List Creation: 11/25/20 04:51 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2 ICE IR GUN #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

ANALYTICAL REPORT

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-143079-1

Client Project/Site: WA02|Olympic View Sanitary LF - LP-LCD
Sampling Event: Semiannual Leachate Appl/II - May Nov

For:

Waste Management
2615 Davis Street
San Leandro, California 94577

Attn: Mr. Patrick Madej



*Authorized for release by:
12/18/2020 11:14:42 AM*

Betsy Sara, Project Manager II
(303)736-0189
Betsy.Sara@Eurofinset.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Job ID: 280-143079-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF - LP-LCD

Report Number: 280-143079-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The samples were received on 11/21/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.0 C.

Holding Times

All holding times were within established control limits.

Method Blanks

Total Beryllium, Total Lead, Total Selenium and Total Silver Method 6020B were detected in the Method Blank below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

All other Method Blank recoveries were within established control limits.

Laboratory Control Samples (LCS)

The Biochemical Oxygen Demand (BOD) Method 5210B glucose-glutamic acid standard (LCS) recovered slightly below the lower control limit specified in the method at 84% (control limits 85%-115%). Because the 48-hour holding time expired, reanalysis was not performed.

All other Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Sample L-INF-112020 (143080) was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Cadmium, Total Copper and Total Nickel below the lower control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample L-INF-112020 (143080) were outside control limits for Total Barium and Total Manganese Method 6020B because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Job ID: 280-143079-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

Sample MW-33A (143078) was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Dissolved Manganese below the lower control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

Organics

The sample LP-LCD was analyzed at a dilution for Method 8260C and Method 8260C SIM due to foamy matrix. As a result, the reporting limits were elevated.

The analytes Acrolein, Acrylonitrile and 2-chloroethyl vinyl ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limits for the analytes Acrolein, Acrylonitrile and 2-chloroethyl vinyl ether is not reliable or defensible.

Metals

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Beryllium. Because the data are considered biased high and Total Beryllium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Thallium. Because the data are considered biased high and Total Thallium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

General Comments

The analysis for Volatile Organics by Method 8260C was performed by TestAmerica Buffalo. Their address and phone number are:
TestAmerica Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228
Phone: 716-691-2600

The analysis for Arsenic Method 200.8 was performed by ARI. ARI is not a TestAmerica approved subcontract laboratory and assumes no liability for the data. Their address and phone number are:
Analytical Resources, Inc.
4611 S. 134th Place
Tukwila, WA 98168-3240
Phone: 206-695-6200

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Client Sample ID: LP-LCD

Lab Sample ID: 280-143079-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0092		0.0030	0.0012	mg/L	1		6010D	Total Recoverable
Iron, Total	0.13		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	87		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.032	J	0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	53		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	80		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	630		1.0	0.37	mg/L	1		6010D	Dissolved
Antimony, Total	0.0025		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Arsenic, Total	0.014		0.0050	0.00033	mg/L	1		6020B	Total Recoverable
Barium, Total	0.11		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.000096	J B ^	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0026	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.013		0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.0015	B	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.30		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.091		0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Selenium, Total	0.00099	J B	0.0010	0.00037	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0082		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.014		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.20		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	580		30	30	mg/L	10		300.0	Total/NA
Sulfate	270		50	50	mg/L	10		300.0	Total/NA
Ammonia (as N)	1.1		0.30	0.30	mg/L	10		350.1	Total/NA
Nitrate as N	8.6		0.050	0.050	mg/L	1		353.2	Total/NA
Nitrate Nitrite as N	8.6		0.50	0.50	mg/L	5		353.2	Total/NA
Chemical Oxygen Demand (COD)	140		20	20	mg/L	2		410.4	Total/NA
Alkalinity, Total	750		10	10	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	750		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	2400		20	20	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	47		5.0	5.0	mg/L	5		SM 5310B	Total/NA
Specific Conductivity	3627				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	8.42				mg/L	1		Field Sampling	Total/NA
eH	101.3				millivolts	1		Field Sampling	Total/NA
Turbidity	8.22				NTU	1		Field Sampling	Total/NA
Temperature	9.26				Degrees C	1		Field Sampling	Total/NA
pH	7.41				SU	1		Field Sampling	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143079-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Method Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010D	Metals (ICP)	SW846	TAL DEN
6020B	Metals (ICP/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
353.2	Nitrate	EPA	TAL DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
Field Sampling	Field Sampling	EPA	TAL DEN
Subcontract	Total Arsenic (ARI)	None	SC0056
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-143079-1	LP-LCD	Water	11/20/20 13:45	11/21/20 09:45	
280-143079-2	TRIP BLANK	Water	11/20/20 13:45	11/21/20 09:45	

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20	0.040	ug/L			11/27/20 16:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		50 - 150					11/27/20 16:26	10
TBA-d9 (Surr)	81		50 - 150					11/27/20 16:26	10

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10	3.5	ug/L			11/28/20 01:36	10
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/28/20 01:36	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/28/20 01:36	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/28/20 01:36	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/28/20 01:36	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/28/20 01:36	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/28/20 01:36	10
1,1-Dichloropropene	ND		10	7.2	ug/L			11/28/20 01:36	10
1,2,3-Trichlorobenzene	ND		10	4.1	ug/L			11/28/20 01:36	10
1,2,3-Trichloropropane	ND		10	8.9	ug/L			11/28/20 01:36	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/28/20 01:36	10
1,2,4-Trimethylbenzene	ND		10	7.5	ug/L			11/28/20 01:36	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/28/20 01:36	10
1,2-Dibromoethane (EDB)	ND		10	7.3	ug/L			11/28/20 01:36	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/28/20 01:36	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/28/20 01:36	10
1,2-Dichloroethene, Total	ND		20	8.1	ug/L			11/28/20 01:36	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/28/20 01:36	10
1,3,5-Trichlorobenzene	ND		10	2.3	ug/L			11/28/20 01:36	10
1,3,5-Trimethylbenzene	ND		10	7.7	ug/L			11/28/20 01:36	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/28/20 01:36	10
1,3-Dichloropropane	ND		10	7.5	ug/L			11/28/20 01:36	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/28/20 01:36	10
1,4-Dioxane	ND		400	93	ug/L			11/28/20 01:36	10
2,2-Dichloropropane	ND		10	4.0	ug/L			11/28/20 01:36	10
2-Butanone (MEK)	ND		100	13	ug/L			11/28/20 01:36	10
2-Chloroethyl vinyl ether	ND		50	9.6	ug/L			11/28/20 01:36	10
2-Hexanone	ND		50	12	ug/L			11/28/20 01:36	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/28/20 01:36	10
Acetone	ND		100	30	ug/L			11/28/20 01:36	10
Acetonitrile	ND		150	49	ug/L			11/28/20 01:36	10
Acrolein	ND		200	9.1	ug/L			11/28/20 01:36	10
Acrylonitrile	ND		50	8.3	ug/L			11/28/20 01:36	10
Benzene	ND		10	4.1	ug/L			11/28/20 01:36	10
Bromobenzene	ND		10	8.0	ug/L			11/28/20 01:36	10
Bromochloromethane	ND		10	8.7	ug/L			11/28/20 01:36	10
Bromodichloromethane	ND		10	3.9	ug/L			11/28/20 01:36	10
Bromoform	ND		10	2.6	ug/L			11/28/20 01:36	10

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		10	6.9	ug/L			11/28/20 01:36	10
Butyl alcohol, n-	ND		400	89	ug/L			11/28/20 01:36	10
Butyl alcohol, tert-	ND		100	33	ug/L			11/28/20 01:36	10
Carbon disulfide	ND		10	1.9	ug/L			11/28/20 01:36	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/28/20 01:36	10
Chlorobenzene	ND		10	7.5	ug/L			11/28/20 01:36	10
Chlorodifluoromethane	ND		10	2.6	ug/L			11/28/20 01:36	10
Chloroethane	ND		10	3.2	ug/L			11/28/20 01:36	10
Chloroform	ND		10	3.4	ug/L			11/28/20 01:36	10
Chloromethane	ND		10	3.5	ug/L			11/28/20 01:36	10
cis-1,2-Dichloroethene	ND		10	8.1	ug/L			11/28/20 01:36	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/28/20 01:36	10
Cyclohexane	ND		10	1.8	ug/L			11/28/20 01:36	10
Dibromochloromethane	ND		10	3.2	ug/L			11/28/20 01:36	10
Dibromomethane	ND		10	4.1	ug/L			11/28/20 01:36	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/28/20 01:36	10
Dichlorofluoromethane	ND		10	3.4	ug/L			11/28/20 01:36	10
Ethyl acetate	ND		10	6.6	ug/L			11/28/20 01:36	10
Ethyl ether	ND		10	7.2	ug/L			11/28/20 01:36	10
Ethyl tert-butyl ether	ND		10	2.9	ug/L			11/28/20 01:36	10
Ethylbenzene	ND		10	7.4	ug/L			11/28/20 01:36	10
Hexachlorobutadiene	ND		20	2.8	ug/L			11/28/20 01:36	10
Hexane	ND		100	4.0	ug/L			11/28/20 01:36	10
Iodomethane	ND		10	3.0	ug/L			11/28/20 01:36	10
Isobutanol	ND		250	48	ug/L			11/28/20 01:36	10
Isopropyl ether	ND		10	5.9	ug/L			11/28/20 01:36	10
Isopropylbenzene	ND		10	7.9	ug/L			11/28/20 01:36	10
Methacrylonitrile	ND		50	6.9	ug/L			11/28/20 01:36	10
Methyl acetate	ND		25	13	ug/L			11/28/20 01:36	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			11/28/20 01:36	10
Methylcyclohexane	ND		10	1.6	ug/L			11/28/20 01:36	10
Methylene Chloride	ND		10	4.4	ug/L			11/28/20 01:36	10
m-Xylene & p-Xylene	ND		20	6.6	ug/L			11/28/20 01:36	10
Naphthalene	ND		10	4.3	ug/L			11/28/20 01:36	10
n-Butylbenzene	ND		10	6.4	ug/L			11/28/20 01:36	10
N-Propylbenzene	ND		10	6.9	ug/L			11/28/20 01:36	10
o-Chlorotoluene	ND		10	8.6	ug/L			11/28/20 01:36	10
o-Xylene	ND		10	7.6	ug/L			11/28/20 01:36	10
p-Chlorotoluene	ND		10	8.4	ug/L			11/28/20 01:36	10
p-Cymene	ND		10	3.1	ug/L			11/28/20 01:36	10
sec-Butylbenzene	ND		10	7.5	ug/L			11/28/20 01:36	10
Styrene	ND		10	7.3	ug/L			11/28/20 01:36	10
Tert-amyl methyl ether	ND		10	2.7	ug/L			11/28/20 01:36	10
tert-Butylbenzene	ND		10	8.1	ug/L			11/28/20 01:36	10
Tetrachloroethene	ND		10	3.6	ug/L			11/28/20 01:36	10
Tetrahydrofuran	ND		50	13	ug/L			11/28/20 01:36	10
Toluene	ND		10	5.1	ug/L			11/28/20 01:36	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/28/20 01:36	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/28/20 01:36	10

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		10	2.2	ug/L			11/28/20 01:36	10
Trichloroethene	ND		10	4.6	ug/L			11/28/20 01:36	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/28/20 01:36	10
Vinyl acetate	ND		50	8.5	ug/L			11/28/20 01:36	10
Vinyl chloride	ND		10	9.0	ug/L			11/28/20 01:36	10

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 01:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		11/28/20 01:36	10
4-Bromofluorobenzene (Surr)	93		73 - 120		11/28/20 01:36	10
Toluene-d8 (Surr)	97		80 - 120		11/28/20 01:36	10

Client Sample ID: TRIP BLANK
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/28/20 02:00	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/28/20 02:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/28/20 02:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/28/20 02:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/28/20 02:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/28/20 02:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/28/20 02:00	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/28/20 02:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 02:00	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/28/20 02:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 02:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/28/20 02:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/28/20 02:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/28/20 02:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/28/20 02:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/28/20 02:00	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/28/20 02:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/28/20 02:00	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/28/20 02:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/28/20 02:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/28/20 02:00	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/28/20 02:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/28/20 02:00	1
1,4-Dioxane	ND		40	9.3	ug/L			11/28/20 02:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/28/20 02:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/28/20 02:00	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/28/20 02:00	1
2-Hexanone	ND		5.0	1.2	ug/L			11/28/20 02:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/28/20 02:00	1
Acetone	ND		10	3.0	ug/L			11/28/20 02:00	1
Acetonitrile	ND		15	4.9	ug/L			11/28/20 02:00	1
Acrolein	ND		20	0.91	ug/L			11/28/20 02:00	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK

Date Collected: 11/20/20 13:45

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		5.0	0.83	ug/L			11/28/20 02:00	1
Benzene	ND		1.0	0.41	ug/L			11/28/20 02:00	1
Bromobenzene	ND		1.0	0.80	ug/L			11/28/20 02:00	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/28/20 02:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/28/20 02:00	1
Bromoform	ND		1.0	0.26	ug/L			11/28/20 02:00	1
Bromomethane	ND		1.0	0.69	ug/L			11/28/20 02:00	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/28/20 02:00	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/28/20 02:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/28/20 02:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/28/20 02:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/28/20 02:00	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/28/20 02:00	1
Chloroethane	ND		1.0	0.32	ug/L			11/28/20 02:00	1
Chloroform	ND		1.0	0.34	ug/L			11/28/20 02:00	1
Chloromethane	ND		1.0	0.35	ug/L			11/28/20 02:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/28/20 02:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/28/20 02:00	1
Cyclohexane	ND		1.0	0.18	ug/L			11/28/20 02:00	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/28/20 02:00	1
Dibromomethane	ND		1.0	0.41	ug/L			11/28/20 02:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/28/20 02:00	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/28/20 02:00	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/28/20 02:00	1
Ethyl ether	ND		1.0	0.72	ug/L			11/28/20 02:00	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/28/20 02:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/20 02:00	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/28/20 02:00	1
Hexane	ND		10	0.40	ug/L			11/28/20 02:00	1
Iodomethane	ND		1.0	0.30	ug/L			11/28/20 02:00	1
Isobutanol	ND		25	4.8	ug/L			11/28/20 02:00	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/28/20 02:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/28/20 02:00	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/28/20 02:00	1
Methyl acetate	ND		2.5	1.3	ug/L			11/28/20 02:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/28/20 02:00	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/28/20 02:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/28/20 02:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/28/20 02:00	1
Naphthalene	ND		1.0	0.43	ug/L			11/28/20 02:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/28/20 02:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/28/20 02:00	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/28/20 02:00	1
o-Xylene	ND		1.0	0.76	ug/L			11/28/20 02:00	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/28/20 02:00	1
p-Cymene	ND		1.0	0.31	ug/L			11/28/20 02:00	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/28/20 02:00	1
Styrene	ND		1.0	0.73	ug/L			11/28/20 02:00	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/28/20 02:00	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/28/20 02:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/28/20 02:00	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/28/20 02:00	1
Toluene	ND		1.0	0.51	ug/L			11/28/20 02:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/28/20 02:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/28/20 02:00	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/28/20 02:00	1
Trichloroethene	ND		1.0	0.46	ug/L			11/28/20 02:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/28/20 02:00	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/28/20 02:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/28/20 02:00	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 02:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		11/28/20 02:00	1
4-Bromofluorobenzene (Surr)	102		73 - 120		11/28/20 02:00	1
Toluene-d8 (Surr)	101		80 - 120		11/28/20 02:00	1

Method: 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0092		0.0030	0.0012	mg/L		12/02/20 15:40	12/03/20 21:32	1
Iron, Total	0.13		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 21:32	1

Method: 6010D - Metals (ICP) - Dissolved

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	87		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:46	1
Iron, Dissolved	0.032	J	0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:46	1
Magnesium, Dissolved	53		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:46	1
Potassium, Dissolved	80		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:46	1
Sodium, Dissolved	630		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:46	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: LP-LCD
Date Collected: 11/20/20 13:45
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	0.0025		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 05:18	1
Arsenic, Total	0.014		0.0050	0.00033	mg/L		12/02/20 15:40	12/11/20 13:28	1
Barium, Total	0.11		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 05:18	1
Beryllium, Total	0.000096	J B ^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 04:06	1

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: LP-LCD
 Date Collected: 11/20/20 13:45
 Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 05:18	1
Chromium, Total	0.0026	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 05:18	1
Copper, Total	0.013		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 05:18	1
Lead, Total	0.0015	B	0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 13:28	1
Manganese, Total	0.30		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 13:28	1
Nickel, Total	0.091		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 05:18	1
Selenium, Total	0.00099	J B	0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 13:28	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 13:28	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:28	1
Vanadium, Total	0.0082		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 13:28	1
Zinc, Total	0.014		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 05:18	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: LP-LCD
 Date Collected: 11/20/20 13:45
 Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.20		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:56	1

General Chemistry

Client Sample ID: LP-LCD
 Date Collected: 11/20/20 13:45
 Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
 Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		30	30	mg/L			12/15/20 07:53	10
Sulfate	270		50	50	mg/L			12/15/20 07:53	10
Ammonia (as N)	1.1		0.30	0.30	mg/L			12/04/20 13:34	10
Nitrate as N	8.6		0.050	0.050	mg/L			12/07/20 09:05	1
Nitrate Nitrite as N	8.6		0.50	0.50	mg/L			12/03/20 19:07	5
Chemical Oxygen Demand (COD)	140		20	20	mg/L			12/03/20 09:37	2
Alkalinity, Total	750		10	10	mg/L			11/25/20 18:49	1
Bicarbonate Alkalinity as CaCO3	750		10	10	mg/L			11/25/20 18:49	1
Total Dissolved Solids (TDS)	2400		20	20	mg/L			11/23/20 13:37	1
Total Organic Carbon - Average	47		5.0	5.0	mg/L			12/13/20 02:53	5
Biochemical Oxygen Demand	ND	*	2.5	2.5	mg/L			11/22/20 08:59	1

Method: Field Sampling - Field Sampling

Client Sample ID: LP-LCD
 Date Collected: 11/20/20 13:45
 Date Received: 11/21/20 09:45

Lab Sample ID: 280-143079-1
 Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	3627				umhos/cm			11/20/20 14:45	1
Dissolved Oxygen	8.42				mg/L			11/20/20 14:45	1
eH	101.3				millivolts			11/20/20 14:45	1
Turbidity	8.22				NTU			11/20/20 14:45	1
Temperature	9.26				Degrees C			11/20/20 14:45	1
pH	7.41				SU			11/20/20 14:45	1

Eurofins TestAmerica, Denver

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	TOL
		(77-120)	(73-120)	(80-120)
280-143079-1	LP-LCD	103	93	97
280-143079-2	TRIP BLANK	105	102	101
480-178559-K-1 MS	Matrix Spike	101	106	101
480-178559-K-1 MSD	Matrix Spike Duplicate	102	103	99
LCS 480-561110/6	Lab Control Sample	101	99	97
MB 480-561110/8	Method Blank	104	97	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBFM	TBA
		(50-150)	(50-150)
280-143079-1	LP-LCD	102	81
LCS 480-561082/6	Lab Control Sample	100	80
LCSD 480-561082/7	Lab Control Sample Dup	98	85
MB 480-561082/9	Method Blank	105	87

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TBA = TBA-d9 (Surr)

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 23:07	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 23:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 23:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 23:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 23:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 23:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 23:07	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 23:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 23:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 23:07	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 23:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 23:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 23:07	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 23:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 23:07	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 23:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 23:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 23:07	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 23:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 23:07	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 23:07	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 23:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 23:07	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 23:07	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 23:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 23:07	1
Acetone	ND		10	3.0	ug/L			11/27/20 23:07	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 23:07	1
Acrolein	ND		20	0.91	ug/L			11/27/20 23:07	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 23:07	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 23:07	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 23:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 23:07	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 23:07	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 23:07	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 23:07	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 23:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 23:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 23:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 23:07	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 23:07	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 23:07	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 23:07	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 23:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 23:07	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 23:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 23:07	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 23:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 23:07	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 23:07	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 23:07	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 23:07	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 23:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 23:07	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 23:07	1
Hexane	ND		10	0.40	ug/L			11/27/20 23:07	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 23:07	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 23:07	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 23:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 23:07	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 23:07	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 23:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 23:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 23:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 23:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 23:07	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 23:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 23:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 23:07	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 23:07	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 23:07	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 23:07	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 23:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 23:07	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 23:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 23:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 23:07	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 23:07	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 23:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 23:07	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 23:07	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 23:07	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 23:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 23:07	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 23:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 23:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/27/20 23:07	1
4-Bromofluorobenzene (Surr)	97		73 - 120		11/27/20 23:07	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)		95		80 - 120		11/27/20 23:07	1

Lab Sample ID: LCS 480-561110/6
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.8		ug/L		103	80 - 120
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	20.3		ug/L		81	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.3		ug/L		97	61 - 148
1,1,2-Trichloroethane	25.0	23.1		ug/L		92	76 - 122
1,1-Dichloroethane	25.0	23.8		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	23.0		ug/L		92	66 - 127
1,1-Dichloropropene	25.0	24.4		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	25.0	24.0		ug/L		96	75 - 123
1,2,3-Trichloropropane	25.0	20.7		ug/L		83	68 - 122
1,2,4-Trichlorobenzene	25.0	24.0		ug/L		96	79 - 122
1,2,4-Trimethylbenzene	25.0	23.6		ug/L		94	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.0		ug/L		76	56 - 134
1,2-Dibromoethane (EDB)	25.0	23.2		ug/L		93	77 - 120
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		101	77 - 121
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	77 - 120
1,3-Dichloropropane	25.0	23.5		ug/L		94	75 - 120
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 120
1,4-Dioxane	500	316		ug/L		63	50 - 150
2,2-Dichloropropane	25.0	25.4		ug/L		102	63 - 136
2-Butanone (MEK)	125	100		ug/L		80	57 - 140
2-Chloroethyl vinyl ether	25.0	19.9		ug/L		80	70 - 129
2-Hexanone	125	111		ug/L		89	65 - 127
4-Methyl-2-pentanone (MIBK)	125	111		ug/L		89	71 - 125
Acetone	125	96.3		ug/L		77	56 - 142
Acrolein	125	102		ug/L		81	52 - 143
Acrylonitrile	250	197		ug/L		79	63 - 125
Benzene	25.0	23.2		ug/L		93	71 - 124
Bromobenzene	25.0	23.4		ug/L		94	78 - 120
Bromochloromethane	25.0	24.8		ug/L		99	72 - 130
Bromodichloromethane	25.0	25.6		ug/L		102	80 - 122
Bromoform	25.0	21.6		ug/L		86	61 - 132
Bromomethane	25.0	24.6		ug/L		98	55 - 144
Butyl alcohol, tert-	250	202		ug/L		81	75 - 125
Carbon disulfide	25.0	22.8		ug/L		91	59 - 134
Carbon tetrachloride	25.0	23.7		ug/L		95	72 - 134
Chlorobenzene	25.0	23.9		ug/L		96	80 - 120
Chloroethane	25.0	22.8		ug/L		91	69 - 136

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-561110/6
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	25.0	23.0		ug/L		92	73 - 127
Chloromethane	25.0	22.0		ug/L		88	68 - 124
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	22.8		ug/L		91	74 - 124
Cyclohexane	25.0	22.6		ug/L		90	59 - 135
Dibromochloromethane	25.0	25.0		ug/L		100	75 - 125
Dibromomethane	25.0	23.8		ug/L		95	76 - 127
Dichlorodifluoromethane	25.0	26.5		ug/L		106	59 - 135
Dichlorofluoromethane	25.0	23.2		ug/L		93	76 - 127
Ethyl ether	25.0	23.0		ug/L		92	76 - 123
Ethylbenzene	25.0	24.6		ug/L		98	77 - 123
Hexachlorobutadiene	25.0	24.5		ug/L		98	68 - 131
Iodomethane	25.0	23.8		ug/L		95	78 - 123
Isobutanol	625	467		ug/L		75	51 - 150
Isopropylbenzene	25.0	24.7		ug/L		99	77 - 122
Methyl acetate	50.0	37.6		ug/L		75	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120
Methylcyclohexane	25.0	22.5		ug/L		90	68 - 134
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124
m-Xylene & p-Xylene	25.0	25.1		ug/L		100	76 - 122
Naphthalene	25.0	20.4		ug/L		82	66 - 125
n-Butylbenzene	25.0	23.1		ug/L		92	71 - 128
N-Propylbenzene	25.0	24.0		ug/L		96	75 - 127
o-Chlorotoluene	25.0	23.6		ug/L		94	76 - 121
o-Xylene	25.0	25.4		ug/L		102	76 - 122
p-Chlorotoluene	25.0	24.6		ug/L		98	77 - 121
p-Cymene	25.0	23.3		ug/L		93	73 - 120
sec-Butylbenzene	25.0	23.1		ug/L		93	74 - 127
Styrene	25.0	26.4		ug/L		106	80 - 120
tert-Butylbenzene	25.0	22.7		ug/L		91	75 - 123
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Tetrahydrofuran	50.0	38.7		ug/L		77	62 - 132
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	73 - 127
trans-1,3-Dichloropropene	25.0	23.2		ug/L		93	80 - 120
trans-1,4-Dichloro-2-butene	25.0	20.1		ug/L		80	41 - 131
Trichloroethene	25.0	23.5		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	25.1		ug/L		100	62 - 150
Vinyl acetate	50.0	46.4		ug/L		93	50 - 144
Vinyl chloride	25.0	23.1		ug/L		92	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Toluene-d8 (Surr)	97		80 - 120

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-178559-K-1 MS

Matrix: Water
Analysis Batch: 561110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		1250	1310		ug/L		104	66 - 127
1,2-Dichloroethane	ND		1250	1260		ug/L		101	75 - 120
2-Butanone (MEK)	270	J	6250	5340		ug/L		81	57 - 140
Benzene	ND		1250	1260		ug/L		101	71 - 124
Carbon tetrachloride	ND		1250	1310		ug/L		105	72 - 134
Chlorobenzene	ND		1250	1280		ug/L		102	80 - 120
Chloroform	ND		1250	1230		ug/L		98	73 - 127
Tetrachloroethene	ND		1250	1330		ug/L		106	74 - 122
Trichloroethene	ND		1250	1280		ug/L		102	74 - 123
Vinyl chloride	ND		1250	1220		ug/L		98	65 - 133

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	106		73 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: 480-178559-K-1 MSD

Matrix: Water
Analysis Batch: 561110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		1250	1230		ug/L		99	66 - 127	6	16
1,2-Dichloroethane	ND		1250	1250		ug/L		100	75 - 120	1	20
2-Butanone (MEK)	270	J	6250	5480		ug/L		83	57 - 140	2	20
Benzene	ND		1250	1220		ug/L		98	71 - 124	3	13
Carbon tetrachloride	ND		1250	1270		ug/L		102	72 - 134	3	15
Chlorobenzene	ND		1250	1230		ug/L		98	80 - 120	4	25
Chloroform	ND		1250	1200		ug/L		96	73 - 127	3	20
Tetrachloroethene	ND		1250	1280		ug/L		103	74 - 122	4	20
Trichloroethene	ND		1250	1220		ug/L		98	74 - 123	5	16
Vinyl chloride	ND		1250	1130		ug/L		90	65 - 133	8	15

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 120
4-Bromofluorobenzene (Surr)	103		73 - 120
Toluene-d8 (Surr)	99		80 - 120

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-561082/9

Matrix: Water
Analysis Batch: 561082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/27/20 14:46	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		50 - 150		11/27/20 14:46	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-561082/9
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
TBA-d9 (Surr)	87		50 - 150		11/27/20 14:46	1

Lab Sample ID: LCS 480-561082/6
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	100		50 - 150
TBA-d9 (Surr)	80		50 - 150

Lab Sample ID: LCSD 480-561082/7
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	98		50 - 150
TBA-d9 (Surr)	85		50 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-518467/1-A
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cobalt, Total	ND		0.0030	0.0012	mg/L		12/02/20 15:40	12/03/20 21:25	1
Iron, Total	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 21:25	1

Lab Sample ID: LCS 280-518467/2-A
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron, Total	10.0	9.55		mg/L		96	89 - 115

Lab Sample ID: 280-143079-1 MS
Matrix: Water
Analysis Batch: 519423

Client Sample ID: LP-LCD
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron, Total	0.13		10.0	9.84		mg/L		97	75 - 125

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 6010D - Metals (ICP)

Lab Sample ID: 280-143079-1 MSD
Matrix: Water
Analysis Batch: 519423

Client Sample ID: LP-LCD
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Cobalt, Total	0.0092		1.00	0.984		mg/L		97	82 - 119	1	20	
Iron, Total	0.13		10.0	9.76		mg/L		96	75 - 125	1	20	

Lab Sample ID: MB 280-518473/1-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Calcium, Dissolved	ND		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:02	1	
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:02	1	
Magnesium, Dissolved	ND		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:02	1	
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:02	1	
Sodium, Dissolved	ND		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:02	1	

Lab Sample ID: LCS 280-518473/2-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	
							Added	Result
Calcium, Dissolved	50.0	50.5		mg/L		101	90 - 111	
Iron, Dissolved	10.0	9.98		mg/L		100	89 - 115	
Magnesium, Dissolved	50.0	50.2		mg/L		100	90 - 113	
Potassium, Dissolved	50.0	50.6		mg/L		101	89 - 114	
Sodium, Dissolved	50.0	49.5		mg/L		99	90 - 115	

Lab Sample ID: 280-143078-E-1-B MS
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 518473

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Calcium, Dissolved	17		50.0	67.6		mg/L		101	75 - 125	
Iron, Dissolved	0.051	J	10.0	10.0		mg/L		100	75 - 125	
Magnesium, Dissolved	6.8		50.0	57.3		mg/L		101	75 - 125	
Potassium, Dissolved	1.2		50.0	52.2		mg/L		102	76 - 125	
Sodium, Dissolved	4.0		50.0	53.6		mg/L		99	75 - 125	

Lab Sample ID: 280-143078-E-1-C MSD
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 518473

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Calcium, Dissolved	17		50.0	67.8		mg/L		102	75 - 125	0	20	
Iron, Dissolved	0.051	J	10.0	10.0		mg/L		100	75 - 125	0	20	
Magnesium, Dissolved	6.8		50.0	57.5		mg/L		101	75 - 125	0	20	
Potassium, Dissolved	1.2		50.0	52.6		mg/L		103	76 - 125	1	20	
Sodium, Dissolved	4.0		50.0	54.0		mg/L		100	75 - 125	1	20	

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:25	1
Barium, Total	ND		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:25	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:25	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:25	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:25	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:25	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium, Total	0.000190	J ^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:14	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Total	ND		0.0050	0.00033	mg/L		12/02/20 15:40	12/11/20 12:37	1
Lead, Total	0.000728	J	0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 12:37	1
Manganese, Total	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 12:37	1
Selenium, Total	0.000403	J	0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 12:37	1
Silver, Total	0.0000400	J	0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 12:37	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 12:37	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 12:37	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 520313

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:00	1

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony, Total	0.0400	0.0375		mg/L		94	80 - 111
Barium, Total	0.0400	0.0397		mg/L		99	92 - 117
Cadmium, Total	0.0400	0.0380		mg/L		95	91 - 114
Chromium, Total	0.0400	0.0399		mg/L		100	91 - 114
Copper, Total	0.0400	0.0372		mg/L		93	89 - 116
Nickel, Total	0.0400	0.0371		mg/L		93	92 - 116

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Beryllium, Total	0.0400	0.0396	^	mg/L		99	87 - 118

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic, Total	0.0400	0.0396		mg/L		99	92 - 112
Lead, Total	0.0400	0.0399		mg/L		100	95 - 116
Manganese, Total	0.0400	0.0408		mg/L		102	89 - 119
Selenium, Total	0.0400	0.0393		mg/L		98	90 - 115
Silver, Total	0.0400	0.0403		mg/L		101	93 - 118
Thallium, Total	0.0400	0.0393		mg/L		98	94 - 115
Vanadium, Total	0.0400	0.0407		mg/L		102	91 - 114
Zinc, Total	0.0400	0.0402		mg/L		100	86 - 120

Lab Sample ID: 280-143080-F-1-B MS
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518462
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony, Total	0.0030		0.0400	0.0413		mg/L		96	80 - 111
Barium, Total	0.20		0.0400	0.238	4	mg/L		86	92 - 117
Cadmium, Total	ND	F1	0.0400	0.0347	F1	mg/L		87	91 - 114
Chromium, Total	0.0072		0.0400	0.0443		mg/L		93	91 - 114
Copper, Total	ND	F1	0.0400	0.0339	F1	mg/L		85	89 - 116
Nickel, Total	0.054	F1	0.0400	0.0847	F1	mg/L		77	92 - 116

Lab Sample ID: 280-143080-F-1-B MS
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518462
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Beryllium, Total	ND	^	0.0400	0.0450	^	mg/L		113	87 - 118

Lab Sample ID: 280-143080-F-1-B MS
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518462
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Lead, Total	ND		0.0400	0.0382		mg/L		95	95 - 116
Manganese, Total	2.8		0.0400	2.84	4	mg/L		22	89 - 119
Selenium, Total	0.00043	J B	0.0400	0.0406		mg/L		101	90 - 115
Silver, Total	ND		0.0400	0.0382		mg/L		95	93 - 118
Thallium, Total	ND		0.0400	0.0376		mg/L		94	94 - 115
Vanadium, Total	0.012		0.0400	0.0545		mg/L		106	91 - 114
Zinc, Total	0.0029	J	0.0400	0.0433		mg/L		101	86 - 120

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-143080-F-1-C MSD
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Antimony, Total	0.0030		0.0400	0.0415		mg/L		96	80 - 111	0	20
Barium, Total	0.20		0.0400	0.240	4	mg/L		89	92 - 117	1	20
Cadmium, Total	ND	F1	0.0400	0.0353	F1	mg/L		88	91 - 114	2	20
Chromium, Total	0.0072		0.0400	0.0453		mg/L		95	91 - 114	2	20
Copper, Total	ND	F1	0.0400	0.0353	F1	mg/L		88	89 - 116	4	20
Nickel, Total	0.054	F1	0.0400	0.0886	F1	mg/L		86	92 - 116	4	20

Lab Sample ID: 280-143080-F-1-C MSD
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Beryllium, Total	ND	^	0.0400	0.0459	^	mg/L		115	87 - 118	2	20

Lab Sample ID: 280-143080-F-1-C MSD
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Lead, Total	ND		0.0400	0.0387		mg/L		97	95 - 116	1	20
Manganese, Total	2.8		0.0400	2.88	4	mg/L		113	89 - 119	1	20
Selenium, Total	0.00043	J B	0.0400	0.0408		mg/L		101	90 - 115	0	20
Silver, Total	ND		0.0400	0.0382		mg/L		95	93 - 118	0	20
Thallium, Total	ND		0.0400	0.0382		mg/L		96	94 - 115	2	20
Vanadium, Total	0.012		0.0400	0.0552		mg/L		108	91 - 114	1	20
Zinc, Total	0.0029	J	0.0400	0.0438		mg/L		102	86 - 120	1	20

Lab Sample ID: MB 280-518478/1-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518478

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:13	1

Lab Sample ID: LCS 280-518478/2-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518478

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Manganese, Dissolved	0.0400	0.0400		mg/L		100	89 - 119

Lab Sample ID: 280-143078-E-2-C MS
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 518478

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Manganese, Dissolved	0.093	F1	0.0400	0.131		mg/L		97	89 - 119

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-143078-E-2-D MSD
 Matrix: Water
 Analysis Batch: 519616

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Dissolved
 Prep Batch: 518478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese, Dissolved	0.093	F1	0.0400	0.128	F1	mg/L		88	89 - 119	3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-520423/6
 Matrix: Water
 Analysis Batch: 520423

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/14/20 19:54	1
Sulfate	ND		5.0	5.0	mg/L			12/14/20 19:54	1

Lab Sample ID: LCS 280-520423/4
 Matrix: Water
 Analysis Batch: 520423

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	95.5		mg/L		96	90 - 110
Sulfate	100	95.1		mg/L		95	90 - 110

Lab Sample ID: LCSD 280-520423/5
 Matrix: Water
 Analysis Batch: 520423

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	95.4		mg/L		95	90 - 110	0	10
Sulfate	100	94.5		mg/L		95	90 - 110	1	10

Lab Sample ID: MRL 280-520423/3
 Matrix: Water
 Analysis Batch: 520423

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.62		mg/L		92	50 - 150
Sulfate	5.00	ND		mg/L		97	50 - 150

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-519259/57
 Matrix: Water
 Analysis Batch: 519259

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/04/20 13:04	1

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 280-519259/56
 Matrix: Water
 Analysis Batch: 519259

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.53		mg/L		101	90 - 110

Lab Sample ID: 280-143193-C-8 MS
 Matrix: Water
 Analysis Batch: 519259

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	ND		1.00	0.991		mg/L		99	90 - 110

Lab Sample ID: 280-143193-C-8 MSD
 Matrix: Water
 Analysis Batch: 519259

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND		1.00	1.01		mg/L		101	90 - 110	2	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-519431/1
 Matrix: Water
 Analysis Batch: 519431

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/07/20 09:05	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-519168/22
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10	0.10	mg/L			12/03/20 17:59	1

Lab Sample ID: LCS 280-519168/21
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	5.00	5.48		mg/L		110	90 - 110

Lab Sample ID: 280-142902-B-11 MS
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	ND		4.00	3.96		mg/L		99	90 - 110

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 280-142902-B-11 MSD
Matrix: Water
Analysis Batch: 519168

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		4.00	4.24		mg/L		106	90 - 110	7	10

Method: 410.4 - COD

Lab Sample ID: MB 280-519055/5
Matrix: Water
Analysis Batch: 519055

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	ND		10	10	mg/L			12/03/20 09:37	1

Lab Sample ID: LCS 280-519055/3
Matrix: Water
Analysis Batch: 519055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.1		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-519055/4
Matrix: Water
Analysis Batch: 519055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	97.4		mg/L		97	90 - 110	2	11

Lab Sample ID: 280-143080-D-2 MS
Matrix: Water
Analysis Batch: 519055

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	ND		50.0	53.0		mg/L		106	90 - 110

Lab Sample ID: 280-143080-D-2 MSD
Matrix: Water
Analysis Batch: 519055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	ND		50.0	55.1		mg/L		110	90 - 110	4	11

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-518549/31
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10	10	mg/L			11/25/20 16:35	1
Bicarbonate Alkalinity as CaCO3	ND		10	10	mg/L			11/25/20 16:35	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-518549/30
 Matrix: Water
 Analysis Batch: 518549

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	200	195		mg/L		98	89 - 109

Lab Sample ID: 280-143032-A-14 DU
 Matrix: Water
 Analysis Batch: 518549

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	80		80.0		mg/L		0.3	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-517842/1
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/23/20 13:37	1

Lab Sample ID: LCS 280-517842/2
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	479		mg/L		96	93 - 110

Lab Sample ID: 280-143079-1 DU
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: LP-LCD
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	2400		2240		mg/L		6	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-520471/4
 Matrix: Water
 Analysis Batch: 520471

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/12/20 19:43	1

Lab Sample ID: LCS 280-520471/3
 Matrix: Water
 Analysis Batch: 520471

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	25.0	25.5		mg/L		102	88 - 112

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 280-142967-B-1 MS
Matrix: Water
Analysis Batch: 520471

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	1.0		25.0	26.9		mg/L		103	88 - 112

Lab Sample ID: 280-142967-B-1 MSD
Matrix: Water
Analysis Batch: 520471

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Average	1.0		25.0	26.9		mg/L		104	88 - 112	0	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-517720/4
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/22/20 08:59	1

Lab Sample ID: SCB 280-517720/1
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/22/20 08:59	1

Lab Sample ID: USB 280-517720/2
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/22/20 08:59	1

Lab Sample ID: LCS 280-517720/3
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	166	*	mg/L		84	85 - 115

Lab Sample ID: 280-143080-A-2 DU
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	ND	*	ND	*	mg/L		NC	20

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

GC/MS VOA

Analysis Batch: 561082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	8260C SIM	
MB 480-561082/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-561082/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-561082/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 561110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	8260C	
280-143079-2	TRIP BLANK	Total/NA	Water	8260C	
MB 480-561110/8	Method Blank	Total/NA	Water	8260C	
LCS 480-561110/6	Lab Control Sample	Total/NA	Water	8260C	
480-178559-K-1 MS	Matrix Spike	Total/NA	Water	8260C	
480-178559-K-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Metals

Prep Batch: 518462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total Recoverable	Water	3005A	
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 518467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total Recoverable	Water	3005A	
MB 280-518467/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518467/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143079-1 MS	LP-LCD	Total Recoverable	Water	3005A	
280-143079-1 MSD	LP-LCD	Total Recoverable	Water	3005A	

Prep Batch: 518473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Dissolved	Water	3005A	
MB 280-518473/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518473/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143078-E-1-B MS	Matrix Spike	Dissolved	Water	3005A	
280-143078-E-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 518478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Dissolved	Water	3005A	
MB 280-518478/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518478/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143078-E-2-C MS	Matrix Spike	Dissolved	Water	3005A	
280-143078-E-2-D MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 519179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Dissolved	Water	6010D	518473

Eurofins TestAmerica, Denver

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Metals (Continued)

Analysis Batch: 519179 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-518473/1-A	Method Blank	Total Recoverable	Water	6010D	518473
LCS 280-518473/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518473
280-143078-E-1-B MS	Matrix Spike	Dissolved	Water	6010D	518473
280-143078-E-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010D	518473

Analysis Batch: 519423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total Recoverable	Water	6010D	518467
MB 280-518467/1-A	Method Blank	Total Recoverable	Water	6010D	518467
LCS 280-518467/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518467
280-143079-1 MS	LP-LCD	Total Recoverable	Water	6010D	518467
280-143079-1 MSD	LP-LCD	Total Recoverable	Water	6010D	518467

Analysis Batch: 519616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Dissolved	Water	6020B	518478
MB 280-518478/1-A	Method Blank	Total Recoverable	Water	6020B	518478
LCS 280-518478/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518478
280-143078-E-2-C MS	Matrix Spike	Dissolved	Water	6020B	518478
280-143078-E-2-D MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	518478

Analysis Batch: 519749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	518462
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	518462

Analysis Batch: 519990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	518462
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	518462

Analysis Batch: 520148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-F-1-B MS	Matrix Spike	Total Recoverable	Water	6020B	518462
280-143080-F-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	518462

Analysis Batch: 520313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462

QC Association Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

General Chemistry

Analysis Batch: 517720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	SM5210B	
MB 280-517720/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-517720/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-517720/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-517720/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-143080-A-2 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 517842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	SM 2540C	
MB 280-517842/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-517842/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-143079-1 DU	LP-LCD	Total/NA	Water	SM 2540C	

Analysis Batch: 518549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	SM 2320B	
MB 280-518549/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-518549/30	Lab Control Sample	Total/NA	Water	SM 2320B	
280-143032-A-14 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 519055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	410.4	
MB 280-519055/5	Method Blank	Total/NA	Water	410.4	
LCS 280-519055/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-519055/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-143080-D-2 MS	Matrix Spike	Total/NA	Water	410.4	
280-143080-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 519168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	353.2	
MB 280-519168/22	Method Blank	Total/NA	Water	353.2	
LCS 280-519168/21	Lab Control Sample	Total/NA	Water	353.2	
280-142902-B-11 MS	Matrix Spike	Total/NA	Water	353.2	
280-142902-B-11 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Analysis Batch: 519259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	350.1	
MB 280-519259/57	Method Blank	Total/NA	Water	350.1	
LCS 280-519259/56	Lab Control Sample	Total/NA	Water	350.1	
280-143193-C-8 MS	Matrix Spike	Total/NA	Water	350.1	
280-143193-C-8 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 519431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	353.2	
MB 280-519431/1	Method Blank	Total/NA	Water	353.2	

Eurofins TestAmerica, Denver

QC Association Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

General Chemistry

Analysis Batch: 520423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	300.0	
MB 280-520423/6	Method Blank	Total/NA	Water	300.0	
LCS 280-520423/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-520423/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-520423/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 520471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	SM 5310B	
MB 280-520471/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-520471/3	Lab Control Sample	Total/NA	Water	SM 5310B	
280-142967-B-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-142967-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Field Service / Mobile Lab

Analysis Batch: 518230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143079-1	LP-LCD	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF - LP-LCD

Job ID: 280-143079-1

Client Sample ID: LP-LCD

Lab Sample ID: 280-143079-1

Date Collected: 11/20/20 13:45

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	561110	11/28/20 01:36	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		10	25 mL	25 mL	561082	11/27/20 16:26	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:46	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518467	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6010D		1			519423	12/03/20 21:32	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/07/20 23:56	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 05:18	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 04:06	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:28	LMT	TAL DEN
Total/NA	Analysis	300.0		10	5 mL	5 mL	520423	12/15/20 07:53	CJ	TAL DEN
Total/NA	Analysis	350.1		10	10 mL	10 mL	519259	12/04/20 13:34	BWH	TAL DEN
Total/NA	Analysis	353.2		1			519431	12/07/20 09:05	SPG	TAL DEN
Total/NA	Analysis	353.2		5	100 mL	100 mL	519168	12/03/20 19:07	SVC	TAL DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	519055	12/03/20 09:37	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 18:49	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 5310B		5	20 mL	20 mL	520471	12/13/20 02:53	JMB	TAL DEN
Total/NA	Analysis	SM5210B		1	240 mL	300 mL	517720	11/22/20 08:59	BWH	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 14:45	C1A	TAL DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143079-2

Date Collected: 11/20/20 13:45

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/28/20 02:00	CRL	TAL BUF

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200
 TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
 TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



17 December 2020

Betsy Sara
Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: OVSL

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
20K0382	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 20K0382
 Turn-around Requested: Standard
 ARI Client Company: SCS Engineers Phone: 612-940-2980
 Client Contact: Dan Venchiarutti
 Client Project Name: OVSL
 Client Project #: 04204027.23 Samplers: SG & TB

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)



Date: 11/20/20
 Page: 1 of 2
 No. of Coolers: 3.4
 Cooler Temps: 3.4

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
					1	2	3	4	
MW-36A	11/19/20	1025	Ground water	2					
MW-15R		1110							
MW-34A		1245							
MW-34C		1200							
MW-39		1348							
MW-35		1450							
MW-13A		1030							
MW-13B		1110							
DuP 2		1115							
MW-19C		1223							
Comments/Special Instructions	Relinquished by: (Signature) <u>[Signature]</u> Printed Name: <u>Dan Venchiarutti</u> Company: <u>SCS</u> Date & Time: <u>11/23/20 11:15 AM</u>				Relinquished by: (Signature) <u>[Signature]</u> Printed Name: <u>Kenny Dang</u> Company: <u>ARI</u> Date & Time: <u>11/23/20 11:15</u>				Received by: (Signature) <u>[Signature]</u> Printed Name: _____ Company: _____ Date & Time: _____

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 2020382
 ARI Client Company: **SCS Engineers**
 Client Contact: **Dan Venchiarutti**
 Client Project Name: **OVSL**



Turn-around Requested: **Standard**
 Phone: **612-940-2980**
 Date: **11/20/20**
 Page: **2** of **2**
 No. of Coolers: **1** Cooler Temps: **3.4**

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
					Received by (Signature)	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	
Dup 1	11/19/20	1230	ground water	1					
MW-42		1321							
MW-29A		1410							
MW-43		1505							
MW-33A	11/20/20	953							
MW-33C		1033							
MW-16		1152							
MW-32		1255							
LP-LCD		1345	leachate						
Comments/Special Instructions	Relinquished by: <i>[Signature]</i> Relinquished by (Signature): Printed Name: DAN VENCHIARUTTI Company: SCS Date & Time: 11/23 11:15 AM				Received by: <i>[Signature]</i> Received by (Signature): Printed Name: Kenny Dang Company: ARI Date & Time: 11/20/20 1119				

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36A	20K0382-01	Water	19-Nov-2020 10:25	23-Nov-2020 11:15
MW-15R	20K0382-02	Water	19-Nov-2020 11:10	23-Nov-2020 11:15
MW-34A	20K0382-03	Water	19-Nov-2020 12:45	23-Nov-2020 11:15
MW-34C	20K0382-04	Water	19-Nov-2020 12:00	23-Nov-2020 11:15
MW-39	20K0382-05	Water	19-Nov-2020 13:48	23-Nov-2020 11:15
MW-35	20K0382-06	Water	19-Nov-2020 14:50	23-Nov-2020 11:15
MW-13A	20K0382-07	Water	19-Nov-2020 10:30	23-Nov-2020 11:15
MW-13B	20K0382-08	Water	19-Nov-2020 11:10	23-Nov-2020 11:15
DUP 2	20K0382-09	Water	19-Nov-2020 11:15	23-Nov-2020 11:15
MW-19C	20K0382-10	Water	19-Nov-2020 12:23	23-Nov-2020 11:15
DUP 1	20K0382-11	Water	19-Nov-2020 12:30	23-Nov-2020 11:15
MW-42	20K0382-12	Water	19-Nov-2020 13:21	23-Nov-2020 11:15
MW-29A	20K0382-13	Water	19-Nov-2020 14:10	23-Nov-2020 11:15
MW-43	20K0382-14	Water	19-Nov-2020 15:05	23-Nov-2020 11:15
MW-33A	20K0382-15	Water	20-Nov-2020 09:53	23-Nov-2020 11:15
MW-33C	20K0382-16	Water	20-Nov-2020 10:33	23-Nov-2020 11:15
MW-16	20K0382-17	Water	20-Nov-2020 11:52	23-Nov-2020 11:15
MW-32	20K0382-18	Water	20-Nov-2020 12:55	23-Nov-2020 11:15
LP-LCD	20K0382-19	Water	20-Nov-2020 13:45	23-Nov-2020 11:15





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Work Order Case Narrative

Sample receipt

Samples as listed on the preceding page were received 23-Nov-2020 11:15 under ARI work order 20K0382. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Arsenic - EPA Method 200.8

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank was clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.





WORK ORDER

20K0382

Client: Test America - Denver

Project Manager: Amanda Volgardsen Johnson

Project: OVSL

Project Number: 04204027.20

Preservation Confirmation

Container ID	Container Type	pH	
20K0382-01 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-02 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-03 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-04 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-05 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-06 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-07 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-08 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-09 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-10 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-11 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-12 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-13 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-14 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-15 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-16 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-17 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-18 A	Miscellaneous container, 1:1 HN03	<2	Pass
20K0382-19 A	Miscellaneous container, 1:1 HN03	<2	Pass

SC

Preservation Confirmed By

11/24/2020

Date



Cooler Receipt Form

ARI Client: SOS Engineers

Project Name: OVSL

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 20K0382

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1311 3.4

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: KD Date: 11/23/20 Time: 1115

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD SC Date: 11/23/20 Time: 1319 Labels checked by: KD

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-36A
20K0382-01 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 10:25
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:35
Sample Preparation:	Extract ID: 20K0382-01 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000548	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-15R
20K0382-02 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:39
Sample Preparation:	Extract ID: 20K0382-02 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000229	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-34A
20K0382-03 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:45
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:44
Sample Preparation:	Extract ID: 20K0382-03 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000492	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-34C
20K0382-04 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:00
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:48
Sample Preparation:	Extract ID: 20K0382-04 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00902	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-39
20K0382-05 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 13:48
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:52
Sample Preparation:	Extract ID: 20K0382-05 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00163	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-35
20K0382-06 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 14:50
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 19:56
Sample Preparation:	Extract ID: 20K0382-06 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000115	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-13A
20K0382-07 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 10:30
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:01
Sample Preparation:	Extract ID: 20K0382-07 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000198	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-13B
20K0382-08 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:07
Sample Preparation:	Extract ID: 20K0382-08 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000347	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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DUP 2
20K0382-09 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 11:15
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:14
Sample Preparation:	Extract ID: 20K0382-09 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000240	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-19C
20K0382-10 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:23
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:41
Sample Preparation:	Extract ID: 20K0382-10 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00294	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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DUP 1
20K0382-11 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 12:30
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:45
Sample Preparation:	Extract ID: 20K0382-11 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0117	Sample Size: 100 mL
Prepared: 12/04/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00290	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-42
20K0382-12 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 13:21
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/07/2020 13:45
Sample Preparation:	Extract ID: 20K0382-12 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.00197	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-29A
20K0382-13 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 14:10
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:54
Sample Preparation:	Extract ID: 20K0382-13 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00211	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-43
20K0382-14 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/19/2020 15:05
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 20:58
Sample Preparation:	Extract ID: 20K0382-14 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.0000426	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-33A
20K0382-15 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 09:53
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:02
Sample Preparation:	Extract ID: 20K0382-15 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.000585	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-33C
20K0382-16 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 10:33
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:07
Sample Preparation:	Extract ID: 20K0382-16 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.00289	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-16
20K0382-17 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 11:52
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:19
Sample Preparation:	Extract ID: 20K0382-17 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000800	0.00110	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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MW-32
20K0382-18 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 12:55
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 21:12
Sample Preparation:	Extract ID: 20K0382-18 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.0000400	0.0105	mg/L	





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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LP-LCD
20K0382-19 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Sampled: 11/20/2020 13:45
Instrument: ICPMS1 Analyst: MCB	Analyzed: 12/04/2020 22:10
Sample Preparation:	Extract ID: 20K0382-19 A 01
Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	
Preparation Batch: BIL0081	Sample Size: 100 mL
Prepared: 12/03/2020	Final Volume: 20 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.0140	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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Metals and Metallic Compounds - Quality Control

Batch BIL0081 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0081-BLK1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:33					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0081-BS1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:38					
Arsenic	75a	0.00491	0.0000400	mg/L	0.00500		98.3	80-120			





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 17-Dec-2020 09:39
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Metals and Metallic Compounds - Quality Control

Batch BIL0117 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0117-BLK1)						Prepared: 04-Dec-2020 Analyzed: 04-Dec-2020 15:43					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0117-BS1)						Prepared: 04-Dec-2020 Analyzed: 04-Dec-2020 15:47					
Arsenic	75a	0.00494	0.0000400	mg/L	0.00500		98.8	80-120			





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Certified Analyses included in this Report

Analyte	Certifications
EPA 200.8 in Water	
Arsenic-75a	NELAP,WADOE,DoD-ELAP
Arsenic-75a	NELAP,WA-DW,DoD-ELAP
Arsenic-75a	WADOE,WA-DW,DoD-ELAP
Arsenic-75a	NELAP,WADOE,WA-DW,DoD-ELAP
Arsenic-75b	NELAP
Arsenic-75b	NELAP
Arsenic-75b	
Arsenic-75b	NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
17-Dec-2020 09:39

Notes and Definitions

- D The reported value is from a dilution
- J Estimated concentration value detected below the reporting limit.
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-548292.1
Client Contact: Shipping/Receiving		E-Mail:	Betsy.Sara@Eurofinset.com	State of Origin:	Washington
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon			
Address: 10 Hazelwood Drive,		Analysis Requested			
City: Amherst	Due Date Requested: 12/11/2020	Perform MS/MSD (Yes or No)		Total Number of Containers	
State, Zip: NY, 14228-2298	TAT Requested (days):	8260C SIM/5030C 8260C SIM (TA Buffalo)		5	
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:	8260C/5030C Long List 8260C (TA Buffalo)		2	
Email:	WO #:	Field Filtered Sample (Yes or No)		Special Instructions/Note:	
Project Name: WA02 Olympic View Sanitary LF	Project #: 28002692	Preservation Code:		M - Hexane	
Site: WA02 Olympic View Sanitary LF	SSOW#:	Sample Type (C=comp, G=grab)		N - None	
Sample Identification - Client ID (Lab ID)		Sample Time		O - AsNaO2	
LP-LCD (280-143079-1)	11/20/20	13:45 Pacific		P - Na2O4S	
TRIP BLANK (280-143079-2)	11/20/20	13:45 Pacific		Q - Na2SO3	
				R - Na2S2O3	
				S - H2SO4	
				T - TSP Dodecahydrate	
				U - Acetone	
				V - MCAA	
				W - pH 4-5	
				Z - other (specify)	
				Other:	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte, & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>					
<p>Possible Hazard Identification</p> <p>Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p>					
<p>Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____</p>					
Relinquished by: <i>Paul [Signature]</i>		Received by: <i>Matthew [Signature]</i>		Date/Time: 11/23/20 13:55	
Relinquished by:		Received by:		Date/Time: 11/24/26 16:00	
Relinquished by:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.2 # ICE	



Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143079-1

Login Number: 143079

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143079-1

Login Number: 143079

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

List Creation: 11/25/20 04:56 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2 ICE IR GUN #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

ANALYTICAL REPORT

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-143080-1

Client Project/Site: WA02|Olympic View Sanitary LF - L-
INF/OBWL-TD

Sampling Event: Annual OBW-TB/L-INF App I/II -Dec

For:

Waste Management
2615 Davis Street
San Leandro, California 94577

Attn: Mr. Patrick Madej



Authorized for release by:
12/22/2020 10:24:48 AM

Betsy Sara, Project Manager II
(303)736-0189
Betsy.Sara@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - L-INF/OBWL-TD

Job ID: 280-143080-1

Job ID: 280-143080-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF - L-INF/OBWL-TD

Report Number: 280-143080-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The samples were received on 11/21/2020; the samples arrived in good condition and on ice. The temperature of the cooler at receipt was 0.6 C.

Trip Blank

Tetrahydrofuran was detected in the trip blank sample at a level above the requested reporting limit. Tetrahydrofuran was also detected in the associated sample L-INF-112020, however at a level greater than five times the trip blank sample, and therefore, no corrective action was performed. Tetrahydrofuran was not detected in the sample OBWL-TD-112020.

Holding Times

All holding times were within established control limits.

Method Blanks

Total Beryllium, Total Lead, Total Selenium and Total Silver Method 6020B were detected in the Method Blank below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

All other Method Blank recoveries were within established control limits.

Laboratory Control Samples (LCS)

The Biochemical Oxygen Demand (BOD) Method 5210B glucose-glutamic acid standard (LCS/LCSD) recovered slightly below the lower recovery limit specified in the method at 84% (control limits 85%-115%). Because the 48-hour holding time expired, reanalysis was not performed.

All other Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample L-INF-112020 were outside control limits for Total Barium and Total Manganese Method 6020B because the sample concentration was greater than four times the spike amount.

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - L-INF/OBWL-TD

Job ID: 280-143080-1

Job ID: 280-143080-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

Sample L-INF-112020 was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Cadmium, Total Copper and Total Nickel below the lower control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample MW-33A (143078) was selected to fulfill the laboratory batch quality control requirements for Method 6020B. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Dissolved Manganese below the lower control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample OBWL-TD-112020 was selected to fulfill the laboratory batch quality control requirements for Method 410.4. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Chemical Oxygen Demand (COD) above the upper control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

Organics

The sample L-INF-112020 was analyzed at a dilution for Method 8260C SIM due to foaming at the time of purging during the analysis. Elevated reporting limits (RL) are provided.

The sample L-INF-112020 was analyzed at a dilution for Method 8260C due to foaming at the time of purging during the analysis. Elevated reporting limits (RL) are provided.

The analyte 2-chloroethyl vinyl ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limit for the analyte 2-chloroethyl vinyl ether is not reliable or defensible.

The prepreserved hydrochloric acid preserved vials for Method 8260C and 8260C SIM analyses for the sample L-INF-112020 exhibited pH values greater than 2. This is non-compliant with Method 8260C and 8260C SIM which require samples to be preserved with hydrochloric acid to a pH of less than 2. Because this sample is a leachate sample, a buffering effect was suspected.

Metals

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Beryllium. Because the data are considered biased high and Total Beryllium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Selenium and Total Vanadium. Because the data are considered biased high and Total Selenium and Total Vanadium were not detected in the associated sample above the reporting limits, corrective action was deemed unnecessary.

The Method 6020B Continuing Calibration Verification (CCV) sample was above the control limits for Total Thallium. Because the data are considered biased high and Total Thallium was not detected in the associated samples above the reporting limit, corrective action was deemed unnecessary.

General Comments

For samples requiring analysis at a dilution, the dilution factor has been multiplied by the Method Detection Limit (MDL) for each analyte and evaluated versus the project-specific reporting limit (PSRL). If the obtained value is below the PSRL, then the PSRL is preserved as the reporting limit for the diluted result, otherwise, the obtained value becomes the reporting limit. This is done in order to maintain the

Case Narrative

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF - L-INF/OBWL-TD

Job ID: 280-143080-1

Job ID: 280-143080-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

PSRL to meet permit requirements at the request of the client and to report the lowest possible RL for each analyte.

The analysis for Arsenic Method 200.8 was performed by ARI. ARI is not a TestAmerica approved subcontract laboratory and assumes no liability for the data. Their address and phone number are:

Analytical Resources, Inc.
4611 S. 134th Place
Tukwila, WA 98168-3240
Phone: 206-695-6200

The analyses for Volatile Organics by Method 8260C and Volatile Organics by Method 8260C SIM were performed by TestAmerica Buffalo. Their address and phone number are:

TestAmerica Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228
Phone: 716-691-2600

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Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Client Sample ID: L-INF-112020

Lab Sample ID: 280-143080-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrahydrofuran	70	J	100	25	ug/L	20		8260C	Total/NA
Cobalt, Total	0.0078		0.0030	0.0012	mg/L	1		6010D	Total Recoverable
Iron, Total	7.7		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	140		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	7.6		0.060	0.022	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	100		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	110		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	780		1.0	0.37	mg/L	1		6010D	Dissolved
Antimony, Total	0.0030		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Arsenic, Total	0.0063		0.0050	0.00033	mg/L	1		6020B	Total Recoverable
Barium, Total	0.20		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0072		0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	2.8		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.054	F1	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Selenium, Total	0.00043	J B	0.0010	0.00037	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.012		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0029	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	2.6		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	810		30	30	mg/L	10		300.0	Total/NA
Sulfate	300		50	50	mg/L	10		300.0	Total/NA
Ammonia (as N)	200		3.0	3.0	mg/L	100		350.1	Total/NA
Chemical Oxygen Demand (COD)	380		50	50	mg/L	5		410.4	Total/NA
Alkalinity, Total (As CaCO3)	1800		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	1800		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	2900		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	21		6.7	6.7	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	120		5.0	5.0	mg/L	5		SM 5310B	Total/NA
Biochemical Oxygen Demand	17	*	13	13	mg/L	1		SM5210B	Total/NA
Specific Conductivity	5228				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	1.2				mg/L	1		Field Sampling	Total/NA
eH	-36.5				millivolts	1		Field Sampling	Total/NA
Turbidity	4.2				NTU	1		Field Sampling	Total/NA
Temperature	12.1				Degrees C	1		Field Sampling	Total/NA
pH	7.11				SU	1		Field Sampling	Total/NA

Client Sample ID: OBWL-TD-112020

Lab Sample ID: 280-143080-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.23		0.060	0.022	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	120		0.20	0.078	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.026	J	0.060	0.022	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Client Sample ID: OBWL-TD-112020 (Continued)

Lab Sample ID: 280-143080-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium, Dissolved	14		0.050	0.026	mg/L	1		6010D	Dissolved
Potassium, Dissolved	2.7		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	7.5		1.0	0.37	mg/L	1		6010D	Dissolved
Antimony, Total	0.0013		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Arsenic, Total	0.00094	J	0.0050	0.00033	mg/L	1		6020B	Total Recoverable
Barium, Total	0.020		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0013	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0030		0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.011		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0031	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0080		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0086		0.0010	0.00031	mg/L	1		6020B	Dissolved
Sulfate	270		25	25	mg/L	5		300.0	Total/NA
Nitrate as N	0.61		0.050	0.050	mg/L	1		353.2	Total/NA
Nitrate/Nitrite	0.61		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	98		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	98		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	460		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	4.0		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	2.0		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Specific Conductivity	599.4				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	10.5				mg/L	1		Field Sampling	Total/NA
eH	14.0				millivolts	1		Field Sampling	Total/NA
Turbidity	3.2				NTU	1		Field Sampling	Total/NA
Temperature	9.5				Degrees C	1		Field Sampling	Total/NA
pH	7.62				SU	1		Field Sampling	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143080-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrahydrofuran	7.4		5.0	1.3	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Method Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010D	Metals (ICP)	SW846	TAL DEN
6020B	Metals (ICP/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
353.2	Nitrate	EPA	TAL DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
Field Sampling	Field Sampling	EPA	TAL DEN
Subcontract	Total Arsenic (ARI)	None	SC0056
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

- EPA = US Environmental Protection Agency
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200
- TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
- TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF -
L-INF/OBWL-TD

Job ID: 280-143080-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-143080-1	L-INF-112020	Water	11/20/20 10:00	11/21/20 09:45	
280-143080-2	OBWL-TD-112020	Water	11/20/20 09:00	11/21/20 09:45	
280-143080-3	TRIP BLANK	Water	11/20/20 09:00	11/21/20 09:45	

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Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.40	0.080	ug/L			11/27/20 16:49	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		50 - 150					11/27/20 16:49	20
TBA-d9 (Surr)	89		50 - 150					11/27/20 16:49	20

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/27/20 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	113		50 - 150					11/27/20 17:13	1
TBA-d9 (Surr)	95		50 - 150					11/27/20 17:13	1

Client Sample ID: TRIP BLANK

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/27/20 17:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		50 - 150					11/27/20 17:37	1
TBA-d9 (Surr)	89		50 - 150					11/27/20 17:37	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		20	7.0	ug/L			11/28/20 02:25	20
1,1,1-Trichloroethane	ND		20	16	ug/L			11/28/20 02:25	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			11/28/20 02:25	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			11/28/20 02:25	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			11/28/20 02:25	20
1,1-Dichloroethane	ND		20	7.6	ug/L			11/28/20 02:25	20
1,1-Dichloroethene	ND		20	5.8	ug/L			11/28/20 02:25	20
1,1-Dichloropropene	ND		20	14	ug/L			11/28/20 02:25	20
1,2,3-Trichlorobenzene	ND		20	8.2	ug/L			11/28/20 02:25	20
1,2,3-Trichloropropane	ND		20	18	ug/L			11/28/20 02:25	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			11/28/20 02:25	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			11/28/20 02:25	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			11/28/20 02:25	20
1,2-Dibromoethane (EDB)	ND		20	15	ug/L			11/28/20 02:25	20
1,2-Dichlorobenzene	ND		20	16	ug/L			11/28/20 02:25	20
1,2-Dichloroethane	ND		20	4.2	ug/L			11/28/20 02:25	20
1,2-Dichloroethene, Total	ND		40	16	ug/L			11/28/20 02:25	20
1,2-Dichloropropane	ND		20	14	ug/L			11/28/20 02:25	20

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trichlorobenzene	ND		20	4.6	ug/L			11/28/20 02:25	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			11/28/20 02:25	20
1,3-Dichlorobenzene	ND		20	16	ug/L			11/28/20 02:25	20
1,3-Dichloropropane	ND		20	15	ug/L			11/28/20 02:25	20
1,4-Dichlorobenzene	ND		20	17	ug/L			11/28/20 02:25	20
1,4-Dioxane	ND		800	190	ug/L			11/28/20 02:25	20
2,2-Dichloropropane	ND		20	8.0	ug/L			11/28/20 02:25	20
2-Butanone (MEK)	ND		200	26	ug/L			11/28/20 02:25	20
2-Chloroethyl vinyl ether	ND		100	19	ug/L			11/28/20 02:25	20
2-Hexanone	ND		100	25	ug/L			11/28/20 02:25	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			11/28/20 02:25	20
Acetone	ND		200	60	ug/L			11/28/20 02:25	20
Acetonitrile	ND		300	98	ug/L			11/28/20 02:25	20
Acrolein	ND		400	18	ug/L			11/28/20 02:25	20
Acrylonitrile	ND		100	17	ug/L			11/28/20 02:25	20
Benzene	ND		20	8.2	ug/L			11/28/20 02:25	20
Bromobenzene	ND		20	16	ug/L			11/28/20 02:25	20
Bromochloromethane	ND		20	17	ug/L			11/28/20 02:25	20
Bromodichloromethane	ND		20	7.8	ug/L			11/28/20 02:25	20
Bromoform	ND		20	5.2	ug/L			11/28/20 02:25	20
Bromomethane	ND		20	14	ug/L			11/28/20 02:25	20
Butyl alcohol, n-	ND		800	180	ug/L			11/28/20 02:25	20
Butyl alcohol, tert-	ND		200	66	ug/L			11/28/20 02:25	20
Carbon disulfide	ND		20	3.8	ug/L			11/28/20 02:25	20
Carbon tetrachloride	ND		20	5.4	ug/L			11/28/20 02:25	20
Chlorobenzene	ND		20	15	ug/L			11/28/20 02:25	20
Chlorodifluoromethane	ND		20	5.2	ug/L			11/28/20 02:25	20
Chloroethane	ND		20	6.4	ug/L			11/28/20 02:25	20
Chloroform	ND		20	6.8	ug/L			11/28/20 02:25	20
Chloromethane	ND		20	7.0	ug/L			11/28/20 02:25	20
cis-1,2-Dichloroethene	ND		20	16	ug/L			11/28/20 02:25	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			11/28/20 02:25	20
Cyclohexane	ND		20	3.6	ug/L			11/28/20 02:25	20
Dibromochloromethane	ND		20	6.4	ug/L			11/28/20 02:25	20
Dibromomethane	ND		20	8.2	ug/L			11/28/20 02:25	20
Dichlorodifluoromethane	ND		20	14	ug/L			11/28/20 02:25	20
Dichlorofluoromethane	ND		20	6.8	ug/L			11/28/20 02:25	20
Ethyl acetate	ND		20	13	ug/L			11/28/20 02:25	20
Ethyl ether	ND		20	14	ug/L			11/28/20 02:25	20
Ethyl tert-butyl ether	ND		20	5.9	ug/L			11/28/20 02:25	20
Ethylbenzene	ND		20	15	ug/L			11/28/20 02:25	20
Hexachlorobutadiene	ND		40	5.6	ug/L			11/28/20 02:25	20
Hexane	ND		200	8.0	ug/L			11/28/20 02:25	20
Iodomethane	ND		20	6.0	ug/L			11/28/20 02:25	20
Isobutanol	ND		500	96	ug/L			11/28/20 02:25	20
Isopropyl ether	ND		20	12	ug/L			11/28/20 02:25	20
Isopropylbenzene	ND		20	16	ug/L			11/28/20 02:25	20
Methacrylonitrile	ND		100	14	ug/L			11/28/20 02:25	20

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		50	26	ug/L			11/28/20 02:25	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			11/28/20 02:25	20
Methylcyclohexane	ND		20	3.2	ug/L			11/28/20 02:25	20
Methylene Chloride	ND		20	8.8	ug/L			11/28/20 02:25	20
m-Xylene & p-Xylene	ND		40	13	ug/L			11/28/20 02:25	20
Naphthalene	ND		20	8.6	ug/L			11/28/20 02:25	20
n-Butylbenzene	ND		20	13	ug/L			11/28/20 02:25	20
N-Propylbenzene	ND		20	14	ug/L			11/28/20 02:25	20
o-Chlorotoluene	ND		20	17	ug/L			11/28/20 02:25	20
o-Xylene	ND		20	15	ug/L			11/28/20 02:25	20
p-Chlorotoluene	ND		20	17	ug/L			11/28/20 02:25	20
p-Cymene	ND		20	6.2	ug/L			11/28/20 02:25	20
sec-Butylbenzene	ND		20	15	ug/L			11/28/20 02:25	20
Styrene	ND		20	15	ug/L			11/28/20 02:25	20
Tert-amyl methyl ether	ND		20	5.4	ug/L			11/28/20 02:25	20
tert-Butylbenzene	ND		20	16	ug/L			11/28/20 02:25	20
Tetrachloroethene	ND		20	7.2	ug/L			11/28/20 02:25	20
Tetrahydrofuran	70	J	100	25	ug/L			11/28/20 02:25	20
Toluene	ND		20	10	ug/L			11/28/20 02:25	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			11/28/20 02:25	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			11/28/20 02:25	20
trans-1,4-Dichloro-2-butene	ND		20	4.4	ug/L			11/28/20 02:25	20
Trichloroethene	ND		20	9.2	ug/L			11/28/20 02:25	20
Trichlorofluoromethane	ND		20	18	ug/L			11/28/20 02:25	20
Vinyl acetate	ND		100	17	ug/L			11/28/20 02:25	20
Vinyl chloride	ND		20	18	ug/L			11/28/20 02:25	20

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 02:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		11/28/20 02:25	20
4-Bromofluorobenzene (Surr)	98		73 - 120		11/28/20 02:25	20
Toluene-d8 (Surr)	97		80 - 120		11/28/20 02:25	20

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/28/20 02:51	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/28/20 02:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/28/20 02:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/28/20 02:51	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/28/20 02:51	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/28/20 02:51	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/28/20 02:51	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/28/20 02:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 02:51	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/28/20 02:51	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 02:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/28/20 02:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/28/20 02:51	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/28/20 02:51	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/28/20 02:51	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/28/20 02:51	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/28/20 02:51	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/28/20 02:51	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/28/20 02:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/28/20 02:51	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/28/20 02:51	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/28/20 02:51	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/28/20 02:51	1
1,4-Dioxane	ND		40	9.3	ug/L			11/28/20 02:51	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/28/20 02:51	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/28/20 02:51	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/28/20 02:51	1
2-Hexanone	ND		5.0	1.2	ug/L			11/28/20 02:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/28/20 02:51	1
Acetone	ND		10	3.0	ug/L			11/28/20 02:51	1
Acetonitrile	ND		15	4.9	ug/L			11/28/20 02:51	1
Acrolein	ND		20	0.91	ug/L			11/28/20 02:51	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/28/20 02:51	1
Benzene	ND		1.0	0.41	ug/L			11/28/20 02:51	1
Bromobenzene	ND		1.0	0.80	ug/L			11/28/20 02:51	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/28/20 02:51	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/28/20 02:51	1
Bromoform	ND		1.0	0.26	ug/L			11/28/20 02:51	1
Bromomethane	ND		1.0	0.69	ug/L			11/28/20 02:51	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/28/20 02:51	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/28/20 02:51	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/28/20 02:51	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/28/20 02:51	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/28/20 02:51	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/28/20 02:51	1
Chloroethane	ND		1.0	0.32	ug/L			11/28/20 02:51	1
Chloroform	ND		1.0	0.34	ug/L			11/28/20 02:51	1
Chloromethane	ND		1.0	0.35	ug/L			11/28/20 02:51	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/28/20 02:51	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/28/20 02:51	1
Cyclohexane	ND		1.0	0.18	ug/L			11/28/20 02:51	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/28/20 02:51	1
Dibromomethane	ND		1.0	0.41	ug/L			11/28/20 02:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/28/20 02:51	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/28/20 02:51	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/28/20 02:51	1
Ethyl ether	ND		1.0	0.72	ug/L			11/28/20 02:51	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/28/20 02:51	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/20 02:51	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/28/20 02:51	1
Hexane	ND		10	0.40	ug/L			11/28/20 02:51	1
Iodomethane	ND		1.0	0.30	ug/L			11/28/20 02:51	1
Isobutanol	ND		25	4.8	ug/L			11/28/20 02:51	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/28/20 02:51	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/28/20 02:51	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/28/20 02:51	1
Methyl acetate	ND		2.5	1.3	ug/L			11/28/20 02:51	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/28/20 02:51	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/28/20 02:51	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/28/20 02:51	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/28/20 02:51	1
Naphthalene	ND		1.0	0.43	ug/L			11/28/20 02:51	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/28/20 02:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/28/20 02:51	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/28/20 02:51	1
o-Xylene	ND		1.0	0.76	ug/L			11/28/20 02:51	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/28/20 02:51	1
p-Cymene	ND		1.0	0.31	ug/L			11/28/20 02:51	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/28/20 02:51	1
Styrene	ND		1.0	0.73	ug/L			11/28/20 02:51	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/28/20 02:51	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/28/20 02:51	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/28/20 02:51	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/28/20 02:51	1
Toluene	ND		1.0	0.51	ug/L			11/28/20 02:51	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/28/20 02:51	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/28/20 02:51	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/28/20 02:51	1
Trichloroethene	ND		1.0	0.46	ug/L			11/28/20 02:51	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/28/20 02:51	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/28/20 02:51	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/28/20 02:51	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		11/28/20 02:51	1
4-Bromofluorobenzene (Surr)	88		73 - 120		11/28/20 02:51	1
Toluene-d8 (Surr)	93		80 - 120		11/28/20 02:51	1

Client Sample ID: TRIP BLANK

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/28/20 03:16	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/28/20 03:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/28/20 03:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/28/20 03:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/28/20 03:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/28/20 03:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/28/20 03:16	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/28/20 03:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 03:16	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/28/20 03:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/28/20 03:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/28/20 03:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/28/20 03:16	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/28/20 03:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/28/20 03:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/28/20 03:16	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/28/20 03:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/28/20 03:16	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/28/20 03:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/28/20 03:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/28/20 03:16	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/28/20 03:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/28/20 03:16	1
1,4-Dioxane	ND		40	9.3	ug/L			11/28/20 03:16	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/28/20 03:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/28/20 03:16	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/28/20 03:16	1
2-Hexanone	ND		5.0	1.2	ug/L			11/28/20 03:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/28/20 03:16	1
Acetone	ND		10	3.0	ug/L			11/28/20 03:16	1
Acetonitrile	ND		15	4.9	ug/L			11/28/20 03:16	1
Acrolein	ND		20	0.91	ug/L			11/28/20 03:16	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/28/20 03:16	1
Benzene	ND		1.0	0.41	ug/L			11/28/20 03:16	1
Bromobenzene	ND		1.0	0.80	ug/L			11/28/20 03:16	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/28/20 03:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/28/20 03:16	1
Bromoform	ND		1.0	0.26	ug/L			11/28/20 03:16	1
Bromomethane	ND		1.0	0.69	ug/L			11/28/20 03:16	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/28/20 03:16	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/28/20 03:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/28/20 03:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/28/20 03:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/28/20 03:16	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/28/20 03:16	1
Chloroethane	ND		1.0	0.32	ug/L			11/28/20 03:16	1
Chloroform	ND		1.0	0.34	ug/L			11/28/20 03:16	1
Chloromethane	ND		1.0	0.35	ug/L			11/28/20 03:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/28/20 03:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/28/20 03:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		1.0	0.18	ug/L			11/28/20 03:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/28/20 03:16	1
Dibromomethane	ND		1.0	0.41	ug/L			11/28/20 03:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/28/20 03:16	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/28/20 03:16	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/28/20 03:16	1
Ethyl ether	ND		1.0	0.72	ug/L			11/28/20 03:16	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/28/20 03:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/20 03:16	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/28/20 03:16	1
Hexane	ND		10	0.40	ug/L			11/28/20 03:16	1
Iodomethane	ND		1.0	0.30	ug/L			11/28/20 03:16	1
Isobutanol	ND		25	4.8	ug/L			11/28/20 03:16	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/28/20 03:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/28/20 03:16	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/28/20 03:16	1
Methyl acetate	ND		2.5	1.3	ug/L			11/28/20 03:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/28/20 03:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/28/20 03:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/28/20 03:16	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/28/20 03:16	1
Naphthalene	ND		1.0	0.43	ug/L			11/28/20 03:16	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/28/20 03:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/28/20 03:16	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/28/20 03:16	1
o-Xylene	ND		1.0	0.76	ug/L			11/28/20 03:16	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/28/20 03:16	1
p-Cymene	ND		1.0	0.31	ug/L			11/28/20 03:16	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/28/20 03:16	1
Styrene	ND		1.0	0.73	ug/L			11/28/20 03:16	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/28/20 03:16	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/28/20 03:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/28/20 03:16	1
Tetrahydrofuran	7.4		5.0	1.3	ug/L			11/28/20 03:16	1
Toluene	ND		1.0	0.51	ug/L			11/28/20 03:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/28/20 03:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/28/20 03:16	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/28/20 03:16	1
Trichloroethene	ND		1.0	0.46	ug/L			11/28/20 03:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/28/20 03:16	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/28/20 03:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/28/20 03:16	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachloroethane TIC	ND		ug/L			67-72-1		11/28/20 03:16	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		11/28/20 03:16	1
4-Bromofluorobenzene (Surr)	90		73 - 120		11/28/20 03:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/20/20 09:00
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		80 - 120		11/28/20 03:16	1

Method: 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: L-INF-112020
Date Collected: 11/20/20 10:00
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0078		0.0030	0.0012	mg/L		12/02/20 15:40	12/03/20 21:47	1
Iron, Total	7.7		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 21:47	1

Client Sample ID: OBWL-TD-112020
Date Collected: 11/20/20 09:00
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		12/02/20 15:40	12/03/20 21:51	1
Iron, Total	0.23		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 21:51	1

Method: 6010D - Metals (ICP) - Dissolved

Client Sample ID: L-INF-112020
Date Collected: 11/20/20 10:00
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	140		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:49	1
Iron, Dissolved	7.6		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:49	1
Magnesium, Dissolved	100		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:49	1
Potassium, Dissolved	110		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:49	1
Sodium, Dissolved	780		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:49	1

Client Sample ID: OBWL-TD-112020
Date Collected: 11/20/20 09:00
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	120		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:53	1
Iron, Dissolved	0.026	J	0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:53	1
Magnesium, Dissolved	14		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:53	1
Potassium, Dissolved	2.7		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:53	1
Sodium, Dissolved	7.5		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:53	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: L-INF-112020
Date Collected: 11/20/20 10:00
Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	0.0030		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:33	1
Arsenic, Total	0.0063		0.0050	0.00033	mg/L		12/02/20 15:40	12/11/20 12:44	1
Barium, Total	0.20		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:33	1
Beryllium, Total	ND	^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:22	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium, Total	ND	F1	0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:33	1
Chromium, Total	0.0072		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:33	1
Copper, Total	ND	F1	0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:33	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 12:44	1
Manganese, Total	2.8		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 12:44	1
Nickel, Total	0.054	F1	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:33	1
Selenium, Total	0.00043	J B	0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 12:44	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 12:44	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 12:44	1
Vanadium, Total	0.012		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 12:44	1
Zinc, Total	0.0029	J	0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 12:44	1

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	0.0013		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:59	1
Arsenic, Total	0.00094	J	0.0050	0.00033	mg/L		12/02/20 15:40	12/11/20 13:10	1
Barium, Total	0.020		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:59	1
Beryllium, Total	ND	^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:48	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:59	1
Chromium, Total	0.0013	J	0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:59	1
Copper, Total	0.0030		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:59	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 13:10	1
Manganese, Total	0.011		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 13:10	1
Nickel, Total	0.0031	J	0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:59	1
Selenium, Total	ND	^	0.0010	0.00037	mg/L		12/02/20 15:40	12/09/20 04:59	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 13:10	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 13:10	1
Vanadium, Total	ND	^	0.0020	0.0012	mg/L		12/02/20 15:40	12/09/20 04:59	1
Zinc, Total	0.0080		0.0050	0.0020	mg/L		12/02/20 15:40	12/09/20 04:59	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	2.6		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:59	1

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0086		0.0010	0.00031	mg/L		12/02/20 15:40	12/08/20 00:03	1

Client Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

General Chemistry

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	810		30	30	mg/L			12/16/20 12:56	10
Sulfate	300		50	50	mg/L			12/16/20 12:56	10
Ammonia (as N)	200		3.0	3.0	mg/L			12/04/20 13:38	100
Nitrate as N	ND		0.050	0.050	mg/L			12/07/20 09:05	1
Nitrate/Nitrite	ND		0.050	0.050	mg/L			12/03/20 18:51	1
Chemical Oxygen Demand (COD)	380		50	50	mg/L			12/03/20 09:37	5
Alkalinity, Total (As CaCO3)	1800		10	10	mg/L			11/25/20 20:58	1
Alkalinity, Bicarbonate (As CaCO3)	1800		10	10	mg/L			11/25/20 20:58	1
Total Dissolved Solids (TDS)	2900		50	50	mg/L			11/23/20 13:37	1
Total Suspended Solids	21		6.7	6.7	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	120		5.0	5.0	mg/L			12/10/20 02:37	5
Biochemical Oxygen Demand	17 *		13	13	mg/L			11/22/20 08:59	1

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/16/20 13:13	1
Sulfate	270		25	25	mg/L			12/16/20 13:31	5
Ammonia (as N)	ND		0.030	0.030	mg/L			12/04/20 13:40	1
Nitrate as N	0.61		0.050	0.050	mg/L			12/07/20 09:05	1
Nitrate/Nitrite	0.61		0.050	0.050	mg/L			12/03/20 19:05	1
Chemical Oxygen Demand (COD)	ND	F1	10	10	mg/L			12/07/20 10:22	1
Alkalinity, Total (As CaCO3)	98		10	10	mg/L			11/30/20 17:40	1
Alkalinity, Bicarbonate (As CaCO3)	98		10	10	mg/L			11/30/20 17:40	1
Total Dissolved Solids (TDS)	460		5.0	5.0	mg/L			11/23/20 13:37	1
Total Suspended Solids	4.0		4.0	4.0	mg/L			11/23/20 17:46	1
Total Organic Carbon - Average	2.0		1.0	1.0	mg/L			12/10/20 02:52	1
Biochemical Oxygen Demand	ND *		2.0	2.0	mg/L			11/22/20 08:59	1

Method: Field Sampling - Field Sampling

Client Sample ID: L-INF-112020

Date Collected: 11/20/20 10:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-1

Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	5228				umhos/cm			11/20/20 11:00	1
Dissolved Oxygen	1.2				mg/L			11/20/20 11:00	1
eH	-36.5				millivolts			11/20/20 11:00	1
Turbidity	4.2				NTU			11/20/20 11:00	1
Temperature	12.1				Degrees C			11/20/20 11:00	1
pH	7.11				SU			11/20/20 11:00	1

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	599.4				umhos/cm			11/20/20 10:00	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF -
L-INF/OBWL-TD

Job ID: 280-143080-1

Method: Field Sampling - Field Sampling (Continued)

Client Sample ID: OBWL-TD-112020

Date Collected: 11/20/20 09:00

Date Received: 11/21/20 09:45

Lab Sample ID: 280-143080-2

Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Oxygen	10.5				mg/L			11/20/20 10:00	1
eH	14.0				millivolts			11/20/20 10:00	1
Turbidity	3.2				NTU			11/20/20 10:00	1
Temperature	9.5				Degrees C			11/20/20 10:00	1
pH	7.62				SU			11/20/20 10:00	1

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF -
L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (77-120)	BFB (73-120)	TOL (80-120)
280-143080-1	L-INF-112020	103	98	97
280-143080-2	OBWL-TD-112020	103	88	93
280-143080-3	TRIP BLANK	101	90	93
480-178559-K-1 MS	Matrix Spike	101	106	101
480-178559-K-1 MSD	Matrix Spike Duplicate	102	103	99
LCS 480-561110/6	Lab Control Sample	101	99	97
MB 480-561110/8	Method Blank	104	97	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DBFM (50-150)	TBA (50-150)
280-143080-1	L-INF-112020	107	89
280-143080-2	OBWL-TD-112020	113	95
280-143080-3	TRIP BLANK	107	89
LCS 480-561082/6	Lab Control Sample	100	80
LCSD 480-561082/7	Lab Control Sample Dup	98	85
MB 480-561082/9	Method Blank	105	87

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TBA = TBA-d9 (Surr)

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-561110/8

Matrix: Water

Analysis Batch: 561110

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/27/20 23:07	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/20 23:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/20 23:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/20 23:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/20 23:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/20 23:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/20 23:07	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/27/20 23:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/27/20 23:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/20 23:07	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/27/20 23:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/20 23:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/20 23:07	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/27/20 23:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/20 23:07	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/27/20 23:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/20 23:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/20 23:07	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/27/20 23:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/20 23:07	1
1,4-Dioxane	ND		40	9.3	ug/L			11/27/20 23:07	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/27/20 23:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/20 23:07	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/27/20 23:07	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/20 23:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/20 23:07	1
Acetone	ND		10	3.0	ug/L			11/27/20 23:07	1
Acetonitrile	ND		15	4.9	ug/L			11/27/20 23:07	1
Acrolein	ND		20	0.91	ug/L			11/27/20 23:07	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/27/20 23:07	1
Benzene	ND		1.0	0.41	ug/L			11/27/20 23:07	1
Bromobenzene	ND		1.0	0.80	ug/L			11/27/20 23:07	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/27/20 23:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/20 23:07	1
Bromoform	ND		1.0	0.26	ug/L			11/27/20 23:07	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/20 23:07	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/27/20 23:07	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/27/20 23:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/20 23:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/20 23:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/27/20 23:07	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/20 23:07	1
Chloroform	ND		1.0	0.34	ug/L			11/27/20 23:07	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561110/8

Matrix: Water

Analysis Batch: 561110

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloromethane	ND		1.0	0.35	ug/L			11/27/20 23:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/20 23:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/20 23:07	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/20 23:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/20 23:07	1
Dibromomethane	ND		1.0	0.41	ug/L			11/27/20 23:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/20 23:07	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/27/20 23:07	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/27/20 23:07	1
Ethyl ether	ND		1.0	0.72	ug/L			11/27/20 23:07	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/27/20 23:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/20 23:07	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/27/20 23:07	1
Hexane	ND		10	0.40	ug/L			11/27/20 23:07	1
Iodomethane	ND		1.0	0.30	ug/L			11/27/20 23:07	1
Isobutanol	ND		25	4.8	ug/L			11/27/20 23:07	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/27/20 23:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/20 23:07	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/27/20 23:07	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/20 23:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/20 23:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/20 23:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/20 23:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/27/20 23:07	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/20 23:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/20 23:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/20 23:07	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/27/20 23:07	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/20 23:07	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/27/20 23:07	1
p-Cymene	ND		1.0	0.31	ug/L			11/27/20 23:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/20 23:07	1
Styrene	ND		1.0	0.73	ug/L			11/27/20 23:07	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/27/20 23:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/20 23:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/20 23:07	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/27/20 23:07	1
Toluene	ND		1.0	0.51	ug/L			11/27/20 23:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/20 23:07	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/20 23:07	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/27/20 23:07	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/20 23:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/20 23:07	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/27/20 23:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/20 23:07	1

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-561110/8
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/27/20 23:07	1
4-Bromofluorobenzene (Surr)	97		73 - 120		11/27/20 23:07	1
Toluene-d8 (Surr)	95		80 - 120		11/27/20 23:07	1

Lab Sample ID: LCS 480-561110/6
Matrix: Water
Analysis Batch: 561110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.8		ug/L		103	80 - 120
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	20.3		ug/L		81	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.3		ug/L		97	61 - 148
1,1,2-Trichloroethane	25.0	23.1		ug/L		92	76 - 122
1,1-Dichloroethane	25.0	23.8		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	23.0		ug/L		92	66 - 127
1,1-Dichloropropene	25.0	24.4		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	25.0	24.0		ug/L		96	75 - 123
1,2,3-Trichloropropane	25.0	20.7		ug/L		83	68 - 122
1,2,4-Trichlorobenzene	25.0	24.0		ug/L		96	79 - 122
1,2,4-Trimethylbenzene	25.0	23.6		ug/L		94	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.0		ug/L		76	56 - 134
1,2-Dibromoethane (EDB)	25.0	23.2		ug/L		93	77 - 120
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		101	77 - 121
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	77 - 120
1,3-Dichloropropane	25.0	23.5		ug/L		94	75 - 120
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 120
1,4-Dioxane	500	316		ug/L		63	50 - 150
2,2-Dichloropropane	25.0	25.4		ug/L		102	63 - 136
2-Butanone (MEK)	125	100		ug/L		80	57 - 140
2-Chloroethyl vinyl ether	25.0	19.9		ug/L		80	70 - 129
2-Hexanone	125	111		ug/L		89	65 - 127
4-Methyl-2-pentanone (MIBK)	125	111		ug/L		89	71 - 125
Acetone	125	96.3		ug/L		77	56 - 142
Acrolein	125	102		ug/L		81	52 - 143
Acrylonitrile	250	197		ug/L		79	63 - 125
Benzene	25.0	23.2		ug/L		93	71 - 124
Bromobenzene	25.0	23.4		ug/L		94	78 - 120
Bromochloromethane	25.0	24.8		ug/L		99	72 - 130
Bromodichloromethane	25.0	25.6		ug/L		102	80 - 122
Bromoform	25.0	21.6		ug/L		86	61 - 132
Bromomethane	25.0	24.6		ug/L		98	55 - 144
Butyl alcohol, tert-	250	202		ug/L		81	75 - 125
Carbon disulfide	25.0	22.8		ug/L		91	59 - 134

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-561110/6

Matrix: Water

Analysis Batch: 561110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	25.0	23.7		ug/L		95	72 - 134
Chlorobenzene	25.0	23.9		ug/L		96	80 - 120
Chloroethane	25.0	22.8		ug/L		91	69 - 136
Chloroform	25.0	23.0		ug/L		92	73 - 127
Chloromethane	25.0	22.0		ug/L		88	68 - 124
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	22.8		ug/L		91	74 - 124
Cyclohexane	25.0	22.6		ug/L		90	59 - 135
Dibromochloromethane	25.0	25.0		ug/L		100	75 - 125
Dibromomethane	25.0	23.8		ug/L		95	76 - 127
Dichlorodifluoromethane	25.0	26.5		ug/L		106	59 - 135
Dichlorofluoromethane	25.0	23.2		ug/L		93	76 - 127
Ethyl ether	25.0	23.0		ug/L		92	76 - 123
Ethylbenzene	25.0	24.6		ug/L		98	77 - 123
Hexachlorobutadiene	25.0	24.5		ug/L		98	68 - 131
Iodomethane	25.0	23.8		ug/L		95	78 - 123
Isobutanol	625	467		ug/L		75	51 - 150
Isopropylbenzene	25.0	24.7		ug/L		99	77 - 122
Methyl acetate	50.0	37.6		ug/L		75	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		96	77 - 120
Methylcyclohexane	25.0	22.5		ug/L		90	68 - 134
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124
m-Xylene & p-Xylene	25.0	25.1		ug/L		100	76 - 122
Naphthalene	25.0	20.4		ug/L		82	66 - 125
n-Butylbenzene	25.0	23.1		ug/L		92	71 - 128
N-Propylbenzene	25.0	24.0		ug/L		96	75 - 127
o-Chlorotoluene	25.0	23.6		ug/L		94	76 - 121
o-Xylene	25.0	25.4		ug/L		102	76 - 122
p-Chlorotoluene	25.0	24.6		ug/L		98	77 - 121
p-Cymene	25.0	23.3		ug/L		93	73 - 120
sec-Butylbenzene	25.0	23.1		ug/L		93	74 - 127
Styrene	25.0	26.4		ug/L		106	80 - 120
tert-Butylbenzene	25.0	22.7		ug/L		91	75 - 123
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Tetrahydrofuran	50.0	38.7		ug/L		77	62 - 132
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	73 - 127
trans-1,3-Dichloropropene	25.0	23.2		ug/L		93	80 - 120
trans-1,4-Dichloro-2-butene	25.0	20.1		ug/L		80	41 - 131
Trichloroethene	25.0	23.5		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	25.1		ug/L		100	62 - 150
Vinyl acetate	50.0	46.4		ug/L		93	50 - 144
Vinyl chloride	25.0	23.1		ug/L		92	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-561110/6

Matrix: Water

Analysis Batch: 561110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	97		80 - 120

Lab Sample ID: 480-178559-K-1 MS

Matrix: Water

Analysis Batch: 561110

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		1250	1310		ug/L		104	66 - 127
1,2-Dichloroethane	ND		1250	1260		ug/L		101	75 - 120
2-Butanone (MEK)	270	J	6250	5340		ug/L		81	57 - 140
Benzene	ND		1250	1260		ug/L		101	71 - 124
Carbon tetrachloride	ND		1250	1310		ug/L		105	72 - 134
Chlorobenzene	ND		1250	1280		ug/L		102	80 - 120
Chloroform	ND		1250	1230		ug/L		98	73 - 127
Tetrachloroethene	ND		1250	1330		ug/L		106	74 - 122
Trichloroethene	ND		1250	1280		ug/L		102	74 - 123
Vinyl chloride	ND		1250	1220		ug/L		98	65 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	106		73 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: 480-178559-K-1 MSD

Matrix: Water

Analysis Batch: 561110

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		1250	1230		ug/L		99	66 - 127	6	16
1,2-Dichloroethane	ND		1250	1250		ug/L		100	75 - 120	1	20
2-Butanone (MEK)	270	J	6250	5480		ug/L		83	57 - 140	2	20
Benzene	ND		1250	1220		ug/L		98	71 - 124	3	13
Carbon tetrachloride	ND		1250	1270		ug/L		102	72 - 134	3	15
Chlorobenzene	ND		1250	1230		ug/L		98	80 - 120	4	25
Chloroform	ND		1250	1200		ug/L		96	73 - 127	3	20
Tetrachloroethene	ND		1250	1280		ug/L		103	74 - 122	4	20
Trichloroethene	ND		1250	1220		ug/L		98	74 - 123	5	16
Vinyl chloride	ND		1250	1130		ug/L		90	65 - 133	8	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 120
4-Bromofluorobenzene (Surr)	103		73 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-561082/9
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/27/20 14:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		50 - 150					11/27/20 14:46	1
TBA-d9 (Surr)	87		50 - 150					11/27/20 14:46	1

Lab Sample ID: LCS 480-561082/6
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Vinyl chloride	0.200	0.224		ug/L		112	50 - 150	
Surrogate	%Recovery	Qualifier	Limits					
Dibromofluoromethane (Surr)	100		50 - 150					
TBA-d9 (Surr)	80		50 - 150					

Lab Sample ID: LCSD 480-561082/7
Matrix: Water
Analysis Batch: 561082

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.200	0.200		ug/L		100	50 - 150	11	20
Surrogate	%Recovery	Qualifier	Limits						
Dibromofluoromethane (Surr)	98		50 - 150						
TBA-d9 (Surr)	85		50 - 150						

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-518467/1-A
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.0012	mg/L		12/02/20 15:40	12/03/20 21:25	1
Iron, Total	ND		0.060	0.022	mg/L		12/02/20 15:40	12/03/20 21:25	1

Lab Sample ID: LCS 280-518467/2-A
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Cobalt, Total	1.00	0.951		mg/L		95	89 - 111	
Iron, Total	10.0	9.55		mg/L		96	89 - 115	

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-143079-E-1-C MS
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Cobalt, Total	0.0092		1.00	0.990		mg/L		98	82 - 119	
Iron, Total	0.13		10.0	9.84		mg/L		97	75 - 125	

Lab Sample ID: 280-143079-E-1-D MSD
Matrix: Water
Analysis Batch: 519423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 518467

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits	Limit	
Cobalt, Total	0.0092		1.00	0.984		mg/L		97	82 - 119	1	20	
Iron, Total	0.13		10.0	9.76		mg/L		96	75 - 125	1	20	

Lab Sample ID: MB 280-518473/1-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Calcium, Dissolved	ND		0.20	0.078	mg/L		12/02/20 15:40	12/04/20 01:02		1	
Iron, Dissolved	ND		0.060	0.022	mg/L		12/02/20 15:40	12/04/20 01:02		1	
Magnesium, Dissolved	ND		0.050	0.026	mg/L		12/02/20 15:40	12/04/20 01:02		1	
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/02/20 15:40	12/04/20 01:02		1	
Sodium, Dissolved	ND		1.0	0.37	mg/L		12/02/20 15:40	12/04/20 01:02		1	

Lab Sample ID: LCS 280-518473/2-A
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518473

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	Limits
Calcium, Dissolved	50.0	50.5		mg/L		101	90 - 111	
Iron, Dissolved	10.0	9.98		mg/L		100	89 - 115	
Magnesium, Dissolved	50.0	50.2		mg/L		100	90 - 113	
Potassium, Dissolved	50.0	50.6		mg/L		101	89 - 114	
Sodium, Dissolved	50.0	49.5		mg/L		99	90 - 115	

Lab Sample ID: 280-143078-E-1-B MS
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 518473

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits
Calcium, Dissolved	17		50.0	67.6		mg/L		101	75 - 125	
Iron, Dissolved	0.051	J	10.0	10.0		mg/L		100	75 - 125	
Magnesium, Dissolved	6.8		50.0	57.3		mg/L		101	75 - 125	
Potassium, Dissolved	1.2		50.0	52.2		mg/L		102	76 - 125	
Sodium, Dissolved	4.0		50.0	53.6		mg/L		99	75 - 125	

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-143078-E-1-C MSD
Matrix: Water
Analysis Batch: 519179

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 518473

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Calcium, Dissolved	17		50.0	67.8		mg/L		102	75 - 125	0	20
Iron, Dissolved	0.051	J	10.0	10.0		mg/L		100	75 - 125	0	20
Magnesium, Dissolved	6.8		50.0	57.5		mg/L		101	75 - 125	0	20
Potassium, Dissolved	1.2		50.0	52.6		mg/L		103	76 - 125	1	20
Sodium, Dissolved	4.0		50.0	54.0		mg/L		100	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony, Total	ND		0.0010	0.00040	mg/L		12/02/20 15:40	12/09/20 04:25	1
Barium, Total	ND		0.0010	0.00029	mg/L		12/02/20 15:40	12/09/20 04:25	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/02/20 15:40	12/09/20 04:25	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/02/20 15:40	12/09/20 04:25	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/02/20 15:40	12/09/20 04:25	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/02/20 15:40	12/09/20 04:25	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Beryllium, Total	0.000190	J ^	0.0010	0.000080	mg/L		12/02/20 15:40	12/10/20 03:14	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic, Total	ND		0.0050	0.00033	mg/L		12/02/20 15:40	12/11/20 12:37	1
Lead, Total	0.000728	J	0.0010	0.00018	mg/L		12/02/20 15:40	12/11/20 12:37	1
Manganese, Total	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/11/20 12:37	1
Selenium, Total	0.000403	J	0.0010	0.00037	mg/L		12/02/20 15:40	12/11/20 12:37	1
Silver, Total	0.0000400	J	0.0020	0.000033	mg/L		12/02/20 15:40	12/11/20 12:37	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/02/20 15:40	12/11/20 12:37	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/02/20 15:40	12/11/20 12:37	1

Lab Sample ID: MB 280-518462/1-A
Matrix: Water
Analysis Batch: 520313

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium, Total	ND	^	0.0010	0.000089	mg/L		12/02/20 15:40	12/11/20 17:00	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 519749

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony, Total	0.0400	0.0375		mg/L		94	80 - 111	
Barium, Total	0.0400	0.0397		mg/L		99	92 - 117	
Cadmium, Total	0.0400	0.0380		mg/L		95	91 - 114	
Chromium, Total	0.0400	0.0399		mg/L		100	91 - 114	
Copper, Total	0.0400	0.0372		mg/L		93	89 - 116	
Nickel, Total	0.0400	0.0371		mg/L		93	92 - 116	

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 519990

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Beryllium, Total	0.0400	0.0396	^	mg/L		99	87 - 118	

Lab Sample ID: LCS 280-518462/2-A
Matrix: Water
Analysis Batch: 520148

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Arsenic, Total	0.0400	0.0396		mg/L		99	92 - 112	
Lead, Total	0.0400	0.0399		mg/L		100	95 - 116	
Manganese, Total	0.0400	0.0408		mg/L		102	89 - 119	
Selenium, Total	0.0400	0.0393		mg/L		98	90 - 115	
Silver, Total	0.0400	0.0403		mg/L		101	93 - 118	
Thallium, Total	0.0400	0.0393		mg/L		98	94 - 115	
Vanadium, Total	0.0400	0.0407		mg/L		102	91 - 114	
Zinc, Total	0.0400	0.0402		mg/L		100	86 - 120	

Lab Sample ID: 280-143080-1 MS
Matrix: Water
Analysis Batch: 519749

Client Sample ID: L-INF-112020
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
									Limits	
Antimony, Total	0.0030		0.0400	0.0413		mg/L		96	80 - 111	
Barium, Total	0.20		0.0400	0.238	4	mg/L		86	92 - 117	
Cadmium, Total	ND	F1	0.0400	0.0347	F1	mg/L		87	91 - 114	
Chromium, Total	0.0072		0.0400	0.0443		mg/L		93	91 - 114	
Copper, Total	ND	F1	0.0400	0.0339	F1	mg/L		85	89 - 116	
Nickel, Total	0.054	F1	0.0400	0.0847	F1	mg/L		77	92 - 116	

Lab Sample ID: 280-143080-1 MS
Matrix: Water
Analysis Batch: 519990

Client Sample ID: L-INF-112020
Prep Type: Total Recoverable
Prep Batch: 518462

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
									Limits	
Beryllium, Total	ND	^	0.0400	0.0450	^	mg/L		113	87 - 118	

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-143080-1 MS

Matrix: Water

Analysis Batch: 520148

Client Sample ID: L-INF-112020

Prep Type: Total Recoverable

Prep Batch: 518462

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit
Arsenic, Total	0.0063		0.0400	0.0478		mg/L		104	92 - 112	
Lead, Total	ND		0.0400	0.0382		mg/L		95	95 - 116	
Manganese, Total	2.8		0.0400	2.84	4	mg/L		22	89 - 119	
Selenium, Total	0.00043	J B	0.0400	0.0406		mg/L		101	90 - 115	
Silver, Total	ND		0.0400	0.0382		mg/L		95	93 - 118	
Thallium, Total	ND		0.0400	0.0376		mg/L		94	94 - 115	
Vanadium, Total	0.012		0.0400	0.0545		mg/L		106	91 - 114	
Zinc, Total	0.0029	J	0.0400	0.0433		mg/L		101	86 - 120	

Lab Sample ID: 280-143080-1 MSD

Matrix: Water

Analysis Batch: 519749

Client Sample ID: L-INF-112020

Prep Type: Total Recoverable

Prep Batch: 518462

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Antimony, Total	0.0030		0.0400	0.0415		mg/L		96	80 - 111	0	20	
Barium, Total	0.20		0.0400	0.240	4	mg/L		89	92 - 117	1	20	
Cadmium, Total	ND	F1	0.0400	0.0353	F1	mg/L		88	91 - 114	2	20	
Chromium, Total	0.0072		0.0400	0.0453		mg/L		95	91 - 114	2	20	
Copper, Total	ND	F1	0.0400	0.0353	F1	mg/L		88	89 - 116	4	20	
Nickel, Total	0.054	F1	0.0400	0.0886	F1	mg/L		86	92 - 116	4	20	

Lab Sample ID: 280-143080-1 MSD

Matrix: Water

Analysis Batch: 519990

Client Sample ID: L-INF-112020

Prep Type: Total Recoverable

Prep Batch: 518462

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Beryllium, Total	ND	^	0.0400	0.0459	^	mg/L		115	87 - 118	2	20	

Lab Sample ID: 280-143080-1 MSD

Matrix: Water

Analysis Batch: 520148

Client Sample ID: L-INF-112020

Prep Type: Total Recoverable

Prep Batch: 518462

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Arsenic, Total	0.0063		0.0400	0.0486		mg/L		106	92 - 112	2	20	
Lead, Total	ND		0.0400	0.0387		mg/L		97	95 - 116	1	20	
Manganese, Total	2.8		0.0400	2.88	4	mg/L		113	89 - 119	1	20	
Selenium, Total	0.00043	J B	0.0400	0.0408		mg/L		101	90 - 115	0	20	
Silver, Total	ND		0.0400	0.0382		mg/L		95	93 - 118	0	20	
Thallium, Total	ND		0.0400	0.0382		mg/L		96	94 - 115	2	20	
Vanadium, Total	0.012		0.0400	0.0552		mg/L		108	91 - 114	1	20	
Zinc, Total	0.0029	J	0.0400	0.0438		mg/L		102	86 - 120	1	20	

Lab Sample ID: MB 280-518478/1-A

Matrix: Water

Analysis Batch: 519616

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 518478

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed		Dil Fac
	Result	Qualifier						Start	End	
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/02/20 15:40	12/07/20 23:13		1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-518478/2-A
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518478
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	0.0400	0.0400		mg/L		100	89 - 119

Lab Sample ID: 280-143078-E-2-C MS
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 518478
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	0.093	F1	0.0400	0.131		mg/L		97	89 - 119

Lab Sample ID: 280-143078-E-2-D MSD
Matrix: Water
Analysis Batch: 519616

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 518478
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Dissolved	0.093	F1	0.0400	0.128	F1	mg/L		88	89 - 119	3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-520672/6
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/16/20 12:38	1
Sulfate	ND		5.0	5.0	mg/L			12/16/20 12:38	1

Lab Sample ID: LCS 280-520672/4
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	100	98.1		mg/L		98	90 - 110
Sulfate	100	97.7		mg/L		98	90 - 110

Lab Sample ID: LCSD 280-520672/5
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	100	98.5		mg/L		99	90 - 110	0	10
Sulfate	100	97.8		mg/L		98	90 - 110	0	10

Lab Sample ID: MRL 280-520672/3
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Chloride	5.00	4.62		mg/L		92	50 - 150
Sulfate	5.00	ND		mg/L		92	50 - 150

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-143032-A-13 MS
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND		50.0	53.0		mg/L		106	80 - 120
Sulfate	ND		50.0	53.4		mg/L		107	80 - 120

Lab Sample ID: 280-143032-A-13 MSD
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND		50.0	54.3		mg/L		109	80 - 120	2	20
Sulfate	ND		50.0	54.1		mg/L		108	80 - 120	1	20

Lab Sample ID: 280-143032-A-13 DU
Matrix: Water
Analysis Batch: 520672

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	ND		ND		mg/L		NC	15
Sulfate	ND		ND		mg/L		NC	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-519259/57
Matrix: Water
Analysis Batch: 519259

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/04/20 13:04	1

Lab Sample ID: LCS 280-519259/56
Matrix: Water
Analysis Batch: 519259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	2.50	2.53		mg/L		101	90 - 110

Lab Sample ID: 280-143193-C-8 MS
Matrix: Water
Analysis Batch: 519259

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	ND		1.00	0.991		mg/L		99	90 - 110

Lab Sample ID: 280-143193-C-8 MSD
Matrix: Water
Analysis Batch: 519259

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND		1.00	1.01		mg/L		101	90 - 110	2	10

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-519431/1
 Matrix: Water
 Analysis Batch: 519431

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/07/20 09:05	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-519168/22
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate/Nitrite	ND		0.050	0.050	mg/L			12/03/20 17:59	1

Lab Sample ID: LCS 280-519168/21
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate/Nitrite	5.00	5.48		mg/L		110	90 - 110

Lab Sample ID: 280-142902-B-11 MS
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate/Nitrite	ND		4.00	3.96		mg/L		99	90 - 110

Lab Sample ID: 280-142902-B-11 MSD
 Matrix: Water
 Analysis Batch: 519168

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Nitrate/Nitrite	ND		4.00	4.24		mg/L		106	90 - 110	7	10

Method: 410.4 - COD

Lab Sample ID: MB 280-519055/5
 Matrix: Water
 Analysis Batch: 519055

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	ND		10	10	mg/L			12/03/20 09:37	1

Lab Sample ID: LCS 280-519055/3
 Matrix: Water
 Analysis Batch: 519055

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.1		mg/L		99	90 - 110

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCSD 280-519055/4
Matrix: Water
Analysis Batch: 519055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	97.4		mg/L		97	90 - 110	2	11

Lab Sample ID: 280-143080-2 MS
Matrix: Water
Analysis Batch: 519055

Client Sample ID: OBWL-TD-112020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	ND		50.0	53.0		mg/L		106	90 - 110

Lab Sample ID: 280-143080-2 MSD
Matrix: Water
Analysis Batch: 519055

Client Sample ID: OBWL-TD-112020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	ND		50.0	55.1		mg/L		110	90 - 110	4	11

Lab Sample ID: MB 280-519448/5
Matrix: Water
Analysis Batch: 519448

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	ND		10	10	mg/L			12/07/20 10:22	1

Lab Sample ID: LCS 280-519448/3
Matrix: Water
Analysis Batch: 519448

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	100	99.4		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-519448/4
Matrix: Water
Analysis Batch: 519448

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	100	94.3		mg/L		94	90 - 110	5	11

Lab Sample ID: 280-143080-2 MS
Matrix: Water
Analysis Batch: 519448

Client Sample ID: OBWL-TD-112020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand (COD)	ND	F1	50.0	55.1		mg/L		110	90 - 110

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: 410.4 - COD (Continued)

Lab Sample ID: 280-143080-2 MSD
Matrix: Water
Analysis Batch: 519448

Client Sample ID: OBWL-TD-112020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	ND	F1	50.0	55.4	F1	mg/L		111	90 - 110	1	11

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-518549/57
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/25/20 19:12	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/25/20 19:12	1

Lab Sample ID: LCS 280-518549/56
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total (As CaCO3)	200	197		mg/L		98	89 - 109

Lab Sample ID: 280-143051-C-1 DU
Matrix: Water
Analysis Batch: 518549

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	370		396		mg/L		6	10

Lab Sample ID: MB 280-518691/31
Matrix: Water
Analysis Batch: 518691

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/30/20 19:16	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/30/20 19:16	1

Lab Sample ID: LCS 280-518691/30
Matrix: Water
Analysis Batch: 518691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total (As CaCO3)	200	191		mg/L		96	89 - 109

Lab Sample ID: 280-143047-A-8 DU
Matrix: Water
Analysis Batch: 518691

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	16		14.9		mg/L		8	10

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
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Job ID: 280-143080-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-517842/1
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/23/20 13:37	1

Lab Sample ID: LCS 280-517842/2
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	501	479		mg/L		96	93 - 110

Lab Sample ID: 280-142945-B-1 DU
 Matrix: Water
 Analysis Batch: 517842

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	17000		16800		mg/L		1	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-517887/2
 Matrix: Water
 Analysis Batch: 517887

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/20 17:46	1

Lab Sample ID: LCS 280-517887/1
 Matrix: Water
 Analysis Batch: 517887

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	88.8		mg/L		89	79 - 114

Lab Sample ID: 280-143080-1 DU
 Matrix: Water
 Analysis Batch: 517887

Client Sample ID: L-INF-112020
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	21		22.0		mg/L		3	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-520192/9
 Matrix: Water
 Analysis Batch: 520192

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/09/20 20:45	1

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QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 280-520192/8
Matrix: Water
Analysis Batch: 520192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	25.0	25.2		mg/L		101	88 - 112

Lab Sample ID: 280-143051-D-1 MS
Matrix: Water
Analysis Batch: 520192

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Average	2.8		25.0	28.3		mg/L		102	88 - 112

Lab Sample ID: 280-143051-D-1 MSD
Matrix: Water
Analysis Batch: 520192

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Average	2.8		25.0	27.9		mg/L		100	88 - 112	1	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-517720/4
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/22/20 08:59	1

Lab Sample ID: SCB 280-517720/1
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/22/20 08:59	1

Lab Sample ID: USB 280-517720/2
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/22/20 08:59	1

Lab Sample ID: LCS 280-517720/3
Matrix: Water
Analysis Batch: 517720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	166	*	mg/L		84	85 - 115

QC Sample Results

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 280-143080-2 DU
 Matrix: Water
 Analysis Batch: 517720

Client Sample ID: OBWL-TD-112020
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	ND	*	ND	*	mg/L		NC	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

GC/MS VOA

Analysis Batch: 561082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	8260C SIM	
280-143080-2	OBWL-TD-112020	Total/NA	Water	8260C SIM	
280-143080-3	TRIP BLANK	Total/NA	Water	8260C SIM	
MB 480-561082/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-561082/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-561082/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 561110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	8260C	
280-143080-2	OBWL-TD-112020	Total/NA	Water	8260C	
280-143080-3	TRIP BLANK	Total/NA	Water	8260C	
MB 480-561110/8	Method Blank	Total/NA	Water	8260C	
LCS 480-561110/6	Lab Control Sample	Total/NA	Water	8260C	
480-178559-K-1 MS	Matrix Spike	Total/NA	Water	8260C	
480-178559-K-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Metals

Prep Batch: 518462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total Recoverable	Water	3005A	
280-143080-2	OBWL-TD-112020	Total Recoverable	Water	3005A	
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143080-1 MS	L-INF-112020	Total Recoverable	Water	3005A	
280-143080-1 MSD	L-INF-112020	Total Recoverable	Water	3005A	

Prep Batch: 518467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total Recoverable	Water	3005A	
280-143080-2	OBWL-TD-112020	Total Recoverable	Water	3005A	
MB 280-518467/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518467/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143079-E-1-C MS	Matrix Spike	Total Recoverable	Water	3005A	
280-143079-E-1-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 518473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Dissolved	Water	3005A	
280-143080-2	OBWL-TD-112020	Dissolved	Water	3005A	
MB 280-518473/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518473/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143078-E-1-B MS	Matrix Spike	Dissolved	Water	3005A	
280-143078-E-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 518478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Dissolved	Water	3005A	
280-143080-2	OBWL-TD-112020	Dissolved	Water	3005A	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Metals (Continued)

Prep Batch: 518478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-518478/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-518478/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-143078-E-2-C MS	Matrix Spike	Dissolved	Water	3005A	
280-143078-E-2-D MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 519179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Dissolved	Water	6010D	518473
280-143080-2	OBWL-TD-112020	Dissolved	Water	6010D	518473
MB 280-518473/1-A	Method Blank	Total Recoverable	Water	6010D	518473
LCS 280-518473/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518473
280-143078-E-1-B MS	Matrix Spike	Dissolved	Water	6010D	518473
280-143078-E-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010D	518473

Analysis Batch: 519423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total Recoverable	Water	6010D	518467
280-143080-2	OBWL-TD-112020	Total Recoverable	Water	6010D	518467
MB 280-518467/1-A	Method Blank	Total Recoverable	Water	6010D	518467
LCS 280-518467/2-A	Lab Control Sample	Total Recoverable	Water	6010D	518467
280-143079-E-1-C MS	Matrix Spike	Total Recoverable	Water	6010D	518467
280-143079-E-1-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	518467

Analysis Batch: 519616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Dissolved	Water	6020B	518478
280-143080-2	OBWL-TD-112020	Dissolved	Water	6020B	518478
MB 280-518478/1-A	Method Blank	Total Recoverable	Water	6020B	518478
LCS 280-518478/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518478
280-143078-E-2-C MS	Matrix Spike	Dissolved	Water	6020B	518478
280-143078-E-2-D MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	518478

Analysis Batch: 519749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total Recoverable	Water	6020B	518462
280-143080-2	OBWL-TD-112020	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-1 MS	L-INF-112020	Total Recoverable	Water	6020B	518462
280-143080-1 MSD	L-INF-112020	Total Recoverable	Water	6020B	518462

Analysis Batch: 519990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total Recoverable	Water	6020B	518462
280-143080-2	OBWL-TD-112020	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-1 MS	L-INF-112020	Total Recoverable	Water	6020B	518462
280-143080-1 MSD	L-INF-112020	Total Recoverable	Water	6020B	518462

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Metals

Analysis Batch: 520148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total Recoverable	Water	6020B	518462
280-143080-2	OBWL-TD-112020	Total Recoverable	Water	6020B	518462
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462
LCS 280-518462/2-A	Lab Control Sample	Total Recoverable	Water	6020B	518462
280-143080-1 MS	L-INF-112020	Total Recoverable	Water	6020B	518462
280-143080-1 MSD	L-INF-112020	Total Recoverable	Water	6020B	518462

Analysis Batch: 520313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-518462/1-A	Method Blank	Total Recoverable	Water	6020B	518462

General Chemistry

Analysis Batch: 517720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	SM5210B	
280-143080-2	OBWL-TD-112020	Total/NA	Water	SM5210B	
MB 280-517720/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-517720/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-517720/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-517720/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-143080-2 DU	OBWL-TD-112020	Total/NA	Water	SM5210B	

Analysis Batch: 517842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	SM 2540C	
280-143080-2	OBWL-TD-112020	Total/NA	Water	SM 2540C	
MB 280-517842/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-517842/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-142945-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 517887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	SM 2540D	
280-143080-2	OBWL-TD-112020	Total/NA	Water	SM 2540D	
MB 280-517887/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-517887/1	Lab Control Sample	Total/NA	Water	SM 2540D	
280-143080-1 DU	L-INF-112020	Total/NA	Water	SM 2540D	

Analysis Batch: 518549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	SM 2320B	
MB 280-518549/57	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-518549/56	Lab Control Sample	Total/NA	Water	SM 2320B	
280-143051-C-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 518691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-2	OBWL-TD-112020	Total/NA	Water	SM 2320B	
MB 280-518691/31	Method Blank	Total/NA	Water	SM 2320B	

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QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

General Chemistry (Continued)

Analysis Batch: 518691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-518691/30	Lab Control Sample	Total/NA	Water	SM 2320B	
280-143047-A-8 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 519055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	410.4	
MB 280-519055/5	Method Blank	Total/NA	Water	410.4	
LCS 280-519055/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-519055/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-143080-2 MS	OBWL-TD-112020	Total/NA	Water	410.4	
280-143080-2 MSD	OBWL-TD-112020	Total/NA	Water	410.4	

Analysis Batch: 519168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	353.2	
280-143080-2	OBWL-TD-112020	Total/NA	Water	353.2	
MB 280-519168/22	Method Blank	Total/NA	Water	353.2	
LCS 280-519168/21	Lab Control Sample	Total/NA	Water	353.2	
280-142902-B-11 MS	Matrix Spike	Total/NA	Water	353.2	
280-142902-B-11 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Analysis Batch: 519259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	350.1	
280-143080-2	OBWL-TD-112020	Total/NA	Water	350.1	
MB 280-519259/57	Method Blank	Total/NA	Water	350.1	
LCS 280-519259/56	Lab Control Sample	Total/NA	Water	350.1	
280-143193-C-8 MS	Matrix Spike	Total/NA	Water	350.1	
280-143193-C-8 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 519431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	353.2	
280-143080-2	OBWL-TD-112020	Total/NA	Water	353.2	
MB 280-519431/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 519448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-2	OBWL-TD-112020	Total/NA	Water	410.4	
MB 280-519448/5	Method Blank	Total/NA	Water	410.4	
LCS 280-519448/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-519448/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-143080-2 MS	OBWL-TD-112020	Total/NA	Water	410.4	
280-143080-2 MSD	OBWL-TD-112020	Total/NA	Water	410.4	

Analysis Batch: 520192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	SM 5310B	
280-143080-2	OBWL-TD-112020	Total/NA	Water	SM 5310B	
MB 280-520192/9	Method Blank	Total/NA	Water	SM 5310B	

Eurofins TestAmerica, Denver

QC Association Summary

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

General Chemistry (Continued)

Analysis Batch: 520192 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-520192/8	Lab Control Sample	Total/NA	Water	SM 5310B	
280-143051-D-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-143051-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 520672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	300.0	
280-143080-2	OBWL-TD-112020	Total/NA	Water	300.0	
280-143080-2	OBWL-TD-112020	Total/NA	Water	300.0	
MB 280-520672/6	Method Blank	Total/NA	Water	300.0	
LCS 280-520672/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-520672/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-520672/3	Lab Control Sample	Total/NA	Water	300.0	
280-143032-A-13 MS	Matrix Spike	Total/NA	Water	300.0	
280-143032-A-13 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-143032-A-13 DU	Duplicate	Total/NA	Water	300.0	

Field Service / Mobile Lab

Analysis Batch: 518230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-143080-1	L-INF-112020	Total/NA	Water	Field Sampling	
280-143080-2	OBWL-TD-112020	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Client Sample ID: L-INF-112020

Lab Sample ID: 280-143080-1

Date Collected: 11/20/20 10:00

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	5 mL	5 mL	561110	11/28/20 02:25	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		20	25 mL	25 mL	561082	11/27/20 16:49	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:49	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518467	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6010D		1			519423	12/03/20 21:47	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/07/20 23:59	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 04:33	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:22	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 12:44	LMT	TAL DEN
Total/NA	Analysis	300.0		10	5 mL	5 mL	520672	12/16/20 12:56	CJ	TAL DEN
Total/NA	Analysis	350.1		100	10 mL	10 mL	519259	12/04/20 13:38	BWH	TAL DEN
Total/NA	Analysis	353.2		1			519431	12/07/20 09:05	SPG	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	519168	12/03/20 18:51	SVC	TAL DEN
Total/NA	Analysis	410.4		5	2 mL	2 mL	519055	12/03/20 09:37	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518549	11/25/20 20:58	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	150 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		5	20 mL	20 mL	520192	12/10/20 02:37	JMB	TAL DEN
Total/NA	Analysis	SM5210B		1	48 mL	300 mL	517720	11/22/20 08:59	BWH	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 11:00	C1A	TAL DEN

Client Sample ID: OBWL-TD-112020

Lab Sample ID: 280-143080-2

Date Collected: 11/20/20 09:00

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/28/20 02:51	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	561082	11/27/20 17:13	WJD	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	518473	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6010D		1			519179	12/04/20 01:53	MRJ	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518467	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6010D		1			519423	12/03/20 21:51	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	518478	12/02/20 15:40	EC	TAL DEN
Dissolved	Analysis	6020B		1			519616	12/08/20 00:03	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519749	12/09/20 04:59	LMT	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Waste Management
 Project/Site: WA02|Olympic View Sanitary LF -
 L-INF/OBWL-TD

Job ID: 280-143080-1

Client Sample ID: OBWL-TD-112020

Lab Sample ID: 280-143080-2

Date Collected: 11/20/20 09:00

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			519990	12/10/20 03:48	LMT	TAL DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	518462	12/02/20 15:40	EC	TAL DEN
Total Recoverable	Analysis	6020B		1			520148	12/11/20 13:10	LMT	TAL DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	520672	12/16/20 13:13	CJ	TAL DEN
Total/NA	Analysis	300.0		5	5 mL	5 mL	520672	12/16/20 13:31	CJ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	519259	12/04/20 13:40	BWH	TAL DEN
Total/NA	Analysis	353.2		1			519431	12/07/20 09:05	SPG	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	519168	12/03/20 19:05	SVC	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	519448	12/07/20 10:22	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			518691	11/30/20 17:40	RAF	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	517842	11/23/20 13:37	LEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	517887	11/23/20 17:46	SVC	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	520192	12/10/20 02:52	JMB	TAL DEN
Total/NA	Analysis	SM5210B		1			517720	11/22/20 08:59	BWH	TAL DEN
Total/NA	Analysis	Field Sampling		1			518230	11/20/20 10:00	C1A	TAL DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-143080-3

Date Collected: 11/20/20 09:00

Matrix: Water

Date Received: 11/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	561110	11/28/20 03:16	CRL	TAL BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	561082	11/27/20 17:37	WJD	TAL BUF

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200
 TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
 TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



22 December 2020

Betsy Sara
Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: OVSL

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
20K0340	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



20K0340

Chain of Custody Record

Denver Eurofins
#280

Client Information		Sampler: <u>DCB</u>		Carrier Tracking No(s):	
Client Contact: Betsy Sara		Lab PM: Sara, Betsy A		COC No: 280-29114-4071.1	
Company: Eurofins TestAmerica, Denver		E-Mail: Betsy.Sara@Eurofins.com		Page: Page 1 of 1	
Address: 4955 Yarrow Street		Due Date Requested:		Job #:	
City: Arvada		TAT Requested (days):		Analysis Requested	
State, Zip: CO, 80002		PO #:		Field Filtered Sample (Yes or No)	
Phone: 303-736-0189		WO #:		Perform MS/MSD (Yes or No)	
Email: Betsy.Sara@Eurofins.com		Project #: 28002692-Annual OBW-TB/L-INF App I/II - Dec		LL Total Arsenic (direct sub to ARI)	
Project Name: WA02/Olympic View Sanitary LF		SSOW#:		Total Number of Containers	
Site: Washington				Special Instructions/Note:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	LL Total Arsenic (direct sub to ARI)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
L-INF-112020	11/20/20	1000	G	W		X					
OBWL-TD-112020	11/20/20	0900	G	W		X					

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: Dawn Bann Date: 11/20/20 Company: Aspect

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Method of Shipment: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 22-Dec-2020 08:12
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L-INF-112020	20K0340-01	Water	20-Nov-2020 10:00	20-Nov-2020 12:15
OBWL-TD-112020	20K0340-02	Water	20-Nov-2020 09:00	20-Nov-2020 12:15

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 22-Dec-2020 08:12
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Work Order Case Narrative

Sample receipt

Samples as listed on the preceding page were received 20-Nov-2020 12:15 under ARI work order 20K0340. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Arsenic - EPA Method 200.8

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank was clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



WORK ORDER

20K0340

Client: Test America - Denver	Project Manager: Amanda Volgardsen Johnson
Project: OVSL	Project Number: 04204027.20

Report To: Test America - Denver Betsy Sara 4955 Yarrow Street Arvada, CO 80002 Phone: (303) 736-0100 Fax: (303) 431-7171	Invoice To: Test America - Denver Sample Receiving 4955 Yarrow Street Arvada, CO 80002 Phone : (303) 736-0100 Fax: (303) 431-7171
--	--

Date Due: 07-Dec-2020 18:00 (10 day TAT)	Date Received: 20-Nov-2020 12:15
Received By: Kenny Dang	Date Logged In: 20-Nov-2020 13:55
Logged In By: Kenny Dang	

Samples Received at: 1.9°C	
Intact, properly signed and dated custody seals attached to outside of cooler(s).....No	Custody papers included with the cooler..... Yes
Custody papers properly filled out (in, signed, analyses requested, etc).....Yes	Was a temperature blank included in the cooler..... No
Was sufficient ice used (if appropriate).....Yes	All bottles sealed in individual plastic bags..... No
All bottles arrived in good condition (unbroken).....Yes	All bottle labels complete and legible..... Yes
Number of containers listed on COC match number received.....Yes	Bottle labels and tags agree with COC..... Yes
Correct bottles used for the requested analyses.....Yes	All VOC vials free of air bubbles..... No
Analyses/bottles require preservation (attach preservation sheet excluding VOC).....Yes	Sufficient amount of sample sent in each bottle..... Yes
Sample split at ARI.....No	

20K0340-01 L-INF-112020 [Water] Sampled 20-Nov-2020 10:00

Met 200.8 - As 12/07/2020 10 5/19/2021

20K0340-02 OBWL-TD-112020 [Water] Sampled 20-Nov-2020 09:00

Met 200.8 - As 12/07/2020 10 5/19/2021

Preservation Confirmation

Container ID	Container Type	pH
20K0340-01 A	Miscellaneous container, 1:1 HN03	> 2 Fail
20K0340-02 A	Miscellaneous container, 1:1 HN03	< 2 Pass

Preservation Confirmed By KO Date 11/20/20



Cooler Receipt Form

ARI Client: Eurofins TA Denver

Project Name: WA02/Olympic View Sanitary

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 20K0340

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1215 1.9 _____

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO5206

Cooler Accepted by: KD Date: 11/20/20 Time: 1215

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI..... NA _____

Were the sample(s) split by ARI? YES NO Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD Date: 11/20/20 Time: 1355 Labels checked by: KD

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



WORK ORDER

20K0340

Client: Test America - Denver Project Manager: Amanda Volgardsen Johnson
Project: OVSL Project Number: 04204027.20

Report To: Test America - Denver
Betsy Sara
4955 Yarrow Street
Arvada, CO 80002
Phone: (303) 736-0100
Fax: (303) 431-7171

Invoice To: Test America - Denver
Sample Receiving
4955 Yarrow Street
Arvada, CO 80002
Phone: (303) 736-0100
Fax: (303) 431-7171

Date Due: 07-Dec-2020 18:00 (10 day TAT)
Received By: Kenny Dang Date Received: 20-Nov-2020 12:15
Logged In By: Kenny Dang Date Logged In: 20-Nov-2020 13:55

Samples Received at: 1.9°C

Intact, properly signed and dated custody seals attached to outside of cooler(s).....	No	Custody papers included with the cooler.....	Yes
Custody papers properly filled out (in, signed, analyses requested, etc).....	Yes	Was a temperature blank included in the cooler.....	No
Was sufficient ice used (if appropriate).....	Yes	All bottles sealed in individual plastic bags.....	No
All bottles arrived in good condition (unbroken).....	Yes	All bottle labels complete and legible.....	Yes
Number of containers listed on COC match number received.....	Yes	Bottle labels and tags agree with COC.....	Yes
Correct bottles used for the requested analyses.....	Yes	All VOC vials free of air bubbles.....	No
Analyses/bottles require preservation (attach preservation sheet excluding VOC).....	Yes	Sufficient amount of sample sent in each bottle.....	Yes
Sample split at ARI.....	No		

20K0340-01 L-INF-112020 [Water] Sampled 20-Nov-2020 10:00

Met 200.8 - As 12/07/2020 10 5/19/2021

20K0340-02 OBWL-TD-112020 [Water] Sampled 20-Nov-2020 09:00

Met 200.8 - As 12/07/2020 10 5/19/2021

Preservation Confirmation

Container ID	Container Type	pH
20K0340-01 A	Miscellaneous container, 1:1 HN03	> 2 Fail (1)
20K0340-02 A	Miscellaneous container, 1:1 HN03	< 2 Pass

KD
Preservation Confirmed By

11/20/20
Date

(1) Preserved to pH < 2.0 with
0.75 mL of conc. HNO₃ (I10976)
12/3/20 BC



Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 22-Dec-2020 08:12
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L-INF-112020
20K0340-01 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Instrument: ICPMS1	Analyst: MCB	Sampled: 11/20/2020 10:00
Sample Preparation:	Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	Preparation Batch: BIL0081	Analyzed: 12/04/2020 16:16
	Prepared: 12/03/2020	Sample Size: 100 mL	Extract ID: 20K0340-01 A 01
		Final Volume: 20 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.00628	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 22-Dec-2020 08:12
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OBWL-TD-112020
20K0340-02 (Water)

Metals and Metallic Compounds

Method: EPA 200.8	Instrument: ICPMS1	Analyst: MCB	Sampled: 11/20/2020 09:00
Sample Preparation:	Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x	Preparation Batch: BIL0081	Analyzed: 12/04/2020 16:09
	Prepared: 12/03/2020	Sample Size: 100 mL	Extract ID: 20K0340-02 A 01
		Final Volume: 20 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.000200	0.000967	mg/L	D





Test America - Denver 4955 Yarrow Street Arvada CO, 80002	Project: OVSL Project Number: 04204027.20 Project Manager: Betsy Sara	Reported: 22-Dec-2020 08:12
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Metals and Metallic Compounds - Quality Control

Batch BIL0081 - RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIL0081-BLK1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:33					
Arsenic	75a	ND	0.0000400	mg/L							U
LCS (BIL0081-BS1)						Prepared: 03-Dec-2020 Analyzed: 04-Dec-2020 15:38					
Arsenic	75a	0.00491	0.0000400	mg/L	0.00500		98.3	80-120			





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002

Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
22-Dec-2020 08:12

Certified Analyses included in this Report

Analyte	Certifications
EPA 200.8 in Water	
Arsenic-75a	NELAP,WADOE,DoD-ELAP
Arsenic-75a	NELAP,WA-DW,DoD-ELAP
Arsenic-75a	WADOE,WA-DW,DoD-ELAP
Arsenic-75a	NELAP,WADOE,WA-DW,DoD-ELAP
Arsenic-75b	NELAP
Arsenic-75b	NELAP
Arsenic-75b	
Arsenic-75b	NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021





Test America - Denver
4955 Yarrow Street
Arvada CO, 80002


Project: OVSL
Project Number: 04204027.20
Project Manager: Betsy Sara

Reported:
22-Dec-2020 08:12

Notes and Definitions

- D The reported value is from a dilution
- J Estimated concentration value detected below the reporting limit.
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.



Client Information Sampler: <u>DCB</u> Lab PM: Sara, Betsy A Phone: E-Mail: Betsy.Sara@Eurofinset.com		COC No: 280-29114-4071.1 Page: Page 1 of 1 Job #:	
Company: Olympic View Transfer Station Address: 9300 Southwest Barney White Road City: Bremerton State, Zip: WA, 98312 Phone: Email:		Analysis Requested Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 28002692-Annual OBW-TBL-INF App /III-DEC SSOW#:	
Sample Identification L-INF-112020 OBWL-TP-112020		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 8260C - VOA <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S 8260C SIM - Vinyl chloride <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S Dissolved Metals <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S Ammonia/NOX/TTOC/COD <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S LL Total Arsenic (direct sub to ARI) <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S Biochemical Oxygen Demand (BOD) <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S Total Metals <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S TSS <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> S	
Sample Date: 11/20/20 Sample Time: 1000 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, Asst): W		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date: 11/20/20 Sample Time: 0900 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, Asst): W		Special Instructions/Note: short hold: Nitrate (353.2-cad) and BOD LL Total As is direct ship to ARI	
Total Number of containers: <input checked="" type="checkbox"/>			
Barcode:  280-143080 Chain of Custody			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by: _____ Date: _____			
Relinquished by: <u>Dylon Brannan</u> Date/Time: 11/20/20 1100 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____		Received by: <u>Scott Hall</u> Date/Time: 11/20/20 0945 Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 0.9 PPA 11-0-3	
Custody Seal No.: 1068048 1068049		Company: <u>ETA Denver</u> Company: _____ Company: _____	



FIELD INFORMATION FORM



Site Name: WM-0VSL
 Site No.:
 Sample Point: L-1NF
L-1NF Sample # 112020

This Waste Management Field Information Form is Required
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO
 PURGE DATE (MM DD YY): 11/20/20
 PURGE TIME (2400 Hr Clock): 10:00
 ELAPSED HRS (hrs:min):
 WATER VOL IN CASING (Gallons):
 ACTUAL VOL PURGED (Gallons):
 WELL VOLS PURGED:

PURGE/SAMPLE EQUIPMENT
 Purging and Sampling Equipment... Dedicated: Y or N
 Purging Device: B (Submersible Pump) or D (Bailer)
 Sampling Device: B (Peristaltic Pump) or C (QED Bladder Pump) or F (Dipper/Bottle)
 X-Other: _____
 Filter Device: Y or N. 0.45 μ or _____ μ (circle or fill in)
 Filter Type: _____
 A-In-line Disposable B-Pressure C-Vacuum X-Other: _____
 A-Teflon B-Stainless Steel C-PVC D-Polypropylene X-Other: _____
 Sample Tube Type: _____

WELL DATA
 Well Elevation (at TOC) (ft/msl):
 Depth to Water (DTW) (from TOC) (ft):
 Groundwater Elevation (site datum, from TOC) (ft/msl):
 Total Well Depth (from TOC) (ft):
 Stick Up (from ground elevation) (ft):
 Casing ID (in): Casing Material: _____

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
<u>10:00</u>	<u>1st</u>	<u>7.11</u>	<u>5228</u>	<u>12.1</u>	<u>4.2</u>	<u>1.2</u>	<u>-36.5</u>	<u> </u>
:	<u>2nd</u>							
:	<u>3rd</u>							
:	<u>4th</u>							
:								
:								
:								
:								
:								
:								
:								

Suggested range for 3 consec. readings or note Permit/State requirements:
 pH: +/- 0.2
 Conductance: +/- 3%
 Temp: --
 Turbidity: --
 D.O.: +/- 10%
 eH/ORP: +/- 25 mV
 DTW: Stabilize

FIELD DATA
 SAMPLE DATE (MM DD YY): 11/20/20
 pH (std): 7.11
 CONDUCTANCE (μmhos/cm @ 25°C): 5228
 TEMP. (°C): 12.1
 TURBIDITY (ntu): 4.2
 DO (mg/L-ppm): 1.2
 eH/ORP (mV): -36.5
 Other: _____
 Units: _____

Sample Appearance: clear Odor: N/A Color: yellow Other: _____
 Weather Conditions (required daily, or as conditions change): _____ Direction/Speed: 0mph Outlook: cloudy Precipitation: Y or N
 Specific Comments (including purge/well volume calculations if required): _____

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
11/20/20 Dylan Branscum Dylan Benn Aspect Consulting
 Date Name Signature Company

FIELD INFORMATION FORM



Site Name: WM-OUVL

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

Site No.: _____
Sample Point: OBWL-TD
Sample ID: OBWL-TD-112020

PURGE INFO	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLS PURGED
	<u>11/20/20</u>	<u>09:00</u>	<u>09:00</u>	<u> </u>	<u> </u>	<u> </u>

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

Purging and Sampling Equipment... Dedicated: Y or N

Filter Device: Y or N | 0.45 μ or μ (circle or fill in)

Purging Device: B | A-Submersible Pump | D-Bailer
 B-Peristaltic Pump | E-Piston Pump

Filter Type: A-In-line Disposable | C-Vacuum
 B-Pressure | X-Other _____

Sampling Device: B | C-QED Bladder Pump | F-Dipper/Bottle

X-Other: _____

Sample Tube Type: A-Teflon | C-PVC | X-Other: _____
 B-Stainless Steel | D-Polypropylene

WELL DATA	Well Elevation (at TOC) (ft/msl)	Depth to Water (DTW) (from TOC) (ft)	Groundwater Elevation (site datum, from TOC) (ft/msl)
	<u> </u>	<u> </u>	<u> </u>
	Total Well Depth (from TOC) (ft)	Stick Up (from ground elevation) (ft)	Casing ID (in) Casing Material
	<u> </u>	<u> </u>	<u> </u> <u> </u>

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
		<u>09:00</u>	<u>1st</u>	<u>7.62</u>	<u>599.4</u>	<u>9.5</u>	<u>3.2</u>	<u>10.5</u>	<u>14.0</u>
	<u> </u>	<u>2nd</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u>3rd</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u>4th</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Suggested range for 3 consec. readings or note Permit/State requirements:

pH	Conductance	Temp.	Turbidity	D.O.	eH/ORP	DTW
<u>+/- 0.2</u>	<u>+/- 3%</u>	<u>-</u>	<u>-</u>	<u>+/- 10%</u>	<u>+/- 25 mV</u>	<u>Stabilize</u>

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. **If more fields above are needed, use separate sheet or form.**

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ mhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L - ppm)	eH/ORP (mV)	Other: Units
<u>11/20/20</u>	<u>7.62</u>	<u>599.4</u>	<u>9.5</u>	<u>3.2</u>	<u>10.5</u>	<u>14.0</u>	<u> </u>

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.)

Sample Appearance: clear | Odor: none | Color: clear | Other: _____

Weather Conditions (required daily, or as conditions change): _____ | Direction/Speed: 0mph | Outlook: Cloudy, 45°F | Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required): _____

FIELD COMMENTS

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

11/20/20 | Dylan Branscura | Dylan Branscura | Aspect Consulting

Date | Name | Signature | Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy



280-143080 Waybill



RT 579
F 16:30
A 9857 11:17
6 16:30
A 9857 11:17

ORIGIN ID:WHHA (303) 736-0100
BOTTLE PREP

SHIP DATE: 13NOV20
ACTWT: 52.50 LB

ORIGIN ID:SEAA

SHIP DATE: 20NOV20
ACTWT: 52.50 LB
CAD: 789FE2121
DIMS: 24x13x14 IN

**SAMPLE RECEIVING
TESTAMERICA
4955 YARROW ST**

ARVADA CO 80002
(303) 420-3395 REF:

(US)

DR S



livery

151966 10/04 MWI

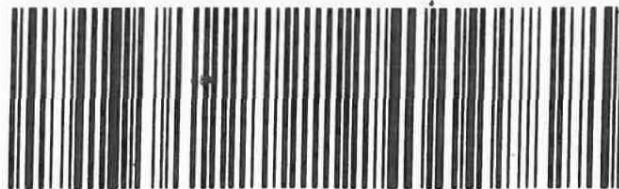
FedEx® Saturday Delive

TRK# 8156 5958 1066
0667

PRIORITY OVERNIGHT

XO LAAA

80002
CO-US **DEN**



Peel here and attach label to package.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-548296.1
Client Contact:		E-Mail:	Betsy.Sara@Eurofinset.com	State of Origin:	Washington
Shipping/Receiving		Page 1 of 1			
Company:		Job #:			
TestAmerica Laboratories, Inc.		280-143080-1			
Address:		Preservation Codes:			
10 Hazelwood Drive,		A - HCL			
City:		M - Hexane			
Amherst		N - None			
State, Zip:		O - AsNaO2			
NY, 14228-2298		C - Zn Acetate			
Phone:		D - Nitric Acid			
716-691-2600(Tel) 716-691-7991(Fax)		E - NaHSO4			
Email:		Q - Na2SO3			
		R - Na2S2O3			
		S - H2SO4			
		T - TSP Dodecahydrate			
		H - Ascorbic Acid			
		I - Ice			
		J - DI Water			
		U - MCAA			
		K - EDTA			
		W - pH 4-5			
		L - EDA			
		Other:			
Project Name:		Analysis Requested			
WA02[Olympic View Sanitary LF		Perform MS/MSD (Yes or No)			
Site:		Field Filtered Sample (Yes or No)			
WA02[Olympic View Sanitary LF		8260C SIM/5030C (MOD) Local Method			
		8260C SIM/5030C (MOD) Appendix II Volatiles			
		Total Number of Containers			
		Special Instructions/Note:			
Sample Identification - Client ID (Lab ID)					
L-INF-112020 (280-143080-1)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, BT=TISSUE, A=Air)	
	11/20/20	10:00 Pacific		Water	6
OBWL-TD-112020 (280-143080-2)	11/20/20	09:00 Pacific		Water	6
TRIP BLANK (280-143080-3)	11/20/20	09:00 Pacific		Water	2
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 11/24/20 16:00			
Relinquished by:		Date/Time:			
Relinquished by:		Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 7.2 # ICE			

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.



Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143080-1

Login Number: 143080

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	No: Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-143080-1

Login Number: 143080

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

List Creation: 11/25/20 04:54 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2 ICE IR GUN #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	



Appendix C

2020 Annual Time Series, Trend Test, & Predication Limit Evaluation



Olympic View Sanitary Landfill

Annual Statistical Evaluation & Summary

2020 Monitoring Year

Prepared for:

SCS ENGINEERS

2405 140th Ave NE, Ste 107
Bellevue, Washington 98005
(425) 746-4600

Prepared by:

GeoChem Applications
Geochemical and Statistical Data Analysis

3941 Park Drive, Suite 20-249
El Dorado Hills, CA 95762
916 ♦ 939 ♦ 2307
www.geochemapplications.com

MARCH 2021

CONTENTS:

1. *Statistical Trend Analysis (showing status through Q4 2020)*
 2. *Prediction Limits for Detection Monitoring*
 - a. *2020 Prediction Limits (showing status through Q4 2020)*
 - b. *Updated Prediction Limits for Use in 2021 Monitoring Year*
 3. *2020 Annual UCL Calculations for Preliminary Groundwater Cleanup Goals*
-

1. **Statistical Trend Analysis**

- Trend Results Summary Table (showing status through Q4 2020) (Table 1-1)
- Time-Series Graphs Depicting Significant Trends for “Trend Test A”
- Time-Series Graphs Depicting Significant Trends for “Trend Test B”

TABLE 1-1

Results of Sen's Non-Parametric Test for Trend

FOURTH QUARTER 2020

Trend Test Period: January 2005 through December 2020

Trend Test Wells:

- Compliance Wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
- Performance Wells: MW-19C
- Downgradient Wells: MW-29A, MW-32, MW-33A, MW-33C, MW-36A
- Upgradient Wells* MW-13A, MW-13B, MW-16, MW-35

*trend status shown is based on most recent event with reported data, as shown

Trend Test A = all organic parameters listed in Appendix I and Appendix II of WAC 173-351-990 that have been detected at least once in at least one of 16 wells comprising the network of 1) compliance, 2) performance, 3) downgradient, and 4) upgradient site monitoring wells, during the trend test period. This includes the following constituents:

	Significant Increasing Trends	Significant Decreasing Trends
1,2-Dichloroethene (total)	None	None
1,2-Dichlorobenzene	None	None
1,4-Dichlorobenzene	None	None
2-Butanone (MEK)	None	None
Acetone	None	None
Carbon Disulfide	None	None
Chlorobenzene	None	None
Chlorodifluoromethane	None	None
Chloroform	None	None
Chloromethane	None	None
cis-1,2-dichloroethene	None	None
Dichlorodifluoromethane	None	None
Dichlorofluoromethane	None	None
Ethyl Ether	None	None
Methylene Chloride	None	None
Naphthalene	None	None
n-Butyl Alcohol	None	None
tert-Butyl Alcohol	None	None
Tetrahydrofuran	None	None
trans-1,2-Dichloroethene	None	None
Trichloroethene	None	MW-19C (graph 325)
Vinyl Chloride	None	MW-19C (graph 341) MW-32 (graph 343) MW-34C (graph 347)

TABLE 1-1

Trend Test B = all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)

	Significant Increasing Trends	Significant Decreasing Trends
Alkalinity, bicarbonate (as CaCO ₃)	MW-13B (graph 2) MW-35 (graph 12)	MW-15R (graph 3) MW-34A (graph 10) MW-34C (graph 11) MW-36A (graph 13) MW-42 (graph 15)
Alkalinity, total (as CaCO ₃)	MW-13B (graph 18) MW-35 (graph 28)	MW-15R (graph 19) MW-34A (graph 26) MW-34C (graph 27) MW-36A (graph 29) MW-42 (graph 31)
Ammonia (as N)	None	MW-19C (graph 37) MW-29A (graph 38) MW-43 (graph 48)
Antimony, total	None	None
Arsenic, total	MW-33C (graph 73) MW-42 (graph 79)	MW-19C (graph 69)
Barium, total	None	MW-15R (graph 83)
Beryllium, total	None	None
Cadmium, total	None	None
Calcium, dissolved	None	MW-15R (graph 131) MW-29A (graph 134) MW-34A (graph 138) MW-34C (graph 139) MW-36A (graph 141)
Chloride	MW-39 (graph 158)	MW-13B (graph 146) MW-15R (graph 147) MW-16 (graph 148) MW-19C (graph 149) MW-33A (graph 152) MW-34A (graph 154) MW-34C (graph 155)
Chromium, total	None	None
Cobalt, total	None	None
Copper, total	None	None
Iron, total	None	None
Lead, total	None	None

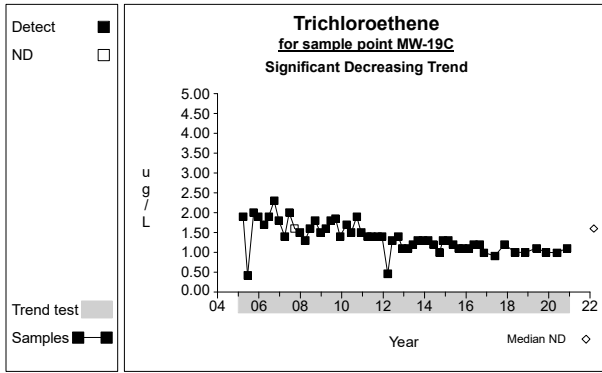
TABLE 1-1

Magnesium, dissolved	None	MW-15R (graph 243) MW-16 (graph 244) MW-33A (graph 248) MW-34A (graph 250) MW-34C (graph 251) MW-42 (graph 255)
Manganese, total	None	MW-15R (graph 259) MW-42 (graph 271) MW-43 (graph 272)
Nickel, total	None	None
Nitrate (as N)	MW-35 (graph 300)	None
pH	MW-32 (graph 311) MW-34C (graph 315) MW-42 (graph 319)	MW-34A (graph 314)
Potassium, dissolved	MW-42 (graph 335)	None
Selenium, total	None	None
Silver, total	None	None
Sodium, dissolved	None	MW-15R (graph 371) MW-19C (graph 373) MW-32 (graph 375) MW-34A (graph 378) MW-34C (graph 379) MW-36A (graph 381) MW-42 (graph 383) MW-43 (graph 384)
Specific Conductivity	MW-13B (graph 386) MW-33C (graph 393) MW-35 (graph 396)	MW-15R (graph 387) MW-33A (graph 392) MW-34A (graph 394) MW-34C (graph 395)
Sulfate	None	MW-13A (graph 401) MW-13B (graph 402) MW-19C (graph 405) MW-32 (graph 407) MW-42 (graph 415)
Temperature	MW-34A (graph 426) MW-34C (graph 427)	None
Thallium, total	None	None
Total Dissolved Solids	None	MW-15R (graph 451) MW-33A (graph 456) MW-34A (graph 458) MW-34C (graph 459)
Total Organic Carbon	None	MW-34C (graph 475)

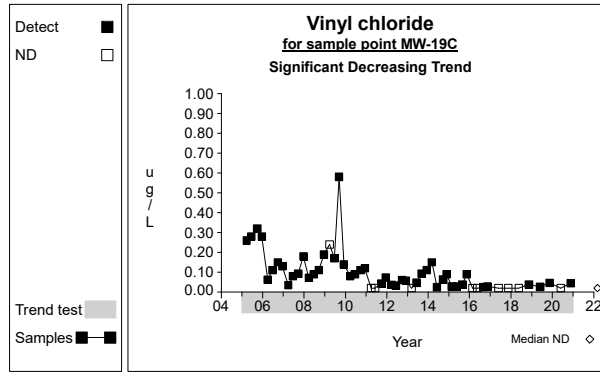
TABLE 1-1

Vanadium, total	None	MW-36A (graph 493)
Zinc, total	None	None

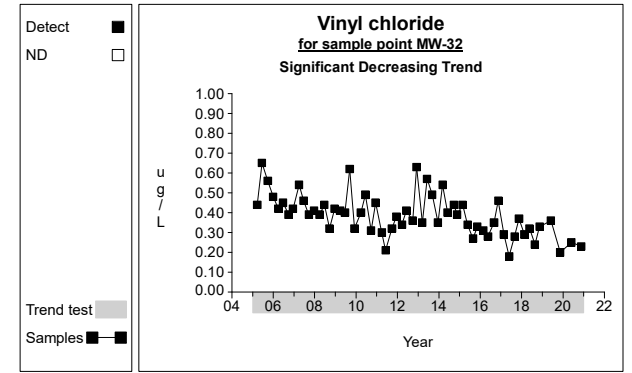
Time Series



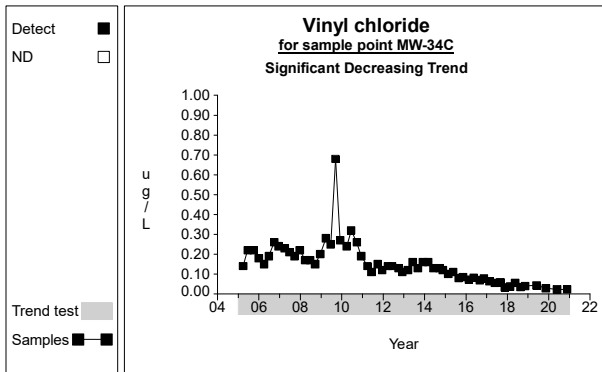
Graph 325



Graph 341

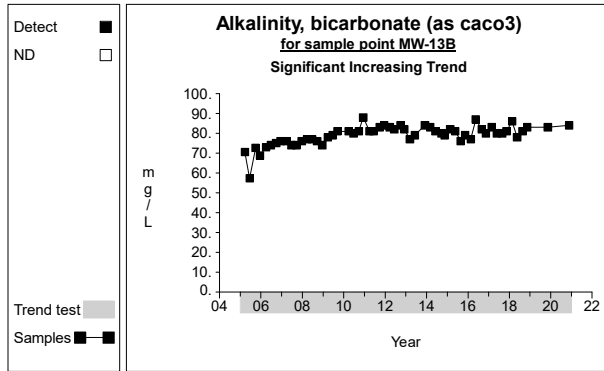


Graph 343

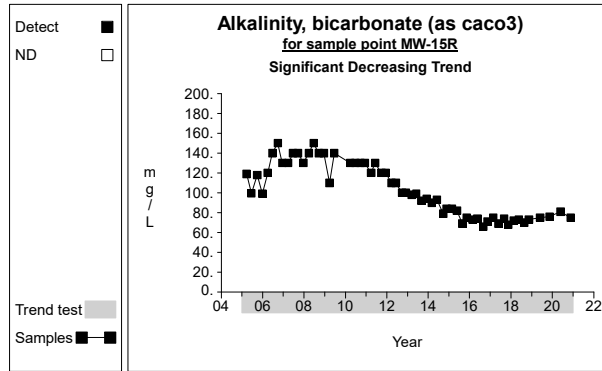


Graph 347

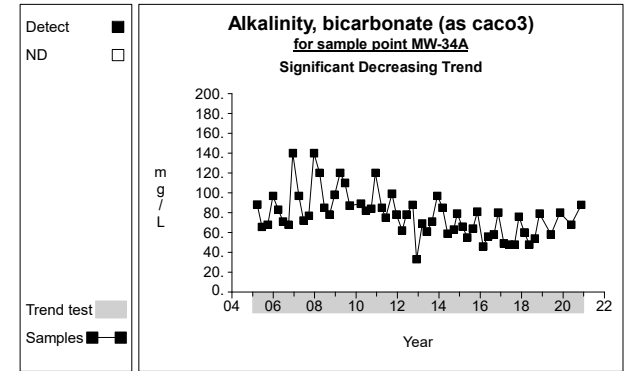
Time Series



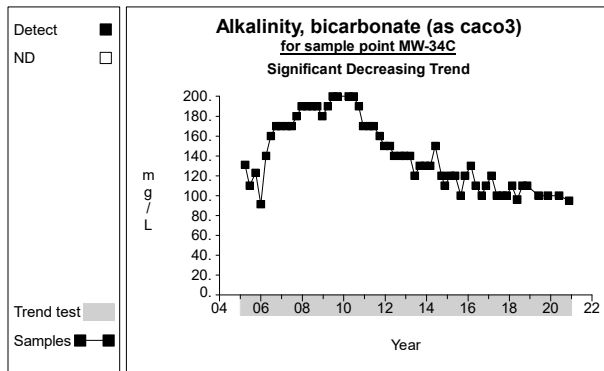
Graph 2



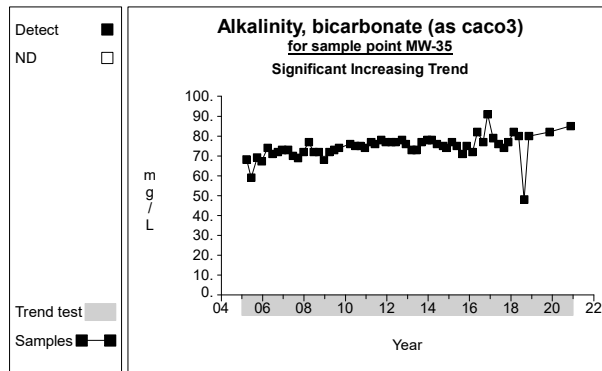
Graph 3



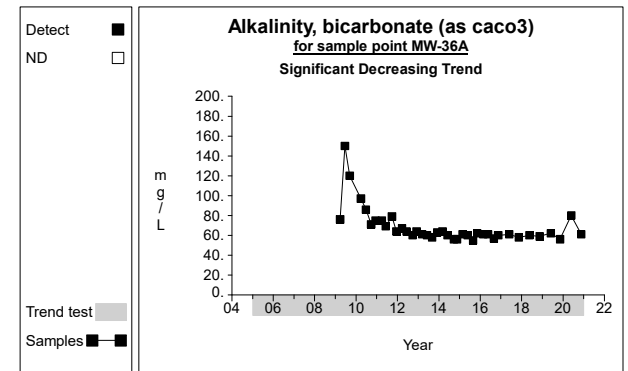
Graph 10



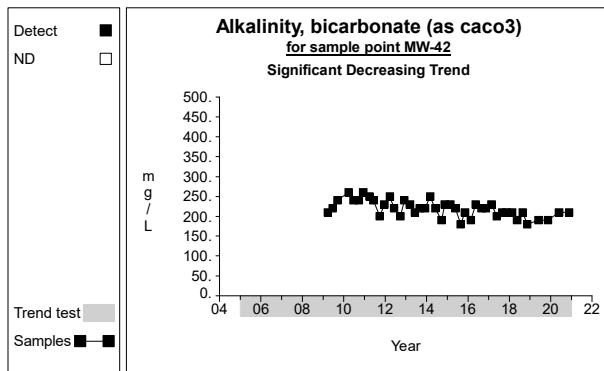
Graph 11



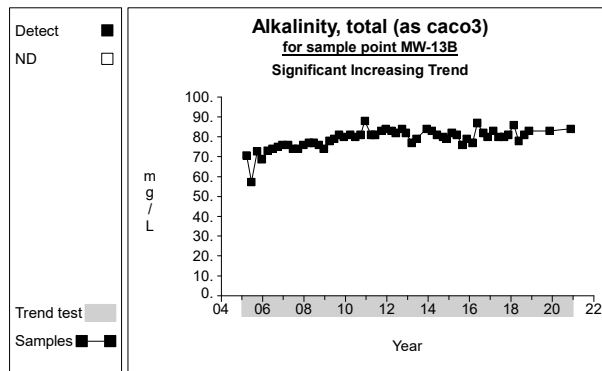
Graph 12



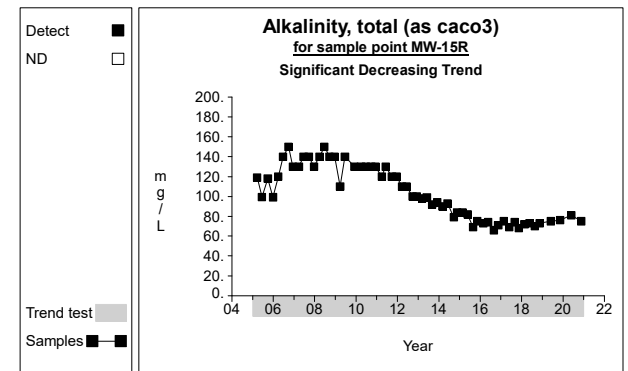
Graph 13



Graph 15

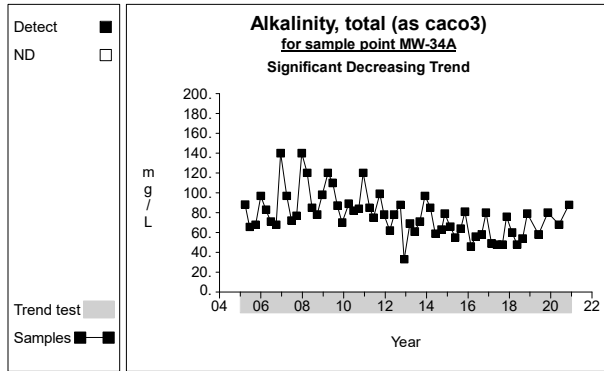


Graph 18

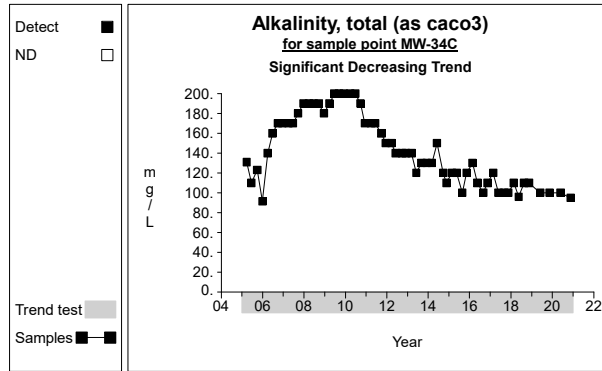


Graph 19

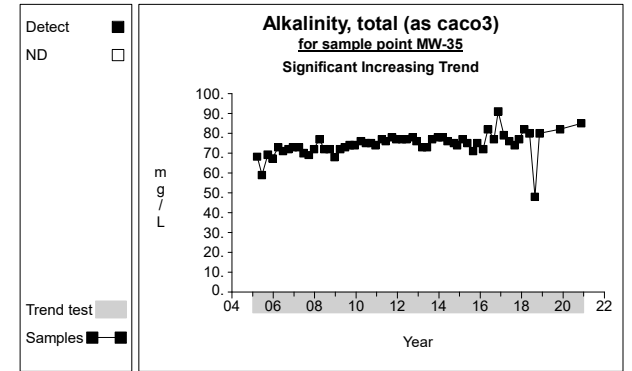
Time Series



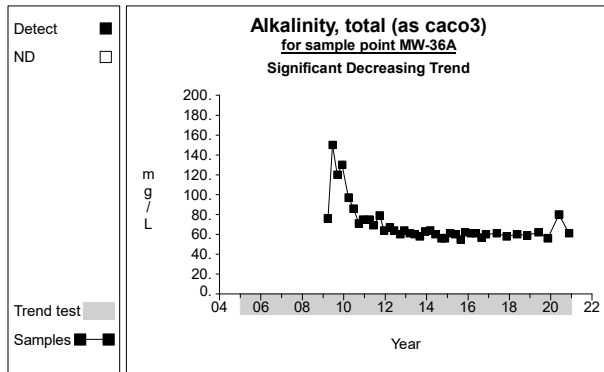
Graph 26



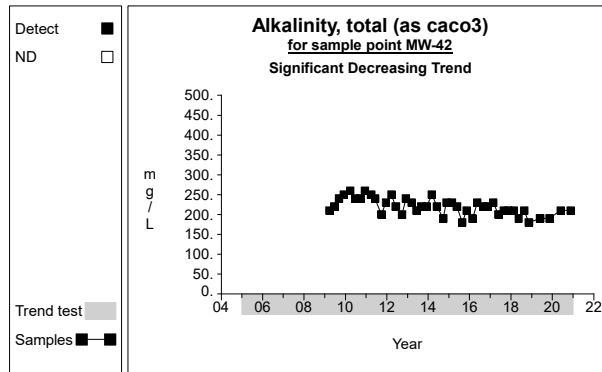
Graph 27



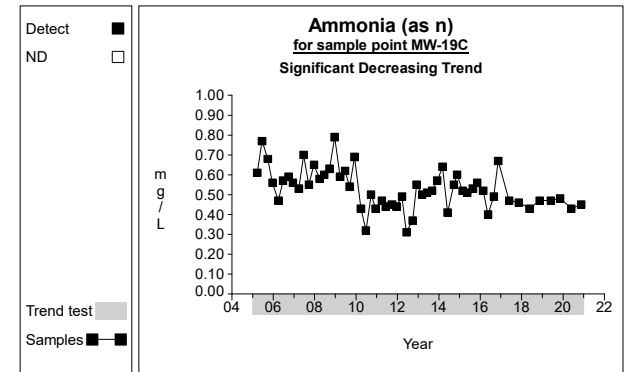
Graph 28



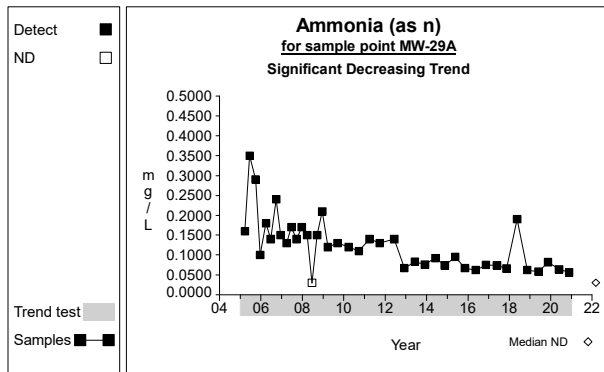
Graph 29



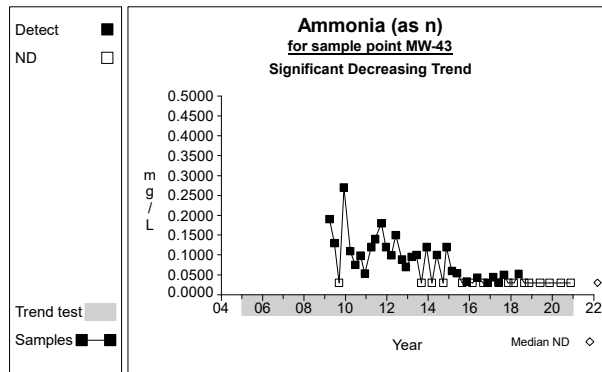
Graph 31



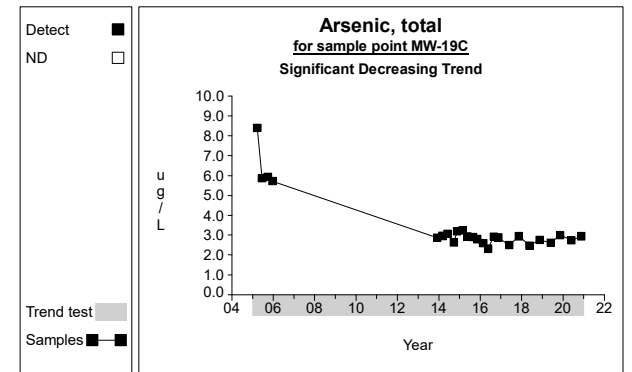
Graph 37



Graph 38

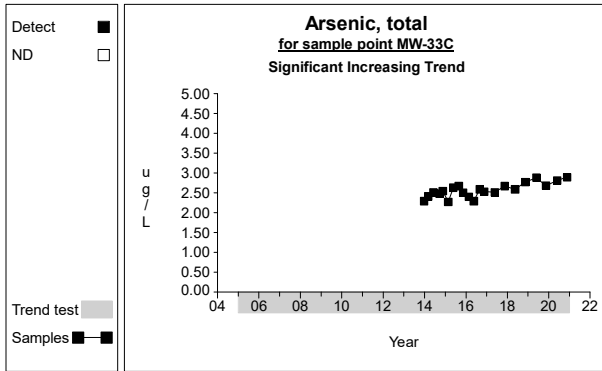


Graph 48

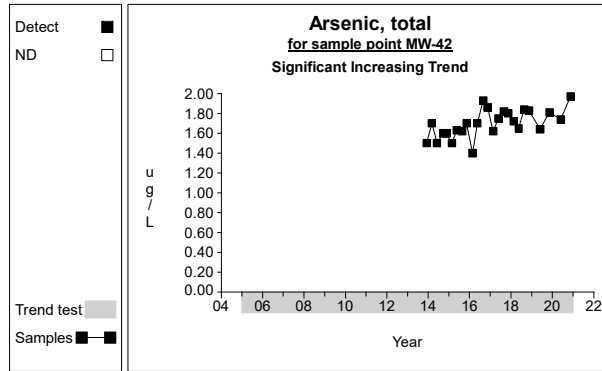


Graph 69

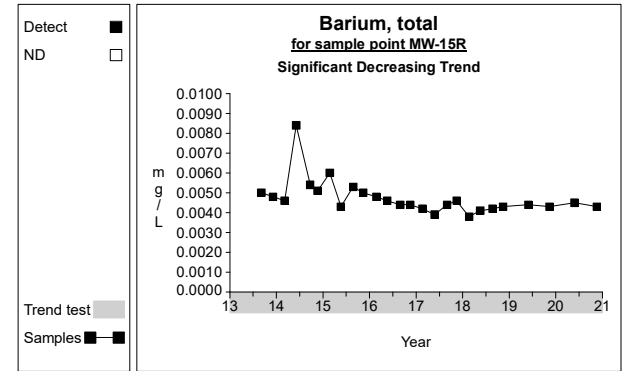
Time Series



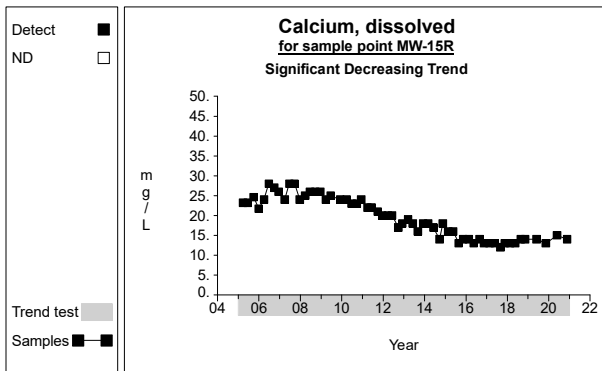
Graph 73



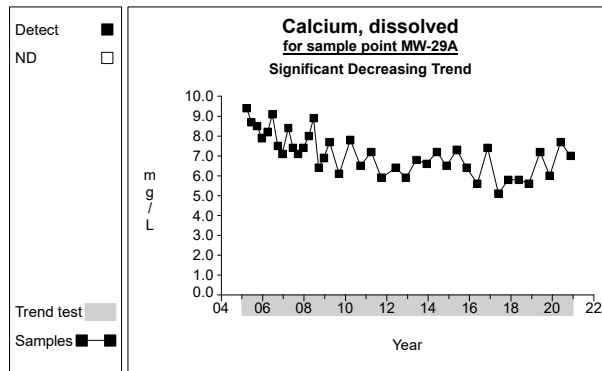
Graph 79



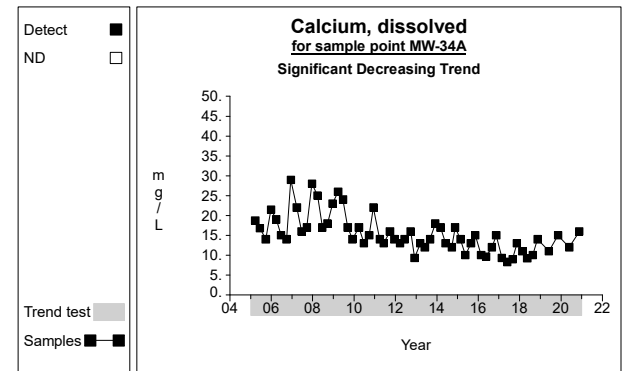
Graph 83



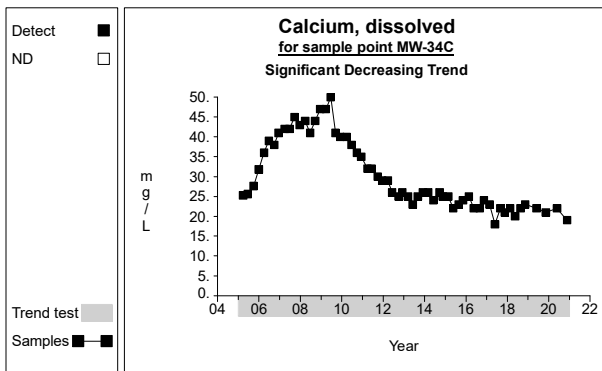
Graph 131



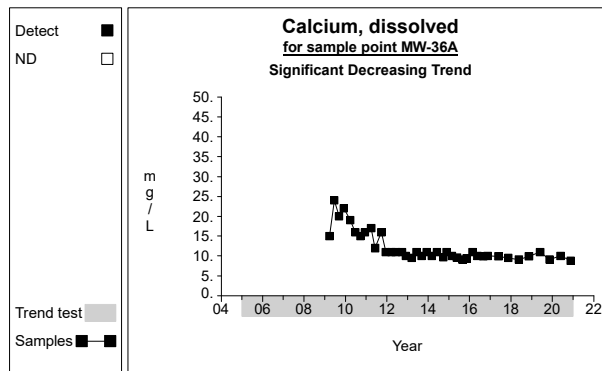
Graph 134



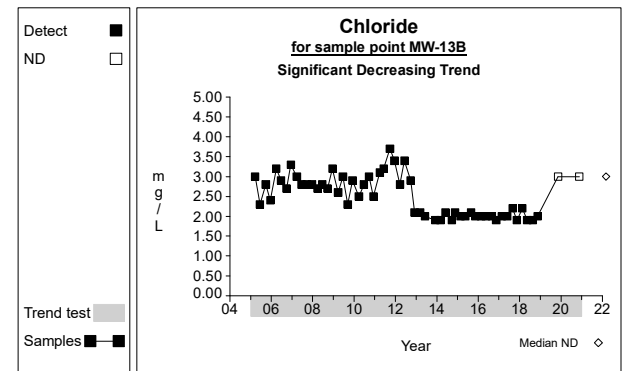
Graph 138



Graph 139

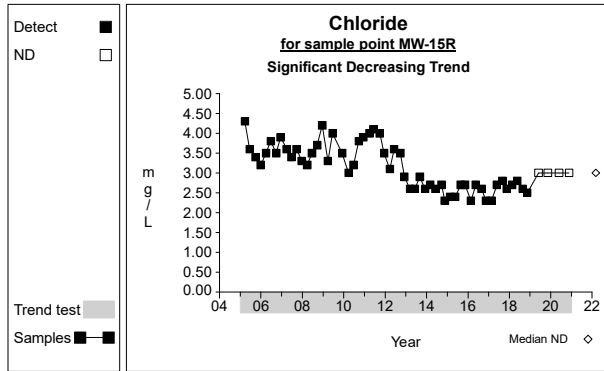


Graph 141

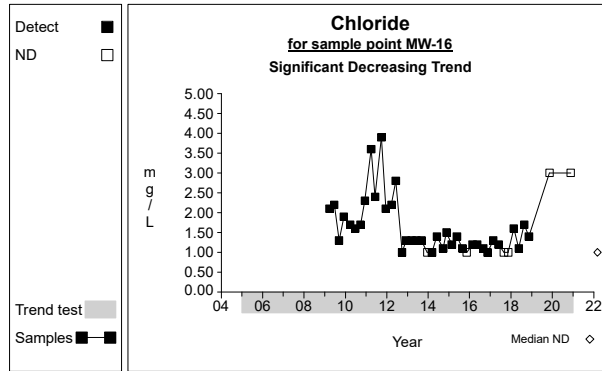


Graph 146

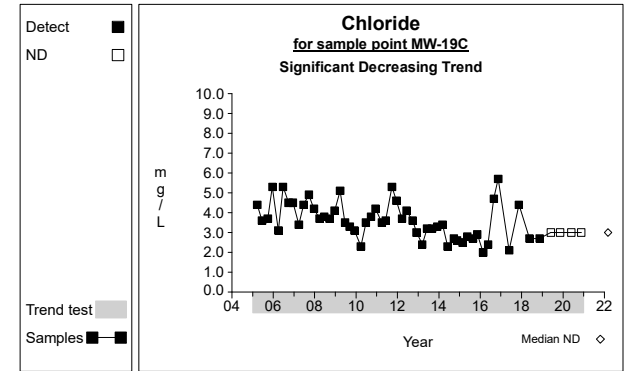
Time Series



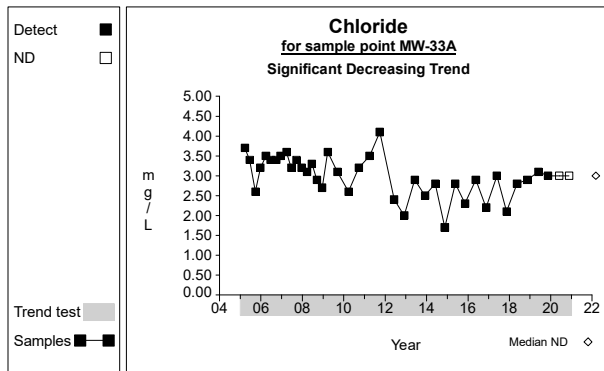
Graph 147



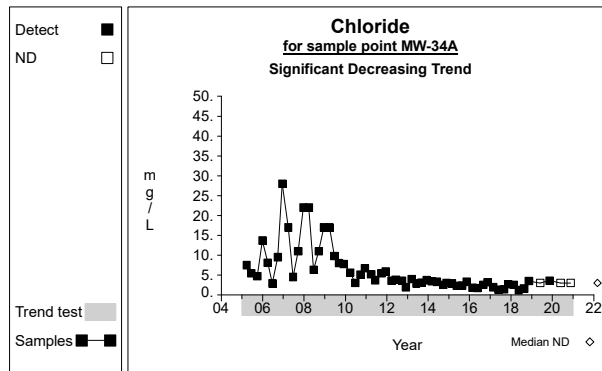
Graph 148



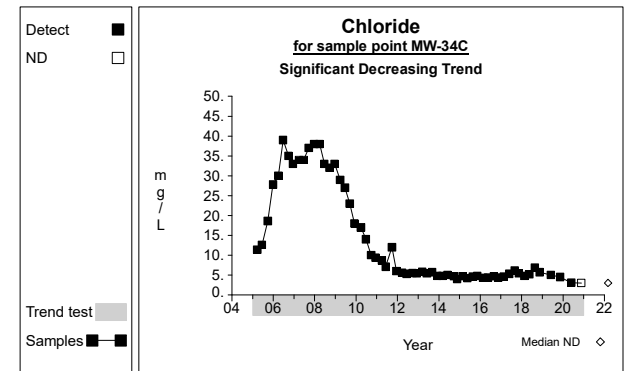
Graph 149



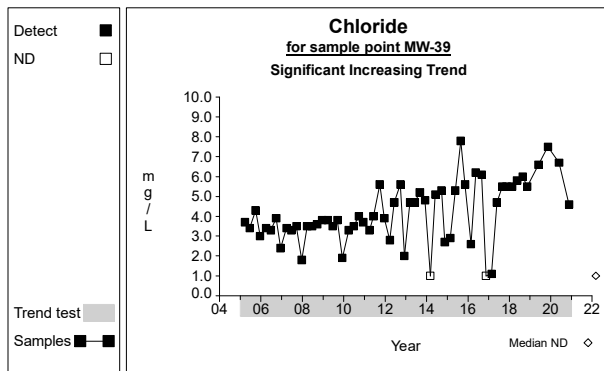
Graph 152



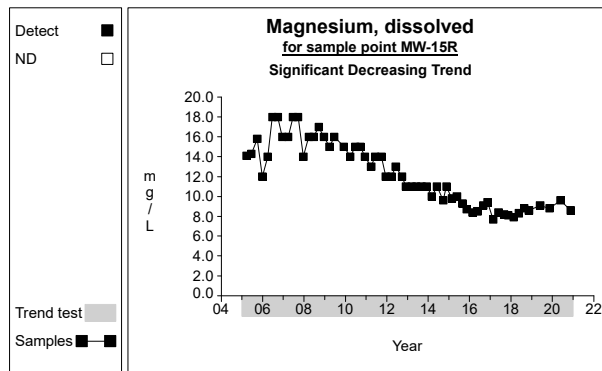
Graph 154



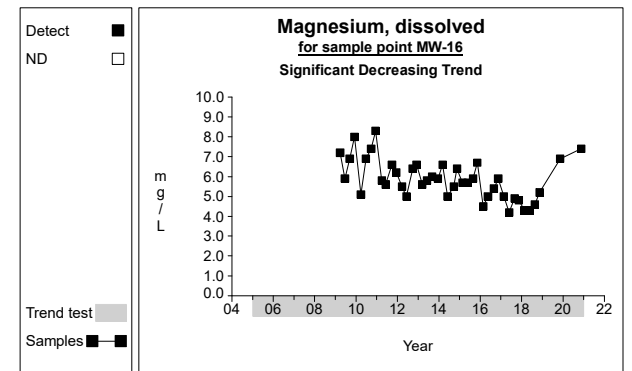
Graph 155



Graph 158

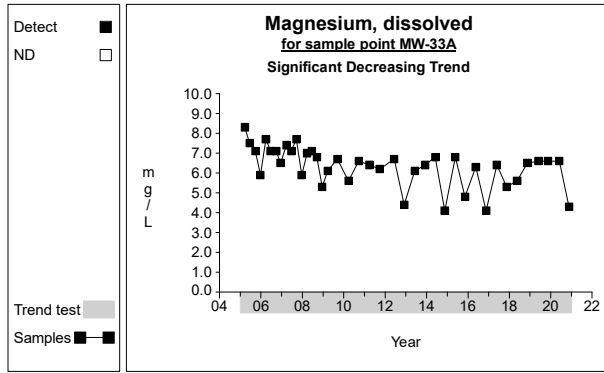


Graph 243

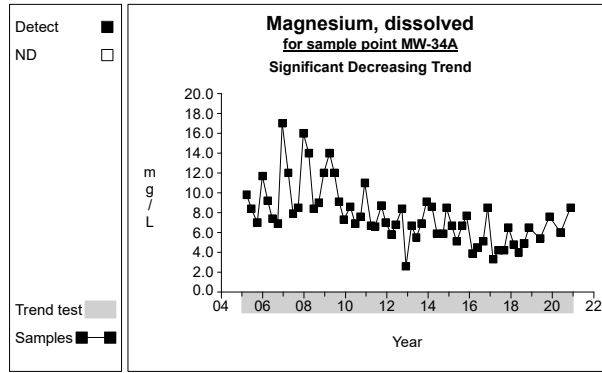


Graph 244

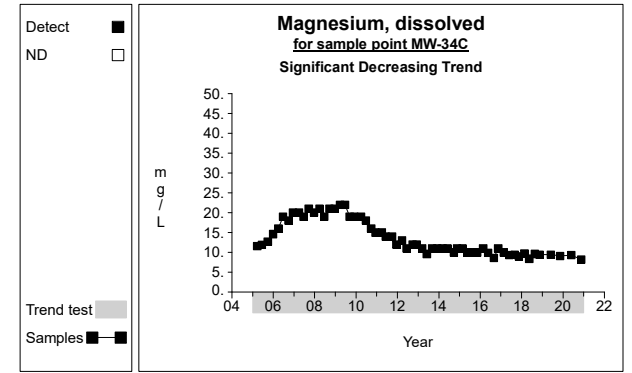
Time Series



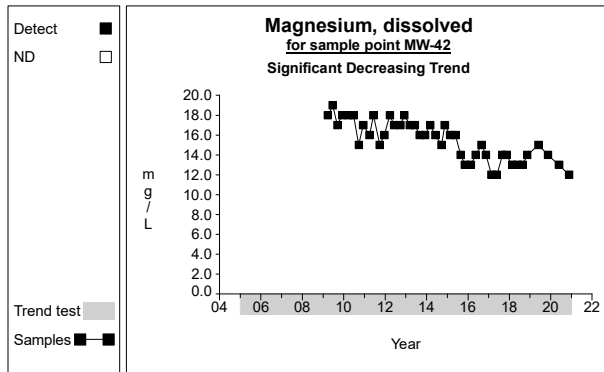
Graph 248



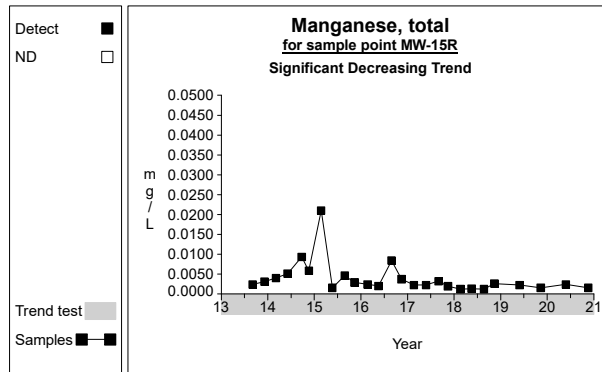
Graph 250



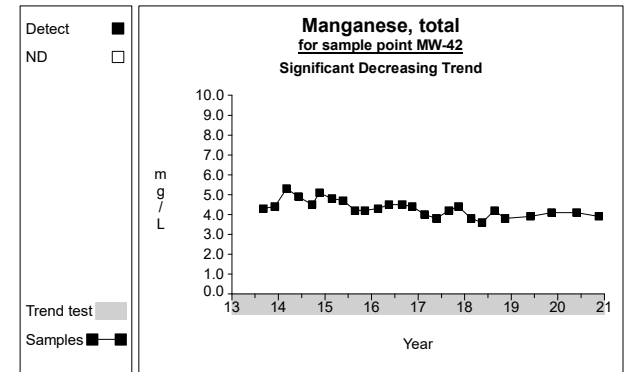
Graph 251



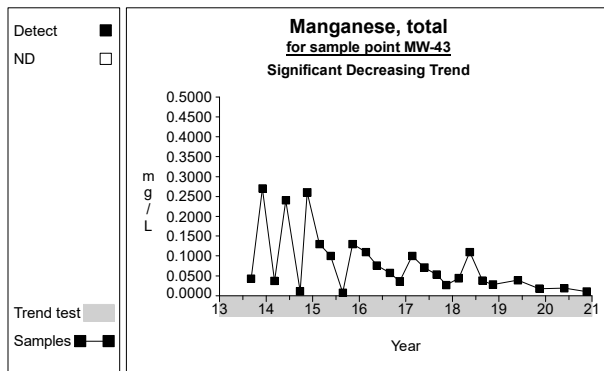
Graph 255



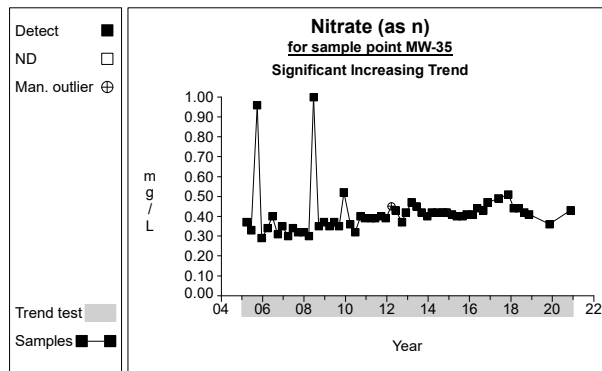
Graph 259



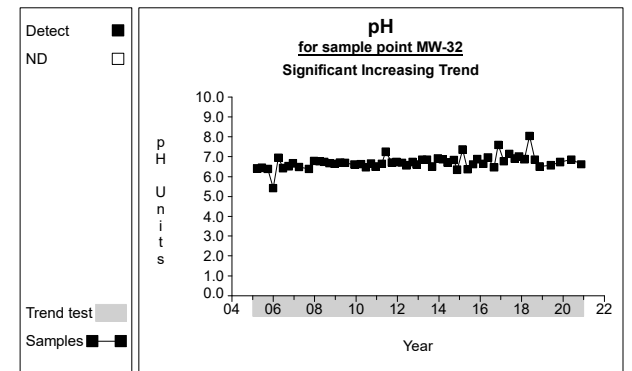
Graph 271



Graph 272

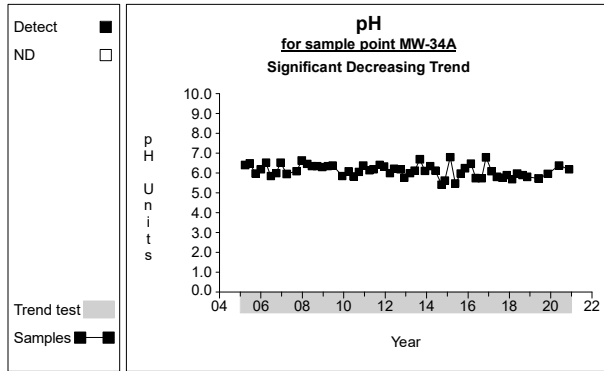


Graph 300

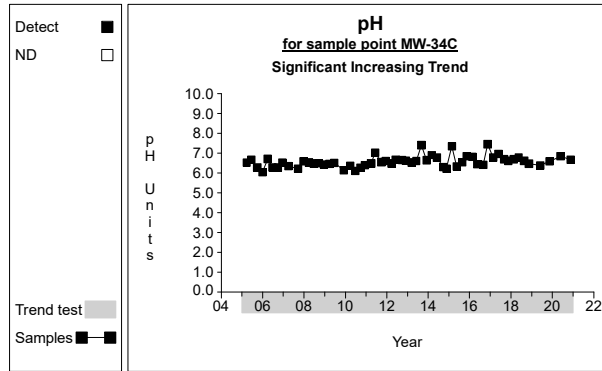


Graph 311

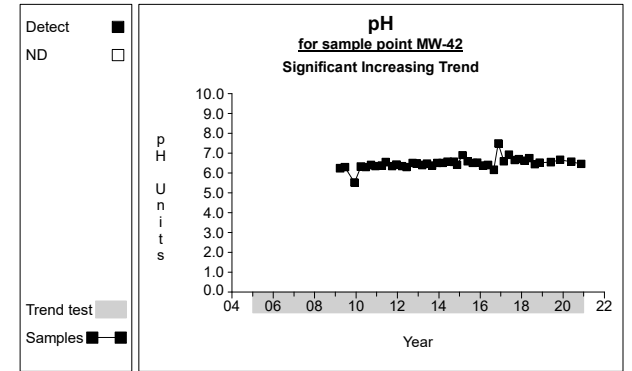
Time Series



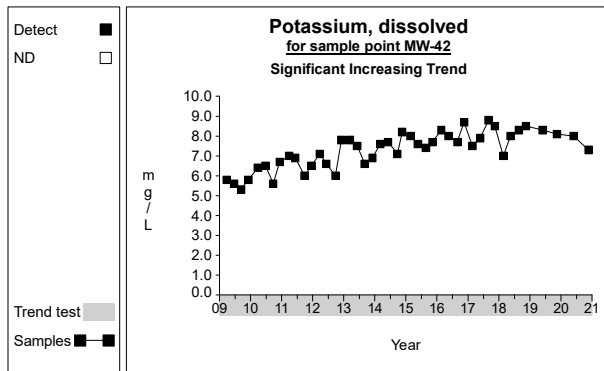
Graph 314



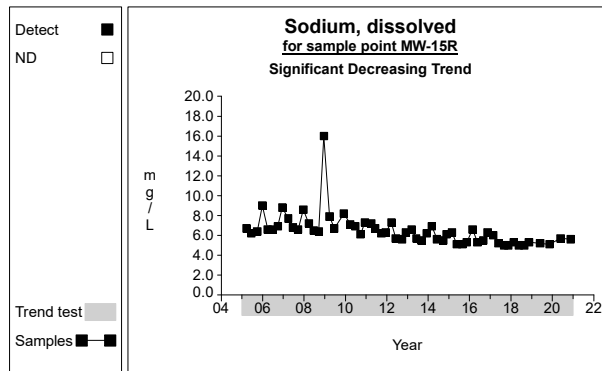
Graph 315



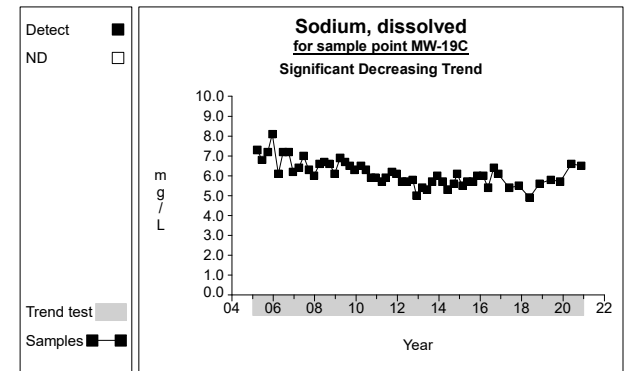
Graph 319



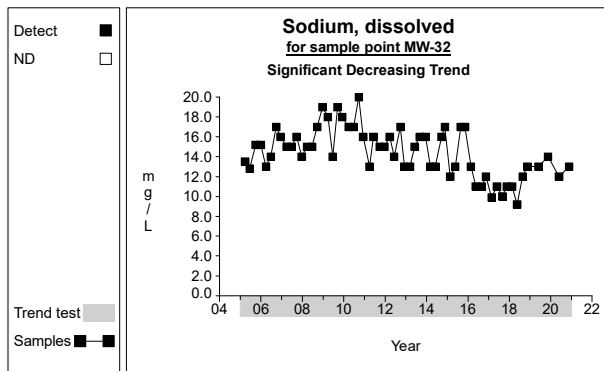
Graph 335



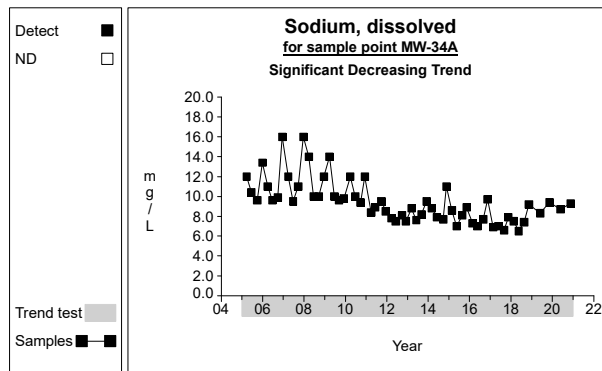
Graph 371



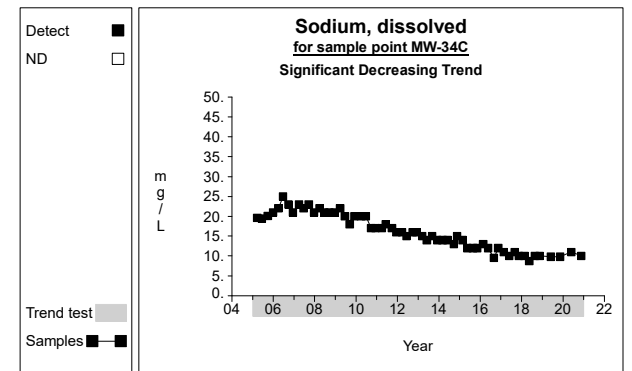
Graph 373



Graph 375

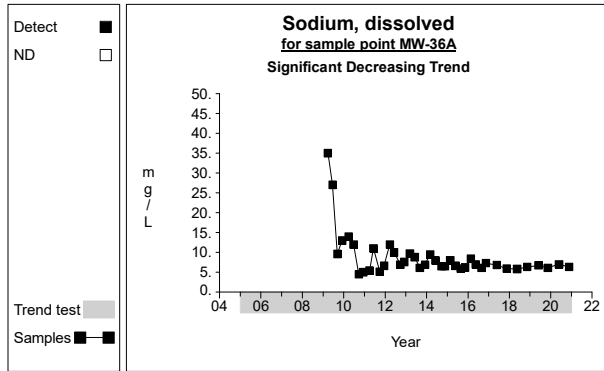


Graph 378

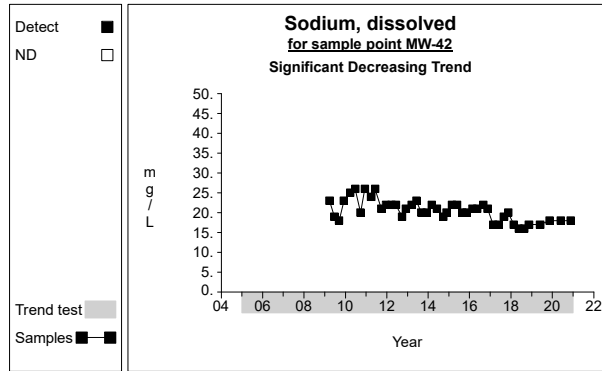


Graph 379

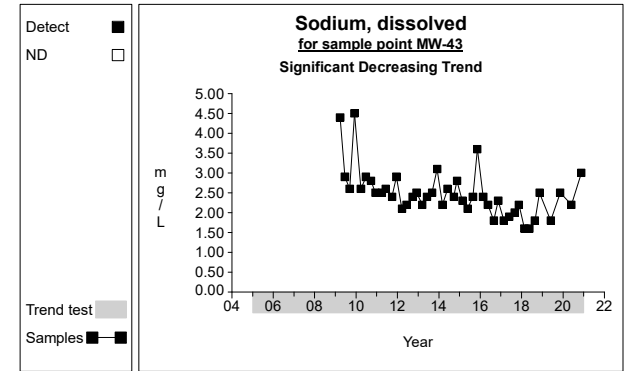
Time Series



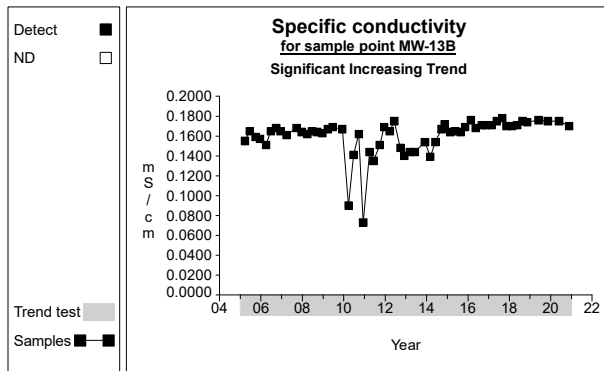
Graph 381



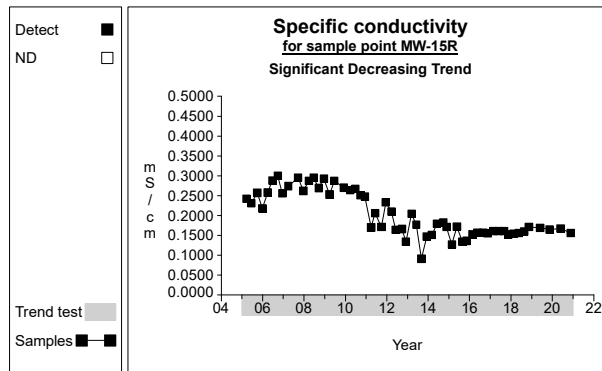
Graph 383



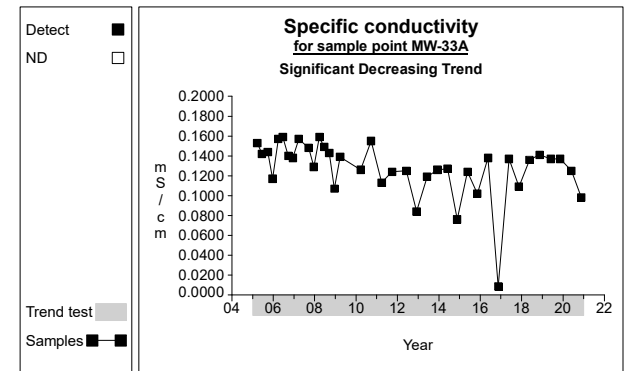
Graph 384



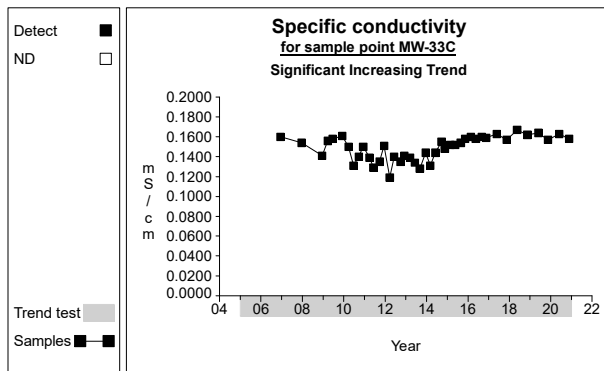
Graph 386



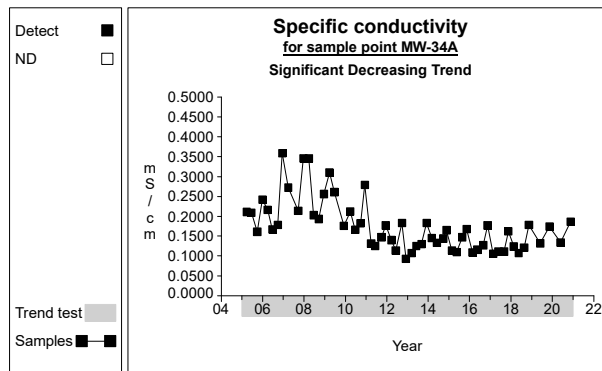
Graph 387



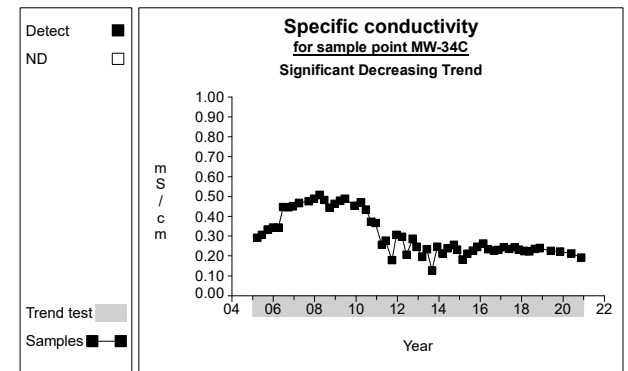
Graph 392



Graph 393

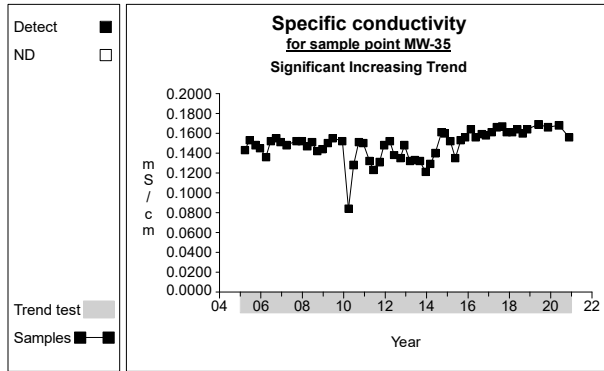


Graph 394

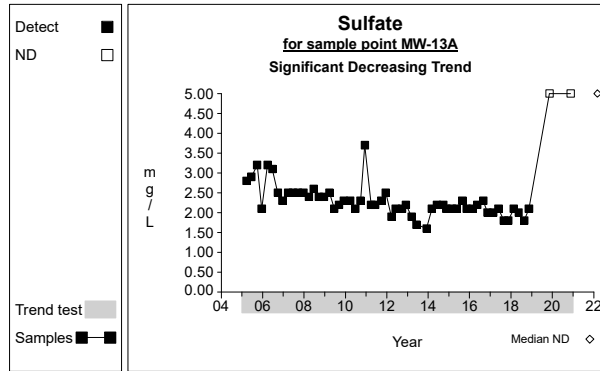


Graph 395

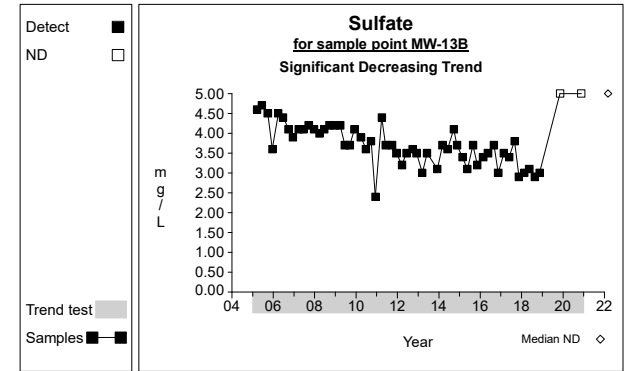
Time Series



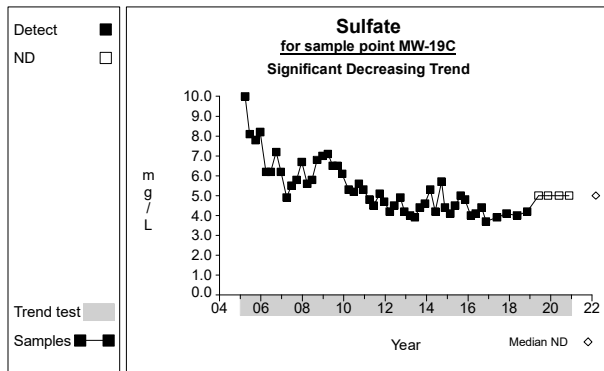
Graph 396



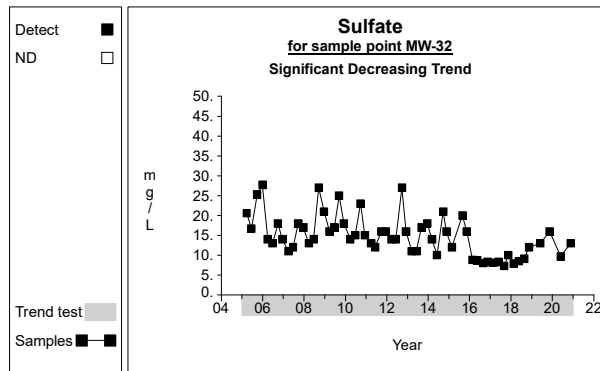
Graph 401



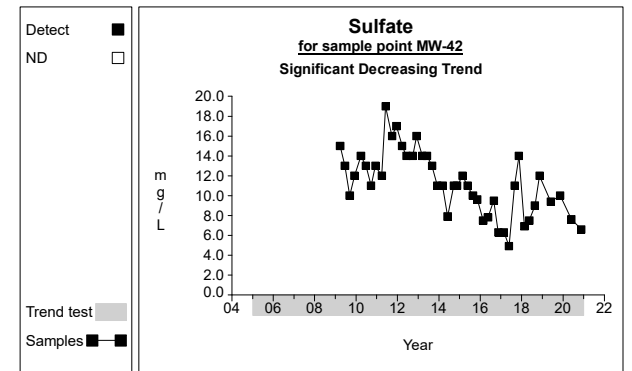
Graph 402



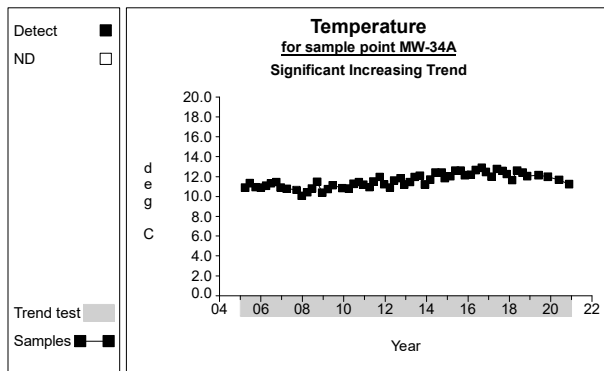
Graph 405



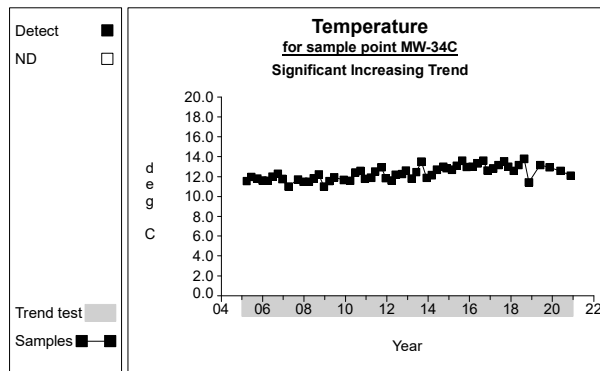
Graph 407



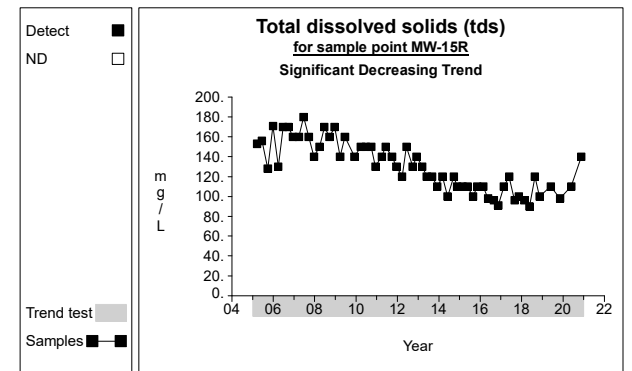
Graph 415



Graph 426

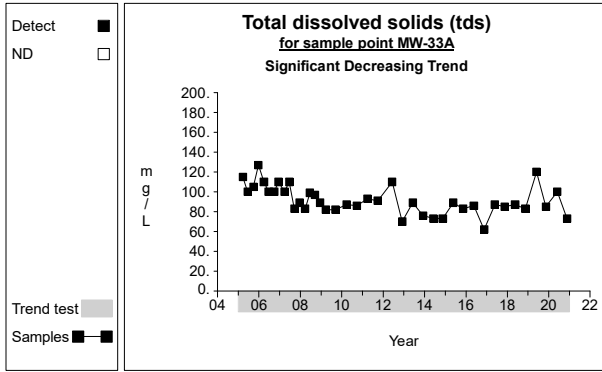


Graph 427

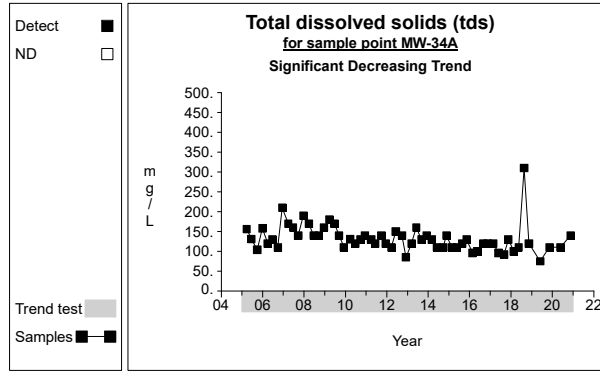


Graph 451

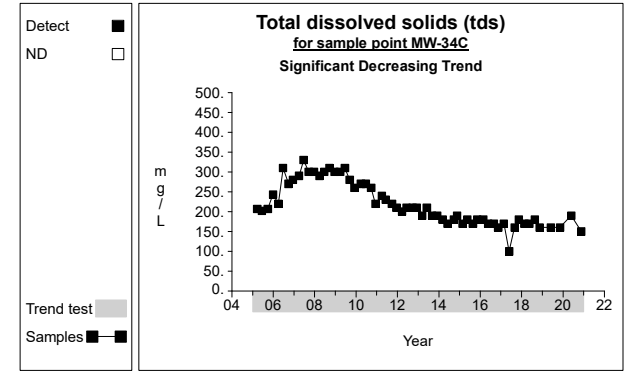
Time Series



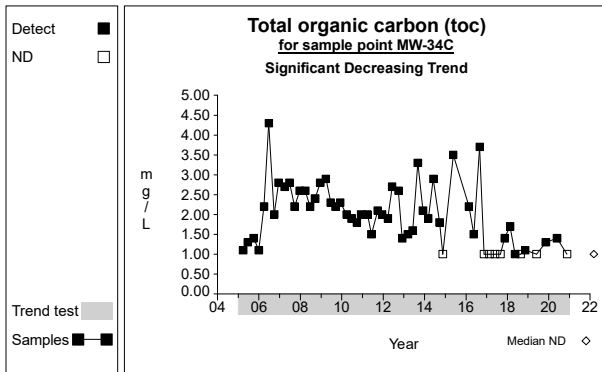
Graph 456



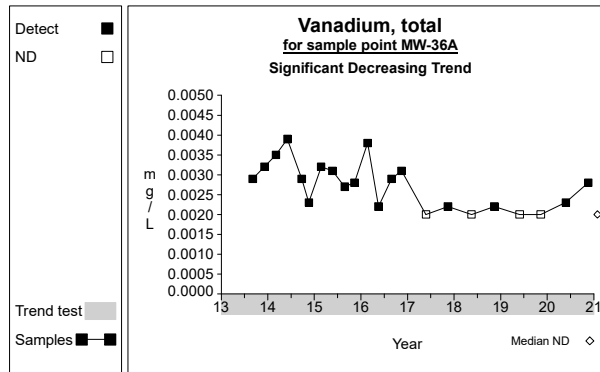
Graph 458



Graph 459



Graph 475



Graph 493

2. Prediction Limits for Detection Monitoring

- 2020 Prediction Limits and Q4 2020 Exceedance Summary Table (Table 2-1)
- Updated Prediction Limits for Use During 2021 Monitoring Year (Table 2-2)
- Upgradient Data used in 2021 Prediction Limit Calculations (Table 2-3)
- Results of Shapiro-Wilk Test for Normality for 2021 Upgradient Data (Table 2-4)
- Comparison of 2020 Prediction Limits with 2021 Prediction Limits (Table 2-5)

TABLE 2-1
SUMMARY OF CURRENT PREDICTION LIMIT EXCEEDANCES
Q4 2020
Olympic View Sanitary Landfill

Statistical Methodology:

1. Inter-Well Prediction Limits using DUMPStat™
2. Upgradient Data Set: pooled data from wells MW-13A, MW-13B, MW-16, and MW-35
3. "Detection Monitoring" well comparisons:
 - compliance wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
 - downgradient wells: MW-29A, MW-32, MW-33A, MW-33C, MW-36A
4. Parameters: all Appendix I and II inorganic and ground water quality parameters
5. Background Data Sets: January 2005 - December 2019
6. Arsenic: only low-level Method 200.8 data used
7. Units: mg/L = milligrams per liter; ug/L = micrograms per liter; mS/cm = millisiemens per centimeter; deg C = degrees Celcius

<u>Parameter</u>	<u>Unit</u>	<u>Well</u>	<u>Latest Result</u>	<u>Date Sampled</u>	<u>Prediction Limit</u>
Alkalinity, bicarbonate (as cacO3)	mg/L	MW-32	150	11/20/2020	96
Alkalinity, bicarbonate (as cacO3)	mg/L	MW-39	110	11/19/2020	96
Alkalinity, bicarbonate (as cacO3)	mg/L	MW-42	210	11/19/2020	96
Alkalinity, total (as cacO3)	mg/L	MW-32	150	11/20/2020	96
Alkalinity, total (as cacO3)	mg/L	MW-39	110	11/19/2020	96
Alkalinity, total (as cacO3)	mg/L	MW-42	210	11/19/2020	96
Ammonia (as n)	mg/L	MW-39	0.37	11/19/2020	0.28
Ammonia (as n)	mg/L	MW-42	3.6	11/19/2020	0.28
Arsenic, total	ug/L	MW-29A	2.11	11/19/2020	0.481
Arsenic, total	ug/L	MW-32	10.5	11/20/2020	0.481
Arsenic, total	ug/L	MW-33A	0.585	11/20/2020	0.481
Arsenic, total	ug/L	MW-33C	2.89	11/20/2020	0.481
Arsenic, total	ug/L	MW-34A	0.492	11/19/2020	0.481
Arsenic, total	ug/L	MW-34C	9.02	11/19/2020	0.481
Arsenic, total	ug/L	MW-36A	0.548	11/19/2020	0.481
Arsenic, total	ug/L	MW-39	1.63	11/19/2020	0.481
Arsenic, total	ug/L	MW-42	1.97	11/19/2020	0.481
Barium, total	mg/L	MW-29A	0.0067	11/19/2020	0.0043
Barium, total	mg/L	MW-32	0.005	11/20/2020	0.0043
Barium, total	mg/L	MW-34C	0.052	11/19/2020	0.0043
Barium, total	mg/L	MW-39	0.014	11/19/2020	0.0043
Barium, total	mg/L	MW-42	0.089	11/19/2020	0.0043
Barium, total	mg/L	MW-43	0.0046	11/19/2020	0.0043
Calcium, dissolved	mg/L	MW-32	32	11/20/2020	18
Calcium, dissolved	mg/L	MW-34C	19	11/19/2020	18
Calcium, dissolved	mg/L	MW-42	34	11/19/2020	18
Chloride	mg/L	MW-32	8.8	11/20/2020	4.4

<u>Parameter</u>	<u>Unit</u>	<u>Well</u>	<u>Latest Result</u>	<u>Date Sampled</u>	<u>Prediction Limit</u>
Chloride	mg/L	MW-39	4.6	11/19/2020	4.4
Chloride	mg/L	MW-42	5.9	11/19/2020	4.4
Chromium, total	mg/L	MW-36A	0.01	11/19/2020	0.0092
Cobalt, total	mg/L	MW-39	0.0076	11/19/2020	0.003
Copper, total	mg/L	MW-34C	0.0025	11/19/2020	0.0021
Iron, total	mg/L	MW-29A	4.5	11/19/2020	0.31
Iron, total	mg/L	MW-32	0.81	11/20/2020	0.31
Iron, total	mg/L	MW-33A	4.6	11/20/2020	0.31
Iron, total	mg/L	MW-34C	10	11/19/2020	0.31
Iron, total	mg/L	MW-39	36	11/19/2020	0.31
Iron, total	mg/L	MW-42	24	11/19/2020	0.31
Magnesium, dissolved	mg/L	MW-32	16	11/20/2020	11.2
Magnesium, dissolved	mg/L	MW-42	12	11/19/2020	11.2
Manganese, total	mg/L	MW-29A	1.5	11/19/2020	0.062
Manganese, total	mg/L	MW-32	2.6	11/20/2020	0.062
Manganese, total	mg/L	MW-33A	0.099	11/20/2020	0.062
Manganese, total	mg/L	MW-33C	0.21	11/20/2020	0.062
Manganese, total	mg/L	MW-34C	0.87	11/19/2020	0.062
Manganese, total	mg/L	MW-39	0.49	11/19/2020	0.062
Manganese, total	mg/L	MW-42	3.9	11/19/2020	0.062
pH	pH Units	MW-43	5.6	11/19/2020	5.81 - 8.18
Potassium, dissolved	mg/L	MW-42	7.3	11/19/2020	1.4
Sodium, dissolved	mg/L	MW-32	13	11/20/2020	7.7
Sodium, dissolved	mg/L	MW-34A	9.3	11/19/2020	7.7
Sodium, dissolved	mg/L	MW-34C	10	11/19/2020	7.7
Sodium, dissolved	mg/L	MW-39	9.2	11/19/2020	7.7
Sodium, dissolved	mg/L	MW-42	18	11/19/2020	7.7
Specific conductivity	mS/cm	MW-32	0.329	11/20/2020	0.18
Specific conductivity	mS/cm	MW-34A	0.186	11/19/2020	0.18
Specific conductivity	mS/cm	MW-34C	0.192	11/19/2020	0.18
Specific conductivity	mS/cm	MW-39	0.268	11/19/2020	0.18
Specific conductivity	mS/cm	MW-42	0.465	11/19/2020	0.18
Sulfate	mg/L	MW-32	13	11/20/2020	9.9
Total dissolved solids (tds)	mg/L	MW-32	210	11/20/2020	175
Total dissolved solids (tds)	mg/L	MW-39	180	11/19/2020	175
Total dissolved solids (tds)	mg/L	MW-42	250	11/19/2020	175

TABLE 2-2
STATISTICAL PREDICTION LIMITS UPDATED FOR 2021 MONITORING YEAR
Olympic View Sanitary Landfill

Statistical Methodology:

1. Inter-Well Prediction Limits using DUMPStat
2. Upgradient Data Set: pooled data from wells 13A, 13B, 16, and 35
3. "Detection Monitoring" well comparisons:
 - compliance wells
 - performance well
 - downgradient wells
4. Parameters: all Appendix I and II inorganic and ground water quality parameters
5. Background Data Sets: January 2005 - December 2020 (updated annually)
6. Arsenic: only low-level Method 200.8 data used
7. Units: mg/L = milligrams per liter; ug/L = micrograms per liter; mS/cm = millisiemens per centimeter; deg C = degrees Celcius

Constituent	Units	Distributional Assumption ^[1]	Total N ^[2]	Detected N	Mean	Standard Deviation	Prediction Limit ^[3]	Nonparametric Confidence ^[4]
Alkalinity, bicarbonate (as caco3)	MG/L	nonparametric	210	210			96	0.99
Alkalinity, total (as caco3)	MG/L	nonparametric	214	214			96	0.99
Ammonia (as n)	MG/L	nonparametric	72	209			0.28	0.99
Antimony, total	MG/L	nonparametric	3	94			0.0013	0.99
Arsenic, total	UG/L	normal	100	100	0.242	0.1023	0.4796	
Barium, total	MG/L	normal	94	94	0.003	0.0005	0.0044	
Beryllium, total	MG/L	nonparametric	0	94			Current RL*	0.99
Cadmium, total	MG/L	nonparametric	0	94			Current RL*	0.99
Calcium, dissolved	MG/L	nonparametric	214	214			18	0.99
Chloride	MG/L	nonparametric	202	214			4.4	0.99
Chromium, total	MG/L	nonparametric	41	94			0.019	0.99
Cobalt, total	MG/L	nonparametric	0	94			Current RL*	0.99
Copper, total	MG/L	nonparametric	1	94			0.0021	0.99
Iron, total	MG/L	nonparametric	12	93			0.31	0.99
Lead, total	MG/L	nonparametric	1	94			0.0014	0.99
Magnesium, dissolved	MG/L	normal	214	214	8.177	1.3155	11.1935	
Manganese, total	MG/L	nonparametric	26	94			0.11	0.99
Nickel, total	MG/L	nonparametric	2	94			0.0055	0.99
Nitrate (as n)	MG/L	nonparametric	200	201			1.6	0.99
pH	pH Units	normal	213	213	7.002	0.4667	5.81 - 8.19	
Potassium, dissolved	MG/L	nonparametric	14	214			1.4	0.99
Selenium, total	MG/L	nonparametric	0	94			Current RL*	0.99
Silver, total	MG/L	nonparametric	0	94			Current RL*	0.99
Sodium, dissolved	MG/L	nonparametric	214	214			7.7	0.99
Specific conductivity	mS/cm	nonparametric	215	215			0.18	0.99
Sulfate	MG/L	nonparametric	205	214			9.9	0.99
Temperature	deg C	nonparametric	215	215			14.32	0.99
Thallium, total	MG/L	nonparametric	0	94			Current RL*	0.99
Total dissolved solids (tds)	MG/L	nonparametric	214	214			175	0.99
Total organic carbon (toc)	MG/L	nonparametric	7	202			6	0.99
Vanadium, total	MG/L	nonparametric	93	94			0.009	0.99
Zinc, total	MG/L	nonparametric	1	94			0.0056	0.99

^[1] Distributional Assumption based on Multiple Group Shapiro-Wilk Test (results presented on Table 2-4 herein).

^[2] N = number of background data points from the pooled upgradient well data set AFTER removal of outliers (see Table 2-3 for outliers).

^[3] Prediction Limit calculated at 95% confidence level and adjusted for multiple comparisons and one verification resample per Unified Guidance (USEPA, March 2009).

^[4] Nonparametric confidence level as calculated by DUMPStat.

*Current RL: in cases where all background data are non-detected, a nonparametric prediction limit is set at the current constituent-specific laboratory reporting limit (RL).

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/22/2005		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/15/2005		63.8	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/27/2005		75.6	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/15/2005		72.5	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/28/2006		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/21/2006		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/26/2006		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/13/2006		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/27/2007		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/19/2007		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/19/2007		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/19/2007		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/25/2008		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/18/2008		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/17/2008		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/17/2008		92	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/24/2009		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/17/2009		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/10/2009		87	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/25/2010		86	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/23/2010		86	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/23/2010		96	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/08/2010		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/30/2011		88	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/06/2011		89	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/27/2011		89	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/14/2011		90	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/21/2012		89	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/08/2012		87	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/26/2012		87	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/03/2012		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/11/2013		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/05/2013		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	12/03/2013		86	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	03/04/2014		87	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	06/02/2014		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	09/22/2014		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/17/2014		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	02/23/2015		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	05/19/2015		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	08/26/2015		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/10/2015		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	02/22/2016		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	05/16/2016		90	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	08/31/2016		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/14/2016		92	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	02/22/2017		85	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	05/24/2017		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	08/30/2017		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/13/2017		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	02/20/2018		87	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	05/15/2018		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	08/21/2018		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/12/2018		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/11/2019		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13A	11/19/2020		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/22/2005		70.6	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/15/2005		57.3	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/27/2005		72.7	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/15/2005		68.8	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/29/2006		73	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/21/2006		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/26/2006		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/13/2006		76	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/27/2007		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/19/2007		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/18/2007		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/19/2007		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/25/2008		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/18/2008		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/17/2008		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/16/2008		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/24/2009		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/17/2009		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/10/2009		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/25/2010		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/23/2010		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/23/2010		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/08/2010		88	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/30/2011		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/06/2011		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/27/2011		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/14/2011		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/21/2012		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/08/2012		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/26/2012		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/03/2012		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/11/2013		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/05/2013		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	12/03/2013		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	03/04/2014		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	06/02/2014		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	09/22/2014		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/17/2014		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	02/23/2015		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	05/19/2015		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	08/26/2015		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/10/2015		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	02/22/2016		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	05/16/2016		87	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	08/31/2016		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/14/2016		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	02/22/2017		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	05/24/2017		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	08/30/2017		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/13/2017		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	02/20/2018		86	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	05/15/2018		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	08/21/2018		81	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/12/2018		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/11/2019		83	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-13B	11/19/2020		84	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	03/24/2009		66	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	06/16/2009		59	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	09/09/2009		66	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	03/25/2010		46	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	06/24/2010		71	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	09/24/2010		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	12/09/2010		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	03/30/2011		53	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	06/07/2011		59	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	09/27/2011		66	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	12/13/2011		60	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	03/21/2012		50	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	06/08/2012		49	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	09/27/2012		57	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	12/04/2012		64	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	03/12/2013		51	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, bicarbonate (as cacO3)	MW-16	06/04/2013		50	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	09/05/2013		62	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	12/16/2013		62	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	03/05/2014		57	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	06/02/2014		44	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	09/22/2014		57	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/18/2014		57	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	02/23/2015		52	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	05/20/2015		51	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	08/26/2015		51	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/11/2015		65	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	02/24/2016		40	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	05/16/2016		50	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	08/31/2016		60	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/14/2016		56	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	02/22/2017		45	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	05/24/2017		42	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	08/30/2017		61	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/13/2017		50	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	02/20/2018		46	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	05/17/2018		43	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	08/22/2018		51	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/12/2018		53	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/12/2019		68	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-16	11/20/2020		85	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/22/2005		68.2	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/14/2005		59	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/27/2005		69.2	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/15/2005		67.3	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/28/2006		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/21/2006		71	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/26/2006		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/12/2006		73	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/27/2007		73	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/20/2007		70	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/18/2007		69	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/20/2007		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/25/2008		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/18/2008		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/18/2008		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/19/2008		68	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/24/2009		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/16/2009		73	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/10/2009		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/25/2010		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/23/2010		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/23/2010		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/09/2010		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/30/2011		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/06/2011		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/26/2011		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/13/2011		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/21/2012		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/06/2012		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/26/2012		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/04/2012		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/13/2013		73	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/06/2013		73	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/05/2013		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	12/16/2013		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	03/04/2014		78	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	06/02/2014		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	09/22/2014		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/17/2014		74	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, bicarbonate (as cacO3)	MW-35	02/25/2015		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	05/19/2015		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	08/26/2015		71	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/10/2015		75	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	02/22/2016		72	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	05/16/2016		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	08/31/2016		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/15/2016		91	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	02/22/2017		79	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	05/24/2017		76	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	08/30/2017		74	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/15/2017		77	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	02/20/2018		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	05/17/2018		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	08/22/2018		48	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/12/2018		80	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/12/2019		82	mg/L		
Alkalinity, bicarbonate (as cacO3)	MW-35	11/19/2020		85	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/22/2005		75	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/15/2005		63.8	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/27/2005		75.6	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/15/2005		72.5	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/28/2006		80	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/21/2006		79	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/26/2006		80	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/13/2006		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/27/2007		83	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/19/2007		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/19/2007		79	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/19/2007		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/25/2008		83	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/18/2008		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/17/2008		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/17/2008		92	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/24/2009		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/17/2009		84	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/10/2009		87	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/03/2009		84	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/25/2010		86	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/23/2010		86	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/23/2010		96	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/08/2010		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/30/2011		88	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/06/2011		89	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/27/2011		89	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/14/2011		90	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/21/2012		89	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/08/2012		87	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/26/2012		87	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/03/2012		83	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/11/2013		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/05/2013		83	mg/L		
Alkalinity, total (as cacO3)	MW-13A	12/03/2013		86	mg/L		
Alkalinity, total (as cacO3)	MW-13A	03/04/2014		87	mg/L		
Alkalinity, total (as cacO3)	MW-13A	06/02/2014		84	mg/L		
Alkalinity, total (as cacO3)	MW-13A	09/22/2014		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	11/17/2014		79	mg/L		
Alkalinity, total (as cacO3)	MW-13A	02/23/2015		84	mg/L		
Alkalinity, total (as cacO3)	MW-13A	05/19/2015		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	08/26/2015		77	mg/L		
Alkalinity, total (as cacO3)	MW-13A	11/10/2015		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	02/22/2016		80	mg/L		
Alkalinity, total (as cacO3)	MW-13A	05/16/2016		90	mg/L		
Alkalinity, total (as cacO3)	MW-13A	08/31/2016		84	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, total (as cacO3)	MW-13A	11/14/2016		92	mg/L		
Alkalinity, total (as cacO3)	MW-13A	02/22/2017		85	mg/L		
Alkalinity, total (as cacO3)	MW-13A	05/24/2017		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	08/30/2017		80	mg/L		
Alkalinity, total (as cacO3)	MW-13A	11/13/2017		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	02/20/2018		87	mg/L		
Alkalinity, total (as cacO3)	MW-13A	05/15/2018		78	mg/L		
Alkalinity, total (as cacO3)	MW-13A	08/21/2018		79	mg/L		
Alkalinity, total (as cacO3)	MW-13A	11/12/2018		81	mg/L		
Alkalinity, total (as cacO3)	MW-13A	11/11/2019		82	mg/L		
Alkalinity, total (as cacO3)	MW-13A	11/19/2020		84	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/22/2005		70.6	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/15/2005		57.3	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/27/2005		72.7	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/15/2005		68.8	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/29/2006		73	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/21/2006		74	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/26/2006		75	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/13/2006		76	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/27/2007		76	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/19/2007		74	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/18/2007		74	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/19/2007		76	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/25/2008		77	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/18/2008		77	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/17/2008		76	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/16/2008		74	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/24/2009		78	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/17/2009		79	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/10/2009		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/03/2009		80	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/25/2010		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/23/2010		80	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/23/2010		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/08/2010		88	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/30/2011		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/06/2011		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/27/2011		83	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/14/2011		84	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/21/2012		83	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/08/2012		82	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/26/2012		84	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/03/2012		82	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/11/2013		77	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/05/2013		79	mg/L		
Alkalinity, total (as cacO3)	MW-13B	12/03/2013		84	mg/L		
Alkalinity, total (as cacO3)	MW-13B	03/04/2014		83	mg/L		
Alkalinity, total (as cacO3)	MW-13B	06/02/2014		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	09/22/2014		80	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/17/2014		79	mg/L		
Alkalinity, total (as cacO3)	MW-13B	02/23/2015		82	mg/L		
Alkalinity, total (as cacO3)	MW-13B	05/19/2015		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	08/26/2015		76	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/10/2015		79	mg/L		
Alkalinity, total (as cacO3)	MW-13B	02/22/2016		77	mg/L		
Alkalinity, total (as cacO3)	MW-13B	05/16/2016		87	mg/L		
Alkalinity, total (as cacO3)	MW-13B	08/31/2016		82	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/14/2016		80	mg/L		
Alkalinity, total (as cacO3)	MW-13B	02/22/2017		83	mg/L		
Alkalinity, total (as cacO3)	MW-13B	05/24/2017		80	mg/L		
Alkalinity, total (as cacO3)	MW-13B	08/30/2017		80	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/13/2017		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	02/20/2018		86	mg/L		
Alkalinity, total (as cacO3)	MW-13B	05/15/2018		78	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, total (as cacO3)	MW-13B	08/21/2018		81	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/12/2018		83	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/11/2019		83	mg/L		
Alkalinity, total (as cacO3)	MW-13B	11/19/2020		84	mg/L		
Alkalinity, total (as cacO3)	MW-16	03/24/2009		66	mg/L		
Alkalinity, total (as cacO3)	MW-16	06/16/2009		59	mg/L		
Alkalinity, total (as cacO3)	MW-16	09/09/2009		66	mg/L		
Alkalinity, total (as cacO3)	MW-16	12/03/2009		77	mg/L		
Alkalinity, total (as cacO3)	MW-16	03/25/2010		46	mg/L		
Alkalinity, total (as cacO3)	MW-16	06/24/2010		71	mg/L		
Alkalinity, total (as cacO3)	MW-16	09/24/2010		74	mg/L		
Alkalinity, total (as cacO3)	MW-16	12/09/2010		72	mg/L		
Alkalinity, total (as cacO3)	MW-16	03/30/2011		53	mg/L		
Alkalinity, total (as cacO3)	MW-16	06/07/2011		59	mg/L		
Alkalinity, total (as cacO3)	MW-16	09/27/2011		66	mg/L		
Alkalinity, total (as cacO3)	MW-16	12/13/2011		60	mg/L		
Alkalinity, total (as cacO3)	MW-16	03/21/2012		50	mg/L		
Alkalinity, total (as cacO3)	MW-16	06/08/2012		49	mg/L		
Alkalinity, total (as cacO3)	MW-16	09/27/2012		57	mg/L		
Alkalinity, total (as cacO3)	MW-16	12/04/2012		64	mg/L		
Alkalinity, total (as cacO3)	MW-16	03/12/2013		51	mg/L		
Alkalinity, total (as cacO3)	MW-16	06/04/2013		50	mg/L		
Alkalinity, total (as cacO3)	MW-16	09/05/2013		62	mg/L		
Alkalinity, total (as cacO3)	MW-16	12/16/2013		62	mg/L		
Alkalinity, total (as cacO3)	MW-16	03/05/2014		57	mg/L		
Alkalinity, total (as cacO3)	MW-16	06/02/2014		44	mg/L		
Alkalinity, total (as cacO3)	MW-16	09/22/2014		57	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/18/2014		57	mg/L		
Alkalinity, total (as cacO3)	MW-16	02/23/2015		52	mg/L		
Alkalinity, total (as cacO3)	MW-16	05/20/2015		51	mg/L		
Alkalinity, total (as cacO3)	MW-16	08/26/2015		51	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/11/2015		65	mg/L		
Alkalinity, total (as cacO3)	MW-16	02/24/2016		40	mg/L		
Alkalinity, total (as cacO3)	MW-16	05/16/2016		50	mg/L		
Alkalinity, total (as cacO3)	MW-16	08/31/2016		60	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/14/2016		56	mg/L		
Alkalinity, total (as cacO3)	MW-16	02/22/2017		45	mg/L		
Alkalinity, total (as cacO3)	MW-16	05/24/2017		42	mg/L		
Alkalinity, total (as cacO3)	MW-16	08/30/2017		61	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/13/2017		50	mg/L		
Alkalinity, total (as cacO3)	MW-16	02/20/2018		46	mg/L		
Alkalinity, total (as cacO3)	MW-16	05/17/2018		43	mg/L		
Alkalinity, total (as cacO3)	MW-16	08/22/2018		51	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/12/2018		53	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/12/2019		68	mg/L		
Alkalinity, total (as cacO3)	MW-16	11/20/2020		85	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/22/2005		68.2	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/14/2005		59	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/27/2005		69.2	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/15/2005		67.3	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/28/2006		73	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/21/2006		71	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/26/2006		72	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/12/2006		73	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/27/2007		73	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/20/2007		70	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/18/2007		69	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/20/2007		72	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/25/2008		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/18/2008		72	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/18/2008		72	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/19/2008		68	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/24/2009		72	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/16/2009		73	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
 Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, total (as cacO3)	MW-35	09/10/2009		74	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/03/2009		74	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/25/2010		76	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/23/2010		75	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/23/2010		75	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/09/2010		74	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/30/2011		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/06/2011		76	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/26/2011		78	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/13/2011		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/21/2012		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/06/2012		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/26/2012		78	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/04/2012		76	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/13/2013		73	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/06/2013		73	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/05/2013		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	12/16/2013		78	mg/L		
Alkalinity, total (as cacO3)	MW-35	03/04/2014		78	mg/L		
Alkalinity, total (as cacO3)	MW-35	06/02/2014		76	mg/L		
Alkalinity, total (as cacO3)	MW-35	09/22/2014		75	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/17/2014		74	mg/L		
Alkalinity, total (as cacO3)	MW-35	02/25/2015		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	05/19/2015		75	mg/L		
Alkalinity, total (as cacO3)	MW-35	08/26/2015		71	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/10/2015		75	mg/L		
Alkalinity, total (as cacO3)	MW-35	02/22/2016		72	mg/L		
Alkalinity, total (as cacO3)	MW-35	05/16/2016		82	mg/L		
Alkalinity, total (as cacO3)	MW-35	08/31/2016		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/15/2016		91	mg/L		
Alkalinity, total (as cacO3)	MW-35	02/22/2017		79	mg/L		
Alkalinity, total (as cacO3)	MW-35	05/24/2017		76	mg/L		
Alkalinity, total (as cacO3)	MW-35	08/30/2017		74	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/15/2017		77	mg/L		
Alkalinity, total (as cacO3)	MW-35	02/20/2018		82	mg/L		
Alkalinity, total (as cacO3)	MW-35	05/17/2018		80	mg/L		
Alkalinity, total (as cacO3)	MW-35	08/22/2018		48	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/12/2018		80	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/12/2019		82	mg/L		
Alkalinity, total (as cacO3)	MW-35	11/19/2020		85	mg/L		
Ammonia (as n)	MW-13A	03/22/2005		0.02	mg/L		
Ammonia (as n)	MW-13A	06/15/2005		0.13	mg/L		
Ammonia (as n)	MW-13A	09/27/2005		0.021	mg/L		
Ammonia (as n)	MW-13A	12/15/2005	ND	0.02	mg/L	0.0300	**
Ammonia (as n)	MW-13A	03/28/2006		0.049	mg/L		
Ammonia (as n)	MW-13A	06/21/2006		0.068	mg/L		
Ammonia (as n)	MW-13A	09/26/2006		0.036	mg/L		
Ammonia (as n)	MW-13A	12/13/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	03/27/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	06/19/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/19/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/19/2007		0.042	mg/L		
Ammonia (as n)	MW-13A	03/25/2008		0.05	mg/L		
Ammonia (as n)	MW-13A	06/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/17/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/17/2008		0.063	mg/L		
Ammonia (as n)	MW-13A	03/24/2009		0.083	mg/L		
Ammonia (as n)	MW-13A	06/17/2009		0.093	mg/L		
Ammonia (as n)	MW-13A	09/10/2009	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/03/2009		0.059	mg/L		
Ammonia (as n)	MW-13A	03/25/2010		0.046	mg/L		
Ammonia (as n)	MW-13A	06/23/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/23/2010		0.049	mg/L		
Ammonia (as n)	MW-13A	12/08/2010		0.061	mg/L		

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Ammonia (as n)	MW-13A	03/30/2011		0.064	mg/L		
Ammonia (as n)	MW-13A	06/06/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/27/2011		0.075	mg/L		
Ammonia (as n)	MW-13A	12/14/2011		0.086	mg/L		
Ammonia (as n)	MW-13A	03/21/2012		0.039	mg/L		
Ammonia (as n)	MW-13A	06/08/2012		0.28	mg/L		
Ammonia (as n)	MW-13A	09/26/2012		0.087	mg/L		
Ammonia (as n)	MW-13A	12/03/2012		0.12	mg/L		
Ammonia (as n)	MW-13A	03/11/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	06/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/03/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	03/04/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	06/02/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/17/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/23/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/19/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/10/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/22/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/14/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/13/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/15/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/21/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/11/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/19/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/22/2005	ND	0.02	mg/L	0.0300	**
Ammonia (as n)	MW-13B	06/15/2005		0.12	mg/L		
Ammonia (as n)	MW-13B	09/27/2005		0.17	mg/L		
Ammonia (as n)	MW-13B	12/15/2005	ND	0.02	mg/L	0.0300	**
Ammonia (as n)	MW-13B	03/29/2006		0.036	mg/L		
Ammonia (as n)	MW-13B	06/21/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/26/2006		0.03	mg/L		
Ammonia (as n)	MW-13B	12/13/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/27/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/19/2007		0.03	mg/L		
Ammonia (as n)	MW-13B	12/19/2007		0.11	mg/L		
Ammonia (as n)	MW-13B	03/25/2008		0.06	mg/L		
Ammonia (as n)	MW-13B	06/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/17/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	12/16/2008		0.056	mg/L		
Ammonia (as n)	MW-13B	03/24/2009		0.063	mg/L		
Ammonia (as n)	MW-13B	06/17/2009		0.087	mg/L		
Ammonia (as n)	MW-13B	09/10/2009		0.045	mg/L		
Ammonia (as n)	MW-13B	12/03/2009	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/25/2010		0.044	mg/L		
Ammonia (as n)	MW-13B	06/23/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/23/2010		0.045	mg/L		
Ammonia (as n)	MW-13B	12/08/2010		0.052	mg/L		
Ammonia (as n)	MW-13B	03/30/2011		0.062	mg/L		
Ammonia (as n)	MW-13B	06/06/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/27/2011		0.032	mg/L		
Ammonia (as n)	MW-13B	12/14/2011		0.03	mg/L		
Ammonia (as n)	MW-13B	03/21/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/08/2012		0.2	mg/L		
Ammonia (as n)	MW-13B	09/26/2012		0.076	mg/L		
Ammonia (as n)	MW-13B	12/03/2012	ND	0.03	mg/L		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Ammonia (as n)	MW-13B	03/11/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	12/03/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/04/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/02/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/17/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/23/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/19/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/10/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/22/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/14/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/13/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/15/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/21/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/11/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/19/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-16	03/24/2009		0.062	mg/L		
Ammonia (as n)	MW-16	06/16/2009		0.093	mg/L		
Ammonia (as n)	MW-16	09/09/2009		0.036	mg/L		
Ammonia (as n)	MW-16	12/03/2009		0.058	mg/L		
Ammonia (as n)	MW-16	03/25/2010		0.046	mg/L		
Ammonia (as n)	MW-16	06/24/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-16	09/24/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-16	12/09/2010		0.059	mg/L		
Ammonia (as n)	MW-16	03/30/2011		0.06	mg/L		
Ammonia (as n)	MW-16	06/07/2011		0.048	mg/L		
Ammonia (as n)	MW-16	09/27/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-16	12/13/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-16	03/21/2012		0.042	mg/L		
Ammonia (as n)	MW-16	06/08/2012		0.34	mg/L		*
Ammonia (as n)	MW-16	09/27/2012		0.3	mg/L		*
Ammonia (as n)	MW-16	12/04/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-16	03/12/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-16	06/04/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-16	09/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-16	12/16/2013		0.096	mg/L		
Ammonia (as n)	MW-16	03/05/2014		0.051	mg/L		
Ammonia (as n)	MW-16	06/02/2014		0.058	mg/L		
Ammonia (as n)	MW-16	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/18/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/23/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/20/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/11/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/24/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/14/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/13/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/17/2018		0.031	mg/L		
Ammonia (as n)	MW-16	08/22/2018	ND	0.03	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Ammonia (as n)	MW-16	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/12/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/20/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/22/2005	ND	0.02	mg/L	0.0300	**
Ammonia (as n)	MW-35	06/14/2005		0.12	mg/L		
Ammonia (as n)	MW-35	09/27/2005		0.15	mg/L		
Ammonia (as n)	MW-35	12/15/2005	ND	0.02	mg/L	0.0300	**
Ammonia (as n)	MW-35	03/28/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/21/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/26/2006		0.033	mg/L		
Ammonia (as n)	MW-35	12/12/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/27/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/20/2007		0.042	mg/L		
Ammonia (as n)	MW-35	12/20/2007		0.06	mg/L		
Ammonia (as n)	MW-35	03/25/2008		0.059	mg/L		
Ammonia (as n)	MW-35	06/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-35	12/19/2008		0.081	mg/L		
Ammonia (as n)	MW-35	03/24/2009		0.06	mg/L		
Ammonia (as n)	MW-35	06/16/2009		0.066	mg/L		
Ammonia (as n)	MW-35	09/10/2009	ND	0.03	mg/L		
Ammonia (as n)	MW-35	12/03/2009		0.076	mg/L		
Ammonia (as n)	MW-35	03/25/2010		0.041	mg/L		
Ammonia (as n)	MW-35	06/23/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/23/2010		0.053	mg/L		
Ammonia (as n)	MW-35	12/09/2010		0.055	mg/L		
Ammonia (as n)	MW-35	03/30/2011		0.063	mg/L		
Ammonia (as n)	MW-35	06/06/2011		0.18	mg/L		
Ammonia (as n)	MW-35	09/26/2011		0.065	mg/L		
Ammonia (as n)	MW-35	12/13/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/21/2012		0.03	mg/L		
Ammonia (as n)	MW-35	06/06/2012		0.6	mg/L		*
Ammonia (as n)	MW-35	09/26/2012		0.069	mg/L		
Ammonia (as n)	MW-35	12/04/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/13/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/06/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	12/16/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/04/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/02/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/17/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/25/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/19/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/10/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/22/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/15/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/15/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/17/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/22/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/12/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/19/2020	ND	0.03	mg/L		
Antimony, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Antimony, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	09/22/2014	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Antimony, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Antimony, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-13A	08/31/2016		0.001	mg/L		
Antimony, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Antimony, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Antimony, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Antimony, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Antimony, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Antimony, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Antimony, total	MW-16	09/05/2013	ND	0.001	mg/L		
Antimony, total	MW-16	12/16/2013	ND	0.001	mg/L		
Antimony, total	MW-16	03/05/2014	ND	0.001	mg/L		
Antimony, total	MW-16	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-16	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-16	11/18/2014	ND	0.001	mg/L		
Antimony, total	MW-16	02/23/2015		0.0011	mg/L		
Antimony, total	MW-16	05/20/2015	ND	0.001	mg/L		
Antimony, total	MW-16	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-16	11/11/2015		0.0013	mg/L		
Antimony, total	MW-16	02/24/2016	ND	0.001	mg/L		
Antimony, total	MW-16	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-16	08/31/2016	ND	0.001	mg/L		
Antimony, total	MW-16	11/14/2016	ND	0.001	mg/L		
Antimony, total	MW-16	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-16	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-16	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-16	11/13/2017	ND	0.001	mg/L		
Antimony, total	MW-16	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-16	05/17/2018	ND	0.001	mg/L		
Antimony, total	MW-16	08/22/2018	ND	0.001	mg/L		
Antimony, total	MW-16	11/12/2018	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Antimony, total	MW-16	11/12/2019	ND	0.001	mg/L		
Antimony, total	MW-16	11/20/2020	ND	0.001	mg/L		
Antimony, total	MW-35	09/05/2013	ND	0.001	mg/L		
Antimony, total	MW-35	12/16/2013	ND	0.001	mg/L		
Antimony, total	MW-35	03/04/2014	ND	0.001	mg/L		
Antimony, total	MW-35	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-35	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-35	11/17/2014	ND	0.001	mg/L		
Antimony, total	MW-35	02/25/2015	ND	0.001	mg/L		
Antimony, total	MW-35	05/19/2015	ND	0.001	mg/L		
Antimony, total	MW-35	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-35	11/10/2015	ND	0.001	mg/L		
Antimony, total	MW-35	02/22/2016	ND	0.001	mg/L		
Antimony, total	MW-35	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-35	08/31/2016	ND	0.001	mg/L		
Antimony, total	MW-35	11/15/2016	ND	0.001	mg/L		
Antimony, total	MW-35	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-35	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-35	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-35	11/15/2017	ND	0.001	mg/L		
Antimony, total	MW-35	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-35	05/17/2018	ND	0.001	mg/L		
Antimony, total	MW-35	08/22/2018	ND	0.001	mg/L		
Antimony, total	MW-35	11/12/2018	ND	0.001	mg/L		
Antimony, total	MW-35	11/12/2019	ND	0.001	mg/L		
Antimony, total	MW-35	11/19/2020	ND	0.001	mg/L		
Arsenic, total	MW-13A	03/22/2005	ND	5	ug/L		*
Arsenic, total	MW-13A	06/15/2005		0.22	ug/L		
Arsenic, total	MW-13A	09/27/2005		0.23	ug/L		
Arsenic, total	MW-13A	12/15/2005		0.21	ug/L		
Arsenic, total	MW-13A	12/03/2013		0.17	ug/L		
Arsenic, total	MW-13A	03/04/2014		0.18	ug/L		
Arsenic, total	MW-13A	06/02/2014		0.2	ug/L		
Arsenic, total	MW-13A	09/22/2014		0.17	ug/L		
Arsenic, total	MW-13A	11/17/2014		0.18	ug/L		
Arsenic, total	MW-13A	02/23/2015		0.21	ug/L		
Arsenic, total	MW-13A	05/19/2015		0.18	ug/L		
Arsenic, total	MW-13A	08/26/2015		0.19	ug/L		
Arsenic, total	MW-13A	11/10/2015		0.2	ug/L		
Arsenic, total	MW-13A	02/22/2016		0.2	ug/L		
Arsenic, total	MW-13A	05/16/2016		0.16	ug/L		
Arsenic, total	MW-13A	08/31/2016		0.177	ug/L		
Arsenic, total	MW-13A	11/14/2016		0.17	ug/L		
Arsenic, total	MW-13A	02/22/2017		0.201	ug/L		
Arsenic, total	MW-13A	05/24/2017		0.181	ug/L		
Arsenic, total	MW-13A	08/30/2017		0.191	ug/L		
Arsenic, total	MW-13A	11/13/2017		0.193	ug/L		
Arsenic, total	MW-13A	02/20/2018		0.199	ug/L		
Arsenic, total	MW-13A	05/15/2018		0.183	ug/L		
Arsenic, total	MW-13A	08/21/2018		0.199	ug/L		
Arsenic, total	MW-13A	11/12/2018		0.189	ug/L		
Arsenic, total	MW-13A	11/11/2019		0.205	ug/L		
Arsenic, total	MW-13A	11/19/2020		0.198	ug/L		
Arsenic, total	MW-13B	03/22/2005	ND	5	ug/L		*
Arsenic, total	MW-13B	06/15/2005		0.37	ug/L		
Arsenic, total	MW-13B	09/27/2005		0.39	ug/L		
Arsenic, total	MW-13B	12/15/2005		0.38	ug/L		
Arsenic, total	MW-13B	12/03/2013		0.28	ug/L		
Arsenic, total	MW-13B	03/04/2014		0.32	ug/L		
Arsenic, total	MW-13B	06/02/2014		0.33	ug/L		
Arsenic, total	MW-13B	09/22/2014		0.3	ug/L		
Arsenic, total	MW-13B	11/17/2014		0.3	ug/L		
Arsenic, total	MW-13B	02/23/2015		0.36	ug/L		
Arsenic, total	MW-13B	05/19/2015		0.31	ug/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Arsenic, total	MW-13B	08/26/2015		0.31	ug/L		
Arsenic, total	MW-13B	11/10/2015		0.3	ug/L		
Arsenic, total	MW-13B	02/22/2016		0.3	ug/L		
Arsenic, total	MW-13B	05/16/2016		0.29	ug/L		
Arsenic, total	MW-13B	08/31/2016		0.311	ug/L		
Arsenic, total	MW-13B	11/14/2016		0.314	ug/L		
Arsenic, total	MW-13B	02/22/2017		0.324	ug/L		
Arsenic, total	MW-13B	05/24/2017		0.327	ug/L		
Arsenic, total	MW-13B	08/30/2017		0.338	ug/L		
Arsenic, total	MW-13B	11/13/2017		0.311	ug/L		
Arsenic, total	MW-13B	02/20/2018		0.366	ug/L		
Arsenic, total	MW-13B	05/15/2018		0.342	ug/L		
Arsenic, total	MW-13B	08/21/2018		0.377	ug/L		
Arsenic, total	MW-13B	11/12/2018		0.337	ug/L		
Arsenic, total	MW-13B	11/11/2019		0.322	ug/L		
Arsenic, total	MW-13B	11/19/2020		0.347	ug/L		
Arsenic, total	MW-16	12/23/2013		0.29	ug/L		
Arsenic, total	MW-16	03/05/2014		0.43	ug/L		
Arsenic, total	MW-16	06/02/2014		0.33	ug/L		
Arsenic, total	MW-16	09/22/2014		0.32	ug/L		
Arsenic, total	MW-16	11/18/2014		0.35	ug/L		
Arsenic, total	MW-16	02/23/2015		0.37	ug/L		
Arsenic, total	MW-16	05/20/2015		0.34	ug/L		
Arsenic, total	MW-16	08/26/2015		0.32	ug/L		
Arsenic, total	MW-16	11/11/2015		0.3	ug/L		
Arsenic, total	MW-16	02/24/2016		0.3	ug/L		
Arsenic, total	MW-16	05/16/2016		0.3	ug/L		
Arsenic, total	MW-16	08/31/2016		0.311	ug/L		
Arsenic, total	MW-16	11/14/2016		0.381	ug/L		
Arsenic, total	MW-16	02/22/2017		0.383	ug/L		
Arsenic, total	MW-16	05/24/2017		0.375	ug/L		
Arsenic, total	MW-16	08/30/2017		0.353	ug/L		
Arsenic, total	MW-16	11/13/2017		0.364	ug/L		
Arsenic, total	MW-16	02/20/2018		0.446	ug/L		
Arsenic, total	MW-16	05/17/2018		0.367	ug/L		
Arsenic, total	MW-16	08/22/2018		0.173	ug/L		
Arsenic, total	MW-16	11/12/2018		0.452	ug/L		
Arsenic, total	MW-16	11/12/2019		0.413	ug/L		
Arsenic, total	MW-16	11/20/2020		1.1	ug/L		*
Arsenic, total	MW-35	03/22/2005	ND	5	ug/L		*
Arsenic, total	MW-35	06/14/2005		0.14	ug/L		
Arsenic, total	MW-35	09/27/2005		0.15	ug/L		
Arsenic, total	MW-35	12/15/2005		0.14	ug/L		
Arsenic, total	MW-35	12/23/2013		0.12	ug/L		
Arsenic, total	MW-35	03/04/2014		0.11	ug/L		
Arsenic, total	MW-35	06/02/2014		0.12	ug/L		
Arsenic, total	MW-35	09/22/2014		0.11	ug/L		
Arsenic, total	MW-35	11/17/2014		0.12	ug/L		
Arsenic, total	MW-35	02/25/2015		0.11	ug/L		
Arsenic, total	MW-35	05/19/2015		0.11	ug/L		
Arsenic, total	MW-35	08/26/2015		0.11	ug/L		
Arsenic, total	MW-35	11/10/2015		0.1	ug/L		
Arsenic, total	MW-35	02/22/2016		0.1	ug/L		
Arsenic, total	MW-35	05/16/2016		0.1	ug/L		
Arsenic, total	MW-35	08/31/2016		0.109	ug/L		
Arsenic, total	MW-35	11/15/2016		0.114	ug/L		
Arsenic, total	MW-35	02/22/2017		0.12	ug/L		
Arsenic, total	MW-35	05/24/2017		0.134	ug/L		
Arsenic, total	MW-35	08/30/2017		0.114	ug/L		
Arsenic, total	MW-35	11/15/2017		0.107	ug/L		
Arsenic, total	MW-35	02/20/2018		0.12	ug/L		
Arsenic, total	MW-35	05/17/2018		0.111	ug/L		
Arsenic, total	MW-35	08/22/2018		0.126	ug/L		
Arsenic, total	MW-35	11/12/2018		0.112	ug/L		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Arsenic, total	MW-35	11/12/2019		0.0996	ug/L		
Arsenic, total	MW-35	11/19/2020		0.115	ug/L		
Barium, total	MW-13A	12/03/2013		0.003	mg/L		
Barium, total	MW-13A	03/04/2014		0.0029	mg/L		
Barium, total	MW-13A	06/02/2014		0.0029	mg/L		
Barium, total	MW-13A	09/22/2014		0.0027	mg/L		
Barium, total	MW-13A	11/17/2014		0.0026	mg/L		
Barium, total	MW-13A	02/23/2015		0.0024	mg/L		
Barium, total	MW-13A	05/19/2015		0.0023	mg/L		
Barium, total	MW-13A	08/26/2015		0.0033	mg/L		
Barium, total	MW-13A	11/10/2015		0.003	mg/L		
Barium, total	MW-13A	02/22/2016		0.0023	mg/L		
Barium, total	MW-13A	05/16/2016		0.003	mg/L		
Barium, total	MW-13A	08/31/2016		0.0029	mg/L		
Barium, total	MW-13A	11/14/2016		0.0028	mg/L		
Barium, total	MW-13A	02/22/2017		0.0028	mg/L		
Barium, total	MW-13A	05/24/2017		0.0025	mg/L		
Barium, total	MW-13A	08/30/2017		0.0025	mg/L		
Barium, total	MW-13A	11/13/2017		0.003	mg/L		
Barium, total	MW-13A	02/20/2018		0.0025	mg/L		
Barium, total	MW-13A	05/15/2018		0.0027	mg/L		
Barium, total	MW-13A	08/21/2018		0.0027	mg/L		
Barium, total	MW-13A	11/12/2018		0.0028	mg/L		
Barium, total	MW-13A	11/11/2019		0.0027	mg/L		
Barium, total	MW-13A	11/19/2020		0.0025	mg/L		
Barium, total	MW-13B	12/03/2013		0.0035	mg/L		
Barium, total	MW-13B	03/04/2014		0.0032	mg/L		
Barium, total	MW-13B	06/02/2014		0.0031	mg/L		
Barium, total	MW-13B	09/22/2014		0.0033	mg/L		
Barium, total	MW-13B	11/17/2014		0.0037	mg/L		
Barium, total	MW-13B	02/23/2015		0.0034	mg/L		
Barium, total	MW-13B	05/19/2015		0.0033	mg/L		
Barium, total	MW-13B	08/26/2015		0.0039	mg/L		
Barium, total	MW-13B	11/10/2015		0.0036	mg/L		
Barium, total	MW-13B	02/22/2016		0.0036	mg/L		
Barium, total	MW-13B	05/16/2016		0.0034	mg/L		
Barium, total	MW-13B	08/31/2016		0.0041	mg/L		
Barium, total	MW-13B	11/14/2016		0.0029	mg/L		
Barium, total	MW-13B	02/22/2017		0.0034	mg/L		
Barium, total	MW-13B	05/24/2017		0.0033	mg/L		
Barium, total	MW-13B	08/30/2017		0.0033	mg/L		
Barium, total	MW-13B	11/13/2017		0.0035	mg/L		
Barium, total	MW-13B	02/20/2018		0.0035	mg/L		
Barium, total	MW-13B	05/15/2018		0.0033	mg/L		
Barium, total	MW-13B	08/21/2018		0.0031	mg/L		
Barium, total	MW-13B	11/12/2018		0.0034	mg/L		
Barium, total	MW-13B	11/11/2019		0.0034	mg/L		
Barium, total	MW-13B	11/19/2020		0.0032	mg/L		
Barium, total	MW-16	09/05/2013		0.0041	mg/L		
Barium, total	MW-16	12/16/2013		0.0043	mg/L		
Barium, total	MW-16	03/05/2014		0.0036	mg/L		
Barium, total	MW-16	06/02/2014		0.0025	mg/L		
Barium, total	MW-16	09/22/2014		0.0033	mg/L		
Barium, total	MW-16	11/18/2014		0.0039	mg/L		
Barium, total	MW-16	02/23/2015		0.0036	mg/L		
Barium, total	MW-16	05/20/2015		0.0034	mg/L		
Barium, total	MW-16	08/26/2015		0.0038	mg/L		
Barium, total	MW-16	11/11/2015		0.0043	mg/L		
Barium, total	MW-16	02/24/2016		0.0027	mg/L		
Barium, total	MW-16	05/16/2016		0.0031	mg/L		
Barium, total	MW-16	08/31/2016		0.0042	mg/L		
Barium, total	MW-16	11/14/2016		0.0045	mg/L		
Barium, total	MW-16	02/22/2017		0.0027	mg/L		
Barium, total	MW-16	05/24/2017		0.0026	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Barium, total	MW-16	08/30/2017		0.0031	mg/L		
Barium, total	MW-16	11/13/2017		0.0035	mg/L		
Barium, total	MW-16	02/20/2018		0.0027	mg/L		
Barium, total	MW-16	05/17/2018		0.0032	mg/L		
Barium, total	MW-16	08/22/2018		0.0033	mg/L		
Barium, total	MW-16	11/12/2018		0.0038	mg/L		
Barium, total	MW-16	11/12/2019		0.0043	mg/L		
Barium, total	MW-16	11/20/2020		0.0055	mg/L		
Barium, total	MW-35	09/05/2013		0.0034	mg/L		
Barium, total	MW-35	12/16/2013		0.0031	mg/L		
Barium, total	MW-35	03/04/2014		0.003	mg/L		
Barium, total	MW-35	06/02/2014		0.0034	mg/L		
Barium, total	MW-35	09/22/2014		0.0034	mg/L		
Barium, total	MW-35	11/17/2014		0.0034	mg/L		
Barium, total	MW-35	02/25/2015		0.003	mg/L		
Barium, total	MW-35	05/19/2015		0.0031	mg/L		
Barium, total	MW-35	08/26/2015		0.0029	mg/L		
Barium, total	MW-35	11/10/2015		0.003	mg/L		
Barium, total	MW-35	02/22/2016		0.0031	mg/L		
Barium, total	MW-35	05/16/2016		0.0033	mg/L		
Barium, total	MW-35	08/31/2016		0.0029	mg/L		
Barium, total	MW-35	11/15/2016		0.0027	mg/L		
Barium, total	MW-35	02/22/2017		0.0031	mg/L		
Barium, total	MW-35	05/24/2017		0.0027	mg/L		
Barium, total	MW-35	08/30/2017		0.0028	mg/L		
Barium, total	MW-35	11/15/2017		0.0028	mg/L		
Barium, total	MW-35	02/20/2018		0.0026	mg/L		
Barium, total	MW-35	05/17/2018		0.0032	mg/L		
Barium, total	MW-35	08/22/2018		0.0033	mg/L		
Barium, total	MW-35	11/12/2018		0.0032	mg/L		
Barium, total	MW-35	11/12/2019		0.0033	mg/L		
Barium, total	MW-35	11/19/2020		0.0029	mg/L		
Beryllium, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Beryllium, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Beryllium, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Beryllium, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/10/2015	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
 Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Beryllium, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Beryllium, total	MW-16	09/05/2013	ND	0.001	mg/L		
Beryllium, total	MW-16	12/16/2013	ND	0.001	mg/L		
Beryllium, total	MW-16	03/05/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	11/18/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	02/23/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	05/20/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	11/11/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	02/24/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	11/14/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	11/13/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	05/17/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	08/22/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	11/12/2019	ND	0.001	mg/L		
Beryllium, total	MW-16	11/20/2020	ND	0.001	mg/L		
Beryllium, total	MW-35	09/05/2013	ND	0.001	mg/L		
Beryllium, total	MW-35	12/16/2013	ND	0.001	mg/L		
Beryllium, total	MW-35	03/04/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	11/17/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	02/25/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	05/19/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	11/10/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	02/22/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	11/15/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	11/15/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	05/17/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	08/22/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	11/12/2019	ND	0.001	mg/L		
Beryllium, total	MW-35	11/19/2020	ND	0.001	mg/L		
Cadmium, total	MW-13A	12/03/2013	ND	0.0002	mg/L		
Cadmium, total	MW-13A	03/04/2014	ND	0.0002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Cadmium, total	MW-13A	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/17/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/23/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/19/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/10/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/22/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/14/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/13/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/15/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/21/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/11/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/19/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	12/03/2013	ND	0.0002	mg/L		
Cadmium, total	MW-13B	03/04/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/17/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/23/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/19/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/10/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/22/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/14/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/13/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/15/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/21/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/11/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/19/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	09/05/2013	ND	0.0002	mg/L		
Cadmium, total	MW-16	12/16/2013	ND	0.0002	mg/L		
Cadmium, total	MW-16	03/05/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/18/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/23/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/20/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/11/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/24/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/14/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/13/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/17/2018	ND	0.0002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Cadmium, total	MW-16	08/22/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/12/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/20/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	09/05/2013	ND	0.0002	mg/L		
Cadmium, total	MW-35	12/16/2013	ND	0.0002	mg/L		
Cadmium, total	MW-35	03/04/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/17/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/25/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/19/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/10/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/22/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/15/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/15/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/17/2018	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/22/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/12/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/19/2020	ND	0.0003	mg/L	0.0002	**
Calcium, dissolved	MW-13A	03/22/2005		15.7	mg/L		
Calcium, dissolved	MW-13A	06/15/2005		14.2	mg/L		
Calcium, dissolved	MW-13A	09/27/2005		14.2	mg/L		
Calcium, dissolved	MW-13A	12/15/2005		15.1	mg/L		
Calcium, dissolved	MW-13A	03/28/2006		16	mg/L		
Calcium, dissolved	MW-13A	06/21/2006		16	mg/L		
Calcium, dissolved	MW-13A	09/26/2006		15	mg/L		
Calcium, dissolved	MW-13A	12/13/2006		15	mg/L		
Calcium, dissolved	MW-13A	03/27/2007		15	mg/L		
Calcium, dissolved	MW-13A	06/19/2007		16	mg/L		
Calcium, dissolved	MW-13A	09/19/2007		16	mg/L		
Calcium, dissolved	MW-13A	12/19/2007		15	mg/L		
Calcium, dissolved	MW-13A	03/25/2008		16	mg/L		
Calcium, dissolved	MW-13A	06/18/2008		16	mg/L		
Calcium, dissolved	MW-13A	09/17/2008		15	mg/L		
Calcium, dissolved	MW-13A	12/17/2008		16	mg/L		
Calcium, dissolved	MW-13A	03/24/2009		15	mg/L		
Calcium, dissolved	MW-13A	06/17/2009		17	mg/L		
Calcium, dissolved	MW-13A	09/10/2009		15	mg/L		
Calcium, dissolved	MW-13A	12/03/2009		15	mg/L		
Calcium, dissolved	MW-13A	03/25/2010		16	mg/L		
Calcium, dissolved	MW-13A	06/23/2010		15	mg/L		
Calcium, dissolved	MW-13A	09/23/2010		15	mg/L		
Calcium, dissolved	MW-13A	12/08/2010		16	mg/L		
Calcium, dissolved	MW-13A	03/30/2011		16	mg/L		
Calcium, dissolved	MW-13A	06/06/2011		16	mg/L		
Calcium, dissolved	MW-13A	09/27/2011		16	mg/L		
Calcium, dissolved	MW-13A	12/14/2011		16	mg/L		
Calcium, dissolved	MW-13A	03/21/2012		16	mg/L		
Calcium, dissolved	MW-13A	06/08/2012		15	mg/L		
Calcium, dissolved	MW-13A	09/26/2012		15	mg/L		
Calcium, dissolved	MW-13A	12/03/2012		16	mg/L		
Calcium, dissolved	MW-13A	03/11/2013		16	mg/L		
Calcium, dissolved	MW-13A	06/05/2013		16	mg/L		
Calcium, dissolved	MW-13A	12/03/2013		16	mg/L		
Calcium, dissolved	MW-13A	03/04/2014		16	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Calcium, dissolved	MW-13A	06/02/2014		16	mg/L		
Calcium, dissolved	MW-13A	09/22/2014		15	mg/L		
Calcium, dissolved	MW-13A	11/17/2014		15	mg/L		
Calcium, dissolved	MW-13A	02/23/2015		15	mg/L		
Calcium, dissolved	MW-13A	05/19/2015		16	mg/L		
Calcium, dissolved	MW-13A	08/26/2015		15	mg/L		
Calcium, dissolved	MW-13A	11/10/2015		15	mg/L		
Calcium, dissolved	MW-13A	02/22/2016		16	mg/L		
Calcium, dissolved	MW-13A	05/16/2016		15	mg/L		
Calcium, dissolved	MW-13A	08/31/2016		17	mg/L		
Calcium, dissolved	MW-13A	11/14/2016		16	mg/L		
Calcium, dissolved	MW-13A	02/22/2017		17	mg/L		
Calcium, dissolved	MW-13A	05/24/2017		14	mg/L		
Calcium, dissolved	MW-13A	08/30/2017		15	mg/L		
Calcium, dissolved	MW-13A	11/13/2017		15	mg/L		
Calcium, dissolved	MW-13A	02/20/2018		14	mg/L		
Calcium, dissolved	MW-13A	05/15/2018		15	mg/L		
Calcium, dissolved	MW-13A	08/21/2018		15	mg/L		
Calcium, dissolved	MW-13A	11/12/2018		15	mg/L		
Calcium, dissolved	MW-13A	11/11/2019		15	mg/L		
Calcium, dissolved	MW-13A	11/19/2020		15	mg/L		
Calcium, dissolved	MW-13B	03/22/2005		16.9	mg/L		
Calcium, dissolved	MW-13B	06/15/2005		16	mg/L		
Calcium, dissolved	MW-13B	09/27/2005		17.1	mg/L		
Calcium, dissolved	MW-13B	12/15/2005		16.1	mg/L		
Calcium, dissolved	MW-13B	03/29/2006		17	mg/L		
Calcium, dissolved	MW-13B	06/21/2006		17	mg/L		
Calcium, dissolved	MW-13B	09/26/2006		16	mg/L		
Calcium, dissolved	MW-13B	12/13/2006		17	mg/L		
Calcium, dissolved	MW-13B	03/27/2007		16	mg/L		
Calcium, dissolved	MW-13B	06/19/2007		16	mg/L		
Calcium, dissolved	MW-13B	09/18/2007		17	mg/L		
Calcium, dissolved	MW-13B	12/19/2007		15	mg/L		
Calcium, dissolved	MW-13B	03/25/2008		16	mg/L		
Calcium, dissolved	MW-13B	06/18/2008		17	mg/L		
Calcium, dissolved	MW-13B	09/17/2008		16	mg/L		
Calcium, dissolved	MW-13B	12/16/2008		16	mg/L		
Calcium, dissolved	MW-13B	03/24/2009		16	mg/L		
Calcium, dissolved	MW-13B	06/17/2009		17	mg/L		
Calcium, dissolved	MW-13B	09/10/2009		16	mg/L		
Calcium, dissolved	MW-13B	12/03/2009		16	mg/L		
Calcium, dissolved	MW-13B	03/25/2010		17	mg/L		
Calcium, dissolved	MW-13B	06/23/2010		16	mg/L		
Calcium, dissolved	MW-13B	09/23/2010		16	mg/L		
Calcium, dissolved	MW-13B	12/08/2010		16	mg/L		
Calcium, dissolved	MW-13B	03/30/2011		16	mg/L		
Calcium, dissolved	MW-13B	06/06/2011		16	mg/L		
Calcium, dissolved	MW-13B	09/27/2011		16	mg/L		
Calcium, dissolved	MW-13B	12/14/2011		16	mg/L		
Calcium, dissolved	MW-13B	03/21/2012		16	mg/L		
Calcium, dissolved	MW-13B	06/08/2012		16	mg/L		
Calcium, dissolved	MW-13B	09/26/2012		16	mg/L		
Calcium, dissolved	MW-13B	12/03/2012		17	mg/L		
Calcium, dissolved	MW-13B	03/11/2013		17	mg/L		
Calcium, dissolved	MW-13B	06/05/2013		17	mg/L		
Calcium, dissolved	MW-13B	12/03/2013		17	mg/L		
Calcium, dissolved	MW-13B	03/04/2014		17	mg/L		
Calcium, dissolved	MW-13B	06/02/2014		16	mg/L		
Calcium, dissolved	MW-13B	09/22/2014		15	mg/L		
Calcium, dissolved	MW-13B	11/17/2014		16	mg/L		
Calcium, dissolved	MW-13B	02/23/2015		17	mg/L		
Calcium, dissolved	MW-13B	05/19/2015		17	mg/L		
Calcium, dissolved	MW-13B	08/26/2015		16	mg/L		
Calcium, dissolved	MW-13B	11/10/2015		17	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Calcium, dissolved	MW-13B	02/22/2016		18	mg/L		
Calcium, dissolved	MW-13B	05/16/2016		16	mg/L		
Calcium, dissolved	MW-13B	08/31/2016		18	mg/L		
Calcium, dissolved	MW-13B	11/14/2016		17	mg/L		
Calcium, dissolved	MW-13B	02/22/2017		18	mg/L		
Calcium, dissolved	MW-13B	05/24/2017		14	mg/L		
Calcium, dissolved	MW-13B	08/30/2017		17	mg/L		
Calcium, dissolved	MW-13B	11/13/2017		17	mg/L		
Calcium, dissolved	MW-13B	02/20/2018		16	mg/L		
Calcium, dissolved	MW-13B	05/15/2018		17	mg/L		
Calcium, dissolved	MW-13B	08/21/2018		18	mg/L		
Calcium, dissolved	MW-13B	11/12/2018		17	mg/L		
Calcium, dissolved	MW-13B	11/11/2019		16	mg/L		
Calcium, dissolved	MW-13B	11/19/2020		16	mg/L		
Calcium, dissolved	MW-16	03/24/2009		12	mg/L		
Calcium, dissolved	MW-16	06/16/2009		10	mg/L		
Calcium, dissolved	MW-16	09/09/2009		11	mg/L		
Calcium, dissolved	MW-16	12/03/2009		14	mg/L		
Calcium, dissolved	MW-16	03/25/2010		9.6	mg/L		
Calcium, dissolved	MW-16	06/24/2010		12	mg/L		
Calcium, dissolved	MW-16	09/24/2010		13	mg/L		
Calcium, dissolved	MW-16	12/09/2010		13	mg/L		
Calcium, dissolved	MW-16	03/30/2011		9.8	mg/L		
Calcium, dissolved	MW-16	06/07/2011		9.7	mg/L		
Calcium, dissolved	MW-16	09/27/2011		12	mg/L		
Calcium, dissolved	MW-16	12/13/2011		11	mg/L		
Calcium, dissolved	MW-16	03/21/2012		8.9	mg/L		
Calcium, dissolved	MW-16	06/08/2012		9.1	mg/L		
Calcium, dissolved	MW-16	09/27/2012		11	mg/L		
Calcium, dissolved	MW-16	12/04/2012		11	mg/L		
Calcium, dissolved	MW-16	03/12/2013		10	mg/L		
Calcium, dissolved	MW-16	06/04/2013		10	mg/L		
Calcium, dissolved	MW-16	09/05/2013		11	mg/L		
Calcium, dissolved	MW-16	12/16/2013		11	mg/L		
Calcium, dissolved	MW-16	03/05/2014		9.8	mg/L		
Calcium, dissolved	MW-16	06/02/2014		8.8	mg/L		
Calcium, dissolved	MW-16	09/22/2014		9.9	mg/L		
Calcium, dissolved	MW-16	11/18/2014		11	mg/L		
Calcium, dissolved	MW-16	02/23/2015		9.5	mg/L		
Calcium, dissolved	MW-16	05/20/2015		10	mg/L		
Calcium, dissolved	MW-16	08/26/2015		9.8	mg/L		
Calcium, dissolved	MW-16	11/11/2015		12	mg/L		
Calcium, dissolved	MW-16	02/24/2016		7.7	mg/L		
Calcium, dissolved	MW-16	05/16/2016		8.4	mg/L		
Calcium, dissolved	MW-16	08/31/2016		12	mg/L		
Calcium, dissolved	MW-16	11/14/2016		9.6	mg/L		
Calcium, dissolved	MW-16	02/22/2017		8.4	mg/L		
Calcium, dissolved	MW-16	05/24/2017		7.6	mg/L		
Calcium, dissolved	MW-16	08/30/2017		9.2	mg/L		
Calcium, dissolved	MW-16	11/13/2017		8.9	mg/L		
Calcium, dissolved	MW-16	02/20/2018		7.5	mg/L		
Calcium, dissolved	MW-16	05/17/2018		7.9	mg/L		
Calcium, dissolved	MW-16	08/22/2018		8.8	mg/L		
Calcium, dissolved	MW-16	11/12/2018		9.7	mg/L		
Calcium, dissolved	MW-16	11/12/2019		12	mg/L		
Calcium, dissolved	MW-16	11/20/2020		13	mg/L		
Calcium, dissolved	MW-35	03/22/2005		13.9	mg/L		
Calcium, dissolved	MW-35	06/14/2005		12.9	mg/L		
Calcium, dissolved	MW-35	09/27/2005		14.8	mg/L		
Calcium, dissolved	MW-35	12/15/2005		13.2	mg/L		
Calcium, dissolved	MW-35	03/28/2006		14	mg/L		
Calcium, dissolved	MW-35	06/21/2006		14	mg/L		
Calcium, dissolved	MW-35	09/26/2006		13	mg/L		
Calcium, dissolved	MW-35	12/12/2006		14	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Calcium, dissolved	MW-35	03/27/2007		13	mg/L		
Calcium, dissolved	MW-35	06/20/2007		14	mg/L		
Calcium, dissolved	MW-35	09/18/2007		14	mg/L		
Calcium, dissolved	MW-35	12/20/2007		13	mg/L		
Calcium, dissolved	MW-35	03/25/2008		13	mg/L		
Calcium, dissolved	MW-35	06/18/2008		13	mg/L		
Calcium, dissolved	MW-35	09/18/2008		13	mg/L		
Calcium, dissolved	MW-35	12/19/2008		12	mg/L		
Calcium, dissolved	MW-35	03/24/2009		13	mg/L		
Calcium, dissolved	MW-35	06/16/2009		13	mg/L		
Calcium, dissolved	MW-35	09/10/2009		12	mg/L		
Calcium, dissolved	MW-35	12/03/2009		13	mg/L		
Calcium, dissolved	MW-35	03/25/2010		13	mg/L		
Calcium, dissolved	MW-35	06/23/2010		13	mg/L		
Calcium, dissolved	MW-35	09/23/2010		13	mg/L		
Calcium, dissolved	MW-35	12/09/2010		14	mg/L		
Calcium, dissolved	MW-35	03/30/2011		14	mg/L		
Calcium, dissolved	MW-35	06/06/2011		13	mg/L		
Calcium, dissolved	MW-35	09/26/2011		14	mg/L		
Calcium, dissolved	MW-35	12/13/2011		14	mg/L		
Calcium, dissolved	MW-35	03/21/2012		14	mg/L		
Calcium, dissolved	MW-35	06/06/2012		13	mg/L		
Calcium, dissolved	MW-35	09/26/2012		13	mg/L		
Calcium, dissolved	MW-35	12/04/2012		14	mg/L		
Calcium, dissolved	MW-35	03/13/2013		14	mg/L		
Calcium, dissolved	MW-35	06/06/2013		13	mg/L		
Calcium, dissolved	MW-35	09/05/2013		13	mg/L		
Calcium, dissolved	MW-35	12/16/2013		14	mg/L		
Calcium, dissolved	MW-35	03/04/2014		14	mg/L		
Calcium, dissolved	MW-35	06/02/2014		14	mg/L		
Calcium, dissolved	MW-35	09/22/2014		13	mg/L		
Calcium, dissolved	MW-35	11/17/2014		14	mg/L		
Calcium, dissolved	MW-35	02/25/2015		15	mg/L		
Calcium, dissolved	MW-35	05/19/2015		13	mg/L		
Calcium, dissolved	MW-35	08/26/2015		13	mg/L		
Calcium, dissolved	MW-35	11/10/2015		15	mg/L		
Calcium, dissolved	MW-35	02/22/2016		15	mg/L		
Calcium, dissolved	MW-35	05/16/2016		14	mg/L		
Calcium, dissolved	MW-35	08/31/2016		15	mg/L		
Calcium, dissolved	MW-35	11/15/2016		14	mg/L		
Calcium, dissolved	MW-35	02/22/2017		15	mg/L		
Calcium, dissolved	MW-35	05/24/2017		13	mg/L		
Calcium, dissolved	MW-35	08/30/2017		14	mg/L		
Calcium, dissolved	MW-35	11/15/2017		13	mg/L		
Calcium, dissolved	MW-35	02/20/2018		13	mg/L		
Calcium, dissolved	MW-35	05/17/2018		14	mg/L		
Calcium, dissolved	MW-35	08/22/2018		14	mg/L		
Calcium, dissolved	MW-35	11/12/2018		15	mg/L		
Calcium, dissolved	MW-35	11/12/2019		14	mg/L		
Calcium, dissolved	MW-35	11/19/2020		14	mg/L		
Chloride	MW-13A	03/22/2005		2.6	mg/L		
Chloride	MW-13A	06/15/2005		1.9	mg/L		
Chloride	MW-13A	09/27/2005		2.4	mg/L		
Chloride	MW-13A	12/15/2005		2.1	mg/L		
Chloride	MW-13A	03/28/2006		3	mg/L		
Chloride	MW-13A	06/21/2006		2.4	mg/L		
Chloride	MW-13A	09/26/2006		2.6	mg/L		
Chloride	MW-13A	12/13/2006		3	mg/L		
Chloride	MW-13A	03/27/2007		2.8	mg/L		
Chloride	MW-13A	06/19/2007		2.6	mg/L		
Chloride	MW-13A	09/19/2007		2.6	mg/L		
Chloride	MW-13A	12/19/2007		2.6	mg/L		
Chloride	MW-13A	03/25/2008		2.5	mg/L		
Chloride	MW-13A	06/18/2008		2.6	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Chloride	MW-13A	09/17/2008		2.5	mg/L		
Chloride	MW-13A	12/17/2008		3.1	mg/L		
Chloride	MW-13A	03/24/2009		2.7	mg/L		
Chloride	MW-13A	06/17/2009		2.4	mg/L		
Chloride	MW-13A	09/10/2009		2.1	mg/L		
Chloride	MW-13A	12/03/2009		3.4	mg/L		
Chloride	MW-13A	03/25/2010		2.2	mg/L		
Chloride	MW-13A	06/23/2010		2.6	mg/L		
Chloride	MW-13A	09/23/2010		2.8	mg/L		
Chloride	MW-13A	12/08/2010		2.9	mg/L		
Chloride	MW-13A	03/30/2011		2.9	mg/L		
Chloride	MW-13A	06/06/2011		3	mg/L		
Chloride	MW-13A	09/27/2011		3.8	mg/L		
Chloride	MW-13A	12/14/2011		4.4	mg/L		
Chloride	MW-13A	03/21/2012		2.7	mg/L		
Chloride	MW-13A	06/08/2012		3	mg/L		
Chloride	MW-13A	09/26/2012		2.6	mg/L		
Chloride	MW-13A	12/03/2012		1.8	mg/L		
Chloride	MW-13A	03/11/2013		3	mg/L		
Chloride	MW-13A	06/05/2013		1.7	mg/L		
Chloride	MW-13A	12/03/2013		1.7	mg/L		
Chloride	MW-13A	03/04/2014		1.7	mg/L		
Chloride	MW-13A	06/02/2014		2	mg/L		
Chloride	MW-13A	09/22/2014		1.7	mg/L		
Chloride	MW-13A	11/17/2014		1.9	mg/L		
Chloride	MW-13A	02/23/2015		1.8	mg/L		
Chloride	MW-13A	05/19/2015		1.9	mg/L		
Chloride	MW-13A	08/26/2015		2.1	mg/L		
Chloride	MW-13A	11/10/2015		1.9	mg/L		
Chloride	MW-13A	02/22/2016		1.9	mg/L		
Chloride	MW-13A	05/16/2016		1.9	mg/L		
Chloride	MW-13A	08/31/2016		1.9	mg/L		
Chloride	MW-13A	11/14/2016		1.8	mg/L		
Chloride	MW-13A	02/22/2017		2	mg/L		
Chloride	MW-13A	05/24/2017		1.9	mg/L		
Chloride	MW-13A	08/30/2017		2.4	mg/L		
Chloride	MW-13A	11/13/2017		1.7	mg/L		
Chloride	MW-13A	02/20/2018		2.1	mg/L		
Chloride	MW-13A	05/15/2018		1.8	mg/L		
Chloride	MW-13A	08/21/2018		1.8	mg/L		
Chloride	MW-13A	11/12/2018		1.9	mg/L		
Chloride	MW-13A	11/11/2019	ND	3	mg/L		
Chloride	MW-13A	11/19/2020	ND	3	mg/L		
Chloride	MW-13B	03/22/2005		3	mg/L		
Chloride	MW-13B	06/15/2005		2.3	mg/L		
Chloride	MW-13B	09/27/2005		2.8	mg/L		
Chloride	MW-13B	12/15/2005		2.4	mg/L		
Chloride	MW-13B	03/29/2006		3.2	mg/L		
Chloride	MW-13B	06/21/2006		2.9	mg/L		
Chloride	MW-13B	09/26/2006		2.7	mg/L		
Chloride	MW-13B	12/13/2006		3.3	mg/L		
Chloride	MW-13B	03/27/2007		3	mg/L		
Chloride	MW-13B	06/19/2007		2.8	mg/L		
Chloride	MW-13B	09/18/2007		2.8	mg/L		
Chloride	MW-13B	12/19/2007		2.8	mg/L		
Chloride	MW-13B	03/25/2008		2.7	mg/L		
Chloride	MW-13B	06/18/2008		2.8	mg/L		
Chloride	MW-13B	09/17/2008		2.7	mg/L		
Chloride	MW-13B	12/16/2008		3.2	mg/L		
Chloride	MW-13B	03/24/2009		2.6	mg/L		
Chloride	MW-13B	06/17/2009		3	mg/L		
Chloride	MW-13B	09/10/2009		2.3	mg/L		
Chloride	MW-13B	12/03/2009		2.9	mg/L		
Chloride	MW-13B	03/25/2010		2.5	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Chloride	MW-13B	06/23/2010		2.8	mg/L		
Chloride	MW-13B	09/23/2010		3	mg/L		
Chloride	MW-13B	12/08/2010		2.5	mg/L		
Chloride	MW-13B	03/30/2011		3.1	mg/L		
Chloride	MW-13B	06/06/2011		3.2	mg/L		
Chloride	MW-13B	09/27/2011		3.7	mg/L		
Chloride	MW-13B	12/14/2011		3.4	mg/L		
Chloride	MW-13B	03/21/2012		2.8	mg/L		
Chloride	MW-13B	06/08/2012		3.4	mg/L		
Chloride	MW-13B	09/26/2012		2.9	mg/L		
Chloride	MW-13B	12/03/2012		2.1	mg/L		
Chloride	MW-13B	03/11/2013		2.1	mg/L		
Chloride	MW-13B	06/05/2013		2	mg/L		
Chloride	MW-13B	12/03/2013		1.9	mg/L		
Chloride	MW-13B	03/04/2014		1.9	mg/L		
Chloride	MW-13B	06/02/2014		2.1	mg/L		
Chloride	MW-13B	09/22/2014		1.9	mg/L		
Chloride	MW-13B	11/17/2014		2.1	mg/L		
Chloride	MW-13B	02/23/2015		2	mg/L		
Chloride	MW-13B	05/19/2015		2	mg/L		
Chloride	MW-13B	08/26/2015		2.1	mg/L		
Chloride	MW-13B	11/10/2015		2	mg/L		
Chloride	MW-13B	02/22/2016		2	mg/L		
Chloride	MW-13B	05/16/2016		2	mg/L		
Chloride	MW-13B	08/31/2016		2	mg/L		
Chloride	MW-13B	11/14/2016		1.9	mg/L		
Chloride	MW-13B	02/22/2017		2	mg/L		
Chloride	MW-13B	05/24/2017		2	mg/L		
Chloride	MW-13B	08/30/2017		2.2	mg/L		
Chloride	MW-13B	11/13/2017		1.9	mg/L		
Chloride	MW-13B	02/20/2018		2.2	mg/L		
Chloride	MW-13B	05/15/2018		1.9	mg/L		
Chloride	MW-13B	08/21/2018		1.9	mg/L		
Chloride	MW-13B	11/12/2018		2	mg/L		
Chloride	MW-13B	11/11/2019	ND	3	mg/L		
Chloride	MW-13B	11/19/2020	ND	3	mg/L		
Chloride	MW-16	03/24/2009		2.1	mg/L		
Chloride	MW-16	06/16/2009		2.2	mg/L		
Chloride	MW-16	09/09/2009		1.3	mg/L		
Chloride	MW-16	12/03/2009		1.9	mg/L		
Chloride	MW-16	03/25/2010		1.7	mg/L		
Chloride	MW-16	06/24/2010		1.6	mg/L		
Chloride	MW-16	09/24/2010		1.7	mg/L		
Chloride	MW-16	12/09/2010		2.3	mg/L		
Chloride	MW-16	03/30/2011		3.6	mg/L		
Chloride	MW-16	06/07/2011		2.4	mg/L		
Chloride	MW-16	09/27/2011		3.9	mg/L		
Chloride	MW-16	12/13/2011		2.1	mg/L		
Chloride	MW-16	03/21/2012		2.2	mg/L		
Chloride	MW-16	06/08/2012		2.8	mg/L		
Chloride	MW-16	09/27/2012		1	mg/L		
Chloride	MW-16	12/04/2012		1.3	mg/L		
Chloride	MW-16	03/12/2013		1.3	mg/L		
Chloride	MW-16	06/04/2013		1.3	mg/L		
Chloride	MW-16	09/05/2013		1.3	mg/L		
Chloride	MW-16	12/16/2013	ND	1	mg/L	3.0000	**
Chloride	MW-16	03/05/2014		1	mg/L		
Chloride	MW-16	06/02/2014		1.4	mg/L		
Chloride	MW-16	09/22/2014		1.1	mg/L		
Chloride	MW-16	11/18/2014		1.5	mg/L		
Chloride	MW-16	02/23/2015		1.2	mg/L		
Chloride	MW-16	05/20/2015		1.4	mg/L		
Chloride	MW-16	08/26/2015		1.1	mg/L		
Chloride	MW-16	11/11/2015	ND	1	mg/L	3.0000	**

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Chloride	MW-16	02/24/2016		1.2	mg/L		
Chloride	MW-16	05/16/2016		1.2	mg/L		
Chloride	MW-16	08/31/2016		1.1	mg/L		
Chloride	MW-16	11/14/2016		1	mg/L		
Chloride	MW-16	02/22/2017		1.3	mg/L		
Chloride	MW-16	05/24/2017		1.2	mg/L		
Chloride	MW-16	08/30/2017	ND	1	mg/L	3.0000	**
Chloride	MW-16	11/13/2017	ND	1	mg/L	3.0000	**
Chloride	MW-16	02/20/2018		1.6	mg/L		
Chloride	MW-16	05/17/2018		1.1	mg/L		
Chloride	MW-16	08/22/2018		1.7	mg/L		
Chloride	MW-16	11/12/2018		1.4	mg/L		
Chloride	MW-16	11/12/2019	ND	3	mg/L		
Chloride	MW-16	11/20/2020	ND	3	mg/L		
Chloride	MW-35	03/22/2005		2.2	mg/L		
Chloride	MW-35	06/14/2005		2.2	mg/L		
Chloride	MW-35	09/27/2005		2.6	mg/L		
Chloride	MW-35	12/15/2005		1.9	mg/L		
Chloride	MW-35	03/28/2006		2.9	mg/L		
Chloride	MW-35	06/21/2006		2.8	mg/L		
Chloride	MW-35	09/26/2006		2.5	mg/L		
Chloride	MW-35	12/12/2006		3	mg/L		
Chloride	MW-35	03/27/2007		2.8	mg/L		
Chloride	MW-35	06/20/2007		2.6	mg/L		
Chloride	MW-35	09/18/2007		2.4	mg/L		
Chloride	MW-35	12/20/2007		2.3	mg/L		
Chloride	MW-35	03/25/2008		2.4	mg/L		
Chloride	MW-35	06/18/2008		2.6	mg/L		
Chloride	MW-35	09/18/2008		2.4	mg/L		
Chloride	MW-35	12/19/2008		2.9	mg/L		
Chloride	MW-35	03/24/2009		2.3	mg/L		
Chloride	MW-35	06/16/2009		2.4	mg/L		
Chloride	MW-35	09/10/2009		2.5	mg/L		
Chloride	MW-35	12/03/2009		2.8	mg/L		
Chloride	MW-35	03/25/2010		2	mg/L		
Chloride	MW-35	06/23/2010		2.1	mg/L		
Chloride	MW-35	09/23/2010		2.6	mg/L		
Chloride	MW-35	12/09/2010		2.7	mg/L		
Chloride	MW-35	03/30/2011		3.2	mg/L		
Chloride	MW-35	06/06/2011		2.3	mg/L		
Chloride	MW-35	09/26/2011		3	mg/L		
Chloride	MW-35	12/13/2011		3.2	mg/L		
Chloride	MW-35	03/21/2012		2.9	mg/L		
Chloride	MW-35	06/06/2012		1.3	mg/L		
Chloride	MW-35	09/26/2012		2.4	mg/L		
Chloride	MW-35	12/04/2012		1.9	mg/L		
Chloride	MW-35	03/13/2013		1.8	mg/L		
Chloride	MW-35	06/06/2013		1.7	mg/L		
Chloride	MW-35	09/05/2013		1.8	mg/L		
Chloride	MW-35	12/16/2013		1.7	mg/L		
Chloride	MW-35	03/04/2014		1.8	mg/L		
Chloride	MW-35	06/02/2014		2	mg/L		
Chloride	MW-35	09/22/2014		1.7	mg/L		
Chloride	MW-35	11/17/2014		1.8	mg/L		
Chloride	MW-35	02/25/2015		1.8	mg/L		
Chloride	MW-35	05/19/2015		1.9	mg/L		
Chloride	MW-35	08/26/2015		1.9	mg/L		
Chloride	MW-35	11/10/2015		1.8	mg/L		
Chloride	MW-35	02/22/2016		2.1	mg/L		
Chloride	MW-35	05/16/2016		1.9	mg/L		
Chloride	MW-35	08/31/2016		1.9	mg/L		
Chloride	MW-35	11/15/2016		1.8	mg/L		
Chloride	MW-35	02/22/2017		1.9	mg/L		
Chloride	MW-35	05/24/2017		1.9	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Chloride	MW-35	08/30/2017		1.6	mg/L		
Chloride	MW-35	11/15/2017		1.7	mg/L		
Chloride	MW-35	02/20/2018		2.1	mg/L		
Chloride	MW-35	05/17/2018		1.9	mg/L		
Chloride	MW-35	08/22/2018		2.1	mg/L		
Chloride	MW-35	11/12/2018		1.9	mg/L		
Chloride	MW-35	11/12/2019	ND	3	mg/L		
Chloride	MW-35	11/19/2020	ND	3	mg/L		
Chromium, total	MW-13A	12/03/2013	ND	0.003	mg/L		
Chromium, total	MW-13A	03/04/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	06/02/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	09/22/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	11/17/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	02/23/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	05/19/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	08/26/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	11/10/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	02/22/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	05/16/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	08/31/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	11/14/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	02/22/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	05/24/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	08/30/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	11/13/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	02/20/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	05/15/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	08/21/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	11/12/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	11/11/2019	ND	0.003	mg/L		
Chromium, total	MW-13A	11/19/2020	ND	0.003	mg/L		
Chromium, total	MW-13B	12/03/2013		0.003	mg/L		
Chromium, total	MW-13B	03/04/2014		0.0032	mg/L		
Chromium, total	MW-13B	06/02/2014		0.0033	mg/L		
Chromium, total	MW-13B	09/22/2014	ND	0.003	mg/L		
Chromium, total	MW-13B	11/17/2014		0.0032	mg/L		
Chromium, total	MW-13B	02/23/2015	ND	0.003	mg/L		
Chromium, total	MW-13B	05/19/2015		0.003	mg/L		
Chromium, total	MW-13B	08/26/2015	ND	0.003	mg/L		
Chromium, total	MW-13B	11/10/2015		0.0033	mg/L		
Chromium, total	MW-13B	02/22/2016		0.0033	mg/L		
Chromium, total	MW-13B	05/16/2016		0.0032	mg/L		
Chromium, total	MW-13B	08/31/2016		0.0031	mg/L		
Chromium, total	MW-13B	11/14/2016		0.0036	mg/L		
Chromium, total	MW-13B	02/22/2017		0.0033	mg/L		
Chromium, total	MW-13B	05/24/2017	ND	0.003	mg/L		
Chromium, total	MW-13B	08/30/2017		0.0031	mg/L		
Chromium, total	MW-13B	11/13/2017		0.0034	mg/L		
Chromium, total	MW-13B	02/20/2018		0.0031	mg/L		
Chromium, total	MW-13B	05/15/2018	ND	0.003	mg/L		
Chromium, total	MW-13B	08/21/2018		0.0031	mg/L		
Chromium, total	MW-13B	11/12/2018		0.003	mg/L		
Chromium, total	MW-13B	11/11/2019	ND	0.003	mg/L		
Chromium, total	MW-13B	11/19/2020	ND	0.003	mg/L		
Chromium, total	MW-16	09/05/2013		0.0063	mg/L		
Chromium, total	MW-16	12/16/2013		0.008	mg/L		
Chromium, total	MW-16	03/05/2014		0.0085	mg/L		
Chromium, total	MW-16	06/02/2014		0.0087	mg/L		
Chromium, total	MW-16	09/22/2014		0.0073	mg/L		
Chromium, total	MW-16	11/18/2014		0.0077	mg/L		
Chromium, total	MW-16	02/23/2015		0.009	mg/L		
Chromium, total	MW-16	05/20/2015		0.007	mg/L		
Chromium, total	MW-16	08/26/2015		0.0064	mg/L		
Chromium, total	MW-16	11/11/2015		0.0071	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Chromium, total	MW-16	02/24/2016		0.0077	mg/L		
Chromium, total	MW-16	05/16/2016		0.0066	mg/L		
Chromium, total	MW-16	08/31/2016		0.0092	mg/L		
Chromium, total	MW-16	11/14/2016		0.0085	mg/L		
Chromium, total	MW-16	02/22/2017		0.0088	mg/L		
Chromium, total	MW-16	05/24/2017		0.0079	mg/L		
Chromium, total	MW-16	08/30/2017		0.0075	mg/L		
Chromium, total	MW-16	11/13/2017		0.0073	mg/L		
Chromium, total	MW-16	02/20/2018		0.0072	mg/L		
Chromium, total	MW-16	05/17/2018		0.0091	mg/L		
Chromium, total	MW-16	08/22/2018		0.007	mg/L		
Chromium, total	MW-16	11/12/2018		0.0092	mg/L		
Chromium, total	MW-16	11/12/2019		0.0076	mg/L		
Chromium, total	MW-16	11/20/2020		0.019	mg/L		
Chromium, total	MW-35	09/05/2013	ND	0.003	mg/L		
Chromium, total	MW-35	12/16/2013	ND	0.003	mg/L		
Chromium, total	MW-35	03/04/2014	ND	0.003	mg/L		
Chromium, total	MW-35	06/02/2014	ND	0.003	mg/L		
Chromium, total	MW-35	09/22/2014	ND	0.003	mg/L		
Chromium, total	MW-35	11/17/2014	ND	0.003	mg/L		
Chromium, total	MW-35	02/25/2015	ND	0.003	mg/L		
Chromium, total	MW-35	05/19/2015	ND	0.003	mg/L		
Chromium, total	MW-35	08/26/2015	ND	0.003	mg/L		
Chromium, total	MW-35	11/10/2015	ND	0.003	mg/L		
Chromium, total	MW-35	02/22/2016	ND	0.003	mg/L		
Chromium, total	MW-35	05/16/2016	ND	0.003	mg/L		
Chromium, total	MW-35	08/31/2016	ND	0.003	mg/L		
Chromium, total	MW-35	11/15/2016	ND	0.003	mg/L		
Chromium, total	MW-35	02/22/2017	ND	0.003	mg/L		
Chromium, total	MW-35	05/24/2017	ND	0.003	mg/L		
Chromium, total	MW-35	08/30/2017	ND	0.003	mg/L		
Chromium, total	MW-35	11/15/2017	ND	0.003	mg/L		
Chromium, total	MW-35	02/20/2018	ND	0.003	mg/L		
Chromium, total	MW-35	05/17/2018	ND	0.003	mg/L		
Chromium, total	MW-35	08/22/2018		0.0047	mg/L		
Chromium, total	MW-35	11/12/2018	ND	0.003	mg/L		
Chromium, total	MW-35	11/12/2019	ND	0.003	mg/L		
Chromium, total	MW-35	11/19/2020	ND	0.003	mg/L		
Cobalt, total	MW-13A	12/03/2013	ND	0.003	mg/L		
Cobalt, total	MW-13A	03/04/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/17/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/23/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/19/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/10/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/22/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/14/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/13/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/15/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/21/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/11/2019	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/19/2020	ND	0.003	mg/L		
Cobalt, total	MW-13B	12/03/2013	ND	0.003	mg/L		
Cobalt, total	MW-13B	03/04/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	06/02/2014	ND	0.003	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Cobalt, total	MW-13B	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/17/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/23/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/19/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/10/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/22/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/14/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/13/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/15/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/21/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/11/2019	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/19/2020	ND	0.003	mg/L		
Cobalt, total	MW-16	09/05/2013	ND	0.003	mg/L		
Cobalt, total	MW-16	12/16/2013	ND	0.003	mg/L		
Cobalt, total	MW-16	03/05/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	11/18/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	02/23/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	05/20/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	11/11/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	02/24/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	11/14/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	11/13/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	05/17/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	08/22/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	11/12/2019	ND	0.003	mg/L		
Cobalt, total	MW-16	11/20/2020	ND	0.003	mg/L		
Cobalt, total	MW-35	09/05/2013	ND	0.003	mg/L		
Cobalt, total	MW-35	12/16/2013	ND	0.003	mg/L		
Cobalt, total	MW-35	03/04/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	11/17/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	02/25/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	05/19/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	11/10/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	02/22/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	11/15/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	11/15/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	05/17/2018	ND	0.003	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Cobalt, total	MW-35	08/22/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	11/12/2019	ND	0.003	mg/L		
Cobalt, total	MW-35	11/19/2020	ND	0.003	mg/L		
Copper, total	MW-13A	12/03/2013	ND	0.002	mg/L		
Copper, total	MW-13A	03/04/2014	ND	0.002	mg/L		
Copper, total	MW-13A	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-13A	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-13A	11/17/2014	ND	0.002	mg/L		
Copper, total	MW-13A	02/23/2015	ND	0.002	mg/L		
Copper, total	MW-13A	05/19/2015	ND	0.002	mg/L		
Copper, total	MW-13A	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-13A	11/10/2015	ND	0.002	mg/L		
Copper, total	MW-13A	02/22/2016	ND	0.002	mg/L		
Copper, total	MW-13A	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-13A	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-13A	11/14/2016		0.0021	mg/L		
Copper, total	MW-13A	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-13A	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-13A	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-13A	11/13/2017	ND	0.002	mg/L		
Copper, total	MW-13A	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-13A	05/15/2018	ND	0.002	mg/L		
Copper, total	MW-13A	08/21/2018	ND	0.002	mg/L		
Copper, total	MW-13A	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-13A	11/11/2019	ND	0.002	mg/L		
Copper, total	MW-13A	11/19/2020	ND	0.002	mg/L		
Copper, total	MW-13B	12/03/2013	ND	0.002	mg/L		
Copper, total	MW-13B	03/04/2014	ND	0.002	mg/L		
Copper, total	MW-13B	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-13B	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-13B	11/17/2014	ND	0.002	mg/L		
Copper, total	MW-13B	02/23/2015	ND	0.002	mg/L		
Copper, total	MW-13B	05/19/2015	ND	0.002	mg/L		
Copper, total	MW-13B	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-13B	11/10/2015	ND	0.002	mg/L		
Copper, total	MW-13B	02/22/2016	ND	0.002	mg/L		
Copper, total	MW-13B	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-13B	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-13B	11/14/2016	ND	0.002	mg/L		
Copper, total	MW-13B	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-13B	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-13B	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-13B	11/13/2017	ND	0.002	mg/L		
Copper, total	MW-13B	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-13B	05/15/2018	ND	0.002	mg/L		
Copper, total	MW-13B	08/21/2018	ND	0.002	mg/L		
Copper, total	MW-13B	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-13B	11/11/2019	ND	0.002	mg/L		
Copper, total	MW-13B	11/19/2020	ND	0.002	mg/L		
Copper, total	MW-16	09/05/2013	ND	0.002	mg/L		
Copper, total	MW-16	12/16/2013	ND	0.002	mg/L		
Copper, total	MW-16	03/05/2014	ND	0.002	mg/L		
Copper, total	MW-16	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-16	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-16	11/18/2014	ND	0.002	mg/L		
Copper, total	MW-16	02/23/2015	ND	0.002	mg/L		
Copper, total	MW-16	05/20/2015	ND	0.002	mg/L		
Copper, total	MW-16	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-16	11/11/2015	ND	0.002	mg/L		
Copper, total	MW-16	02/24/2016	ND	0.002	mg/L		
Copper, total	MW-16	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-16	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-16	11/14/2016	ND	0.002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Copper, total	MW-16	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-16	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-16	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-16	11/13/2017	ND	0.002	mg/L		
Copper, total	MW-16	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-16	05/17/2018	ND	0.002	mg/L		
Copper, total	MW-16	08/22/2018	ND	0.002	mg/L		
Copper, total	MW-16	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-16	11/12/2019	ND	0.002	mg/L		
Copper, total	MW-16	11/20/2020	ND	0.002	mg/L		
Copper, total	MW-35	09/05/2013	ND	0.002	mg/L		
Copper, total	MW-35	12/16/2013	ND	0.002	mg/L		
Copper, total	MW-35	03/04/2014	ND	0.002	mg/L		
Copper, total	MW-35	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-35	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-35	11/17/2014	ND	0.002	mg/L		
Copper, total	MW-35	02/25/2015	ND	0.002	mg/L		
Copper, total	MW-35	05/19/2015	ND	0.002	mg/L		
Copper, total	MW-35	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-35	11/10/2015	ND	0.002	mg/L		
Copper, total	MW-35	02/22/2016	ND	0.002	mg/L		
Copper, total	MW-35	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-35	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-35	11/15/2016	ND	0.002	mg/L		
Copper, total	MW-35	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-35	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-35	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-35	11/15/2017	ND	0.002	mg/L		
Copper, total	MW-35	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-35	05/17/2018	ND	0.002	mg/L		
Copper, total	MW-35	08/22/2018	ND	0.002	mg/L		
Copper, total	MW-35	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-35	11/12/2019	ND	0.002	mg/L		
Copper, total	MW-35	11/19/2020	ND	0.002	mg/L		
Iron, total	MW-13A	12/03/2013	ND	0.06	mg/L		
Iron, total	MW-13A	03/04/2014	ND	0.06	mg/L		
Iron, total	MW-13A	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-13A	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-13A	11/17/2014	ND	0.06	mg/L		
Iron, total	MW-13A	02/23/2015	ND	0.06	mg/L		
Iron, total	MW-13A	05/19/2015	ND	0.06	mg/L		
Iron, total	MW-13A	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-13A	11/10/2015	ND	0.06	mg/L		
Iron, total	MW-13A	02/22/2016	ND	0.06	mg/L		
Iron, total	MW-13A	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-13A	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-13A	11/14/2016		0.073	mg/L		
Iron, total	MW-13A	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-13A	05/24/2017		0.087	mg/L		
Iron, total	MW-13A	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-13A	11/13/2017	ND	0.06	mg/L		
Iron, total	MW-13A	02/20/2018	ND	0.06	mg/L		
Iron, total	MW-13A	05/15/2018	ND	0.06	mg/L		
Iron, total	MW-13A	08/21/2018	ND	0.06	mg/L		
Iron, total	MW-13A	11/12/2018	ND	0.06	mg/L		
Iron, total	MW-13A	11/11/2019	ND	0.06	mg/L		
Iron, total	MW-13A	11/19/2020	ND	0.06	mg/L		
Iron, total	MW-13B	12/03/2013	ND	0.06	mg/L		
Iron, total	MW-13B	03/04/2014	ND	0.06	mg/L		
Iron, total	MW-13B	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-13B	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-13B	11/17/2014	ND	0.06	mg/L		
Iron, total	MW-13B	02/23/2015	ND	0.06	mg/L		
Iron, total	MW-13B	05/19/2015	ND	0.06	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Iron, total	MW-13B	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-13B	11/10/2015	ND	0.06	mg/L		
Iron, total	MW-13B	02/22/2016	ND	0.06	mg/L		
Iron, total	MW-13B	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-13B	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-13B	11/14/2016	ND	0.06	mg/L		
Iron, total	MW-13B	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-13B	05/24/2017	ND	0.06	mg/L		
Iron, total	MW-13B	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-13B	11/13/2017	ND	0.06	mg/L		
Iron, total	MW-13B	02/20/2018	ND	0.06	mg/L		
Iron, total	MW-13B	05/15/2018	ND	0.06	mg/L		
Iron, total	MW-13B	08/21/2018	ND	0.06	mg/L		
Iron, total	MW-13B	11/12/2018	ND	0.06	mg/L		
Iron, total	MW-13B	11/11/2019	ND	0.06	mg/L		
Iron, total	MW-13B	11/19/2020	ND	0.06	mg/L		
Iron, total	MW-16	09/05/2013		0.12	mg/L		
Iron, total	MW-16	12/16/2013		0.068	mg/L		
Iron, total	MW-16	03/05/2014		0.2	mg/L		
Iron, total	MW-16	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-16	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-16	11/18/2014		0.18	mg/L		
Iron, total	MW-16	02/23/2015		0.31	mg/L		
Iron, total	MW-16	05/20/2015	ND	0.06	mg/L		
Iron, total	MW-16	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-16	11/11/2015	ND	0.06	mg/L		
Iron, total	MW-16	02/24/2016	ND	0.06	mg/L		
Iron, total	MW-16	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-16	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-16	11/14/2016		0.12	mg/L		
Iron, total	MW-16	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-16	05/24/2017		0.068	mg/L		
Iron, total	MW-16	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-16	11/13/2017	ND	0.06	mg/L		
Iron, total	MW-16	02/20/2018		0.067	mg/L		
Iron, total	MW-16	05/17/2018	ND	0.06	mg/L		
Iron, total	MW-16	08/22/2018	ND	0.06	mg/L		
Iron, total	MW-16	11/12/2018		0.22	mg/L		
Iron, total	MW-16	11/12/2019		0.11	mg/L		
Iron, total	MW-16	11/20/2020		0.88	mg/L		*
Iron, total	MW-35	09/05/2013	ND	0.06	mg/L		
Iron, total	MW-35	12/16/2013	ND	0.06	mg/L		
Iron, total	MW-35	03/04/2014	ND	0.06	mg/L		
Iron, total	MW-35	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-35	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-35	11/17/2014	ND	0.06	mg/L		
Iron, total	MW-35	02/25/2015	ND	0.06	mg/L		
Iron, total	MW-35	05/19/2015	ND	0.06	mg/L		
Iron, total	MW-35	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-35	11/10/2015	ND	0.06	mg/L		
Iron, total	MW-35	02/22/2016	ND	0.06	mg/L		
Iron, total	MW-35	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-35	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-35	11/15/2016	ND	0.06	mg/L		
Iron, total	MW-35	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-35	05/24/2017	ND	0.06	mg/L		
Iron, total	MW-35	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-35	11/15/2017	ND	0.06	mg/L		
Iron, total	MW-35	02/20/2018	ND	0.06	mg/L		
Iron, total	MW-35	05/17/2018	ND	0.06	mg/L		
Iron, total	MW-35	08/22/2018	ND	0.06	mg/L		
Iron, total	MW-35	11/12/2018	ND	0.06	mg/L		
Iron, total	MW-35	11/12/2019	ND	0.06	mg/L		
Iron, total	MW-35	11/19/2020	ND	0.06	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Lead, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Lead, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Lead, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Lead, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Lead, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Lead, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Lead, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Lead, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Lead, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Lead, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Lead, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Lead, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Lead, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Lead, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Lead, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Lead, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Lead, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Lead, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Lead, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Lead, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Lead, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Lead, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Lead, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Lead, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Lead, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Lead, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Lead, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Lead, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Lead, total	MW-16	09/05/2013	ND	0.001	mg/L		
Lead, total	MW-16	12/16/2013	ND	0.001	mg/L		
Lead, total	MW-16	03/05/2014	ND	0.001	mg/L		
Lead, total	MW-16	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-16	09/22/2014		0.0014	mg/L		
Lead, total	MW-16	11/18/2014	ND	0.001	mg/L		
Lead, total	MW-16	02/23/2015	ND	0.001	mg/L		
Lead, total	MW-16	05/20/2015	ND	0.001	mg/L		
Lead, total	MW-16	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-16	11/11/2015	ND	0.001	mg/L		
Lead, total	MW-16	02/24/2016	ND	0.001	mg/L		
Lead, total	MW-16	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-16	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-16	11/14/2016	ND	0.001	mg/L		
Lead, total	MW-16	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-16	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-16	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-16	11/13/2017	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Lead, total	MW-16	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-16	05/17/2018	ND	0.001	mg/L		
Lead, total	MW-16	08/22/2018	ND	0.001	mg/L		
Lead, total	MW-16	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-16	11/12/2019	ND	0.001	mg/L		
Lead, total	MW-16	11/20/2020	ND	0.001	mg/L		
Lead, total	MW-35	09/05/2013	ND	0.001	mg/L		
Lead, total	MW-35	12/16/2013	ND	0.001	mg/L		
Lead, total	MW-35	03/04/2014	ND	0.001	mg/L		
Lead, total	MW-35	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-35	09/22/2014	ND	0.001	mg/L		
Lead, total	MW-35	11/17/2014	ND	0.001	mg/L		
Lead, total	MW-35	02/25/2015	ND	0.001	mg/L		
Lead, total	MW-35	05/19/2015	ND	0.001	mg/L		
Lead, total	MW-35	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-35	11/10/2015	ND	0.001	mg/L		
Lead, total	MW-35	02/22/2016	ND	0.001	mg/L		
Lead, total	MW-35	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-35	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-35	11/15/2016	ND	0.001	mg/L		
Lead, total	MW-35	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-35	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-35	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-35	11/15/2017	ND	0.001	mg/L		
Lead, total	MW-35	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-35	05/17/2018	ND	0.001	mg/L		
Lead, total	MW-35	08/22/2018	ND	0.001	mg/L		
Lead, total	MW-35	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-35	11/12/2019	ND	0.001	mg/L		
Lead, total	MW-35	11/19/2020	ND	0.001	mg/L		
Magnesium, dissolved	MW-13A	03/22/2005		9.2	mg/L		
Magnesium, dissolved	MW-13A	06/15/2005		8.2	mg/L		
Magnesium, dissolved	MW-13A	09/27/2005		8.4	mg/L		
Magnesium, dissolved	MW-13A	12/15/2005		8.6	mg/L		
Magnesium, dissolved	MW-13A	03/28/2006		9.2	mg/L		
Magnesium, dissolved	MW-13A	06/21/2006		9.1	mg/L		
Magnesium, dissolved	MW-13A	09/26/2006		9.2	mg/L		
Magnesium, dissolved	MW-13A	12/13/2006		9.3	mg/L		
Magnesium, dissolved	MW-13A	03/27/2007		9.3	mg/L		
Magnesium, dissolved	MW-13A	06/19/2007		9	mg/L		
Magnesium, dissolved	MW-13A	09/19/2007		9.4	mg/L		
Magnesium, dissolved	MW-13A	12/19/2007		8.6	mg/L		
Magnesium, dissolved	MW-13A	03/25/2008		9.1	mg/L		
Magnesium, dissolved	MW-13A	06/18/2008		9.3	mg/L		
Magnesium, dissolved	MW-13A	09/17/2008		9.2	mg/L		
Magnesium, dissolved	MW-13A	12/17/2008		9.3	mg/L		
Magnesium, dissolved	MW-13A	03/24/2009		9.6	mg/L		
Magnesium, dissolved	MW-13A	06/17/2009		9.6	mg/L		
Magnesium, dissolved	MW-13A	09/10/2009		9.3	mg/L		
Magnesium, dissolved	MW-13A	12/03/2009		9.1	mg/L		
Magnesium, dissolved	MW-13A	03/25/2010		8.7	mg/L		
Magnesium, dissolved	MW-13A	06/23/2010		9.7	mg/L		
Magnesium, dissolved	MW-13A	09/23/2010		9.4	mg/L		
Magnesium, dissolved	MW-13A	12/08/2010		8.1	mg/L		
Magnesium, dissolved	MW-13A	03/30/2011		9.6	mg/L		
Magnesium, dissolved	MW-13A	06/06/2011		10	mg/L		
Magnesium, dissolved	MW-13A	09/27/2011		9.7	mg/L		
Magnesium, dissolved	MW-13A	12/14/2011		9.3	mg/L		
Magnesium, dissolved	MW-13A	03/21/2012		9.9	mg/L		
Magnesium, dissolved	MW-13A	06/08/2012		8.9	mg/L		
Magnesium, dissolved	MW-13A	09/26/2012		9.6	mg/L		
Magnesium, dissolved	MW-13A	12/03/2012		9.2	mg/L		
Magnesium, dissolved	MW-13A	03/11/2013		9.4	mg/L		
Magnesium, dissolved	MW-13A	06/05/2013		9.8	mg/L		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Magnesium, dissolved	MW-13A	12/03/2013		9.4	mg/L		
Magnesium, dissolved	MW-13A	03/04/2014		9.8	mg/L		
Magnesium, dissolved	MW-13A	06/02/2014		9.2	mg/L		
Magnesium, dissolved	MW-13A	09/22/2014		8.7	mg/L		
Magnesium, dissolved	MW-13A	11/17/2014		9.3	mg/L		
Magnesium, dissolved	MW-13A	02/23/2015		9.2	mg/L		
Magnesium, dissolved	MW-13A	05/19/2015		9.5	mg/L		
Magnesium, dissolved	MW-13A	08/26/2015		9.3	mg/L		
Magnesium, dissolved	MW-13A	11/10/2015		9.1	mg/L		
Magnesium, dissolved	MW-13A	02/22/2016		9.7	mg/L		
Magnesium, dissolved	MW-13A	05/16/2016		9.5	mg/L		
Magnesium, dissolved	MW-13A	08/31/2016		8.6	mg/L		
Magnesium, dissolved	MW-13A	11/14/2016		10	mg/L		
Magnesium, dissolved	MW-13A	02/22/2017		10	mg/L		
Magnesium, dissolved	MW-13A	05/24/2017		8.9	mg/L		
Magnesium, dissolved	MW-13A	08/30/2017		8.8	mg/L		
Magnesium, dissolved	MW-13A	11/13/2017		8.6	mg/L		
Magnesium, dissolved	MW-13A	02/20/2018		8.2	mg/L		
Magnesium, dissolved	MW-13A	05/15/2018		8.5	mg/L		
Magnesium, dissolved	MW-13A	08/21/2018		8.3	mg/L		
Magnesium, dissolved	MW-13A	11/12/2018		8.3	mg/L		
Magnesium, dissolved	MW-13A	11/11/2019		8.6	mg/L		
Magnesium, dissolved	MW-13A	11/19/2020		8.7	mg/L		
Magnesium, dissolved	MW-13B	03/22/2005		8.6	mg/L		
Magnesium, dissolved	MW-13B	06/15/2005		8	mg/L		
Magnesium, dissolved	MW-13B	09/27/2005		8.7	mg/L		
Magnesium, dissolved	MW-13B	12/15/2005		8	mg/L		
Magnesium, dissolved	MW-13B	03/29/2006		8.1	mg/L		
Magnesium, dissolved	MW-13B	06/21/2006		8.3	mg/L		
Magnesium, dissolved	MW-13B	09/26/2006		8.5	mg/L		
Magnesium, dissolved	MW-13B	12/13/2006		8.7	mg/L		
Magnesium, dissolved	MW-13B	03/27/2007		8.4	mg/L		
Magnesium, dissolved	MW-13B	06/19/2007		7.9	mg/L		
Magnesium, dissolved	MW-13B	09/18/2007		8.7	mg/L		
Magnesium, dissolved	MW-13B	12/19/2007		7.6	mg/L		
Magnesium, dissolved	MW-13B	03/25/2008		8	mg/L		
Magnesium, dissolved	MW-13B	06/18/2008		8.2	mg/L		
Magnesium, dissolved	MW-13B	09/17/2008		8.3	mg/L		
Magnesium, dissolved	MW-13B	12/16/2008		8.3	mg/L		
Magnesium, dissolved	MW-13B	03/24/2009		8.5	mg/L		
Magnesium, dissolved	MW-13B	06/17/2009		8.5	mg/L		
Magnesium, dissolved	MW-13B	09/10/2009		8.3	mg/L		
Magnesium, dissolved	MW-13B	12/03/2009		8	mg/L		
Magnesium, dissolved	MW-13B	03/25/2010		8.1	mg/L		
Magnesium, dissolved	MW-13B	06/23/2010		8.7	mg/L		
Magnesium, dissolved	MW-13B	09/23/2010		8.3	mg/L		
Magnesium, dissolved	MW-13B	12/08/2010		9.3	mg/L		
Magnesium, dissolved	MW-13B	03/30/2011		8.2	mg/L		
Magnesium, dissolved	MW-13B	06/06/2011		9	mg/L		
Magnesium, dissolved	MW-13B	09/27/2011		8.4	mg/L		
Magnesium, dissolved	MW-13B	12/14/2011		8.1	mg/L		
Magnesium, dissolved	MW-13B	03/21/2012		8.5	mg/L		
Magnesium, dissolved	MW-13B	06/08/2012		8.1	mg/L		
Magnesium, dissolved	MW-13B	09/26/2012		8.6	mg/L		
Magnesium, dissolved	MW-13B	12/03/2012		8.2	mg/L		
Magnesium, dissolved	MW-13B	03/11/2013		8.6	mg/L		
Magnesium, dissolved	MW-13B	06/05/2013		8.9	mg/L		
Magnesium, dissolved	MW-13B	12/03/2013		8.9	mg/L		
Magnesium, dissolved	MW-13B	03/04/2014		8.7	mg/L		
Magnesium, dissolved	MW-13B	06/02/2014		8.3	mg/L		
Magnesium, dissolved	MW-13B	09/22/2014		7.7	mg/L		
Magnesium, dissolved	MW-13B	11/17/2014		8.7	mg/L		
Magnesium, dissolved	MW-13B	02/23/2015		8.6	mg/L		
Magnesium, dissolved	MW-13B	05/19/2015		8.9	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Magnesium, dissolved	MW-13B	08/26/2015		8.8	mg/L		
Magnesium, dissolved	MW-13B	11/10/2015		8.6	mg/L		
Magnesium, dissolved	MW-13B	02/22/2016		9.1	mg/L		
Magnesium, dissolved	MW-13B	05/16/2016		8.6	mg/L		
Magnesium, dissolved	MW-13B	08/31/2016		8.1	mg/L		
Magnesium, dissolved	MW-13B	11/14/2016		9.3	mg/L		
Magnesium, dissolved	MW-13B	02/22/2017		9.3	mg/L		
Magnesium, dissolved	MW-13B	05/24/2017		8.6	mg/L		
Magnesium, dissolved	MW-13B	08/30/2017		8.5	mg/L		
Magnesium, dissolved	MW-13B	11/13/2017		8.3	mg/L		
Magnesium, dissolved	MW-13B	02/20/2018		8.2	mg/L		
Magnesium, dissolved	MW-13B	05/15/2018		7.8	mg/L		
Magnesium, dissolved	MW-13B	08/21/2018		8.6	mg/L		
Magnesium, dissolved	MW-13B	11/12/2018		8.2	mg/L		
Magnesium, dissolved	MW-13B	11/11/2019		8.3	mg/L		
Magnesium, dissolved	MW-13B	11/19/2020		8	mg/L		
Magnesium, dissolved	MW-16	03/24/2009		7.2	mg/L		
Magnesium, dissolved	MW-16	06/16/2009		5.9	mg/L		
Magnesium, dissolved	MW-16	09/09/2009		6.9	mg/L		
Magnesium, dissolved	MW-16	12/03/2009		8	mg/L		
Magnesium, dissolved	MW-16	03/25/2010		5.1	mg/L		
Magnesium, dissolved	MW-16	06/24/2010		6.9	mg/L		
Magnesium, dissolved	MW-16	09/24/2010		7.4	mg/L		
Magnesium, dissolved	MW-16	12/09/2010		8.3	mg/L		
Magnesium, dissolved	MW-16	03/30/2011		5.8	mg/L		
Magnesium, dissolved	MW-16	06/07/2011		5.6	mg/L		
Magnesium, dissolved	MW-16	09/27/2011		6.6	mg/L		
Magnesium, dissolved	MW-16	12/13/2011		6.2	mg/L		
Magnesium, dissolved	MW-16	03/21/2012		5.5	mg/L		
Magnesium, dissolved	MW-16	06/08/2012		5	mg/L		
Magnesium, dissolved	MW-16	09/27/2012		6.4	mg/L		
Magnesium, dissolved	MW-16	12/04/2012		6.6	mg/L		
Magnesium, dissolved	MW-16	03/12/2013		5.6	mg/L		
Magnesium, dissolved	MW-16	06/04/2013		5.8	mg/L		
Magnesium, dissolved	MW-16	09/05/2013		6	mg/L		
Magnesium, dissolved	MW-16	12/16/2013		5.9	mg/L		
Magnesium, dissolved	MW-16	03/05/2014		6.6	mg/L		
Magnesium, dissolved	MW-16	06/02/2014		5	mg/L		
Magnesium, dissolved	MW-16	09/22/2014		5.5	mg/L		
Magnesium, dissolved	MW-16	11/18/2014		6.4	mg/L		
Magnesium, dissolved	MW-16	02/23/2015		5.7	mg/L		
Magnesium, dissolved	MW-16	05/20/2015		5.7	mg/L		
Magnesium, dissolved	MW-16	08/26/2015		5.9	mg/L		
Magnesium, dissolved	MW-16	11/11/2015		6.7	mg/L		
Magnesium, dissolved	MW-16	02/24/2016		4.5	mg/L		
Magnesium, dissolved	MW-16	05/16/2016		5	mg/L		
Magnesium, dissolved	MW-16	08/31/2016		5.4	mg/L		
Magnesium, dissolved	MW-16	11/14/2016		5.9	mg/L		
Magnesium, dissolved	MW-16	02/22/2017		5	mg/L		
Magnesium, dissolved	MW-16	05/24/2017		4.2	mg/L		
Magnesium, dissolved	MW-16	08/30/2017		4.9	mg/L		
Magnesium, dissolved	MW-16	11/13/2017		4.8	mg/L		
Magnesium, dissolved	MW-16	02/20/2018		4.3	mg/L		
Magnesium, dissolved	MW-16	05/17/2018		4.3	mg/L		
Magnesium, dissolved	MW-16	08/22/2018		4.6	mg/L		
Magnesium, dissolved	MW-16	11/12/2018		5.2	mg/L		
Magnesium, dissolved	MW-16	11/12/2019		6.9	mg/L		
Magnesium, dissolved	MW-16	11/20/2020		7.4	mg/L		
Magnesium, dissolved	MW-35	03/22/2005		8.6	mg/L		
Magnesium, dissolved	MW-35	06/14/2005		8.1	mg/L		
Magnesium, dissolved	MW-35	09/27/2005		9.2	mg/L		
Magnesium, dissolved	MW-35	12/15/2005		8	mg/L		
Magnesium, dissolved	MW-35	03/28/2006		8.3	mg/L		
Magnesium, dissolved	MW-35	06/21/2006		8.4	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Magnesium, dissolved	MW-35	09/26/2006		8.2	mg/L		
Magnesium, dissolved	MW-35	12/12/2006		8.8	mg/L		
Magnesium, dissolved	MW-35	03/27/2007		8.6	mg/L		
Magnesium, dissolved	MW-35	06/20/2007		8.4	mg/L		
Magnesium, dissolved	MW-35	09/18/2007		9.1	mg/L		
Magnesium, dissolved	MW-35	12/20/2007		8.1	mg/L		
Magnesium, dissolved	MW-35	03/25/2008		8.2	mg/L		
Magnesium, dissolved	MW-35	06/18/2008		8.1	mg/L		
Magnesium, dissolved	MW-35	09/18/2008		8.1	mg/L		
Magnesium, dissolved	MW-35	12/19/2008		8.1	mg/L		
Magnesium, dissolved	MW-35	03/24/2009		8.7	mg/L		
Magnesium, dissolved	MW-35	06/16/2009		8.1	mg/L		
Magnesium, dissolved	MW-35	09/10/2009		8.1	mg/L		
Magnesium, dissolved	MW-35	12/03/2009		8.3	mg/L		
Magnesium, dissolved	MW-35	03/25/2010		7.9	mg/L		
Magnesium, dissolved	MW-35	06/23/2010		8.8	mg/L		
Magnesium, dissolved	MW-35	09/23/2010		8.7	mg/L		
Magnesium, dissolved	MW-35	12/09/2010		9.3	mg/L		
Magnesium, dissolved	MW-35	03/30/2011		8.8	mg/L		
Magnesium, dissolved	MW-35	06/06/2011		9	mg/L		
Magnesium, dissolved	MW-35	09/26/2011		8.7	mg/L		
Magnesium, dissolved	MW-35	12/13/2011		8.8	mg/L		
Magnesium, dissolved	MW-35	03/21/2012		9	mg/L		
Magnesium, dissolved	MW-35	06/06/2012		8.3	mg/L		
Magnesium, dissolved	MW-35	09/26/2012		8.9	mg/L		
Magnesium, dissolved	MW-35	12/04/2012		8.6	mg/L		
Magnesium, dissolved	MW-35	03/13/2013		9.2	mg/L		
Magnesium, dissolved	MW-35	06/06/2013		8.5	mg/L		
Magnesium, dissolved	MW-35	09/05/2013		8.1	mg/L		
Magnesium, dissolved	MW-35	12/16/2013		8.4	mg/L		
Magnesium, dissolved	MW-35	03/04/2014		9.2	mg/L		
Magnesium, dissolved	MW-35	06/02/2014		8.6	mg/L		
Magnesium, dissolved	MW-35	09/22/2014		8.2	mg/L		
Magnesium, dissolved	MW-35	11/17/2014		8.7	mg/L		
Magnesium, dissolved	MW-35	02/25/2015		9.3	mg/L		
Magnesium, dissolved	MW-35	05/19/2015		8.5	mg/L		
Magnesium, dissolved	MW-35	08/26/2015		9	mg/L		
Magnesium, dissolved	MW-35	11/10/2015		9.3	mg/L		
Magnesium, dissolved	MW-35	02/22/2016		9.3	mg/L		
Magnesium, dissolved	MW-35	05/16/2016		9	mg/L		
Magnesium, dissolved	MW-35	08/31/2016		8.1	mg/L		
Magnesium, dissolved	MW-35	11/15/2016		10	mg/L		
Magnesium, dissolved	MW-35	02/22/2017		9.9	mg/L		
Magnesium, dissolved	MW-35	05/24/2017		8.6	mg/L		
Magnesium, dissolved	MW-35	08/30/2017		8.9	mg/L		
Magnesium, dissolved	MW-35	11/15/2017		8.5	mg/L		
Magnesium, dissolved	MW-35	02/20/2018		8.2	mg/L		
Magnesium, dissolved	MW-35	05/17/2018		8.4	mg/L		
Magnesium, dissolved	MW-35	08/22/2018		8.6	mg/L		
Magnesium, dissolved	MW-35	11/12/2018		8.6	mg/L		
Magnesium, dissolved	MW-35	11/12/2019		9	mg/L		
Magnesium, dissolved	MW-35	11/19/2020		8.6	mg/L		
Manganese, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Manganese, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	08/31/2016	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Manganese, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Manganese, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Manganese, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Manganese, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Manganese, total	MW-13B	06/02/2014		0.002	mg/L		
Manganese, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Manganese, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Manganese, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	02/20/2018		0.0018	mg/L		
Manganese, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Manganese, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Manganese, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Manganese, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Manganese, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Manganese, total	MW-16	09/05/2013		0.016	mg/L		
Manganese, total	MW-16	12/16/2013		0.013	mg/L		
Manganese, total	MW-16	03/05/2014		0.02	mg/L		
Manganese, total	MW-16	06/02/2014		0.0049	mg/L		
Manganese, total	MW-16	09/22/2014		0.014	mg/L		
Manganese, total	MW-16	11/18/2014		0.032	mg/L		
Manganese, total	MW-16	02/23/2015		0.062	mg/L		
Manganese, total	MW-16	05/20/2015		0.0035	mg/L		
Manganese, total	MW-16	08/26/2015		0.0012	mg/L		
Manganese, total	MW-16	11/11/2015		0.0014	mg/L		
Manganese, total	MW-16	02/24/2016		0.0019	mg/L		
Manganese, total	MW-16	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-16	08/31/2016		0.0024	mg/L		
Manganese, total	MW-16	11/14/2016		0.017	mg/L		
Manganese, total	MW-16	02/22/2017		0.0045	mg/L		
Manganese, total	MW-16	05/24/2017		0.01	mg/L		
Manganese, total	MW-16	08/30/2017		0.0016	mg/L		
Manganese, total	MW-16	11/13/2017		0.0011	mg/L		
Manganese, total	MW-16	02/20/2018		0.013	mg/L		
Manganese, total	MW-16	05/17/2018		0.0033	mg/L		
Manganese, total	MW-16	08/22/2018		0.002	mg/L		
Manganese, total	MW-16	11/12/2018		0.025	mg/L		
Manganese, total	MW-16	11/12/2019		0.018	mg/L		
Manganese, total	MW-16	11/20/2020		0.11	mg/L		
Manganese, total	MW-35	09/05/2013	ND	0.001	mg/L		
Manganese, total	MW-35	12/16/2013	ND	0.001	mg/L		
Manganese, total	MW-35	03/04/2014	ND	0.001	mg/L		
Manganese, total	MW-35	06/02/2014	ND	0.001	mg/L		
Manganese, total	MW-35	09/22/2014	ND	0.001	mg/L		
Manganese, total	MW-35	11/17/2014	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Manganese, total	MW-35	02/25/2015	ND	0.001	mg/L		
Manganese, total	MW-35	05/19/2015		0.0014	mg/L		
Manganese, total	MW-35	08/26/2015	ND	0.001	mg/L		
Manganese, total	MW-35	11/10/2015	ND	0.001	mg/L		
Manganese, total	MW-35	02/22/2016	ND	0.001	mg/L		
Manganese, total	MW-35	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-35	08/31/2016	ND	0.001	mg/L		
Manganese, total	MW-35	11/15/2016	ND	0.001	mg/L		
Manganese, total	MW-35	02/22/2017	ND	0.001	mg/L		
Manganese, total	MW-35	05/24/2017	ND	0.001	mg/L		
Manganese, total	MW-35	08/30/2017	ND	0.001	mg/L		
Manganese, total	MW-35	11/15/2017	ND	0.001	mg/L		
Manganese, total	MW-35	02/20/2018	ND	0.001	mg/L		
Manganese, total	MW-35	05/17/2018	ND	0.001	mg/L		
Manganese, total	MW-35	08/22/2018	ND	0.001	mg/L		
Manganese, total	MW-35	11/12/2018	ND	0.001	mg/L		
Manganese, total	MW-35	11/12/2019	ND	0.001	mg/L		
Manganese, total	MW-35	11/19/2020	ND	0.001	mg/L		
Nickel, total	MW-13A	12/03/2013	ND	0.004	mg/L		
Nickel, total	MW-13A	03/04/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	11/17/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	02/23/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	05/19/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	11/10/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	02/22/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	11/14/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	11/13/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	05/15/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	08/21/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	11/11/2019	ND	0.004	mg/L		
Nickel, total	MW-13A	11/19/2020	ND	0.004	mg/L		
Nickel, total	MW-13B	12/03/2013	ND	0.004	mg/L		
Nickel, total	MW-13B	03/04/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	11/17/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	02/23/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	05/19/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	11/10/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	02/22/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	11/14/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	11/13/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	05/15/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	08/21/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	11/11/2019	ND	0.004	mg/L		
Nickel, total	MW-13B	11/19/2020	ND	0.004	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Nickel, total	MW-16	09/05/2013	ND	0.004	mg/L		
Nickel, total	MW-16	12/16/2013	ND	0.004	mg/L		
Nickel, total	MW-16	03/05/2014	ND	0.004	mg/L		
Nickel, total	MW-16	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-16	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-16	11/18/2014	ND	0.004	mg/L		
Nickel, total	MW-16	02/23/2015		0.0041	mg/L		
Nickel, total	MW-16	05/20/2015	ND	0.004	mg/L		
Nickel, total	MW-16	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-16	11/11/2015	ND	0.004	mg/L		
Nickel, total	MW-16	02/24/2016	ND	0.004	mg/L		
Nickel, total	MW-16	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-16	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-16	11/14/2016	ND	0.004	mg/L		
Nickel, total	MW-16	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-16	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-16	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-16	11/13/2017	ND	0.004	mg/L		
Nickel, total	MW-16	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-16	05/17/2018	ND	0.004	mg/L		
Nickel, total	MW-16	08/22/2018	ND	0.004	mg/L		
Nickel, total	MW-16	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-16	11/12/2019	ND	0.004	mg/L		
Nickel, total	MW-16	11/20/2020		0.0055	mg/L		
Nickel, total	MW-35	09/05/2013	ND	0.004	mg/L		
Nickel, total	MW-35	12/16/2013	ND	0.004	mg/L		
Nickel, total	MW-35	03/04/2014	ND	0.004	mg/L		
Nickel, total	MW-35	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-35	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-35	11/17/2014	ND	0.004	mg/L		
Nickel, total	MW-35	02/25/2015	ND	0.004	mg/L		
Nickel, total	MW-35	05/19/2015	ND	0.004	mg/L		
Nickel, total	MW-35	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-35	11/10/2015	ND	0.004	mg/L		
Nickel, total	MW-35	02/22/2016	ND	0.004	mg/L		
Nickel, total	MW-35	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-35	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-35	11/15/2016	ND	0.004	mg/L		
Nickel, total	MW-35	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-35	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-35	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-35	11/15/2017	ND	0.004	mg/L		
Nickel, total	MW-35	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-35	05/17/2018	ND	0.004	mg/L		
Nickel, total	MW-35	08/22/2018	ND	0.004	mg/L		
Nickel, total	MW-35	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-35	11/12/2019	ND	0.004	mg/L		
Nickel, total	MW-35	11/19/2020	ND	0.004	mg/L		
Nitrate (as n)	MW-13A	03/22/2005		0.51	mg/L		
Nitrate (as n)	MW-13A	06/15/2005		0.44	mg/L		
Nitrate (as n)	MW-13A	09/27/2005		1.8	mg/L		*
Nitrate (as n)	MW-13A	12/15/2005		0.47	mg/L		
Nitrate (as n)	MW-13A	03/28/2006		0.44	mg/L		
Nitrate (as n)	MW-13A	06/21/2006		0.54	mg/L		
Nitrate (as n)	MW-13A	09/26/2006		0.44	mg/L		
Nitrate (as n)	MW-13A	12/13/2006		0.46	mg/L		
Nitrate (as n)	MW-13A	03/27/2007		0.42	mg/L		
Nitrate (as n)	MW-13A	06/19/2007		0.46	mg/L		
Nitrate (as n)	MW-13A	09/19/2007		0.46	mg/L		
Nitrate (as n)	MW-13A	12/19/2007		0.41	mg/L		
Nitrate (as n)	MW-13A	03/25/2008		0.49	mg/L		
Nitrate (as n)	MW-13A	06/18/2008		0.51	mg/L		
Nitrate (as n)	MW-13A	09/17/2008		0.44	mg/L		
Nitrate (as n)	MW-13A	12/17/2008		0.48	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Nitrate (as n)	MW-13A	03/24/2009		0.47	mg/L		
Nitrate (as n)	MW-13A	06/17/2009		0.49	mg/L		
Nitrate (as n)	MW-13A	09/10/2009		0.45	mg/L		
Nitrate (as n)	MW-13A	12/03/2009		0.41	mg/L		
Nitrate (as n)	MW-13A	03/25/2010		0.48	mg/L		
Nitrate (as n)	MW-13A	06/23/2010		0.47	mg/L		
Nitrate (as n)	MW-13A	09/23/2010		0.51	mg/L		
Nitrate (as n)	MW-13A	12/08/2010		0.49	mg/L		
Nitrate (as n)	MW-13A	03/30/2011		0.53	mg/L		
Nitrate (as n)	MW-13A	06/06/2011		0.46	mg/L		
Nitrate (as n)	MW-13A	09/27/2011		0.48	mg/L		
Nitrate (as n)	MW-13A	12/14/2011		0.48	mg/L		
Nitrate (as n)	MW-13A	03/21/2012		9.4	mg/L		*
Nitrate (as n)	MW-13A	06/08/2012		0.45	mg/L		
Nitrate (as n)	MW-13A	09/26/2012		0.42	mg/L		
Nitrate (as n)	MW-13A	12/03/2012		0.54	mg/L		
Nitrate (as n)	MW-13A	03/11/2013		0.46	mg/L		
Nitrate (as n)	MW-13A	06/05/2013		0.49	mg/L		
Nitrate (as n)	MW-13A	12/03/2013		0.47	mg/L		
Nitrate (as n)	MW-13A	03/04/2014		0.48	mg/L		
Nitrate (as n)	MW-13A	06/02/2014		0.48	mg/L		
Nitrate (as n)	MW-13A	09/22/2014		0.44	mg/L		
Nitrate (as n)	MW-13A	11/17/2014		0.46	mg/L		
Nitrate (as n)	MW-13A	02/23/2015		0.47	mg/L		
Nitrate (as n)	MW-13A	05/19/2015		0.45	mg/L		
Nitrate (as n)	MW-13A	08/26/2015		0.41	mg/L		
Nitrate (as n)	MW-13A	11/10/2015		0.44	mg/L		
Nitrate (as n)	MW-13A	02/22/2016		0.42	mg/L		
Nitrate (as n)	MW-13A	05/16/2016		0.45	mg/L		
Nitrate (as n)	MW-13A	08/31/2016		0.45	mg/L		
Nitrate (as n)	MW-13A	11/14/2016		0.48	mg/L		
Nitrate (as n)	MW-13A	05/24/2017		0.45	mg/L		
Nitrate (as n)	MW-13A	11/13/2017		0.42	mg/L		
Nitrate (as n)	MW-13A	02/20/2018		0.41	mg/L		
Nitrate (as n)	MW-13A	05/15/2018		0.48	mg/L		
Nitrate (as n)	MW-13A	08/21/2018		0.39	mg/L		
Nitrate (as n)	MW-13A	11/12/2018		0.38	mg/L		
Nitrate (as n)	MW-13A	11/11/2019		0.41	mg/L		
Nitrate (as n)	MW-13A	11/19/2020		0.42	mg/L		
Nitrate (as n)	MW-13B	03/22/2005		0.5	mg/L		
Nitrate (as n)	MW-13B	06/15/2005		0.74	mg/L		
Nitrate (as n)	MW-13B	09/27/2005		0.46	mg/L		
Nitrate (as n)	MW-13B	12/15/2005		0.49	mg/L		
Nitrate (as n)	MW-13B	03/29/2006		0.44	mg/L		
Nitrate (as n)	MW-13B	06/21/2006		0.56	mg/L		
Nitrate (as n)	MW-13B	09/26/2006		0.44	mg/L		
Nitrate (as n)	MW-13B	12/13/2006		0.4	mg/L		
Nitrate (as n)	MW-13B	03/27/2007		0.43	mg/L		
Nitrate (as n)	MW-13B	06/19/2007		0.48	mg/L		
Nitrate (as n)	MW-13B	09/18/2007		0.48	mg/L		
Nitrate (as n)	MW-13B	12/19/2007		0.89	mg/L		
Nitrate (as n)	MW-13B	03/25/2008		0.48	mg/L		
Nitrate (as n)	MW-13B	06/18/2008		0.95	mg/L		
Nitrate (as n)	MW-13B	09/17/2008		0.46	mg/L		
Nitrate (as n)	MW-13B	12/16/2008		0.53	mg/L		
Nitrate (as n)	MW-13B	03/24/2009		0.46	mg/L		
Nitrate (as n)	MW-13B	06/17/2009		0.49	mg/L		
Nitrate (as n)	MW-13B	09/10/2009		0.46	mg/L		
Nitrate (as n)	MW-13B	12/03/2009		0.4	mg/L		
Nitrate (as n)	MW-13B	03/25/2010		0.46	mg/L		
Nitrate (as n)	MW-13B	06/23/2010		0.45	mg/L		
Nitrate (as n)	MW-13B	09/23/2010		0.48	mg/L		
Nitrate (as n)	MW-13B	12/08/2010		0.5	mg/L		
Nitrate (as n)	MW-13B	03/30/2011		0.51	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Nitrate (as n)	MW-13B	06/06/2011		0.43	mg/L		
Nitrate (as n)	MW-13B	09/27/2011		0.46	mg/L		
Nitrate (as n)	MW-13B	12/14/2011		0.47	mg/L		
Nitrate (as n)	MW-13B	03/21/2012		9.7	mg/L		*
Nitrate (as n)	MW-13B	06/08/2012		0.45	mg/L		
Nitrate (as n)	MW-13B	09/26/2012		0.4	mg/L		
Nitrate (as n)	MW-13B	12/03/2012		0.42	mg/L		
Nitrate (as n)	MW-13B	03/11/2013		0.43	mg/L		
Nitrate (as n)	MW-13B	06/05/2013		0.49	mg/L		
Nitrate (as n)	MW-13B	12/03/2013		0.51	mg/L		
Nitrate (as n)	MW-13B	03/04/2014		0.45	mg/L		
Nitrate (as n)	MW-13B	06/02/2014		0.53	mg/L		
Nitrate (as n)	MW-13B	09/22/2014		0.45	mg/L		
Nitrate (as n)	MW-13B	11/17/2014		0.47	mg/L		
Nitrate (as n)	MW-13B	02/23/2015		0.45	mg/L		
Nitrate (as n)	MW-13B	05/19/2015		0.45	mg/L		
Nitrate (as n)	MW-13B	08/26/2015		0.44	mg/L		
Nitrate (as n)	MW-13B	11/10/2015		0.45	mg/L		
Nitrate (as n)	MW-13B	02/22/2016		0.43	mg/L		
Nitrate (as n)	MW-13B	05/16/2016		0.46	mg/L		
Nitrate (as n)	MW-13B	08/31/2016		0.45	mg/L		
Nitrate (as n)	MW-13B	11/14/2016		0.64	mg/L		
Nitrate (as n)	MW-13B	05/24/2017		0.48	mg/L		
Nitrate (as n)	MW-13B	11/13/2017		0.44	mg/L		
Nitrate (as n)	MW-13B	02/20/2018		0.43	mg/L		
Nitrate (as n)	MW-13B	05/15/2018		0.43	mg/L		
Nitrate (as n)	MW-13B	08/21/2018		0.45	mg/L		
Nitrate (as n)	MW-13B	11/12/2018		0.4	mg/L		
Nitrate (as n)	MW-13B	11/11/2019		0.42	mg/L		
Nitrate (as n)	MW-13B	11/19/2020		0.35	mg/L		
Nitrate (as n)	MW-16	03/24/2009		0.28	mg/L		
Nitrate (as n)	MW-16	06/16/2009		0.33	mg/L		
Nitrate (as n)	MW-16	09/09/2009		0.31	mg/L		
Nitrate (as n)	MW-16	12/03/2009		0.4	mg/L		
Nitrate (as n)	MW-16	03/25/2010		0.29	mg/L		
Nitrate (as n)	MW-16	06/24/2010		0.16	mg/L		
Nitrate (as n)	MW-16	09/24/2010		0.51	mg/L		
Nitrate (as n)	MW-16	12/09/2010		0.9	mg/L		
Nitrate (as n)	MW-16	03/30/2011		0.52	mg/L		
Nitrate (as n)	MW-16	06/07/2011		0.46	mg/L		
Nitrate (as n)	MW-16	09/27/2011		0.73	mg/L		
Nitrate (as n)	MW-16	12/13/2011		1.1	mg/L		
Nitrate (as n)	MW-16	03/21/2012		0.89	mg/L		*
Nitrate (as n)	MW-16	06/08/2012		1.4	mg/L		
Nitrate (as n)	MW-16	09/27/2012		0.96	mg/L		
Nitrate (as n)	MW-16	12/04/2012		0.86	mg/L		
Nitrate (as n)	MW-16	03/12/2013		1.6	mg/L		
Nitrate (as n)	MW-16	06/04/2013		1.5	mg/L		
Nitrate (as n)	MW-16	09/05/2013		0.72	mg/L		
Nitrate (as n)	MW-16	12/16/2013		0.75	mg/L		
Nitrate (as n)	MW-16	03/05/2014		0.55	mg/L		
Nitrate (as n)	MW-16	06/02/2014		1.2	mg/L		
Nitrate (as n)	MW-16	09/22/2014		0.36	mg/L		
Nitrate (as n)	MW-16	11/18/2014		0.28	mg/L		
Nitrate (as n)	MW-16	02/23/2015		0.26	mg/L		
Nitrate (as n)	MW-16	05/20/2015		0.55	mg/L		
Nitrate (as n)	MW-16	08/26/2015		0.38	mg/L		
Nitrate (as n)	MW-16	11/11/2015		0.19	mg/L		
Nitrate (as n)	MW-16	02/24/2016		0.5	mg/L		
Nitrate (as n)	MW-16	05/16/2016		0.69	mg/L		
Nitrate (as n)	MW-16	08/31/2016		0.27	mg/L		
Nitrate (as n)	MW-16	11/14/2016		0.24	mg/L		
Nitrate (as n)	MW-16	05/24/2017		0.55	mg/L		
Nitrate (as n)	MW-16	11/13/2017		0.28	mg/L		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Nitrate (as n)	MW-16	02/20/2018		0.32	mg/L		
Nitrate (as n)	MW-16	05/17/2018		0.62	mg/L		
Nitrate (as n)	MW-16	08/22/2018		0.17	mg/L		
Nitrate (as n)	MW-16	11/12/2018		0.28	mg/L		
Nitrate (as n)	MW-16	11/12/2019		0.1	mg/L		
Nitrate (as n)	MW-16	11/20/2020	ND	0.05	mg/L		
Nitrate (as n)	MW-35	03/22/2005		0.37	mg/L		
Nitrate (as n)	MW-35	06/14/2005		0.33	mg/L		
Nitrate (as n)	MW-35	09/27/2005		0.96	mg/L		
Nitrate (as n)	MW-35	12/15/2005		0.29	mg/L		
Nitrate (as n)	MW-35	03/28/2006		0.34	mg/L		
Nitrate (as n)	MW-35	06/21/2006		0.4	mg/L		
Nitrate (as n)	MW-35	09/26/2006		0.31	mg/L		
Nitrate (as n)	MW-35	12/12/2006		0.35	mg/L		
Nitrate (as n)	MW-35	03/27/2007		0.3	mg/L		
Nitrate (as n)	MW-35	06/20/2007		0.34	mg/L		
Nitrate (as n)	MW-35	09/18/2007		0.32	mg/L		
Nitrate (as n)	MW-35	12/20/2007		0.32	mg/L		
Nitrate (as n)	MW-35	03/25/2008		0.3	mg/L		
Nitrate (as n)	MW-35	06/18/2008		1	mg/L		
Nitrate (as n)	MW-35	09/18/2008		0.35	mg/L		
Nitrate (as n)	MW-35	12/19/2008		0.37	mg/L		
Nitrate (as n)	MW-35	03/24/2009		0.35	mg/L		
Nitrate (as n)	MW-35	06/16/2009		0.37	mg/L		
Nitrate (as n)	MW-35	09/10/2009		0.35	mg/L		
Nitrate (as n)	MW-35	12/03/2009		0.52	mg/L		
Nitrate (as n)	MW-35	03/25/2010		0.36	mg/L		
Nitrate (as n)	MW-35	06/23/2010		0.32	mg/L		
Nitrate (as n)	MW-35	09/23/2010		0.4	mg/L		
Nitrate (as n)	MW-35	12/09/2010		0.39	mg/L		
Nitrate (as n)	MW-35	03/30/2011		0.39	mg/L		
Nitrate (as n)	MW-35	06/06/2011		0.39	mg/L		
Nitrate (as n)	MW-35	09/26/2011		0.4	mg/L		
Nitrate (as n)	MW-35	12/13/2011		0.39	mg/L		
Nitrate (as n)	MW-35	03/21/2012		0.45	mg/L		*
Nitrate (as n)	MW-35	06/06/2012		0.43	mg/L		
Nitrate (as n)	MW-35	09/26/2012		0.37	mg/L		
Nitrate (as n)	MW-35	12/04/2012		0.42	mg/L		
Nitrate (as n)	MW-35	03/13/2013		0.47	mg/L		
Nitrate (as n)	MW-35	06/06/2013		0.45	mg/L		
Nitrate (as n)	MW-35	09/05/2013		0.42	mg/L		
Nitrate (as n)	MW-35	12/16/2013		0.4	mg/L		
Nitrate (as n)	MW-35	03/04/2014		0.42	mg/L		
Nitrate (as n)	MW-35	06/02/2014		0.42	mg/L		
Nitrate (as n)	MW-35	09/22/2014		0.42	mg/L		
Nitrate (as n)	MW-35	11/17/2014		0.42	mg/L		
Nitrate (as n)	MW-35	02/25/2015		0.41	mg/L		
Nitrate (as n)	MW-35	05/19/2015		0.4	mg/L		
Nitrate (as n)	MW-35	08/26/2015		0.4	mg/L		
Nitrate (as n)	MW-35	11/10/2015		0.41	mg/L		
Nitrate (as n)	MW-35	02/22/2016		0.41	mg/L		
Nitrate (as n)	MW-35	05/16/2016		0.44	mg/L		
Nitrate (as n)	MW-35	08/31/2016		0.43	mg/L		
Nitrate (as n)	MW-35	11/15/2016		0.47	mg/L		
Nitrate (as n)	MW-35	05/24/2017		0.49	mg/L		
Nitrate (as n)	MW-35	11/15/2017		0.51	mg/L		
Nitrate (as n)	MW-35	02/20/2018		0.44	mg/L		
Nitrate (as n)	MW-35	05/17/2018		0.44	mg/L		
Nitrate (as n)	MW-35	08/22/2018		0.42	mg/L		
Nitrate (as n)	MW-35	11/12/2018		0.41	mg/L		
Nitrate (as n)	MW-35	11/12/2019		0.36	mg/L		
Nitrate (as n)	MW-35	11/19/2020		0.43	mg/L		
pH	MW-13A	03/22/2005		7.01	pH Units		
pH	MW-13A	06/15/2005		7.21	pH Units		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
pH	MW-13A	09/27/2005		7.1	pH Units		
pH	MW-13A	12/15/2005		6.34	pH Units		
pH	MW-13A	03/28/2006		6.9	pH Units		
pH	MW-13A	06/21/2006		7.25	pH Units		
pH	MW-13A	09/26/2006		7.25	pH Units		
pH	MW-13A	12/13/2006		6.87	pH Units		
pH	MW-13A	03/27/2007		7.32	pH Units		
pH	MW-13A	09/19/2007		6.68	pH Units		
pH	MW-13A	12/19/2007		7.29	pH Units		
pH	MW-13A	03/25/2008		7.12	pH Units		
pH	MW-13A	06/18/2008		7.19	pH Units		
pH	MW-13A	09/17/2008		7	pH Units		
pH	MW-13A	12/17/2008		6.51	pH Units		
pH	MW-13A	03/24/2009		6.85	pH Units		
pH	MW-13A	06/17/2009		7.07	pH Units		
pH	MW-13A	12/03/2009		7.03	pH Units		
pH	MW-13A	03/25/2010		6.96	pH Units		
pH	MW-13A	06/23/2010		6.99	pH Units		
pH	MW-13A	09/23/2010		6.78	pH Units		
pH	MW-13A	12/08/2010		7.48	pH Units		
pH	MW-13A	03/30/2011		6.95	pH Units		
pH	MW-13A	06/06/2011		7.45	pH Units		
pH	MW-13A	09/27/2011		6.91	pH Units		
pH	MW-13A	12/14/2011		7.13	pH Units		
pH	MW-13A	03/21/2012		6.78	pH Units		
pH	MW-13A	06/08/2012		6.72	pH Units		
pH	MW-13A	09/26/2012		7.35	pH Units		
pH	MW-13A	12/03/2012		6.95	pH Units		
pH	MW-13A	03/11/2013		7.18	pH Units		
pH	MW-13A	06/05/2013		7.33	pH Units		
pH	MW-13A	12/03/2013		7.16	pH Units		
pH	MW-13A	03/04/2014		7.48	pH Units		
pH	MW-13A	06/02/2014		7.26	pH Units		
pH	MW-13A	09/22/2014		7.26	pH Units		
pH	MW-13A	11/17/2014		6.99	pH Units		
pH	MW-13A	05/19/2015		7.03	pH Units		
pH	MW-13A	08/26/2015		7.07	pH Units		
pH	MW-13A	11/10/2015		6.68	pH Units		
pH	MW-13A	02/22/2016		6.69	pH Units		
pH	MW-13A	05/16/2016		6.87	pH Units		
pH	MW-13A	08/31/2016		6.65	pH Units		
pH	MW-13A	11/14/2016		6.5	pH Units		
pH	MW-13A	02/22/2017		6.97	pH Units		
pH	MW-13A	05/24/2017		7.17	pH Units		
pH	MW-13A	08/30/2017		7	pH Units		
pH	MW-13A	11/13/2017		6.79	pH Units		
pH	MW-13A	02/20/2018		6.87	pH Units		
pH	MW-13A	05/15/2018		6.91	pH Units		
pH	MW-13A	08/21/2018		6.88	pH Units		
pH	MW-13A	11/12/2018		7.02	pH Units		
pH	MW-13A	05/28/2019		6.7	pH Units		
pH	MW-13A	11/11/2019		6.72	pH Units		
pH	MW-13A	05/26/2020		7.28	pH Units		
pH	MW-13A	11/19/2020		6.99	pH Units		
pH	MW-13B	03/22/2005		7.49	pH Units		
pH	MW-13B	06/15/2005		7.81	pH Units		
pH	MW-13B	09/27/2005		7.73	pH Units		
pH	MW-13B	12/15/2005		6.93	pH Units		
pH	MW-13B	03/29/2006		7.45	pH Units		
pH	MW-13B	06/21/2006		7.76	pH Units		
pH	MW-13B	09/26/2006		7.78	pH Units		
pH	MW-13B	12/13/2006		7.32	pH Units		
pH	MW-13B	03/27/2007		7.76	pH Units		
pH	MW-13B	09/18/2007		7.48	pH Units		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
pH	MW-13B	12/19/2007		7.85	pH Units		
pH	MW-13B	03/25/2008		7.78	pH Units		
pH	MW-13B	06/18/2008		7.74	pH Units		
pH	MW-13B	09/17/2008		7.57	pH Units		
pH	MW-13B	12/16/2008		7.23	pH Units		
pH	MW-13B	03/24/2009		7.37	pH Units		
pH	MW-13B	06/17/2009		7.56	pH Units		
pH	MW-13B	12/03/2009		6.93	pH Units		
pH	MW-13B	03/25/2010		7.49	pH Units		
pH	MW-13B	06/23/2010		7.27	pH Units		
pH	MW-13B	09/23/2010		7.11	pH Units		
pH	MW-13B	12/08/2010		7.05	pH Units		
pH	MW-13B	03/30/2011		7.51	pH Units		
pH	MW-13B	06/06/2011		7.58	pH Units		
pH	MW-13B	09/27/2011		7.08	pH Units		
pH	MW-13B	12/14/2011		7.53	pH Units		
pH	MW-13B	03/21/2012		7.09	pH Units		
pH	MW-13B	06/08/2012		7.15	pH Units		
pH	MW-13B	09/26/2012		7.32	pH Units		
pH	MW-13B	12/03/2012		7.32	pH Units		
pH	MW-13B	03/11/2013		7.42	pH Units		
pH	MW-13B	06/05/2013		7.27	pH Units		
pH	MW-13B	12/03/2013		7.34	pH Units		
pH	MW-13B	03/04/2014		7.4	pH Units		
pH	MW-13B	06/02/2014		7.35	pH Units		
pH	MW-13B	09/22/2014		7.68	pH Units		
pH	MW-13B	11/17/2014		7.08	pH Units		
pH	MW-13B	05/19/2015		7.65	pH Units		
pH	MW-13B	08/26/2015		7.59	pH Units		
pH	MW-13B	11/10/2015		7.28	pH Units		
pH	MW-13B	02/22/2016		7.01	pH Units		
pH	MW-13B	05/16/2016		7.31	pH Units		
pH	MW-13B	08/31/2016		7.23	pH Units		
pH	MW-13B	11/14/2016		7.17	pH Units		
pH	MW-13B	02/22/2017		7.65	pH Units		
pH	MW-13B	05/24/2017		7.76	pH Units		
pH	MW-13B	08/30/2017		7.41	pH Units		
pH	MW-13B	11/13/2017		7.49	pH Units		
pH	MW-13B	02/20/2018		7.35	pH Units		
pH	MW-13B	05/15/2018		7.35	pH Units		
pH	MW-13B	08/21/2018		7.31	pH Units		
pH	MW-13B	11/12/2018		7.65	pH Units		
pH	MW-13B	05/28/2019		7.09	pH Units		
pH	MW-13B	11/11/2019		7.03	pH Units		
pH	MW-13B	05/26/2020		7.76	pH Units		
pH	MW-13B	11/19/2020		7.64	pH Units		
pH	MW-16	03/24/2009		6.27	pH Units		
pH	MW-16	06/16/2009		6.33	pH Units		
pH	MW-16	12/03/2009		6.27	pH Units		
pH	MW-16	03/25/2010		6.26	pH Units		
pH	MW-16	06/24/2010		6.04	pH Units		
pH	MW-16	09/24/2010		5.9	pH Units		
pH	MW-16	12/09/2010		6.17	pH Units		
pH	MW-16	03/30/2011		6.31	pH Units		
pH	MW-16	06/07/2011		6.15	pH Units		
pH	MW-16	09/27/2011		6.44	pH Units		
pH	MW-16	12/13/2011		6.3	pH Units		
pH	MW-16	03/21/2012		6.32	pH Units		
pH	MW-16	06/08/2012		6.25	pH Units		
pH	MW-16	09/27/2012		6.26	pH Units		
pH	MW-16	12/04/2012		6.22	pH Units		
pH	MW-16	03/12/2013		6.35	pH Units		
pH	MW-16	06/04/2013		6.45	pH Units		
pH	MW-16	09/05/2013		6.62	pH Units		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
pH	MW-16	12/16/2013		6.32	pH Units		
pH	MW-16	03/05/2014		6.5	pH Units		
pH	MW-16	06/02/2014		6.61	pH Units		
pH	MW-16	09/22/2014		6.4	pH Units		
pH	MW-16	11/18/2014		6.38	pH Units		
pH	MW-16	02/23/2015		6.48	pH Units		
pH	MW-16	05/20/2015		6.51	pH Units		
pH	MW-16	08/26/2015		6.35	pH Units		
pH	MW-16	11/11/2015		6.13	pH Units		
pH	MW-16	02/24/2016		6.49	pH Units		
pH	MW-16	05/16/2016		6.11	pH Units		
pH	MW-16	08/31/2016		5.93	pH Units		
pH	MW-16	11/14/2016		5.89	pH Units		
pH	MW-16	02/22/2017		6.42	pH Units		
pH	MW-16	05/24/2017		6.35	pH Units		
pH	MW-16	08/30/2017		6.17	pH Units		
pH	MW-16	11/13/2017		6.35	pH Units		
pH	MW-16	02/20/2018		6.11	pH Units		
pH	MW-16	05/17/2018		6.27	pH Units		
pH	MW-16	08/22/2018		6.1	pH Units		
pH	MW-16	11/12/2018		6.34	pH Units		
pH	MW-16	05/29/2019		5.98	pH Units		
pH	MW-16	11/12/2019		6.17	pH Units		
pH	MW-16	05/27/2020		6.5	pH Units		
pH	MW-16	11/20/2020		6.14	pH Units		
pH	MW-35	03/22/2005		7.06	pH Units		
pH	MW-35	06/14/2005		7.43	pH Units		
pH	MW-35	09/27/2005		7.39	pH Units		
pH	MW-35	12/15/2005		6.41	pH Units		
pH	MW-35	03/28/2006		7.1	pH Units		
pH	MW-35	06/21/2006		7.46	pH Units		
pH	MW-35	09/26/2006		7.5	pH Units		
pH	MW-35	12/12/2006		6.99	pH Units		
pH	MW-35	03/27/2007		7.51	pH Units		
pH	MW-35	09/18/2007		6.97	pH Units		
pH	MW-35	12/20/2007		7.25	pH Units		
pH	MW-35	03/25/2008		7.4	pH Units		
pH	MW-35	06/18/2008		7.44	pH Units		
pH	MW-35	09/18/2008		7.42	pH Units		
pH	MW-35	12/19/2008		7.19	pH Units		
pH	MW-35	03/24/2009		7.21	pH Units		
pH	MW-35	06/16/2009		7.15	pH Units		
pH	MW-35	12/03/2009		7.22	pH Units		
pH	MW-35	03/25/2010		7.24	pH Units		
pH	MW-35	06/23/2010		7.37	pH Units		
pH	MW-35	09/23/2010		6.85	pH Units		
pH	MW-35	12/09/2010		7.39	pH Units		
pH	MW-35	03/30/2011		7.37	pH Units		
pH	MW-35	06/06/2011		7.23	pH Units		
pH	MW-35	09/26/2011		6.86	pH Units		
pH	MW-35	12/13/2011		7	pH Units		
pH	MW-35	03/21/2012		7.02	pH Units		
pH	MW-35	06/06/2012		6.98	pH Units		
pH	MW-35	09/26/2012		7.11	pH Units		
pH	MW-35	12/04/2012		7.16	pH Units		
pH	MW-35	03/13/2013		7.06	pH Units		
pH	MW-35	06/06/2013		7.37	pH Units		
pH	MW-35	09/05/2013		7.1	pH Units		
pH	MW-35	12/16/2013		7.15	pH Units		
pH	MW-35	03/04/2014		7.53	pH Units		
pH	MW-35	06/02/2014		7.17	pH Units		
pH	MW-35	09/22/2014		6.62	pH Units		
pH	MW-35	11/17/2014		7.48	pH Units		
pH	MW-35	02/25/2015		7.77	pH Units		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
pH	MW-35	05/19/2015		6.72	pH Units		
pH	MW-35	08/26/2015		7.25	pH Units		
pH	MW-35	11/10/2015		6.92	pH Units		
pH	MW-35	02/22/2016		6.58	pH Units		
pH	MW-35	05/16/2016		6.95	pH Units		
pH	MW-35	08/31/2016		7.09	pH Units		
pH	MW-35	11/15/2016		6.61	pH Units		
pH	MW-35	02/22/2017		7.38	pH Units		
pH	MW-35	05/24/2017		7.23	pH Units		
pH	MW-35	08/30/2017		7.29	pH Units		
pH	MW-35	11/15/2017		6.98	pH Units		
pH	MW-35	02/20/2018		6.93	pH Units		
pH	MW-35	05/17/2018		6.95	pH Units		
pH	MW-35	08/22/2018		7.06	pH Units		
pH	MW-35	11/12/2018		7.4	pH Units		
pH	MW-35	05/29/2019		6.77	pH Units		
pH	MW-35	11/12/2019		6.61	pH Units		
pH	MW-35	05/27/2020		7.49	pH Units		
pH	MW-35	11/19/2020		7.2	pH Units		
Potassium, dissolved	MW-13A	03/22/2005		0.57	mg/L		
Potassium, dissolved	MW-13A	06/15/2005		0.52	mg/L		
Potassium, dissolved	MW-13A	09/27/2005		0.48	mg/L		
Potassium, dissolved	MW-13A	12/15/2005		0.5	mg/L		
Potassium, dissolved	MW-13A	03/28/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/21/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/26/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/13/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/27/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/25/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/17/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/17/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/17/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/10/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/08/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/06/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/27/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/14/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/08/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/26/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/03/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/11/2013	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/03/2013	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/04/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/02/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/17/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/23/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/19/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/10/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/22/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/16/2016	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Potassium, dissolved	MW-13A	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/14/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/24/2017		1.4	mg/L		
Potassium, dissolved	MW-13A	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/13/2017	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/15/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	08/21/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/11/2019	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/19/2020	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/22/2005		0.6	mg/L		
Potassium, dissolved	MW-13B	06/15/2005		0.55	mg/L		
Potassium, dissolved	MW-13B	09/27/2005		0.55	mg/L		
Potassium, dissolved	MW-13B	12/15/2005		0.52	mg/L		
Potassium, dissolved	MW-13B	03/29/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/21/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/26/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/13/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/27/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/18/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/25/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/17/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/16/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/17/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/10/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/08/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/06/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/27/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/14/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/08/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/26/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/03/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/11/2013	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/03/2013	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/04/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/02/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/17/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/23/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/19/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/10/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/22/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/14/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/24/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/13/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/20/2018	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Potassium, dissolved	MW-13B	05/15/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/21/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/11/2019	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/19/2020	ND	1	mg/L		
Potassium, dissolved	MW-16	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	06/16/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	09/09/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	06/24/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	09/24/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	12/09/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	06/07/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	09/27/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	12/13/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	06/08/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	09/27/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	12/04/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	03/12/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	06/04/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	09/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	12/16/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	03/05/2014	ND	1	mg/L		
Potassium, dissolved	MW-16	06/02/2014		1.2	mg/L		
Potassium, dissolved	MW-16	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-16	11/18/2014	ND	1	mg/L		
Potassium, dissolved	MW-16	02/23/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	05/20/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	11/11/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	02/24/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	11/14/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	05/24/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	11/13/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	05/17/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	08/22/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	11/12/2019	ND	1	mg/L		
Potassium, dissolved	MW-16	11/20/2020	ND	1	mg/L		
Potassium, dissolved	MW-35	03/22/2005		0.52	mg/L		
Potassium, dissolved	MW-35	06/14/2005		0.48	mg/L		
Potassium, dissolved	MW-35	09/27/2005		0.52	mg/L		
Potassium, dissolved	MW-35	12/15/2005		0.46	mg/L		
Potassium, dissolved	MW-35	03/28/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	06/21/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	09/26/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	12/12/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	03/27/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	06/20/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	09/18/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	12/20/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	03/25/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	06/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	09/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	12/19/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	03/24/2009	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
 Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Potassium, dissolved	MW-35	06/16/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	09/10/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	06/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	09/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	12/09/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	06/06/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	09/26/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	12/13/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	06/06/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	09/26/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	12/04/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	03/13/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	06/06/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	09/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	12/16/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	03/04/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	06/02/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	11/17/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	02/25/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	05/19/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	11/10/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	02/22/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	11/15/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	05/24/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	11/15/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	05/17/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	08/22/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	11/12/2019	ND	1	mg/L		
Potassium, dissolved	MW-35	11/19/2020	ND	1	mg/L		
Selenium, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Selenium, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Selenium, total	MW-13A	11/19/2020	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Selenium, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Selenium, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Selenium, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Selenium, total	MW-16	09/05/2013	ND	0.001	mg/L		
Selenium, total	MW-16	12/16/2013	ND	0.001	mg/L		
Selenium, total	MW-16	03/05/2014	ND	0.001	mg/L		
Selenium, total	MW-16	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-16	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-16	11/18/2014	ND	0.001	mg/L		
Selenium, total	MW-16	02/23/2015	ND	0.001	mg/L		
Selenium, total	MW-16	05/20/2015	ND	0.001	mg/L		
Selenium, total	MW-16	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-16	11/11/2015	ND	0.001	mg/L		
Selenium, total	MW-16	02/24/2016	ND	0.001	mg/L		
Selenium, total	MW-16	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-16	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-16	11/14/2016	ND	0.001	mg/L		
Selenium, total	MW-16	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-16	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-16	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-16	11/13/2017	ND	0.001	mg/L		
Selenium, total	MW-16	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-16	05/17/2018	ND	0.001	mg/L		
Selenium, total	MW-16	08/22/2018	ND	0.001	mg/L		
Selenium, total	MW-16	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-16	11/12/2019	ND	0.001	mg/L		
Selenium, total	MW-16	11/20/2020	ND	0.001	mg/L		
Selenium, total	MW-35	09/05/2013	ND	0.001	mg/L		
Selenium, total	MW-35	12/16/2013	ND	0.001	mg/L		
Selenium, total	MW-35	03/04/2014	ND	0.001	mg/L		
Selenium, total	MW-35	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-35	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-35	11/17/2014	ND	0.001	mg/L		
Selenium, total	MW-35	02/25/2015	ND	0.001	mg/L		
Selenium, total	MW-35	05/19/2015	ND	0.001	mg/L		
Selenium, total	MW-35	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-35	11/10/2015	ND	0.001	mg/L		
Selenium, total	MW-35	02/22/2016	ND	0.001	mg/L		
Selenium, total	MW-35	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-35	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-35	11/15/2016	ND	0.001	mg/L		
Selenium, total	MW-35	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-35	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-35	08/30/2017	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Selenium, total	MW-35	11/15/2017	ND	0.001	mg/L		
Selenium, total	MW-35	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-35	05/17/2018	ND	0.001	mg/L		
Selenium, total	MW-35	08/22/2018	ND	0.001	mg/L		
Selenium, total	MW-35	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-35	11/12/2019	ND	0.001	mg/L		
Selenium, total	MW-35	11/19/2020	ND	0.001	mg/L		
Silver, total	MW-13A	12/03/2013	ND	0.002	mg/L		
Silver, total	MW-13A	03/04/2014	ND	0.002	mg/L		
Silver, total	MW-13A	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-13A	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-13A	11/17/2014	ND	0.002	mg/L		
Silver, total	MW-13A	02/23/2015	ND	0.002	mg/L		
Silver, total	MW-13A	05/19/2015	ND	0.002	mg/L		
Silver, total	MW-13A	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-13A	11/10/2015	ND	0.002	mg/L		
Silver, total	MW-13A	02/22/2016	ND	0.002	mg/L		
Silver, total	MW-13A	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-13A	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-13A	11/14/2016	ND	0.002	mg/L		
Silver, total	MW-13A	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-13A	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-13A	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-13A	11/13/2017	ND	0.002	mg/L		
Silver, total	MW-13A	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-13A	05/15/2018	ND	0.002	mg/L		
Silver, total	MW-13A	08/21/2018	ND	0.002	mg/L		
Silver, total	MW-13A	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-13A	11/11/2019	ND	0.002	mg/L		
Silver, total	MW-13A	11/19/2020	ND	0.002	mg/L		
Silver, total	MW-13B	12/03/2013	ND	0.002	mg/L		
Silver, total	MW-13B	03/04/2014	ND	0.002	mg/L		
Silver, total	MW-13B	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-13B	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-13B	11/17/2014	ND	0.002	mg/L		
Silver, total	MW-13B	02/23/2015	ND	0.002	mg/L		
Silver, total	MW-13B	05/19/2015	ND	0.002	mg/L		
Silver, total	MW-13B	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-13B	11/10/2015	ND	0.002	mg/L		
Silver, total	MW-13B	02/22/2016	ND	0.002	mg/L		
Silver, total	MW-13B	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-13B	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-13B	11/14/2016	ND	0.002	mg/L		
Silver, total	MW-13B	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-13B	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-13B	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-13B	11/13/2017	ND	0.002	mg/L		
Silver, total	MW-13B	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-13B	05/15/2018	ND	0.002	mg/L		
Silver, total	MW-13B	08/21/2018	ND	0.002	mg/L		
Silver, total	MW-13B	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-13B	11/11/2019	ND	0.002	mg/L		
Silver, total	MW-13B	11/19/2020	ND	0.002	mg/L		
Silver, total	MW-16	09/05/2013	ND	0.002	mg/L		
Silver, total	MW-16	12/16/2013	ND	0.002	mg/L		
Silver, total	MW-16	03/05/2014	ND	0.002	mg/L		
Silver, total	MW-16	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-16	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-16	11/18/2014	ND	0.002	mg/L		
Silver, total	MW-16	02/23/2015	ND	0.002	mg/L		
Silver, total	MW-16	05/20/2015	ND	0.002	mg/L		
Silver, total	MW-16	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-16	11/11/2015	ND	0.002	mg/L		
Silver, total	MW-16	02/24/2016	ND	0.002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Silver, total	MW-16	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-16	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-16	11/14/2016	ND	0.002	mg/L		
Silver, total	MW-16	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-16	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-16	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-16	11/13/2017	ND	0.002	mg/L		
Silver, total	MW-16	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-16	05/17/2018	ND	0.002	mg/L		
Silver, total	MW-16	08/22/2018	ND	0.002	mg/L		
Silver, total	MW-16	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-16	11/12/2019	ND	0.002	mg/L		
Silver, total	MW-16	11/20/2020	ND	0.002	mg/L		
Silver, total	MW-35	09/05/2013	ND	0.002	mg/L		
Silver, total	MW-35	12/16/2013	ND	0.002	mg/L		
Silver, total	MW-35	03/04/2014	ND	0.002	mg/L		
Silver, total	MW-35	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-35	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-35	11/17/2014	ND	0.002	mg/L		
Silver, total	MW-35	02/25/2015	ND	0.002	mg/L		
Silver, total	MW-35	05/19/2015	ND	0.002	mg/L		
Silver, total	MW-35	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-35	11/10/2015	ND	0.002	mg/L		
Silver, total	MW-35	02/22/2016	ND	0.002	mg/L		
Silver, total	MW-35	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-35	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-35	11/15/2016	ND	0.002	mg/L		
Silver, total	MW-35	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-35	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-35	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-35	11/15/2017	ND	0.002	mg/L		
Silver, total	MW-35	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-35	05/17/2018	ND	0.002	mg/L		
Silver, total	MW-35	08/22/2018	ND	0.002	mg/L		
Silver, total	MW-35	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-35	11/12/2019	ND	0.002	mg/L		
Silver, total	MW-35	11/19/2020	ND	0.002	mg/L		
Sodium, dissolved	MW-13A	03/22/2005		5.4	mg/L		
Sodium, dissolved	MW-13A	06/15/2005		4.4	mg/L		
Sodium, dissolved	MW-13A	09/27/2005		4.5	mg/L		
Sodium, dissolved	MW-13A	12/15/2005		4.8	mg/L		
Sodium, dissolved	MW-13A	03/28/2006		5.4	mg/L		
Sodium, dissolved	MW-13A	06/21/2006		5.2	mg/L		
Sodium, dissolved	MW-13A	09/26/2006		5.5	mg/L		
Sodium, dissolved	MW-13A	12/13/2006		4.8	mg/L		
Sodium, dissolved	MW-13A	03/27/2007		5.4	mg/L		
Sodium, dissolved	MW-13A	06/19/2007		5.5	mg/L		
Sodium, dissolved	MW-13A	09/19/2007		5.4	mg/L		
Sodium, dissolved	MW-13A	12/19/2007		4.9	mg/L		
Sodium, dissolved	MW-13A	03/25/2008		5.5	mg/L		
Sodium, dissolved	MW-13A	06/18/2008		5.5	mg/L		
Sodium, dissolved	MW-13A	09/17/2008		5.2	mg/L		
Sodium, dissolved	MW-13A	12/17/2008		5.5	mg/L		
Sodium, dissolved	MW-13A	03/24/2009		5.3	mg/L		
Sodium, dissolved	MW-13A	06/17/2009		5.4	mg/L		
Sodium, dissolved	MW-13A	09/10/2009		5.2	mg/L		
Sodium, dissolved	MW-13A	12/03/2009		5.6	mg/L		
Sodium, dissolved	MW-13A	03/25/2010		6.1	mg/L		
Sodium, dissolved	MW-13A	06/23/2010		5.7	mg/L		
Sodium, dissolved	MW-13A	09/23/2010		5	mg/L		
Sodium, dissolved	MW-13A	12/08/2010		5.2	mg/L		
Sodium, dissolved	MW-13A	03/30/2011		5.4	mg/L		
Sodium, dissolved	MW-13A	06/06/2011		5.4	mg/L		
Sodium, dissolved	MW-13A	09/27/2011		5.6	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Sodium, dissolved	MW-13A	12/14/2011		5.5	mg/L		
Sodium, dissolved	MW-13A	03/21/2012		5.3	mg/L		
Sodium, dissolved	MW-13A	06/08/2012		5.2	mg/L		
Sodium, dissolved	MW-13A	09/26/2012		5.2	mg/L		
Sodium, dissolved	MW-13A	12/03/2012		5.5	mg/L		
Sodium, dissolved	MW-13A	03/11/2013		5.7	mg/L		
Sodium, dissolved	MW-13A	06/05/2013		5.6	mg/L		
Sodium, dissolved	MW-13A	12/03/2013		5.5	mg/L		
Sodium, dissolved	MW-13A	03/04/2014		5.4	mg/L		
Sodium, dissolved	MW-13A	06/02/2014		5.2	mg/L		
Sodium, dissolved	MW-13A	09/22/2014		5.2	mg/L		
Sodium, dissolved	MW-13A	11/17/2014		5.4	mg/L		
Sodium, dissolved	MW-13A	02/23/2015		5.2	mg/L		
Sodium, dissolved	MW-13A	05/19/2015		5.5	mg/L		
Sodium, dissolved	MW-13A	08/26/2015		5.3	mg/L		
Sodium, dissolved	MW-13A	11/10/2015		5.4	mg/L		
Sodium, dissolved	MW-13A	02/22/2016		5.9	mg/L		
Sodium, dissolved	MW-13A	05/16/2016		5.5	mg/L		
Sodium, dissolved	MW-13A	08/31/2016		5.4	mg/L		
Sodium, dissolved	MW-13A	11/14/2016		5.4	mg/L		
Sodium, dissolved	MW-13A	02/22/2017		5.4	mg/L		
Sodium, dissolved	MW-13A	05/24/2017		7.7	mg/L		
Sodium, dissolved	MW-13A	08/30/2017		5.4	mg/L		
Sodium, dissolved	MW-13A	11/13/2017		5.1	mg/L		
Sodium, dissolved	MW-13A	02/20/2018		4.6	mg/L		
Sodium, dissolved	MW-13A	05/15/2018		4.8	mg/L		
Sodium, dissolved	MW-13A	08/21/2018		4.9	mg/L		
Sodium, dissolved	MW-13A	11/12/2018		5.2	mg/L		
Sodium, dissolved	MW-13A	11/11/2019		5	mg/L		
Sodium, dissolved	MW-13A	11/19/2020		5.3	mg/L		
Sodium, dissolved	MW-13B	03/22/2005		5.3	mg/L		
Sodium, dissolved	MW-13B	06/15/2005		4.8	mg/L		
Sodium, dissolved	MW-13B	09/27/2005		5	mg/L		
Sodium, dissolved	MW-13B	12/15/2005		4.8	mg/L		
Sodium, dissolved	MW-13B	03/29/2006		4.9	mg/L		
Sodium, dissolved	MW-13B	06/21/2006		5	mg/L		
Sodium, dissolved	MW-13B	09/26/2006		5.5	mg/L		
Sodium, dissolved	MW-13B	12/13/2006		4.8	mg/L		
Sodium, dissolved	MW-13B	03/27/2007		5.2	mg/L		
Sodium, dissolved	MW-13B	06/19/2007		5.2	mg/L		
Sodium, dissolved	MW-13B	09/18/2007		5.2	mg/L		
Sodium, dissolved	MW-13B	12/19/2007		4.9	mg/L		
Sodium, dissolved	MW-13B	03/25/2008		5.3	mg/L		
Sodium, dissolved	MW-13B	06/18/2008		5.3	mg/L		
Sodium, dissolved	MW-13B	09/17/2008		5	mg/L		
Sodium, dissolved	MW-13B	12/16/2008		5.1	mg/L		
Sodium, dissolved	MW-13B	03/24/2009		5.1	mg/L		
Sodium, dissolved	MW-13B	06/17/2009		5.3	mg/L		
Sodium, dissolved	MW-13B	09/10/2009		5.1	mg/L		
Sodium, dissolved	MW-13B	12/03/2009		5.3	mg/L		
Sodium, dissolved	MW-13B	03/25/2010		5.3	mg/L		
Sodium, dissolved	MW-13B	06/23/2010		5.3	mg/L		
Sodium, dissolved	MW-13B	09/23/2010		4.8	mg/L		
Sodium, dissolved	MW-13B	12/08/2010		5.6	mg/L		
Sodium, dissolved	MW-13B	03/30/2011		5.1	mg/L		
Sodium, dissolved	MW-13B	06/06/2011		5.2	mg/L		
Sodium, dissolved	MW-13B	09/27/2011		5.2	mg/L		
Sodium, dissolved	MW-13B	12/14/2011		5.1	mg/L		
Sodium, dissolved	MW-13B	03/21/2012		4.9	mg/L		
Sodium, dissolved	MW-13B	06/08/2012		5.1	mg/L		
Sodium, dissolved	MW-13B	09/26/2012		5	mg/L		
Sodium, dissolved	MW-13B	12/03/2012		5.7	mg/L		
Sodium, dissolved	MW-13B	03/11/2013		5.3	mg/L		
Sodium, dissolved	MW-13B	06/05/2013		5.4	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Sodium, dissolved	MW-13B	12/03/2013		5.4	mg/L		
Sodium, dissolved	MW-13B	03/04/2014		5.1	mg/L		
Sodium, dissolved	MW-13B	06/02/2014		4.9	mg/L		
Sodium, dissolved	MW-13B	09/22/2014		5	mg/L		
Sodium, dissolved	MW-13B	11/17/2014		5.3	mg/L		
Sodium, dissolved	MW-13B	02/23/2015		5	mg/L		
Sodium, dissolved	MW-13B	05/19/2015		5.5	mg/L		
Sodium, dissolved	MW-13B	08/26/2015		5.2	mg/L		
Sodium, dissolved	MW-13B	11/10/2015		5.2	mg/L		
Sodium, dissolved	MW-13B	02/22/2016		5.8	mg/L		
Sodium, dissolved	MW-13B	05/16/2016		5.2	mg/L		
Sodium, dissolved	MW-13B	08/31/2016		5.8	mg/L		
Sodium, dissolved	MW-13B	11/14/2016		5.1	mg/L		
Sodium, dissolved	MW-13B	02/22/2017		4.9	mg/L		
Sodium, dissolved	MW-13B	05/24/2017		5.4	mg/L		
Sodium, dissolved	MW-13B	08/30/2017		5.4	mg/L		
Sodium, dissolved	MW-13B	11/13/2017		5.1	mg/L		
Sodium, dissolved	MW-13B	02/20/2018		5	mg/L		
Sodium, dissolved	MW-13B	05/15/2018		4.6	mg/L		
Sodium, dissolved	MW-13B	08/21/2018		5.1	mg/L		
Sodium, dissolved	MW-13B	11/12/2018		5.3	mg/L		
Sodium, dissolved	MW-13B	11/11/2019		5	mg/L		
Sodium, dissolved	MW-13B	11/19/2020		5.3	mg/L		
Sodium, dissolved	MW-16	03/24/2009		5.4	mg/L		
Sodium, dissolved	MW-16	06/16/2009		5.3	mg/L		
Sodium, dissolved	MW-16	09/09/2009		5.4	mg/L		
Sodium, dissolved	MW-16	12/03/2009		6.2	mg/L		
Sodium, dissolved	MW-16	03/25/2010		4.9	mg/L		
Sodium, dissolved	MW-16	06/24/2010		5.7	mg/L		
Sodium, dissolved	MW-16	09/24/2010		5.7	mg/L		
Sodium, dissolved	MW-16	12/09/2010		5.2	mg/L		
Sodium, dissolved	MW-16	03/30/2011		4.7	mg/L		
Sodium, dissolved	MW-16	06/07/2011		5	mg/L		
Sodium, dissolved	MW-16	09/27/2011		5.8	mg/L		
Sodium, dissolved	MW-16	12/13/2011		5.3	mg/L		
Sodium, dissolved	MW-16	03/21/2012		4.7	mg/L		
Sodium, dissolved	MW-16	06/08/2012		4.8	mg/L		
Sodium, dissolved	MW-16	09/27/2012		5.4	mg/L		
Sodium, dissolved	MW-16	12/04/2012		4.7	mg/L		
Sodium, dissolved	MW-16	03/12/2013		5.1	mg/L		
Sodium, dissolved	MW-16	06/04/2013		5.3	mg/L		
Sodium, dissolved	MW-16	09/05/2013		6.2	mg/L		
Sodium, dissolved	MW-16	12/16/2013		5.7	mg/L		
Sodium, dissolved	MW-16	03/05/2014		4.9	mg/L		
Sodium, dissolved	MW-16	06/02/2014		4.5	mg/L		
Sodium, dissolved	MW-16	09/22/2014		4.9	mg/L		
Sodium, dissolved	MW-16	11/18/2014		4.8	mg/L		
Sodium, dissolved	MW-16	02/23/2015		4.7	mg/L		
Sodium, dissolved	MW-16	05/20/2015		4.6	mg/L		
Sodium, dissolved	MW-16	08/26/2015		4.9	mg/L		
Sodium, dissolved	MW-16	11/11/2015		5.7	mg/L		
Sodium, dissolved	MW-16	02/24/2016		4.4	mg/L		
Sodium, dissolved	MW-16	05/16/2016		4.8	mg/L		
Sodium, dissolved	MW-16	08/31/2016		5.4	mg/L		
Sodium, dissolved	MW-16	11/14/2016		5	mg/L		
Sodium, dissolved	MW-16	02/22/2017		4.2	mg/L		
Sodium, dissolved	MW-16	05/24/2017		4.4	mg/L		
Sodium, dissolved	MW-16	08/30/2017		4.9	mg/L		
Sodium, dissolved	MW-16	11/13/2017		4.9	mg/L		
Sodium, dissolved	MW-16	02/20/2018		4.2	mg/L		
Sodium, dissolved	MW-16	05/17/2018		4.2	mg/L		
Sodium, dissolved	MW-16	08/22/2018		4.4	mg/L		
Sodium, dissolved	MW-16	11/12/2018		5.1	mg/L		
Sodium, dissolved	MW-16	11/12/2019		5.5	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Sodium, dissolved	MW-16	11/20/2020		5.6	mg/L		
Sodium, dissolved	MW-35	03/22/2005		5.1	mg/L		
Sodium, dissolved	MW-35	06/14/2005		4.5	mg/L		
Sodium, dissolved	MW-35	09/27/2005		5.1	mg/L		
Sodium, dissolved	MW-35	12/15/2005		4.6	mg/L		
Sodium, dissolved	MW-35	03/28/2006		5	mg/L		
Sodium, dissolved	MW-35	06/21/2006		4.9	mg/L		
Sodium, dissolved	MW-35	09/26/2006		5.1	mg/L		
Sodium, dissolved	MW-35	12/12/2006		4.7	mg/L		
Sodium, dissolved	MW-35	03/27/2007		5.1	mg/L		
Sodium, dissolved	MW-35	06/20/2007		5.2	mg/L		
Sodium, dissolved	MW-35	09/18/2007		5.2	mg/L		
Sodium, dissolved	MW-35	12/20/2007		4.8	mg/L		
Sodium, dissolved	MW-35	03/25/2008		5.1	mg/L		
Sodium, dissolved	MW-35	06/18/2008		4.9	mg/L		
Sodium, dissolved	MW-35	09/18/2008		4.8	mg/L		
Sodium, dissolved	MW-35	12/19/2008		4.7	mg/L		
Sodium, dissolved	MW-35	03/24/2009		5	mg/L		
Sodium, dissolved	MW-35	06/16/2009		5.1	mg/L		
Sodium, dissolved	MW-35	09/10/2009		4.9	mg/L		
Sodium, dissolved	MW-35	12/03/2009		5.3	mg/L		
Sodium, dissolved	MW-35	03/25/2010		5	mg/L		
Sodium, dissolved	MW-35	06/23/2010		5.1	mg/L		
Sodium, dissolved	MW-35	09/23/2010		4.7	mg/L		
Sodium, dissolved	MW-35	12/09/2010		4.8	mg/L		
Sodium, dissolved	MW-35	03/30/2011		4.9	mg/L		
Sodium, dissolved	MW-35	06/06/2011		5.1	mg/L		
Sodium, dissolved	MW-35	09/26/2011		5.2	mg/L		
Sodium, dissolved	MW-35	12/13/2011		5.1	mg/L		
Sodium, dissolved	MW-35	03/21/2012		5	mg/L		
Sodium, dissolved	MW-35	06/06/2012		4.8	mg/L		
Sodium, dissolved	MW-35	09/26/2012		4.9	mg/L		
Sodium, dissolved	MW-35	12/04/2012		4.5	mg/L		
Sodium, dissolved	MW-35	03/13/2013		4.9	mg/L		
Sodium, dissolved	MW-35	06/06/2013		4.9	mg/L		
Sodium, dissolved	MW-35	09/05/2013		4.9	mg/L		
Sodium, dissolved	MW-35	12/16/2013		5.9	mg/L		
Sodium, dissolved	MW-35	03/04/2014		5.1	mg/L		
Sodium, dissolved	MW-35	06/02/2014		4.9	mg/L		
Sodium, dissolved	MW-35	09/22/2014		5.1	mg/L		
Sodium, dissolved	MW-35	11/17/2014		5.2	mg/L		
Sodium, dissolved	MW-35	02/25/2015		5.2	mg/L		
Sodium, dissolved	MW-35	05/19/2015		4.8	mg/L		
Sodium, dissolved	MW-35	08/26/2015		5.1	mg/L		
Sodium, dissolved	MW-35	11/10/2015		5.5	mg/L		
Sodium, dissolved	MW-35	02/22/2016		5.6	mg/L		
Sodium, dissolved	MW-35	05/16/2016		5.2	mg/L		
Sodium, dissolved	MW-35	08/31/2016		5.1	mg/L		
Sodium, dissolved	MW-35	11/15/2016		6.3	mg/L		
Sodium, dissolved	MW-35	02/22/2017		4.9	mg/L		
Sodium, dissolved	MW-35	05/24/2017		5	mg/L		
Sodium, dissolved	MW-35	08/30/2017		5.4	mg/L		
Sodium, dissolved	MW-35	11/15/2017		5	mg/L		
Sodium, dissolved	MW-35	02/20/2018		4.8	mg/L		
Sodium, dissolved	MW-35	05/17/2018		4.8	mg/L		
Sodium, dissolved	MW-35	08/22/2018		4.8	mg/L		
Sodium, dissolved	MW-35	11/12/2018		5.2	mg/L		
Sodium, dissolved	MW-35	11/12/2019		5.6	mg/L		
Sodium, dissolved	MW-35	11/19/2020		5.2	mg/L		
Specific conductivity	MW-13A	03/22/2005		0.158	mS/cm		
Specific conductivity	MW-13A	06/15/2005		0.167	mS/cm		
Specific conductivity	MW-13A	09/27/2005		0.161	mS/cm		
Specific conductivity	MW-13A	12/15/2005		0.159	mS/cm		
Specific conductivity	MW-13A	03/28/2006		0.152	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Specific conductivity	MW-13A	06/21/2006		0.169	mS/cm		
Specific conductivity	MW-13A	09/26/2006		0.171	mS/cm		
Specific conductivity	MW-13A	12/13/2006		0.17	mS/cm		
Specific conductivity	MW-13A	03/27/2007		0.167	mS/cm		
Specific conductivity	MW-13A	09/19/2007		0.167	mS/cm		
Specific conductivity	MW-13A	12/19/2007		0.169	mS/cm		
Specific conductivity	MW-13A	03/25/2008		0.166	mS/cm		
Specific conductivity	MW-13A	06/18/2008		0.17	mS/cm		
Specific conductivity	MW-13A	09/17/2008		0.168	mS/cm		
Specific conductivity	MW-13A	12/17/2008		0.139	mS/cm		
Specific conductivity	MW-13A	03/24/2009		0.168	mS/cm		
Specific conductivity	MW-13A	06/17/2009		0.174	mS/cm		
Specific conductivity	MW-13A	12/03/2009		0.173	mS/cm		
Specific conductivity	MW-13A	03/25/2010		0.093	mS/cm		
Specific conductivity	MW-13A	06/23/2010		0.145	mS/cm		
Specific conductivity	MW-13A	09/23/2010		0.17	mS/cm		
Specific conductivity	MW-13A	12/08/2010		0.07	mS/cm		
Specific conductivity	MW-13A	03/30/2011		0.151	mS/cm		
Specific conductivity	MW-13A	06/06/2011		0.158	mS/cm		
Specific conductivity	MW-13A	09/27/2011		0.158	mS/cm		
Specific conductivity	MW-13A	12/14/2011		0.176	mS/cm		
Specific conductivity	MW-13A	03/21/2012		0.171	mS/cm		
Specific conductivity	MW-13A	06/08/2012		0.18	mS/cm		
Specific conductivity	MW-13A	09/26/2012		0.15	mS/cm		
Specific conductivity	MW-13A	12/03/2012		0.107	mS/cm		
Specific conductivity	MW-13A	03/11/2013		0.145	mS/cm		
Specific conductivity	MW-13A	06/05/2013		0.147	mS/cm		
Specific conductivity	MW-13A	12/03/2013		0.156	mS/cm		
Specific conductivity	MW-13A	03/04/2014		0.141	mS/cm		
Specific conductivity	MW-13A	06/02/2014		0.154	mS/cm		
Specific conductivity	MW-13A	09/22/2014		0.166	mS/cm		
Specific conductivity	MW-13A	11/17/2014		0.172	mS/cm		
Specific conductivity	MW-13A	02/23/2015		0.165	mS/cm		
Specific conductivity	MW-13A	05/19/2015		0.164	mS/cm		
Specific conductivity	MW-13A	08/26/2015		0.166	mS/cm		
Specific conductivity	MW-13A	11/10/2015		0.169	mS/cm		
Specific conductivity	MW-13A	02/22/2016		0.177	mS/cm		
Specific conductivity	MW-13A	05/16/2016		0.169	mS/cm		
Specific conductivity	MW-13A	08/31/2016		0.171	mS/cm		
Specific conductivity	MW-13A	11/14/2016		0.169	mS/cm		
Specific conductivity	MW-13A	02/22/2017		0.17	mS/cm		
Specific conductivity	MW-13A	05/24/2017		0.175	mS/cm		
Specific conductivity	MW-13A	08/30/2017		0.175	mS/cm		
Specific conductivity	MW-13A	11/13/2017		0.171	mS/cm		
Specific conductivity	MW-13A	02/20/2018		0.17	mS/cm		
Specific conductivity	MW-13A	05/15/2018		0.17	mS/cm		
Specific conductivity	MW-13A	08/21/2018		0.171	mS/cm		
Specific conductivity	MW-13A	11/12/2018		0.169	mS/cm		
Specific conductivity	MW-13A	05/28/2019		0.169	mS/cm		
Specific conductivity	MW-13A	11/11/2019		0.169	mS/cm		
Specific conductivity	MW-13A	05/26/2020		0.17	mS/cm		
Specific conductivity	MW-13A	11/19/2020		0.168	mS/cm		
Specific conductivity	MW-13B	03/22/2005		0.155	mS/cm		
Specific conductivity	MW-13B	06/15/2005		0.165	mS/cm		
Specific conductivity	MW-13B	09/27/2005		0.159	mS/cm		
Specific conductivity	MW-13B	12/15/2005		0.157	mS/cm		
Specific conductivity	MW-13B	03/29/2006		0.151	mS/cm		
Specific conductivity	MW-13B	06/21/2006		0.165	mS/cm		
Specific conductivity	MW-13B	09/26/2006		0.168	mS/cm		
Specific conductivity	MW-13B	12/13/2006		0.165	mS/cm		
Specific conductivity	MW-13B	03/27/2007		0.161	mS/cm		
Specific conductivity	MW-13B	09/18/2007		0.168	mS/cm		
Specific conductivity	MW-13B	12/19/2007		0.164	mS/cm		
Specific conductivity	MW-13B	03/25/2008		0.162	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Specific conductivity	MW-13B	06/18/2008		0.165	mS/cm		
Specific conductivity	MW-13B	09/17/2008		0.164	mS/cm		
Specific conductivity	MW-13B	12/16/2008		0.163	mS/cm		
Specific conductivity	MW-13B	03/24/2009		0.167	mS/cm		
Specific conductivity	MW-13B	06/17/2009		0.169	mS/cm		
Specific conductivity	MW-13B	12/03/2009		0.167	mS/cm		
Specific conductivity	MW-13B	03/25/2010		0.09	mS/cm		
Specific conductivity	MW-13B	06/23/2010		0.141	mS/cm		
Specific conductivity	MW-13B	09/23/2010		0.162	mS/cm		
Specific conductivity	MW-13B	12/08/2010		0.073	mS/cm		
Specific conductivity	MW-13B	03/30/2011		0.144	mS/cm		
Specific conductivity	MW-13B	06/06/2011		0.135	mS/cm		
Specific conductivity	MW-13B	09/27/2011		0.151	mS/cm		
Specific conductivity	MW-13B	12/14/2011		0.169	mS/cm		
Specific conductivity	MW-13B	03/21/2012		0.165	mS/cm		
Specific conductivity	MW-13B	06/08/2012		0.175	mS/cm		
Specific conductivity	MW-13B	09/26/2012		0.148	mS/cm		
Specific conductivity	MW-13B	12/03/2012		0.14	mS/cm		
Specific conductivity	MW-13B	03/11/2013		0.144	mS/cm		
Specific conductivity	MW-13B	06/05/2013		0.144	mS/cm		
Specific conductivity	MW-13B	12/03/2013		0.154	mS/cm		
Specific conductivity	MW-13B	03/04/2014		0.139	mS/cm		
Specific conductivity	MW-13B	06/02/2014		0.154	mS/cm		
Specific conductivity	MW-13B	09/22/2014		0.167	mS/cm		
Specific conductivity	MW-13B	11/17/2014		0.172	mS/cm		
Specific conductivity	MW-13B	02/23/2015		0.164	mS/cm		
Specific conductivity	MW-13B	05/19/2015		0.165	mS/cm		
Specific conductivity	MW-13B	08/26/2015		0.164	mS/cm		
Specific conductivity	MW-13B	11/10/2015		0.169	mS/cm		
Specific conductivity	MW-13B	02/22/2016		0.176	mS/cm		
Specific conductivity	MW-13B	05/16/2016		0.168	mS/cm		
Specific conductivity	MW-13B	08/31/2016		0.171	mS/cm		
Specific conductivity	MW-13B	11/14/2016		0.171	mS/cm		
Specific conductivity	MW-13B	02/22/2017		0.171	mS/cm		
Specific conductivity	MW-13B	05/24/2017		0.175	mS/cm		
Specific conductivity	MW-13B	08/30/2017		0.178	mS/cm		
Specific conductivity	MW-13B	11/13/2017		0.17	mS/cm		
Specific conductivity	MW-13B	02/20/2018		0.17	mS/cm		
Specific conductivity	MW-13B	05/15/2018		0.171	mS/cm		
Specific conductivity	MW-13B	08/21/2018		0.175	mS/cm		
Specific conductivity	MW-13B	11/12/2018		0.174	mS/cm		
Specific conductivity	MW-13B	05/28/2019		0.176	mS/cm		
Specific conductivity	MW-13B	11/11/2019		0.175	mS/cm		
Specific conductivity	MW-13B	05/26/2020		0.175	mS/cm		
Specific conductivity	MW-13B	11/19/2020		0.17	mS/cm		
Specific conductivity	MW-16	03/24/2009		0.135	mS/cm		
Specific conductivity	MW-16	06/16/2009		0.123	mS/cm		
Specific conductivity	MW-16	12/03/2009		0.16	mS/cm		
Specific conductivity	MW-16	03/25/2010		0.118	mS/cm		
Specific conductivity	MW-16	06/24/2010		0.155	mS/cm		
Specific conductivity	MW-16	09/24/2010		0.148	mS/cm		
Specific conductivity	MW-16	12/09/2010		0.15	mS/cm		
Specific conductivity	MW-16	03/30/2011		0.102	mS/cm		
Specific conductivity	MW-16	06/07/2011		0.096	mS/cm		
Specific conductivity	MW-16	09/27/2011		0.068	mS/cm		
Specific conductivity	MW-16	12/13/2011		0.12	mS/cm		
Specific conductivity	MW-16	03/21/2012		0.079	mS/cm		
Specific conductivity	MW-16	06/08/2012		0.118	mS/cm		
Specific conductivity	MW-16	09/27/2012		0.106	mS/cm		
Specific conductivity	MW-16	12/04/2012		0.085	mS/cm		
Specific conductivity	MW-16	03/12/2013		0.118	mS/cm		
Specific conductivity	MW-16	06/04/2013		0.103	mS/cm		
Specific conductivity	MW-16	09/05/2013		0.11	mS/cm		
Specific conductivity	MW-16	12/16/2013		0.096	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Specific conductivity	MW-16	03/05/2014		0.099	mS/cm		
Specific conductivity	MW-16	06/02/2014		0.094	mS/cm		
Specific conductivity	MW-16	09/22/2014		0.122	mS/cm		
Specific conductivity	MW-16	11/18/2014		0.126	mS/cm		
Specific conductivity	MW-16	02/23/2015		0.08	mS/cm		
Specific conductivity	MW-16	05/20/2015		0.101	mS/cm		
Specific conductivity	MW-16	08/26/2015		0.097	mS/cm		
Specific conductivity	MW-16	11/11/2015		0.136	mS/cm		
Specific conductivity	MW-16	02/24/2016		0.091	mS/cm		
Specific conductivity	MW-16	05/16/2016		0.102	mS/cm		
Specific conductivity	MW-16	08/31/2016		0.123	mS/cm		
Specific conductivity	MW-16	11/14/2016		0.11	mS/cm		
Specific conductivity	MW-16	02/22/2017		0.097	mS/cm		
Specific conductivity	MW-16	05/24/2017		0.047	mS/cm		
Specific conductivity	MW-16	08/30/2017		0.114	mS/cm		
Specific conductivity	MW-16	11/13/2017		0.104	mS/cm		
Specific conductivity	MW-16	02/20/2018		0.095	mS/cm		
Specific conductivity	MW-16	05/17/2018		0.097	mS/cm		
Specific conductivity	MW-16	08/22/2018		0.106	mS/cm		
Specific conductivity	MW-16	11/12/2018		0.112	mS/cm		
Specific conductivity	MW-16	05/29/2019		0.108	mS/cm		
Specific conductivity	MW-16	11/12/2019		0.136	mS/cm		
Specific conductivity	MW-16	05/27/2020		0.121	mS/cm		
Specific conductivity	MW-16	11/20/2020		0.151	mS/cm		
Specific conductivity	MW-35	03/22/2005		0.143	mS/cm		
Specific conductivity	MW-35	06/14/2005		0.153	mS/cm		
Specific conductivity	MW-35	09/27/2005		0.148	mS/cm		
Specific conductivity	MW-35	12/15/2005		0.145	mS/cm		
Specific conductivity	MW-35	03/28/2006		0.136	mS/cm		
Specific conductivity	MW-35	06/21/2006		0.152	mS/cm		
Specific conductivity	MW-35	09/26/2006		0.155	mS/cm		
Specific conductivity	MW-35	12/12/2006		0.151	mS/cm		
Specific conductivity	MW-35	03/27/2007		0.148	mS/cm		
Specific conductivity	MW-35	09/18/2007		0.152	mS/cm		
Specific conductivity	MW-35	12/20/2007		0.152	mS/cm		
Specific conductivity	MW-35	03/25/2008		0.147	mS/cm		
Specific conductivity	MW-35	06/18/2008		0.151	mS/cm		
Specific conductivity	MW-35	09/18/2008		0.142	mS/cm		
Specific conductivity	MW-35	12/19/2008		0.144	mS/cm		
Specific conductivity	MW-35	03/24/2009		0.15	mS/cm		
Specific conductivity	MW-35	06/16/2009		0.155	mS/cm		
Specific conductivity	MW-35	12/03/2009		0.152	mS/cm		
Specific conductivity	MW-35	03/25/2010		0.084	mS/cm		
Specific conductivity	MW-35	06/23/2010		0.128	mS/cm		
Specific conductivity	MW-35	09/23/2010		0.151	mS/cm		
Specific conductivity	MW-35	12/09/2010		0.15	mS/cm		
Specific conductivity	MW-35	03/30/2011		0.132	mS/cm		
Specific conductivity	MW-35	06/06/2011		0.123	mS/cm		
Specific conductivity	MW-35	09/26/2011		0.131	mS/cm		
Specific conductivity	MW-35	12/13/2011		0.148	mS/cm		
Specific conductivity	MW-35	03/21/2012		0.152	mS/cm		
Specific conductivity	MW-35	06/06/2012		0.138	mS/cm		
Specific conductivity	MW-35	09/26/2012		0.135	mS/cm		
Specific conductivity	MW-35	12/04/2012		0.148	mS/cm		
Specific conductivity	MW-35	03/13/2013		0.132	mS/cm		
Specific conductivity	MW-35	06/06/2013		0.133	mS/cm		
Specific conductivity	MW-35	09/05/2013		0.132	mS/cm		
Specific conductivity	MW-35	12/16/2013		0.121	mS/cm		
Specific conductivity	MW-35	03/04/2014		0.129	mS/cm		
Specific conductivity	MW-35	06/02/2014		0.14	mS/cm		
Specific conductivity	MW-35	09/22/2014		0.161	mS/cm		
Specific conductivity	MW-35	11/17/2014		0.16	mS/cm		
Specific conductivity	MW-35	02/25/2015		0.152	mS/cm		
Specific conductivity	MW-35	05/19/2015		0.135	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Specific conductivity	MW-35	08/26/2015		0.153	mS/cm		
Specific conductivity	MW-35	11/10/2015		0.156	mS/cm		
Specific conductivity	MW-35	02/22/2016		0.164	mS/cm		
Specific conductivity	MW-35	05/16/2016		0.156	mS/cm		
Specific conductivity	MW-35	08/31/2016		0.159	mS/cm		
Specific conductivity	MW-35	11/15/2016		0.158	mS/cm		
Specific conductivity	MW-35	02/22/2017		0.161	mS/cm		
Specific conductivity	MW-35	05/24/2017		0.166	mS/cm		
Specific conductivity	MW-35	08/30/2017		0.167	mS/cm		
Specific conductivity	MW-35	11/15/2017		0.161	mS/cm		
Specific conductivity	MW-35	02/20/2018		0.161	mS/cm		
Specific conductivity	MW-35	05/17/2018		0.164	mS/cm		
Specific conductivity	MW-35	08/22/2018		0.16	mS/cm		
Specific conductivity	MW-35	11/12/2018		0.164	mS/cm		
Specific conductivity	MW-35	05/29/2019		0.169	mS/cm		
Specific conductivity	MW-35	11/12/2019		0.166	mS/cm		
Specific conductivity	MW-35	05/27/2020		0.168	mS/cm		
Specific conductivity	MW-35	11/19/2020		0.156	mS/cm		
Sulfate	MW-13A	03/22/2005		2.8	mg/L		
Sulfate	MW-13A	06/15/2005		2.9	mg/L		
Sulfate	MW-13A	09/27/2005		3.2	mg/L		
Sulfate	MW-13A	12/15/2005		2.1	mg/L		
Sulfate	MW-13A	03/28/2006		3.2	mg/L		
Sulfate	MW-13A	06/21/2006		3.1	mg/L		
Sulfate	MW-13A	09/26/2006		2.5	mg/L		
Sulfate	MW-13A	12/13/2006		2.3	mg/L		
Sulfate	MW-13A	03/27/2007		2.5	mg/L		
Sulfate	MW-13A	06/19/2007		2.5	mg/L		
Sulfate	MW-13A	09/19/2007		2.5	mg/L		
Sulfate	MW-13A	12/19/2007		2.5	mg/L		
Sulfate	MW-13A	03/25/2008		2.4	mg/L		
Sulfate	MW-13A	06/18/2008		2.6	mg/L		
Sulfate	MW-13A	09/17/2008		2.4	mg/L		
Sulfate	MW-13A	12/17/2008		2.4	mg/L		
Sulfate	MW-13A	03/24/2009		2.5	mg/L		
Sulfate	MW-13A	06/17/2009		2.1	mg/L		
Sulfate	MW-13A	09/10/2009		2.2	mg/L		
Sulfate	MW-13A	12/03/2009		2.3	mg/L		
Sulfate	MW-13A	03/25/2010		2.3	mg/L		
Sulfate	MW-13A	06/23/2010		2.1	mg/L		
Sulfate	MW-13A	09/23/2010		2.3	mg/L		
Sulfate	MW-13A	12/08/2010		3.7	mg/L		
Sulfate	MW-13A	03/30/2011		2.2	mg/L		
Sulfate	MW-13A	06/06/2011		2.2	mg/L		
Sulfate	MW-13A	09/27/2011		2.3	mg/L		
Sulfate	MW-13A	12/14/2011		2.5	mg/L		
Sulfate	MW-13A	03/21/2012		1.9	mg/L		
Sulfate	MW-13A	06/08/2012		2.1	mg/L		
Sulfate	MW-13A	09/26/2012		2.1	mg/L		
Sulfate	MW-13A	12/03/2012		2.2	mg/L		
Sulfate	MW-13A	03/11/2013		1.9	mg/L		
Sulfate	MW-13A	06/05/2013		1.7	mg/L		
Sulfate	MW-13A	12/03/2013		1.6	mg/L		
Sulfate	MW-13A	03/04/2014		2.1	mg/L		
Sulfate	MW-13A	06/02/2014		2.2	mg/L		
Sulfate	MW-13A	09/22/2014		2.2	mg/L		
Sulfate	MW-13A	11/17/2014		2.1	mg/L		
Sulfate	MW-13A	02/23/2015		2.1	mg/L		
Sulfate	MW-13A	05/19/2015		2.1	mg/L		
Sulfate	MW-13A	08/26/2015		2.3	mg/L		
Sulfate	MW-13A	11/10/2015		2.1	mg/L		
Sulfate	MW-13A	02/22/2016		2.1	mg/L		
Sulfate	MW-13A	05/16/2016		2.2	mg/L		
Sulfate	MW-13A	08/31/2016		2.3	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Sulfate	MW-13A	11/14/2016		2	mg/L		
Sulfate	MW-13A	02/22/2017		2	mg/L		
Sulfate	MW-13A	05/24/2017		2.1	mg/L		
Sulfate	MW-13A	08/30/2017		1.8	mg/L		
Sulfate	MW-13A	11/13/2017		1.8	mg/L		
Sulfate	MW-13A	02/20/2018		2.1	mg/L		
Sulfate	MW-13A	05/15/2018		2	mg/L		
Sulfate	MW-13A	08/21/2018		1.8	mg/L		
Sulfate	MW-13A	11/12/2018		2.1	mg/L		
Sulfate	MW-13A	11/11/2019	ND	5	mg/L		
Sulfate	MW-13A	11/19/2020	ND	5	mg/L		
Sulfate	MW-13B	03/22/2005		4.6	mg/L		
Sulfate	MW-13B	06/15/2005		4.7	mg/L		
Sulfate	MW-13B	09/27/2005		4.5	mg/L		
Sulfate	MW-13B	12/15/2005		3.6	mg/L		
Sulfate	MW-13B	03/29/2006		4.5	mg/L		
Sulfate	MW-13B	06/21/2006		4.4	mg/L		
Sulfate	MW-13B	09/26/2006		4.1	mg/L		
Sulfate	MW-13B	12/13/2006		3.9	mg/L		
Sulfate	MW-13B	03/27/2007		4.1	mg/L		
Sulfate	MW-13B	06/19/2007		4.1	mg/L		
Sulfate	MW-13B	09/18/2007		4.2	mg/L		
Sulfate	MW-13B	12/19/2007		4.1	mg/L		
Sulfate	MW-13B	03/25/2008		4	mg/L		
Sulfate	MW-13B	06/18/2008		4.1	mg/L		
Sulfate	MW-13B	09/17/2008		4.2	mg/L		
Sulfate	MW-13B	12/16/2008		4.2	mg/L		
Sulfate	MW-13B	03/24/2009		4.2	mg/L		
Sulfate	MW-13B	06/17/2009		3.7	mg/L		
Sulfate	MW-13B	09/10/2009		3.7	mg/L		
Sulfate	MW-13B	12/03/2009		4.1	mg/L		
Sulfate	MW-13B	03/25/2010		3.9	mg/L		
Sulfate	MW-13B	06/23/2010		3.6	mg/L		
Sulfate	MW-13B	09/23/2010		3.8	mg/L		
Sulfate	MW-13B	12/08/2010		2.4	mg/L		
Sulfate	MW-13B	03/30/2011		4.4	mg/L		
Sulfate	MW-13B	06/06/2011		3.7	mg/L		
Sulfate	MW-13B	09/27/2011		3.7	mg/L		
Sulfate	MW-13B	12/14/2011		3.5	mg/L		
Sulfate	MW-13B	03/21/2012		3.2	mg/L		
Sulfate	MW-13B	06/08/2012		3.5	mg/L		
Sulfate	MW-13B	09/26/2012		3.6	mg/L		
Sulfate	MW-13B	12/03/2012		3.5	mg/L		
Sulfate	MW-13B	03/11/2013		3	mg/L		
Sulfate	MW-13B	06/05/2013		3.5	mg/L		
Sulfate	MW-13B	12/03/2013		3.1	mg/L		
Sulfate	MW-13B	03/04/2014		3.7	mg/L		
Sulfate	MW-13B	06/02/2014		3.6	mg/L		
Sulfate	MW-13B	09/22/2014		4.1	mg/L		
Sulfate	MW-13B	11/17/2014		3.7	mg/L		
Sulfate	MW-13B	02/23/2015		3.4	mg/L		
Sulfate	MW-13B	05/19/2015		3.1	mg/L		
Sulfate	MW-13B	08/26/2015		3.7	mg/L		
Sulfate	MW-13B	11/10/2015		3.2	mg/L		
Sulfate	MW-13B	02/22/2016		3.4	mg/L		
Sulfate	MW-13B	05/16/2016		3.5	mg/L		
Sulfate	MW-13B	08/31/2016		3.7	mg/L		
Sulfate	MW-13B	11/14/2016		3	mg/L		
Sulfate	MW-13B	02/22/2017		3.5	mg/L		
Sulfate	MW-13B	05/24/2017		3.4	mg/L		
Sulfate	MW-13B	08/30/2017		3.8	mg/L		
Sulfate	MW-13B	11/13/2017		2.9	mg/L		
Sulfate	MW-13B	02/20/2018		3	mg/L		
Sulfate	MW-13B	05/15/2018		3.1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Sulfate	MW-13B	08/21/2018		2.9	mg/L		
Sulfate	MW-13B	11/12/2018		3	mg/L		
Sulfate	MW-13B	11/11/2019	ND	5	mg/L		
Sulfate	MW-13B	11/19/2020	ND	5	mg/L		
Sulfate	MW-16	03/24/2009		3	mg/L		
Sulfate	MW-16	06/16/2009		2.2	mg/L		
Sulfate	MW-16	09/09/2009		4.3	mg/L		
Sulfate	MW-16	12/03/2009		3.6	mg/L		
Sulfate	MW-16	03/25/2010		9.9	mg/L		
Sulfate	MW-16	06/24/2010		2.5	mg/L		
Sulfate	MW-16	09/24/2010		2.3	mg/L		
Sulfate	MW-16	12/09/2010		2.7	mg/L		
Sulfate	MW-16	03/30/2011		7.1	mg/L		
Sulfate	MW-16	06/07/2011		2.4	mg/L		
Sulfate	MW-16	09/27/2011		4.1	mg/L		
Sulfate	MW-16	12/13/2011		2.3	mg/L		
Sulfate	MW-16	03/21/2012		1.6	mg/L		
Sulfate	MW-16	06/08/2012		3	mg/L		
Sulfate	MW-16	09/27/2012		3.1	mg/L		
Sulfate	MW-16	12/04/2012		3	mg/L		
Sulfate	MW-16	03/12/2013		1.9	mg/L		
Sulfate	MW-16	06/04/2013		2.7	mg/L		
Sulfate	MW-16	09/05/2013		1.7	mg/L		
Sulfate	MW-16	12/16/2013		2.3	mg/L		
Sulfate	MW-16	03/05/2014		2.8	mg/L		
Sulfate	MW-16	06/02/2014		3.8	mg/L		
Sulfate	MW-16	09/22/2014		2.9	mg/L		
Sulfate	MW-16	11/18/2014		3.3	mg/L		
Sulfate	MW-16	02/23/2015		2.9	mg/L		
Sulfate	MW-16	05/20/2015		2.1	mg/L		
Sulfate	MW-16	08/26/2015		3.4	mg/L		
Sulfate	MW-16	11/11/2015		2.8	mg/L		
Sulfate	MW-16	02/24/2016		2.9	mg/L		
Sulfate	MW-16	05/16/2016		2.6	mg/L		
Sulfate	MW-16	08/31/2016		1.7	mg/L		
Sulfate	MW-16	11/14/2016		1.6	mg/L		
Sulfate	MW-16	02/22/2017		2.5	mg/L		
Sulfate	MW-16	05/24/2017		2.7	mg/L		
Sulfate	MW-16	08/30/2017		1.6	mg/L		
Sulfate	MW-16	11/13/2017		1	mg/L		
Sulfate	MW-16	02/20/2018		2.2	mg/L		
Sulfate	MW-16	05/17/2018		2.3	mg/L		
Sulfate	MW-16	08/22/2018		2.1	mg/L		
Sulfate	MW-16	11/12/2018		1.6	mg/L		
Sulfate	MW-16	11/12/2019	ND	5	mg/L		
Sulfate	MW-16	11/20/2020	ND	5	mg/L		
Sulfate	MW-35	03/22/2005		2.5	mg/L		
Sulfate	MW-35	06/14/2005		1.6	mg/L		
Sulfate	MW-35	09/27/2005		1.3	mg/L		
Sulfate	MW-35	12/15/2005	ND	1	mg/L	5.0000	**
Sulfate	MW-35	03/28/2006		3	mg/L		
Sulfate	MW-35	06/21/2006		3	mg/L		
Sulfate	MW-35	09/26/2006		2.4	mg/L		
Sulfate	MW-35	12/12/2006		2.2	mg/L		
Sulfate	MW-35	03/27/2007		2.5	mg/L		
Sulfate	MW-35	06/20/2007		2.4	mg/L		
Sulfate	MW-35	09/18/2007		2.6	mg/L		
Sulfate	MW-35	12/20/2007		2.4	mg/L		
Sulfate	MW-35	03/25/2008		2.4	mg/L		
Sulfate	MW-35	06/18/2008		2.6	mg/L		
Sulfate	MW-35	09/18/2008		2.3	mg/L		
Sulfate	MW-35	12/19/2008		2.6	mg/L		
Sulfate	MW-35	03/24/2009		2.7	mg/L		
Sulfate	MW-35	06/16/2009		2.2	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Sulfate	MW-35	09/10/2009		2.4	mg/L		
Sulfate	MW-35	12/03/2009		2.5	mg/L		
Sulfate	MW-35	03/25/2010		2.6	mg/L		
Sulfate	MW-35	06/23/2010		2.3	mg/L		
Sulfate	MW-35	09/23/2010		2.5	mg/L		
Sulfate	MW-35	12/09/2010		2.2	mg/L		
Sulfate	MW-35	03/30/2011		2.6	mg/L		
Sulfate	MW-35	06/06/2011		2.5	mg/L		
Sulfate	MW-35	09/26/2011		2.6	mg/L		
Sulfate	MW-35	12/13/2011		2.5	mg/L		
Sulfate	MW-35	03/21/2012		2.1	mg/L		
Sulfate	MW-35	06/06/2012		2.4	mg/L		
Sulfate	MW-35	09/26/2012		2.4	mg/L		
Sulfate	MW-35	12/04/2012		2.5	mg/L		
Sulfate	MW-35	03/13/2013		2.3	mg/L		
Sulfate	MW-35	06/06/2013		2	mg/L		
Sulfate	MW-35	09/05/2013		2.1	mg/L		
Sulfate	MW-35	12/16/2013		2.6	mg/L		
Sulfate	MW-35	03/04/2014		2.7	mg/L		
Sulfate	MW-35	06/02/2014		2.5	mg/L		
Sulfate	MW-35	09/22/2014		3.2	mg/L		
Sulfate	MW-35	11/17/2014		2.5	mg/L		
Sulfate	MW-35	02/25/2015		2.4	mg/L		
Sulfate	MW-35	05/19/2015		2.3	mg/L		
Sulfate	MW-35	08/26/2015		2.4	mg/L		
Sulfate	MW-35	11/10/2015		2.5	mg/L		
Sulfate	MW-35	02/22/2016		2.6	mg/L		
Sulfate	MW-35	05/16/2016		2.5	mg/L		
Sulfate	MW-35	08/31/2016		2.8	mg/L		
Sulfate	MW-35	11/15/2016		2.2	mg/L		
Sulfate	MW-35	02/22/2017		2.5	mg/L		
Sulfate	MW-35	05/24/2017		2.3	mg/L		
Sulfate	MW-35	08/30/2017		2.2	mg/L		
Sulfate	MW-35	11/15/2017		2.8	mg/L		
Sulfate	MW-35	02/20/2018		2.3	mg/L		
Sulfate	MW-35	05/17/2018		2.2	mg/L		
Sulfate	MW-35	08/22/2018		2.6	mg/L		
Sulfate	MW-35	11/12/2018		2.3	mg/L		
Sulfate	MW-35	11/12/2019	ND	5	mg/L		
Sulfate	MW-35	11/19/2020	ND	5	mg/L		
Temperature	MW-13A	03/22/2005		9.08	deg C		
Temperature	MW-13A	06/15/2005		9.37	deg C		
Temperature	MW-13A	09/27/2005		9.65	deg C		
Temperature	MW-13A	12/15/2005		8.6	deg C		
Temperature	MW-13A	03/28/2006		9.44	deg C		
Temperature	MW-13A	06/21/2006		9.41	deg C		
Temperature	MW-13A	09/26/2006		9.71	deg C		
Temperature	MW-13A	12/13/2006		8.79	deg C		
Temperature	MW-13A	03/27/2007		9.14	deg C		
Temperature	MW-13A	09/19/2007		9.26	deg C		
Temperature	MW-13A	12/19/2007		8.17	deg C		
Temperature	MW-13A	03/25/2008		8.47	deg C		
Temperature	MW-13A	06/18/2008		9.3	deg C		
Temperature	MW-13A	09/17/2008		8.8	deg C		
Temperature	MW-13A	12/17/2008		8.75	deg C		
Temperature	MW-13A	03/24/2009		8.32	deg C		
Temperature	MW-13A	06/17/2009		9.85	deg C		
Temperature	MW-13A	12/03/2009		8.92	deg C		
Temperature	MW-13A	03/25/2010		9.22	deg C		
Temperature	MW-13A	06/23/2010		9.58	deg C		
Temperature	MW-13A	09/23/2010		9.42	deg C		
Temperature	MW-13A	12/08/2010		9.45	deg C		
Temperature	MW-13A	03/30/2011		9.37	deg C		
Temperature	MW-13A	06/06/2011		10.4	deg C		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Temperature	MW-13A	09/27/2011		9.58	deg C		
Temperature	MW-13A	12/14/2011		8.92	deg C		
Temperature	MW-13A	03/21/2012		8.74	deg C		
Temperature	MW-13A	06/08/2012		9.3	deg C		
Temperature	MW-13A	09/26/2012		10.04	deg C		
Temperature	MW-13A	12/03/2012		9.2	deg C		
Temperature	MW-13A	03/11/2013		9.22	deg C		
Temperature	MW-13A	06/05/2013		11.96	deg C		
Temperature	MW-13A	12/03/2013		8.93	deg C		
Temperature	MW-13A	03/04/2014		8.98	deg C		
Temperature	MW-13A	06/02/2014		11.15	deg C		
Temperature	MW-13A	09/22/2014		10.58	deg C		
Temperature	MW-13A	11/17/2014		9.4	deg C		
Temperature	MW-13A	02/23/2015		9.41	deg C		
Temperature	MW-13A	05/19/2015		9.89	deg C		
Temperature	MW-13A	08/26/2015		10.69	deg C		
Temperature	MW-13A	11/10/2015		9.49	deg C		
Temperature	MW-13A	02/22/2016		9.59	deg C		
Temperature	MW-13A	05/16/2016		9.77	deg C		
Temperature	MW-13A	08/31/2016		9.98	deg C		
Temperature	MW-13A	11/14/2016		9.57	deg C		
Temperature	MW-13A	02/22/2017		9.11	deg C		
Temperature	MW-13A	05/24/2017		4.59	deg C		
Temperature	MW-13A	08/30/2017		9.85	deg C		
Temperature	MW-13A	11/13/2017		9.41	deg C		
Temperature	MW-13A	02/20/2018		9.07	deg C		
Temperature	MW-13A	05/15/2018		9.63	deg C		
Temperature	MW-13A	08/21/2018		9.58	deg C		
Temperature	MW-13A	11/12/2018		9.5	deg C		
Temperature	MW-13A	05/28/2019		9.5	deg C		
Temperature	MW-13A	11/11/2019		9.24	deg C		
Temperature	MW-13A	05/26/2020		9.45	deg C		
Temperature	MW-13A	11/19/2020		9.4	deg C		
Temperature	MW-13B	03/22/2005		9.55	deg C		
Temperature	MW-13B	06/15/2005		9.92	deg C		
Temperature	MW-13B	09/27/2005		10.79	deg C		
Temperature	MW-13B	12/15/2005		8.11	deg C		
Temperature	MW-13B	03/29/2006		8.8	deg C		
Temperature	MW-13B	06/21/2006		9.76	deg C		
Temperature	MW-13B	09/26/2006		10.32	deg C		
Temperature	MW-13B	12/13/2006		8.85	deg C		
Temperature	MW-13B	03/27/2007		9.04	deg C		
Temperature	MW-13B	09/18/2007		10.01	deg C		
Temperature	MW-13B	12/19/2007		8.08	deg C		
Temperature	MW-13B	03/25/2008		8.09	deg C		
Temperature	MW-13B	06/18/2008		9.23	deg C		
Temperature	MW-13B	09/17/2008		9.01	deg C		
Temperature	MW-13B	12/16/2008		8.43	deg C		
Temperature	MW-13B	03/24/2009		8.37	deg C		
Temperature	MW-13B	06/17/2009		10.81	deg C		
Temperature	MW-13B	12/03/2009		8.79	deg C		
Temperature	MW-13B	03/25/2010		9.23	deg C		
Temperature	MW-13B	06/23/2010		9.97	deg C		
Temperature	MW-13B	09/23/2010		9.6	deg C		
Temperature	MW-13B	12/08/2010		9.25	deg C		
Temperature	MW-13B	03/30/2011		9.32	deg C		
Temperature	MW-13B	06/06/2011		11.3	deg C		
Temperature	MW-13B	09/27/2011		10.57	deg C		
Temperature	MW-13B	12/14/2011		8.76	deg C		
Temperature	MW-13B	03/21/2012		8.5	deg C		
Temperature	MW-13B	06/08/2012		9.4	deg C		
Temperature	MW-13B	09/26/2012		10.59	deg C		
Temperature	MW-13B	12/03/2012		9.2	deg C		
Temperature	MW-13B	03/11/2013		9.15	deg C		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Temperature	MW-13B	06/05/2013		11.41	deg C		
Temperature	MW-13B	12/03/2013		9.44	deg C		
Temperature	MW-13B	03/04/2014		9	deg C		
Temperature	MW-13B	06/02/2014		14.32	deg C		
Temperature	MW-13B	09/22/2014		11.02	deg C		
Temperature	MW-13B	11/17/2014		9.4	deg C		
Temperature	MW-13B	02/23/2015		9.76	deg C		
Temperature	MW-13B	05/19/2015		10.23	deg C		
Temperature	MW-13B	08/26/2015		10.53	deg C		
Temperature	MW-13B	11/10/2015		9.59	deg C		
Temperature	MW-13B	02/22/2016		9.3	deg C		
Temperature	MW-13B	05/16/2016		9.93	deg C		
Temperature	MW-13B	08/31/2016		10.43	deg C		
Temperature	MW-13B	11/14/2016		10.41	deg C		
Temperature	MW-13B	02/22/2017		9.06	deg C		
Temperature	MW-13B	05/24/2017		9.76	deg C		
Temperature	MW-13B	08/30/2017		10.27	deg C		
Temperature	MW-13B	11/13/2017		9.54	deg C		
Temperature	MW-13B	02/20/2018		8.82	deg C		
Temperature	MW-13B	05/15/2018		9.98	deg C		
Temperature	MW-13B	08/21/2018		10.14	deg C		
Temperature	MW-13B	11/12/2018		10	deg C		
Temperature	MW-13B	05/28/2019		10.13	deg C		
Temperature	MW-13B	11/11/2019		9.66	deg C		
Temperature	MW-13B	05/26/2020		9.97	deg C		
Temperature	MW-13B	11/19/2020		9.5	deg C		
Temperature	MW-16	03/24/2009		9.08	deg C		
Temperature	MW-16	06/16/2009		9.98	deg C		
Temperature	MW-16	12/03/2009		9.08	deg C		
Temperature	MW-16	03/25/2010		9.11	deg C		
Temperature	MW-16	06/24/2010		9.39	deg C		
Temperature	MW-16	09/24/2010		9.44	deg C		
Temperature	MW-16	12/09/2010		9.13	deg C		
Temperature	MW-16	03/30/2011		9.14	deg C		
Temperature	MW-16	06/07/2011		9.46	deg C		
Temperature	MW-16	09/27/2011		9.43	deg C		
Temperature	MW-16	12/13/2011		8.84	deg C		
Temperature	MW-16	03/21/2012		8.82	deg C		
Temperature	MW-16	06/08/2012		9.2	deg C		
Temperature	MW-16	09/27/2012		9.06	deg C		
Temperature	MW-16	12/04/2012		9.1	deg C		
Temperature	MW-16	03/12/2013		9.02	deg C		
Temperature	MW-16	06/04/2013		9.47	deg C		
Temperature	MW-16	09/05/2013		9.36	deg C		
Temperature	MW-16	12/16/2013		9.04	deg C		
Temperature	MW-16	03/05/2014		9.4	deg C		
Temperature	MW-16	06/02/2014		9.56	deg C		
Temperature	MW-16	09/22/2014		10.73	deg C		
Temperature	MW-16	11/18/2014		8.9	deg C		
Temperature	MW-16	02/23/2015		9.02	deg C		
Temperature	MW-16	05/20/2015		9.3	deg C		
Temperature	MW-16	08/26/2015		9.48	deg C		
Temperature	MW-16	11/11/2015		9.01	deg C		
Temperature	MW-16	02/24/2016		9.02	deg C		
Temperature	MW-16	05/16/2016		9.38	deg C		
Temperature	MW-16	08/31/2016		9.66	deg C		
Temperature	MW-16	11/14/2016		9.81	deg C		
Temperature	MW-16	02/22/2017		9.01	deg C		
Temperature	MW-16	05/24/2017		9.35	deg C		
Temperature	MW-16	08/30/2017		9.7	deg C		
Temperature	MW-16	11/13/2017		9.3	deg C		
Temperature	MW-16	02/20/2018		8.86	deg C		
Temperature	MW-16	05/17/2018		9.36	deg C		
Temperature	MW-16	08/22/2018		9.86	deg C		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Temperature	MW-16	11/12/2018		9.6	deg C		
Temperature	MW-16	05/29/2019		9.65	deg C		
Temperature	MW-16	11/12/2019		8.95	deg C		
Temperature	MW-16	05/27/2020		9.71	deg C		
Temperature	MW-16	11/20/2020		8.57	deg C		
Temperature	MW-35	03/22/2005		9.8	deg C		
Temperature	MW-35	06/14/2005		10.28	deg C		
Temperature	MW-35	09/27/2005		10.49	deg C		
Temperature	MW-35	12/15/2005		8.86	deg C		
Temperature	MW-35	03/28/2006		9.53	deg C		
Temperature	MW-35	06/21/2006		10.31	deg C		
Temperature	MW-35	09/26/2006		10.62	deg C		
Temperature	MW-35	12/12/2006		9.26	deg C		
Temperature	MW-35	03/27/2007		9.4	deg C		
Temperature	MW-35	09/18/2007		10.24	deg C		
Temperature	MW-35	12/20/2007		8.69	deg C		
Temperature	MW-35	03/25/2008		8.75	deg C		
Temperature	MW-35	06/18/2008		9.73	deg C		
Temperature	MW-35	09/18/2008		9.98	deg C		
Temperature	MW-35	12/19/2008		8.5	deg C		
Temperature	MW-35	03/24/2009		9.32	deg C		
Temperature	MW-35	06/16/2009		11.76	deg C		
Temperature	MW-35	12/03/2009		9.57	deg C		
Temperature	MW-35	03/25/2010		9.82	deg C		
Temperature	MW-35	06/23/2010		10.07	deg C		
Temperature	MW-35	09/23/2010		10.09	deg C		
Temperature	MW-35	12/09/2010		9.85	deg C		
Temperature	MW-35	03/30/2011		9.72	deg C		
Temperature	MW-35	06/06/2011		10.2	deg C		
Temperature	MW-35	09/26/2011		10.14	deg C		
Temperature	MW-35	12/13/2011		9.41	deg C		
Temperature	MW-35	03/21/2012		9.78	deg C		
Temperature	MW-35	06/06/2012		10.3	deg C		
Temperature	MW-35	09/26/2012		10.2	deg C		
Temperature	MW-35	12/04/2012		9.8	deg C		
Temperature	MW-35	03/13/2013		9.75	deg C		
Temperature	MW-35	06/06/2013		10.83	deg C		
Temperature	MW-35	09/05/2013		10.09	deg C		
Temperature	MW-35	12/16/2013		9.84	deg C		
Temperature	MW-35	03/04/2014		9.76	deg C		
Temperature	MW-35	06/02/2014		11.79	deg C		
Temperature	MW-35	09/22/2014		13.7	deg C		
Temperature	MW-35	11/17/2014		10.4	deg C		
Temperature	MW-35	02/25/2015		9.9	deg C		
Temperature	MW-35	05/19/2015		10.3	deg C		
Temperature	MW-35	08/26/2015		13.09	deg C		
Temperature	MW-35	11/10/2015		10.34	deg C		
Temperature	MW-35	02/22/2016		10.31	deg C		
Temperature	MW-35	05/16/2016		10.12	deg C		
Temperature	MW-35	08/31/2016		10.78	deg C		
Temperature	MW-35	11/15/2016		10.41	deg C		
Temperature	MW-35	02/22/2017		9.95	deg C		
Temperature	MW-35	05/24/2017		9.99	deg C		
Temperature	MW-35	08/30/2017		11.63	deg C		
Temperature	MW-35	11/15/2017		9.83	deg C		
Temperature	MW-35	02/20/2018		9.52	deg C		
Temperature	MW-35	05/17/2018		10.07	deg C		
Temperature	MW-35	08/22/2018		10.48	deg C		
Temperature	MW-35	11/12/2018		10.3	deg C		
Temperature	MW-35	05/29/2019		10.42	deg C		
Temperature	MW-35	11/12/2019		9.73	deg C		
Temperature	MW-35	05/27/2020		9.98	deg C		
Temperature	MW-35	11/19/2020		9.58	deg C		
Thallium, total	MW-13A	12/03/2013	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Thallium, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Thallium, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Thallium, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Thallium, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Thallium, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Thallium, total	MW-16	09/05/2013	ND	0.001	mg/L		
Thallium, total	MW-16	12/16/2013	ND	0.001	mg/L		
Thallium, total	MW-16	03/05/2014	ND	0.001	mg/L		
Thallium, total	MW-16	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-16	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-16	11/18/2014	ND	0.001	mg/L		
Thallium, total	MW-16	02/23/2015	ND	0.001	mg/L		
Thallium, total	MW-16	05/20/2015	ND	0.001	mg/L		
Thallium, total	MW-16	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-16	11/11/2015	ND	0.001	mg/L		
Thallium, total	MW-16	02/24/2016	ND	0.001	mg/L		
Thallium, total	MW-16	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-16	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-16	11/14/2016	ND	0.001	mg/L		
Thallium, total	MW-16	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-16	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-16	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-16	11/13/2017	ND	0.001	mg/L		
Thallium, total	MW-16	02/20/2018	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Thallium, total	MW-16	05/17/2018	ND	0.001	mg/L		
Thallium, total	MW-16	08/22/2018	ND	0.001	mg/L		
Thallium, total	MW-16	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-16	11/12/2019	ND	0.001	mg/L		
Thallium, total	MW-16	11/20/2020	ND	0.001	mg/L		
Thallium, total	MW-35	09/05/2013	ND	0.001	mg/L		
Thallium, total	MW-35	12/16/2013	ND	0.001	mg/L		
Thallium, total	MW-35	03/04/2014	ND	0.001	mg/L		
Thallium, total	MW-35	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-35	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-35	11/17/2014	ND	0.001	mg/L		
Thallium, total	MW-35	02/25/2015	ND	0.001	mg/L		
Thallium, total	MW-35	05/19/2015	ND	0.001	mg/L		
Thallium, total	MW-35	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-35	11/10/2015	ND	0.001	mg/L		
Thallium, total	MW-35	02/22/2016	ND	0.001	mg/L		
Thallium, total	MW-35	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-35	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-35	11/15/2016	ND	0.001	mg/L		
Thallium, total	MW-35	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-35	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-35	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-35	11/15/2017	ND	0.001	mg/L		
Thallium, total	MW-35	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-35	05/17/2018	ND	0.001	mg/L		
Thallium, total	MW-35	08/22/2018	ND	0.001	mg/L		
Thallium, total	MW-35	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-35	11/12/2019	ND	0.001	mg/L		
Thallium, total	MW-35	11/19/2020	ND	0.001	mg/L		
Total dissolved solids (tds)	MW-13A	03/22/2005		113	mg/L		
Total dissolved solids (tds)	MW-13A	06/15/2005		111	mg/L		
Total dissolved solids (tds)	MW-13A	09/27/2005		175	mg/L		
Total dissolved solids (tds)	MW-13A	12/15/2005		166	mg/L		
Total dissolved solids (tds)	MW-13A	03/28/2006		110	mg/L		
Total dissolved solids (tds)	MW-13A	06/21/2006		120	mg/L		
Total dissolved solids (tds)	MW-13A	09/26/2006		110	mg/L		
Total dissolved solids (tds)	MW-13A	12/13/2006		100	mg/L		
Total dissolved solids (tds)	MW-13A	03/27/2007		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/19/2007		100	mg/L		
Total dissolved solids (tds)	MW-13A	09/19/2007		110	mg/L		
Total dissolved solids (tds)	MW-13A	12/19/2007		84	mg/L		
Total dissolved solids (tds)	MW-13A	03/25/2008		99	mg/L		
Total dissolved solids (tds)	MW-13A	06/18/2008		110	mg/L		
Total dissolved solids (tds)	MW-13A	09/17/2008		110	mg/L		
Total dissolved solids (tds)	MW-13A	12/17/2008		90	mg/L		
Total dissolved solids (tds)	MW-13A	03/24/2009		95	mg/L		
Total dissolved solids (tds)	MW-13A	06/17/2009		110	mg/L		
Total dissolved solids (tds)	MW-13A	09/10/2009		100	mg/L		
Total dissolved solids (tds)	MW-13A	12/03/2009		100	mg/L		
Total dissolved solids (tds)	MW-13A	03/25/2010		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/23/2010		120	mg/L		
Total dissolved solids (tds)	MW-13A	09/23/2010		98	mg/L		
Total dissolved solids (tds)	MW-13A	12/08/2010		90	mg/L		
Total dissolved solids (tds)	MW-13A	03/30/2011		110	mg/L		
Total dissolved solids (tds)	MW-13A	06/06/2011		110	mg/L		
Total dissolved solids (tds)	MW-13A	09/27/2011		100	mg/L		
Total dissolved solids (tds)	MW-13A	12/14/2011		97	mg/L		
Total dissolved solids (tds)	MW-13A	03/21/2012		93	mg/L		
Total dissolved solids (tds)	MW-13A	06/08/2012		120	mg/L		
Total dissolved solids (tds)	MW-13A	09/26/2012		120	mg/L		
Total dissolved solids (tds)	MW-13A	12/03/2012		88	mg/L		
Total dissolved solids (tds)	MW-13A	03/11/2013		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/05/2013		100	mg/L		
Total dissolved solids (tds)	MW-13A	12/03/2013		98	mg/L		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Total dissolved solids (tds)	MW-13A	03/04/2014		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/02/2014		100	mg/L		
Total dissolved solids (tds)	MW-13A	09/22/2014		110	mg/L		
Total dissolved solids (tds)	MW-13A	11/17/2014		110	mg/L		
Total dissolved solids (tds)	MW-13A	02/23/2015		99	mg/L		
Total dissolved solids (tds)	MW-13A	05/19/2015		100	mg/L		
Total dissolved solids (tds)	MW-13A	08/26/2015		97	mg/L		
Total dissolved solids (tds)	MW-13A	11/10/2015		100	mg/L		
Total dissolved solids (tds)	MW-13A	02/22/2016		100	mg/L		
Total dissolved solids (tds)	MW-13A	05/16/2016		99	mg/L		
Total dissolved solids (tds)	MW-13A	08/31/2016		130	mg/L		
Total dissolved solids (tds)	MW-13A	11/14/2016		110	mg/L		
Total dissolved solids (tds)	MW-13A	02/22/2017		110	mg/L		
Total dissolved solids (tds)	MW-13A	05/24/2017		100	mg/L		
Total dissolved solids (tds)	MW-13A	08/30/2017		100	mg/L		
Total dissolved solids (tds)	MW-13A	11/13/2017		110	mg/L		
Total dissolved solids (tds)	MW-13A	02/20/2018		110	mg/L		
Total dissolved solids (tds)	MW-13A	05/15/2018		110	mg/L		
Total dissolved solids (tds)	MW-13A	08/21/2018		110	mg/L		
Total dissolved solids (tds)	MW-13A	11/12/2018		98	mg/L		
Total dissolved solids (tds)	MW-13A	11/11/2019		100	mg/L		
Total dissolved solids (tds)	MW-13A	11/19/2020		130	mg/L		
Total dissolved solids (tds)	MW-13B	03/22/2005		108	mg/L		
Total dissolved solids (tds)	MW-13B	06/15/2005		114	mg/L		
Total dissolved solids (tds)	MW-13B	09/27/2005		111	mg/L		
Total dissolved solids (tds)	MW-13B	12/15/2005		130	mg/L		
Total dissolved solids (tds)	MW-13B	03/29/2006		89	mg/L		
Total dissolved solids (tds)	MW-13B	06/21/2006		110	mg/L		
Total dissolved solids (tds)	MW-13B	09/26/2006		100	mg/L		
Total dissolved solids (tds)	MW-13B	12/13/2006		98	mg/L		
Total dissolved solids (tds)	MW-13B	03/27/2007		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/19/2007		99	mg/L		
Total dissolved solids (tds)	MW-13B	09/18/2007		99	mg/L		
Total dissolved solids (tds)	MW-13B	12/19/2007		91	mg/L		
Total dissolved solids (tds)	MW-13B	03/25/2008		99	mg/L		
Total dissolved solids (tds)	MW-13B	06/18/2008		120	mg/L		
Total dissolved solids (tds)	MW-13B	09/17/2008		110	mg/L		
Total dissolved solids (tds)	MW-13B	12/16/2008		93	mg/L		
Total dissolved solids (tds)	MW-13B	03/24/2009		94	mg/L		
Total dissolved solids (tds)	MW-13B	06/17/2009		100	mg/L		
Total dissolved solids (tds)	MW-13B	09/10/2009		100	mg/L		
Total dissolved solids (tds)	MW-13B	12/03/2009		110	mg/L		
Total dissolved solids (tds)	MW-13B	03/25/2010		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/23/2010		110	mg/L		
Total dissolved solids (tds)	MW-13B	09/23/2010		94	mg/L		
Total dissolved solids (tds)	MW-13B	12/08/2010		94	mg/L		
Total dissolved solids (tds)	MW-13B	03/30/2011		110	mg/L		
Total dissolved solids (tds)	MW-13B	06/06/2011		99	mg/L		
Total dissolved solids (tds)	MW-13B	09/27/2011		100	mg/L		
Total dissolved solids (tds)	MW-13B	12/14/2011		91	mg/L		
Total dissolved solids (tds)	MW-13B	03/21/2012		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/08/2012		110	mg/L		
Total dissolved solids (tds)	MW-13B	09/26/2012		110	mg/L		
Total dissolved solids (tds)	MW-13B	12/03/2012		93	mg/L		
Total dissolved solids (tds)	MW-13B	03/11/2013		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/05/2013		98	mg/L		
Total dissolved solids (tds)	MW-13B	12/03/2013		99	mg/L		
Total dissolved solids (tds)	MW-13B	03/04/2014		99	mg/L		
Total dissolved solids (tds)	MW-13B	06/02/2014		100	mg/L		
Total dissolved solids (tds)	MW-13B	09/22/2014		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/17/2014		110	mg/L		
Total dissolved solids (tds)	MW-13B	02/23/2015		110	mg/L		
Total dissolved solids (tds)	MW-13B	05/19/2015		110	mg/L		
Total dissolved solids (tds)	MW-13B	08/26/2015		98	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Total dissolved solids (tds)	MW-13B	11/10/2015		100	mg/L		
Total dissolved solids (tds)	MW-13B	02/22/2016		100	mg/L		
Total dissolved solids (tds)	MW-13B	05/16/2016		99	mg/L		
Total dissolved solids (tds)	MW-13B	08/31/2016		120	mg/L		
Total dissolved solids (tds)	MW-13B	11/14/2016		100	mg/L		
Total dissolved solids (tds)	MW-13B	02/22/2017		110	mg/L		
Total dissolved solids (tds)	MW-13B	05/24/2017		97	mg/L		
Total dissolved solids (tds)	MW-13B	08/30/2017		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/13/2017		110	mg/L		
Total dissolved solids (tds)	MW-13B	02/20/2018		99	mg/L		
Total dissolved solids (tds)	MW-13B	05/15/2018		100	mg/L		
Total dissolved solids (tds)	MW-13B	08/21/2018		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/12/2018		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/11/2019		100	mg/L		
Total dissolved solids (tds)	MW-13B	11/19/2020		120	mg/L		
Total dissolved solids (tds)	MW-16	03/24/2009		87	mg/L		
Total dissolved solids (tds)	MW-16	06/16/2009		85	mg/L		
Total dissolved solids (tds)	MW-16	09/09/2009		89	mg/L		
Total dissolved solids (tds)	MW-16	12/03/2009		97	mg/L		
Total dissolved solids (tds)	MW-16	03/25/2010		83	mg/L		
Total dissolved solids (tds)	MW-16	06/24/2010		95	mg/L		
Total dissolved solids (tds)	MW-16	09/24/2010		120	mg/L		
Total dissolved solids (tds)	MW-16	12/09/2010		100	mg/L		
Total dissolved solids (tds)	MW-16	03/30/2011		91	mg/L		
Total dissolved solids (tds)	MW-16	06/07/2011		94	mg/L		
Total dissolved solids (tds)	MW-16	09/27/2011		100	mg/L		
Total dissolved solids (tds)	MW-16	12/13/2011		93	mg/L		
Total dissolved solids (tds)	MW-16	03/21/2012		71	mg/L		
Total dissolved solids (tds)	MW-16	06/08/2012		95	mg/L		
Total dissolved solids (tds)	MW-16	09/27/2012		87	mg/L		
Total dissolved solids (tds)	MW-16	12/04/2012		100	mg/L		
Total dissolved solids (tds)	MW-16	03/12/2013		100	mg/L		
Total dissolved solids (tds)	MW-16	06/04/2013		68	mg/L		
Total dissolved solids (tds)	MW-16	09/05/2013		100	mg/L		
Total dissolved solids (tds)	MW-16	12/16/2013		92	mg/L		
Total dissolved solids (tds)	MW-16	03/05/2014		82	mg/L		
Total dissolved solids (tds)	MW-16	06/02/2014		79	mg/L		
Total dissolved solids (tds)	MW-16	09/22/2014		93	mg/L		
Total dissolved solids (tds)	MW-16	11/18/2014		100	mg/L		
Total dissolved solids (tds)	MW-16	02/23/2015		80	mg/L		
Total dissolved solids (tds)	MW-16	05/20/2015		99	mg/L		
Total dissolved solids (tds)	MW-16	08/26/2015		93	mg/L		
Total dissolved solids (tds)	MW-16	11/11/2015		99	mg/L		
Total dissolved solids (tds)	MW-16	02/24/2016		79	mg/L		
Total dissolved solids (tds)	MW-16	05/16/2016		83	mg/L		
Total dissolved solids (tds)	MW-16	08/31/2016		93	mg/L		
Total dissolved solids (tds)	MW-16	11/14/2016		86	mg/L		
Total dissolved solids (tds)	MW-16	02/22/2017		80	mg/L		
Total dissolved solids (tds)	MW-16	05/24/2017		93	mg/L		
Total dissolved solids (tds)	MW-16	08/30/2017		85	mg/L		
Total dissolved solids (tds)	MW-16	11/13/2017		80	mg/L		
Total dissolved solids (tds)	MW-16	02/20/2018		80	mg/L		
Total dissolved solids (tds)	MW-16	05/17/2018		65	mg/L		
Total dissolved solids (tds)	MW-16	08/22/2018		100	mg/L		
Total dissolved solids (tds)	MW-16	11/12/2018		81	mg/L		
Total dissolved solids (tds)	MW-16	11/12/2019		82	mg/L		
Total dissolved solids (tds)	MW-16	11/20/2020		100	mg/L		
Total dissolved solids (tds)	MW-35	03/22/2005		100	mg/L		
Total dissolved solids (tds)	MW-35	06/14/2005		88	mg/L		
Total dissolved solids (tds)	MW-35	09/27/2005		123	mg/L		
Total dissolved solids (tds)	MW-35	12/15/2005		87	mg/L		
Total dissolved solids (tds)	MW-35	03/28/2006		91	mg/L		
Total dissolved solids (tds)	MW-35	06/21/2006		110	mg/L		
Total dissolved solids (tds)	MW-35	09/26/2006		110	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Total dissolved solids (tds)	MW-35	12/12/2006		90	mg/L		
Total dissolved solids (tds)	MW-35	03/27/2007		93	mg/L		
Total dissolved solids (tds)	MW-35	06/20/2007		110	mg/L		
Total dissolved solids (tds)	MW-35	09/18/2007		90	mg/L		
Total dissolved solids (tds)	MW-35	12/20/2007		120	mg/L		
Total dissolved solids (tds)	MW-35	03/25/2008		76	mg/L		
Total dissolved solids (tds)	MW-35	06/18/2008		93	mg/L		
Total dissolved solids (tds)	MW-35	09/18/2008		92	mg/L		
Total dissolved solids (tds)	MW-35	12/19/2008		93	mg/L		
Total dissolved solids (tds)	MW-35	03/24/2009		84	mg/L		
Total dissolved solids (tds)	MW-35	06/16/2009		95	mg/L		
Total dissolved solids (tds)	MW-35	09/10/2009		83	mg/L		
Total dissolved solids (tds)	MW-35	12/03/2009		85	mg/L		
Total dissolved solids (tds)	MW-35	03/25/2010		96	mg/L		
Total dissolved solids (tds)	MW-35	06/23/2010		100	mg/L		
Total dissolved solids (tds)	MW-35	09/23/2010		86	mg/L		
Total dissolved solids (tds)	MW-35	12/09/2010		97	mg/L		
Total dissolved solids (tds)	MW-35	03/30/2011		91	mg/L		
Total dissolved solids (tds)	MW-35	06/06/2011		96	mg/L		
Total dissolved solids (tds)	MW-35	09/26/2011		100	mg/L		
Total dissolved solids (tds)	MW-35	12/13/2011		95	mg/L		
Total dissolved solids (tds)	MW-35	03/21/2012		85	mg/L		
Total dissolved solids (tds)	MW-35	06/06/2012		120	mg/L		
Total dissolved solids (tds)	MW-35	09/26/2012		110	mg/L		
Total dissolved solids (tds)	MW-35	12/04/2012		100	mg/L		
Total dissolved solids (tds)	MW-35	03/13/2013		96	mg/L		
Total dissolved solids (tds)	MW-35	06/06/2013		90	mg/L		
Total dissolved solids (tds)	MW-35	09/05/2013		100	mg/L		
Total dissolved solids (tds)	MW-35	12/16/2013		95	mg/L		
Total dissolved solids (tds)	MW-35	03/04/2014		94	mg/L		
Total dissolved solids (tds)	MW-35	06/02/2014		92	mg/L		
Total dissolved solids (tds)	MW-35	09/22/2014		99	mg/L		
Total dissolved solids (tds)	MW-35	11/17/2014		100	mg/L		
Total dissolved solids (tds)	MW-35	02/25/2015		93	mg/L		
Total dissolved solids (tds)	MW-35	05/19/2015		110	mg/L		
Total dissolved solids (tds)	MW-35	08/26/2015		99	mg/L		
Total dissolved solids (tds)	MW-35	11/10/2015		98	mg/L		
Total dissolved solids (tds)	MW-35	02/22/2016		93	mg/L		
Total dissolved solids (tds)	MW-35	05/16/2016		100	mg/L		
Total dissolved solids (tds)	MW-35	08/31/2016		95	mg/L		
Total dissolved solids (tds)	MW-35	11/15/2016		120	mg/L		
Total dissolved solids (tds)	MW-35	02/22/2017		100	mg/L		
Total dissolved solids (tds)	MW-35	05/24/2017		110	mg/L		
Total dissolved solids (tds)	MW-35	08/30/2017		99	mg/L		
Total dissolved solids (tds)	MW-35	11/15/2017		100	mg/L		
Total dissolved solids (tds)	MW-35	02/20/2018		98	mg/L		
Total dissolved solids (tds)	MW-35	05/17/2018		92	mg/L		
Total dissolved solids (tds)	MW-35	08/22/2018		110	mg/L		
Total dissolved solids (tds)	MW-35	11/12/2018		100	mg/L		
Total dissolved solids (tds)	MW-35	11/12/2019		89	mg/L		
Total dissolved solids (tds)	MW-35	11/19/2020		110	mg/L		
Total organic carbon (toc)	MW-13A	03/22/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/27/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/28/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/21/2006		2.2	mg/L		
Total organic carbon (toc)	MW-13A	09/26/2006		6	mg/L		
Total organic carbon (toc)	MW-13A	12/13/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/27/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/25/2008	ND	1	mg/L		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Total organic carbon (toc)	MW-13A	06/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/17/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/17/2008		1	mg/L		
Total organic carbon (toc)	MW-13A	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/17/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/10/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/08/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/06/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/27/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/14/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/08/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/26/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/03/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/11/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/03/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/04/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/17/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/19/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	02/22/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/14/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/13/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/15/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	08/21/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/11/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/19/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/22/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/27/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/29/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/21/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/26/2006		4.8	mg/L		
Total organic carbon (toc)	MW-13B	12/13/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/27/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/18/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/25/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/17/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/16/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/17/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/10/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/23/2010	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
 Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Total organic carbon (toc)	MW-13B	12/08/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/06/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/27/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/14/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/08/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/26/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/03/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/11/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/03/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/04/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/17/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/19/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	02/22/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/14/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/13/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/15/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	08/21/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/11/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/19/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/16/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/09/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/24/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/24/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/09/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/07/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/27/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/13/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/08/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/27/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/04/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/12/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/04/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/16/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/05/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/18/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/20/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-16	02/24/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/14/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/13/2017	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Total organic carbon (toc)	MW-16	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/17/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	08/22/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/12/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/20/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/22/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/14/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/27/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/28/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/21/2006		2.1	mg/L		
Total organic carbon (toc)	MW-35	09/26/2006		4.3	mg/L		
Total organic carbon (toc)	MW-35	12/12/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/27/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/20/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/18/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/20/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/25/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/19/2008		1	mg/L		
Total organic carbon (toc)	MW-35	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/16/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/10/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/09/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/06/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/26/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/13/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/06/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/26/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/04/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/13/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/06/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/16/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/04/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/17/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/19/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-35	02/22/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/15/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/15/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/17/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	08/22/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/12/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/19/2020	ND	1	mg/L		
Vanadium, total	MW-13A	12/03/2013		0.0042	mg/L		
Vanadium, total	MW-13A	03/04/2014		0.0042	mg/L		
Vanadium, total	MW-13A	06/02/2014		0.0048	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Vanadium, total	MW-13A	09/22/2014		0.0039	mg/L		
Vanadium, total	MW-13A	11/17/2014		0.0042	mg/L		
Vanadium, total	MW-13A	02/23/2015		0.0042	mg/L		
Vanadium, total	MW-13A	05/19/2015		0.0034	mg/L		
Vanadium, total	MW-13A	08/26/2015		0.0039	mg/L		
Vanadium, total	MW-13A	11/10/2015		0.004	mg/L		
Vanadium, total	MW-13A	02/22/2016		0.004	mg/L		
Vanadium, total	MW-13A	05/16/2016		0.0039	mg/L		
Vanadium, total	MW-13A	08/31/2016		0.0041	mg/L		
Vanadium, total	MW-13A	11/14/2016		0.0039	mg/L		
Vanadium, total	MW-13A	02/22/2017		0.0043	mg/L		
Vanadium, total	MW-13A	05/24/2017		0.0033	mg/L		
Vanadium, total	MW-13A	08/30/2017		0.0039	mg/L		
Vanadium, total	MW-13A	11/13/2017		0.0038	mg/L		
Vanadium, total	MW-13A	02/20/2018		0.0026	mg/L		
Vanadium, total	MW-13A	05/15/2018	ND	0.002	mg/L		
Vanadium, total	MW-13A	08/21/2018		0.0041	mg/L		
Vanadium, total	MW-13A	11/12/2018		0.0039	mg/L		
Vanadium, total	MW-13A	11/11/2019		0.0022	mg/L		
Vanadium, total	MW-13A	11/19/2020		0.0037	mg/L		
Vanadium, total	MW-13B	12/03/2013		0.0058	mg/L		
Vanadium, total	MW-13B	03/04/2014		0.0057	mg/L		
Vanadium, total	MW-13B	06/02/2014		0.0057	mg/L		
Vanadium, total	MW-13B	09/22/2014		0.005	mg/L		
Vanadium, total	MW-13B	11/17/2014		0.0055	mg/L		
Vanadium, total	MW-13B	02/23/2015		0.0054	mg/L		
Vanadium, total	MW-13B	05/19/2015		0.0054	mg/L		
Vanadium, total	MW-13B	08/26/2015		0.0056	mg/L		
Vanadium, total	MW-13B	11/10/2015		0.0058	mg/L		
Vanadium, total	MW-13B	02/22/2016		0.0058	mg/L		
Vanadium, total	MW-13B	05/16/2016		0.0056	mg/L		
Vanadium, total	MW-13B	08/31/2016		0.0054	mg/L		
Vanadium, total	MW-13B	11/14/2016		0.0061	mg/L		
Vanadium, total	MW-13B	02/22/2017		0.0058	mg/L		
Vanadium, total	MW-13B	05/24/2017		0.0044	mg/L		
Vanadium, total	MW-13B	08/30/2017		0.0054	mg/L		
Vanadium, total	MW-13B	11/13/2017		0.0051	mg/L		
Vanadium, total	MW-13B	02/20/2018		0.0045	mg/L		
Vanadium, total	MW-13B	05/15/2018		0.0029	mg/L		
Vanadium, total	MW-13B	08/21/2018		0.0058	mg/L		
Vanadium, total	MW-13B	11/12/2018		0.0054	mg/L		
Vanadium, total	MW-13B	11/11/2019		0.0034	mg/L		
Vanadium, total	MW-13B	11/19/2020		0.0056	mg/L		
Vanadium, total	MW-16	09/05/2013		0.0034	mg/L		
Vanadium, total	MW-16	12/16/2013		0.0039	mg/L		
Vanadium, total	MW-16	03/05/2014		0.0042	mg/L		
Vanadium, total	MW-16	06/02/2014		0.0042	mg/L		
Vanadium, total	MW-16	09/22/2014		0.0042	mg/L		
Vanadium, total	MW-16	11/18/2014		0.004	mg/L		
Vanadium, total	MW-16	02/23/2015		0.0051	mg/L		
Vanadium, total	MW-16	05/20/2015		0.0042	mg/L		
Vanadium, total	MW-16	08/26/2015		0.0032	mg/L		
Vanadium, total	MW-16	11/11/2015		0.0034	mg/L		
Vanadium, total	MW-16	02/24/2016		0.0043	mg/L		
Vanadium, total	MW-16	05/16/2016		0.0034	mg/L		
Vanadium, total	MW-16	08/31/2016		0.0042	mg/L		
Vanadium, total	MW-16	11/14/2016		0.0049	mg/L		
Vanadium, total	MW-16	02/22/2017		0.0047	mg/L		
Vanadium, total	MW-16	05/24/2017		0.003	mg/L		
Vanadium, total	MW-16	08/30/2017		0.0033	mg/L		
Vanadium, total	MW-16	11/13/2017		0.0031	mg/L		
Vanadium, total	MW-16	02/20/2018		0.0029	mg/L		
Vanadium, total	MW-16	05/17/2018		0.0037	mg/L		
Vanadium, total	MW-16	08/22/2018		0.0034	mg/L		

* = outlier for that well/constituent

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ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Vanadium, total	MW-16	11/12/2018		0.0047	mg/L		
Vanadium, total	MW-16	11/12/2019		0.0036	mg/L		
Vanadium, total	MW-16	11/20/2020		0.009	mg/L		
Vanadium, total	MW-35	09/05/2013		0.0042	mg/L		
Vanadium, total	MW-35	12/16/2013		0.0046	mg/L		
Vanadium, total	MW-35	03/04/2014		0.0047	mg/L		
Vanadium, total	MW-35	06/02/2014		0.0042	mg/L		
Vanadium, total	MW-35	09/22/2014		0.0044	mg/L		
Vanadium, total	MW-35	11/17/2014		0.0042	mg/L		
Vanadium, total	MW-35	02/25/2015		0.0048	mg/L		
Vanadium, total	MW-35	05/19/2015		0.0042	mg/L		
Vanadium, total	MW-35	08/26/2015		0.0041	mg/L		
Vanadium, total	MW-35	11/10/2015		0.0043	mg/L		
Vanadium, total	MW-35	02/22/2016		0.0045	mg/L		
Vanadium, total	MW-35	05/16/2016		0.0046	mg/L		
Vanadium, total	MW-35	08/31/2016		0.0046	mg/L		
Vanadium, total	MW-35	11/15/2016		0.0043	mg/L		
Vanadium, total	MW-35	02/22/2017		0.005	mg/L		
Vanadium, total	MW-35	05/24/2017		0.0034	mg/L		
Vanadium, total	MW-35	08/30/2017		0.0042	mg/L		
Vanadium, total	MW-35	11/15/2017		0.004	mg/L		
Vanadium, total	MW-35	02/20/2018		0.0032	mg/L		
Vanadium, total	MW-35	05/17/2018		0.0044	mg/L		
Vanadium, total	MW-35	08/22/2018		0.0042	mg/L		
Vanadium, total	MW-35	11/12/2018		0.0042	mg/L		
Vanadium, total	MW-35	11/12/2019		0.0041	mg/L		
Vanadium, total	MW-35	11/19/2020		0.0043	mg/L		
Zinc, total	MW-13A	12/03/2013	ND	0.005	mg/L		
Zinc, total	MW-13A	03/04/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	11/17/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	02/23/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	05/19/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	11/10/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	02/22/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	11/14/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	11/13/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	05/15/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	08/21/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	11/11/2019	ND	0.005	mg/L		
Zinc, total	MW-13A	11/19/2020	ND	0.005	mg/L		
Zinc, total	MW-13B	12/03/2013	ND	0.005	mg/L		
Zinc, total	MW-13B	03/04/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	11/17/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	02/23/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	05/19/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	11/10/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	02/22/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	11/14/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	02/22/2017	ND	0.005	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2021 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Zinc, total	MW-13B	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	11/13/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	05/15/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	08/21/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	11/11/2019	ND	0.005	mg/L		
Zinc, total	MW-13B	11/19/2020	ND	0.005	mg/L		
Zinc, total	MW-16	09/05/2013	ND	0.005	mg/L		
Zinc, total	MW-16	12/16/2013	ND	0.005	mg/L		
Zinc, total	MW-16	03/05/2014	ND	0.005	mg/L		
Zinc, total	MW-16	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-16	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-16	11/18/2014	ND	0.005	mg/L		
Zinc, total	MW-16	02/23/2015	ND	0.005	mg/L		
Zinc, total	MW-16	05/20/2015	ND	0.005	mg/L		
Zinc, total	MW-16	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-16	11/11/2015	ND	0.005	mg/L		
Zinc, total	MW-16	02/24/2016	ND	0.005	mg/L		
Zinc, total	MW-16	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-16	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-16	11/14/2016		0.0056	mg/L		
Zinc, total	MW-16	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-16	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-16	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-16	11/13/2017	ND	0.005	mg/L		
Zinc, total	MW-16	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-16	05/17/2018	ND	0.005	mg/L		
Zinc, total	MW-16	08/22/2018	ND	0.005	mg/L		
Zinc, total	MW-16	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-16	11/12/2019	ND	0.005	mg/L		
Zinc, total	MW-16	11/20/2020	ND	0.005	mg/L		
Zinc, total	MW-35	09/05/2013	ND	0.005	mg/L		
Zinc, total	MW-35	12/16/2013	ND	0.005	mg/L		
Zinc, total	MW-35	03/04/2014	ND	0.005	mg/L		
Zinc, total	MW-35	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-35	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-35	11/17/2014	ND	0.005	mg/L		
Zinc, total	MW-35	02/25/2015	ND	0.005	mg/L		
Zinc, total	MW-35	05/19/2015	ND	0.005	mg/L		
Zinc, total	MW-35	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-35	11/10/2015	ND	0.005	mg/L		
Zinc, total	MW-35	02/22/2016	ND	0.005	mg/L		
Zinc, total	MW-35	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-35	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-35	11/15/2016	ND	0.005	mg/L		
Zinc, total	MW-35	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-35	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-35	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-35	11/15/2017	ND	0.005	mg/L		
Zinc, total	MW-35	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-35	05/17/2018	ND	0.005	mg/L		
Zinc, total	MW-35	08/22/2018	ND	0.005	mg/L		
Zinc, total	MW-35	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-35	11/12/2019	ND	0.005	mg/L		
Zinc, total	MW-35	11/19/2020	ND	0.005	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median RL

ND = not detected with Result = reporting limit

TABLE 2-4
Shapiro-Wilk Multiple Group Test of Normality

Constituent	N (Detects)	N (Total)	Detection Frequency	G (raw)	G (log)	Critical Value	Distributional Form	Model Type
Alkalinity, bicarbonate (as caco3)	210	210	1.0000	3.71	3.358	2.326	non-norm	nonpar
Alkalinity, total (as caco3)	214	214	1.0000	3.607	3.285	2.326	non-norm	nonpar
Ammonia (as n)	72	209	0.3440	6.107	0.736	2.326	lognor	nonpar
Antimony, total	3	94	0.0320					nonpar
Arsenic, total	100	100	1.0000	1.596	1.906	2.326	normal	normal
Barium, total	94	94	1.0000	0.996	0.383	2.326	normal	normal
Beryllium, total	0	94	0.0000					nonpar
Cadmium, total	0	94	0.0000					nonpar
Calcium, dissolved	214	214	1.0000	7.34	7.161	2.326	non-norm	nonpar
Chloride	202	214	0.9440	6.876	5.156	2.326	non-norm	nonpar
Chromium, total	41	94	0.4360	5.114	3.784	2.326	non-norm	nonpar
Cobalt, total	0	94	0.0000					nonpar
Copper, total	1	94	0.0110					nonpar
Iron, total	12	93	0.1290	0.954	0.468	2.326	normal	nonpar
Lead, total	1	94	0.0110					nonpar
Magnesium, dissolved	214	214	1.0000	1.977	1.472	2.326	normal	normal
Manganese, total	26	94	0.2770	5.381	0.64	2.326	lognor	nonpar
Nickel, total	2	94	0.0210					nonpar
Nitrate (as n)	200	201	0.9950	9.264	5.293	2.326	non-norm	nonpar
pH	213	213	1.0000	0.944	1.177	2.326	normal	normal
Potassium, dissolved	14	214	0.0650	2.153	1.799	2.326	normal	nonpar
Selenium, total	0	94	0.0000					nonpar
Silver, total	0	94	0.0000					nonpar
Sodium, dissolved	214	214	1.0000	5.737	4.619	2.326	non-norm	nonpar
Specific conductivity	215	215	1.0000	8.335	10.972	2.326	non-norm	nonpar
Sulfate	205	214	0.9580	6.308	3.428	2.326	non-norm	nonpar
Temperature	215	215	1.0000	7.673	7.02	2.326	non-norm	nonpar
Thallium, total	0	94	0.0000					nonpar
Total dissolved solids (tds)	214	214	1.0000	5.328	4.766	2.326	non-norm	nonpar
Total organic carbon (toc)	7	202	0.0350	0.146	2.225	2.326	normal	nonpar
Vanadium, total	93	94	0.9890	7.118	7.275	2.326	non-norm	nonpar
Zinc, total	1	94	0.0110					nonpar

Fit to distribution is confirmed if $G \leq$ critical value.

Model type may not match distributional form when detection frequency < 50%.

Data in this table are based on pooled data shown in Table 2-3, outliers excluded

TABLE 2-5
COMPARISON OF UPDATED (2021) PREDICTION LIMITS†
TO PREVIOUS YEAR (2020) PREDICTION LIMITS
Olympic View Sanitary Landfill

Constituent	2020 Pred. Limit	unit	Distributional Assumption	Constituent	2021 Pred. Limit	unit	Distributional Assumption
Alkalinity, bicarbonate (as CaCO3)	96	mg/L	nonparametric	Alkalinity, bicarbonate (as CaCO3)	96	mg/L	nonparametric
Alkalinity, total (as CaCO3)	96	mg/L	nonparametric	Alkalinity, total (as CaCO3)	96	mg/L	nonparametric
Ammonia (as N)	0.28	mg/L	nonparametric	Ammonia (as N)	0.28	mg/L	nonparametric
Antimony, total	0.0013	mg/L	nonparametric	Antimony, total	0.0013	mg/L	nonparametric
Arsenic, total	0.481	ug/L	normal	Arsenic, total	0.480	ug/L	normal
Barium, total	0.0043	mg/L	normal	Barium, total	0.0044	mg/L	normal
Beryllium, total	Current RL*	mg/L	nonparametric	Beryllium, total	Current RL*	mg/L	nonparametric
Cadmium, total	Current RL*	mg/L	nonparametric	Cadmium, total	Current RL*	mg/L	nonparametric
Calcium, dissolved	18	mg/L	nonparametric	Calcium, dissolved	18	mg/L	nonparametric
Chloride	4.4	mg/L	nonparametric	Chloride	4.4	mg/L	nonparametric
Chromium, total	0.0092	mg/L	nonparametric	Chromium, total	0.019	mg/L	nonparametric
Cobalt, total	Current RL*	mg/L	nonparametric	Cobalt, total	Current RL*	mg/L	nonparametric
Copper, total	0.0021	mg/L	nonparametric	Copper, total	0.0021	mg/L	nonparametric
Iron, total	0.31	mg/L	nonparametric	Iron, total	0.31	mg/L	nonparametric
Lead, total	0.0014	mg/L	nonparametric	Lead, total	0.0014	mg/L	nonparametric
Magnesium, dissolved	11.2	mg/L	normal	Magnesium, dissolved	11.2	mg/L	normal
Manganese, total	0.062	mg/L	nonparametric	Manganese, total	0.110	mg/L	nonparametric
Nickel, total	0.0041	mg/L	nonparametric	Nickel, total	0.0055	mg/L	nonparametric
Nitrate (as N)	1.6	mg/L	nonparametric	Nitrate (as N)	1.6	mg/L	nonparametric
pH	5.81 - 8.18	units	normal	pH	5.81 - 8.19	units	normal
Potassium, dissolved	1.4	mg/L	nonparametric	Potassium, dissolved	1.4	mg/L	nonparametric
Selenium, total	Current RL*	mg/L	nonparametric	Selenium, total	Current RL*	mg/L	nonparametric
Silver, total	Current RL*	mg/L	nonparametric	Silver, total	Current RL*	mg/L	nonparametric
Sodium, dissolved	7.7	mg/L	nonparametric	Sodium, dissolved	7.7	mg/L	nonparametric
Specific conductivity	0.18	mS/cm	nonparametric	Specific conductivity	0.18	mS/cm	nonparametric
Sulfate	9.9	mg/L	nonparametric	Sulfate	9.9	mg/L	nonparametric
Temperature	14.32	deg C	nonparametric	Temperature	14.32	deg C	nonparametric
Thallium, total	Current RL*	mg/L	nonparametric	Thallium, total	Current RL*	mg/L	nonparametric
Total dissolved solids (tds)	175	mg/L	nonparametric	Total dissolved solids (tds)	175	mg/L	nonparametric
Total organic carbon (toc)	6.0	mg/L	nonparametric	Total organic carbon (toc)	6.0	mg/L	nonparametric
Vanadium, total	0.0061	mg/L	nonparametric	Vanadium, total	0.0090	mg/L	nonparametric
Zinc, total	0.0056	mg/L	nonparametric	Zinc, total	0.0056	mg/L	nonparametric

† Note that beginning in 2016, Prediction Limits for Trace Metals became based on "total" analyses vs "dissolved" previously

* for background data sets with all non-detected values, a nonparametric prediction limit is the current constituent-specific laboratory reporting limit (RL)

mg/L = milligrams per liter

ug/L = micrograms per liter

mS/cm = milliSiemens per centimeter

deg C = degrees Celsius

3. Annual UCL Calculations using Preliminary Groundwater Cleanup Goals

- 2020 Annual Preliminary Groundwater Cleanup Goals Statistical Evaluation Summary (Table 3-1)

TABLE 3-1: 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCASat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2018 through December 31, 2020

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N ^[1]	% Detect	Max ^[2]	95% UCL of Mean ^[3]	Units ^[4]	Note	Groundwater Cleanup Level ^[5]	Units ^[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend? ^[6]
MW-15R	Compliance	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-15R	Compliance	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-15R	Compliance	Arsenic, total	8	100%	0.269	0.239	ug/L	LN	0.462	ug/L	No	No
MW-15R	Compliance	Iron, total	8	0%	0.06 (ND)	0.06	mg/L	B	0.30	mg/L	No	No
MW-15R	Compliance	Manganese, total	8	100%	0.0026	0.002	mg/L	Z	0.05	mg/L	No	Yes (▼)
MW-15R	Compliance	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-15R	Compliance	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-15R	Compliance	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-15R	Compliance	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-15R	Compliance	Ammonia as N	8	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	No
MW-34A	Compliance	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-34A	Compliance	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-34A	Compliance	Arsenic, total	8	100%	0.492	0.482	ug/L	LN	0.462	ug/L	Yes	No
MW-34A	Compliance	Iron, total	8	50%	0.18	0.17	mg/L	LN	0.30	mg/L	No	No
MW-34A	Compliance	Manganese, total	8	87.5%	0.0047	0.003	mg/L	Z	0.05	mg/L	No	No
MW-34A	Compliance	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-34A	Compliance	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-34A	Compliance	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-34A	Compliance	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-34A	Compliance	Ammonia as N	8	12.5%	0.031	0.031	mg/L	A	0.19	mg/L	No	No

TABLE 3-1: 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary**Olympic View Sanitary Landfill****Statistical Methodology:** calculation of 95% UCL of mean per MTCASat**Data Input (general):** 3-year "moving window", updated annually**Data Input (specific):** January 1, 2018 through December 31, 2020**Wells Evaluated:** (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N ^[1]	% Detect	Max ^[2]	95% UCL of Mean ^[3]	Units ^[4]	Note	Groundwater Cleanup Level ^[5]	Units ^[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend? ^[6]
MW-34C	Compliance	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-34C	Compliance	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-34C	Compliance	Arsenic, total	8	100%	30.7	36.9	ug/L	LN	0.462	ug/L	Yes	No
MW-34C	Compliance	Iron, total	8	100%	46	84	mg/L	LN	0.30	mg/L	Yes	No
MW-34C	Compliance	Manganese, total	8	100%	5.3	3.3	mg/L	Z	0.05	mg/L	Yes	No
MW-34C	Compliance	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-34C	Compliance	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-34C	Compliance	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-34C	Compliance	Vinyl Chloride	8	100%	0.055	0.05	ug/L	LN	0.20	ug/L	No	Yes (▼)
MW-34C	Compliance	Ammonia as N	8	12.5%	0.031	0.031	mg/L	A	0.19	mg/L	No	No
MW-39	Compliance	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-39	Compliance	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-39	Compliance	Arsenic, total	8	100%	2.98	2.39	ug/L	LN	0.462	ug/L	Yes	No
MW-39	Compliance	Iron, total	8	100%	44	40	mg/L	Z	0.30	mg/L	Yes	No
MW-39	Compliance	Manganese, total	8	100%	0.49	0.47	mg/L	LN	0.05	mg/L	Yes	No
MW-39	Compliance	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-39	Compliance	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-39	Compliance	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-39	Compliance	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-39	Compliance	Ammonia as N	8	100%	0.65	0.52	mg/L	Z	0.19	mg/L	Yes	No

TABLE 3-1: 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCASat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2018 through December 31, 2020

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N ^[1]	% Detect	Max ^[2]	95% UCL of Mean ^[3]	Units ^[4]	Note	Groundwater Cleanup Level ^[5]	Units ^[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend? ^[6]
MW-42	Compliance	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-42	Compliance	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-42	Compliance	Arsenic, total	8	100%	1.97	1.85	ug/L	LN	0.462	ug/L	Yes	Yes (▲)
MW-42	Compliance	Iron, total	8	100%	25	24.4	mg/L	Z	0.30	mg/L	Yes	No
MW-42	Compliance	Manganese, total	8	100%	4.2	4.1	mg/L	LN	0.05	mg/L	Yes	Yes (▼)
MW-42	Compliance	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-42	Compliance	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-42	Compliance	Trichloroethene	8	12.5%	0.47	0.47	ug/L	A	1.0	ug/L	No	No
MW-42	Compliance	Vinyl Chloride	8	87.5%	0.094	0.08	ug/L	N	0.20	ug/L	No	No
MW-42	Compliance	Ammonia as N	8	100%	8.4	5.5	mg/L	Z	0.19	mg/L	Yes	No
MW-43	Compliance	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-43	Compliance	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-43	Compliance	Arsenic, total	8	87.5%	0.108	0.071	ug/L	Z	0.462	ug/L	No	No
MW-43	Compliance	Iron, total	8	100%	3.5	8.5	mg/L	LN	0.30	mg/L	Yes	No
MW-43	Compliance	Manganese, total	8	100%	0.11	0.08	mg/L	LN	0.05	mg/L	Yes	Yes (▼)
MW-43	Compliance	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-43	Compliance	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-43	Compliance	Trichloroethene	8	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-43	Compliance	Vinyl Chloride	8	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-43	Compliance	Ammonia as N	8	12.5%	0.052	0.052	mg/L	A	0.19	mg/L	No	Yes (▼)

TABLE 3-1: 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary**Olympic View Sanitary Landfill****Statistical Methodology:** calculation of 95% UCL of mean per MTCASat**Data Input (general):** 3-year "moving window", updated annually**Data Input (specific):** January 1, 2018 through December 31, 2020**Wells Evaluated:** (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N ^[1]	% Detect	Max ^[2]	95% UCL of Mean ^[3]	Units ^[4]	Note	Groundwater Cleanup Level ^[5]	Units ^[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend? ^[6]
MW-29A	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-29A	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-29A	Downgradient	Arsenic, total	6	100%	2.19	2.11	ug/L	LN	0.462	ug/L	Yes	No
MW-29A	Downgradient	Iron, total	6	100%	4.5	4.42	mg/L	N	0.30	mg/L	Yes	No
MW-29A	Downgradient	Manganese, total	6	100%	1.5	1.43	mg/L	Z	0.05	mg/L	Yes	No
MW-29A	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-29A	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-29A	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-29A	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-29A	Downgradient	Ammonia as N	6	100%	0.19	0.12	mg/L	Z	0.19	mg/L	No	Yes (▼)
MW-32	Downgradient	1,1-Dichloroethane	8	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-32	Downgradient	1,4-Dichlorobenzene	8	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-32	Downgradient	Arsenic, total	8	100%	11.2	10.7	ug/L	LN	0.462	ug/L	Yes	No
MW-32	Downgradient	Iron, total	8	100%	0.94	0.82	mg/L	LN	0.30	mg/L	Yes	No
MW-32	Downgradient	Manganese, total	8	100%	3.3	2.7	mg/L	LN	0.05	mg/L	Yes	No
MW-32	Downgradient	cis-1,2-dichloroethene	8	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-32	Downgradient	Ethyl ether	8	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-32	Downgradient	Trichloroethene	8	87.5%	0.71	0.57	ug/L	Z	1.0	ug/L	No	No
MW-32	Downgradient	Vinyl Chloride	8	100%	0.36	0.32	ug/L	LN	0.20	ug/L	Yes	Yes (▼)
MW-32	Downgradient	Ammonia as N	8	87.5%	0.12	0.07	mg/L	Z	0.19	mg/L	No	No

TABLE 3-1: 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCASat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2018 through December 31, 2020

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N ^[1]	% Detect	Max ^[2]	95% UCL of Mean ^[3]	Units ^[4]	Note	Groundwater Cleanup Level ^[5]	Units ^[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend? ^[6]
MW-33A	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-33A	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-33A	Downgradient	Arsenic, total	6	100%	0.607	0.696	ug/L	LN	0.462	ug/L	Yes	No
MW-33A	Downgradient	Iron, total	6	100%	4.6	9.0	mg/L	LN	0.30	mg/L	Yes	No
MW-33A	Downgradient	Manganese, total	6	100%	0.099	0.099	mg/L	A**	0.05	mg/L	Yes	No
MW-33A	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-33A	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-33A	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-33A	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-33A	Downgradient	Ammonia as N	6	33%	0.21	0.21	mg/L	A	0.19	mg/L	Yes	No
MW-33C	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-33C	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-33C	Downgradient	Arsenic, total	6	100%	2.89	2.87	ug/L	LN	0.462	ug/L	Yes	Yes (▲)
MW-33C	Downgradient	Iron, total	6	100%	0.37	0.23	mg/L	Z	0.3	mg/L	No	No
MW-33C	Downgradient	Manganese, total	6	100%	0.21	0.19	mg/L	N	0.05	mg/L	Yes	No
MW-33C	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-33C	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-33C	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-33C	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-33C	Downgradient	Ammonia as N	6	17%	0.04	0.04	mg/L	A	0.19	mg/L	No	No

TABLE 3-1: 2020 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCASat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2018 through December 31, 2020

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N ^[1]	% Detect	Max ^[2]	95% UCL of Mean ^[3]	Units ^[4]	Note	Groundwater Cleanup Level ^[5]	Units ^[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend? ^[6]
MW-36A	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-36A	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-36A	Downgradient	Arsenic, total	6	100%	0.594	0.585	ug/L	LN	0.462	ug/L	Yes	No
MW-36A	Downgradient	Iron, total	6	50%	0.17	0.17	mg/L	A	0.3	mg/L	No	No
MW-36A	Downgradient	Manganese, total	6	67%	0.0024	0.003	mg/L	LN	0.05	mg/L	No	No
MW-36A	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-36A	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-36A	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-36A	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-36A	Downgradient	Ammonia as N	6	17%	0.031	0.031	mg/L	A	0.19	mg/L	No	No

NOTES:

^[1] N = number of data points used for UCL calculation of the mean; only SIM results used for Vinyl Chloride (e.g., duplicate results with higher RLs by non-SIM were omitted).

^[2] MAX = maximum detected result in the data set; if no detected results, then = maximum reporting limit for non-detect results (indicated with ND).

^[3] A 3-year moving data set is used for calculation of the UCL.

^[4] ug/L - micrograms per liter; mg/L = milligrams per liter.

^[5] Groundwater Cleanup Levels are listed on Table 3 of the October 2010 Draft Cleanup Action Plan.

^[6] Trend analysis results are based on data for the period January 2005 through December 2020; arrows indicated increasing (▲) or decreasing (▼) trends.

A = Detection frequency of data set too low and/or N too few to calculate 95% UCL of mean; therefore, the highest detected result in the data set used to represent 95% UCL of mean.

A* = Same as note "A" except that the highest value in the data set is below the reporting limit of one or more non-detected results; therefore, the highest reporting limit is used to represent the 95% UCL of the mean.

A** = MTCASat suggests use of lognormal formula but calculation of 95% UCL of mean by Land's formula provides unrealistic result; therefore, the highest detected result is used to represent the 95% UCL of the mean.


A*** = MTCASat suggests use of the Z-score method but then cites inability to calculate due to presence of censored values; therefore, the highest detected result is used to represent the 95% UCL of the mean.

B = Detection frequency = 0; therefore, the highest reporting limit in the data set is used to represent the 95% UCL of mean.

LN = The 95% UCL of the mean is calculated using Land's formula since lognormal distribution is indicated.

N = The 95% UCL of the mean is calculated using a normal-based t-statistic since a normal distribution is indicated.

Z = the 95% UCL of the mean is calculated using the Z-score method in MTCASat since neither normal nor lognormal distribution can be determined.

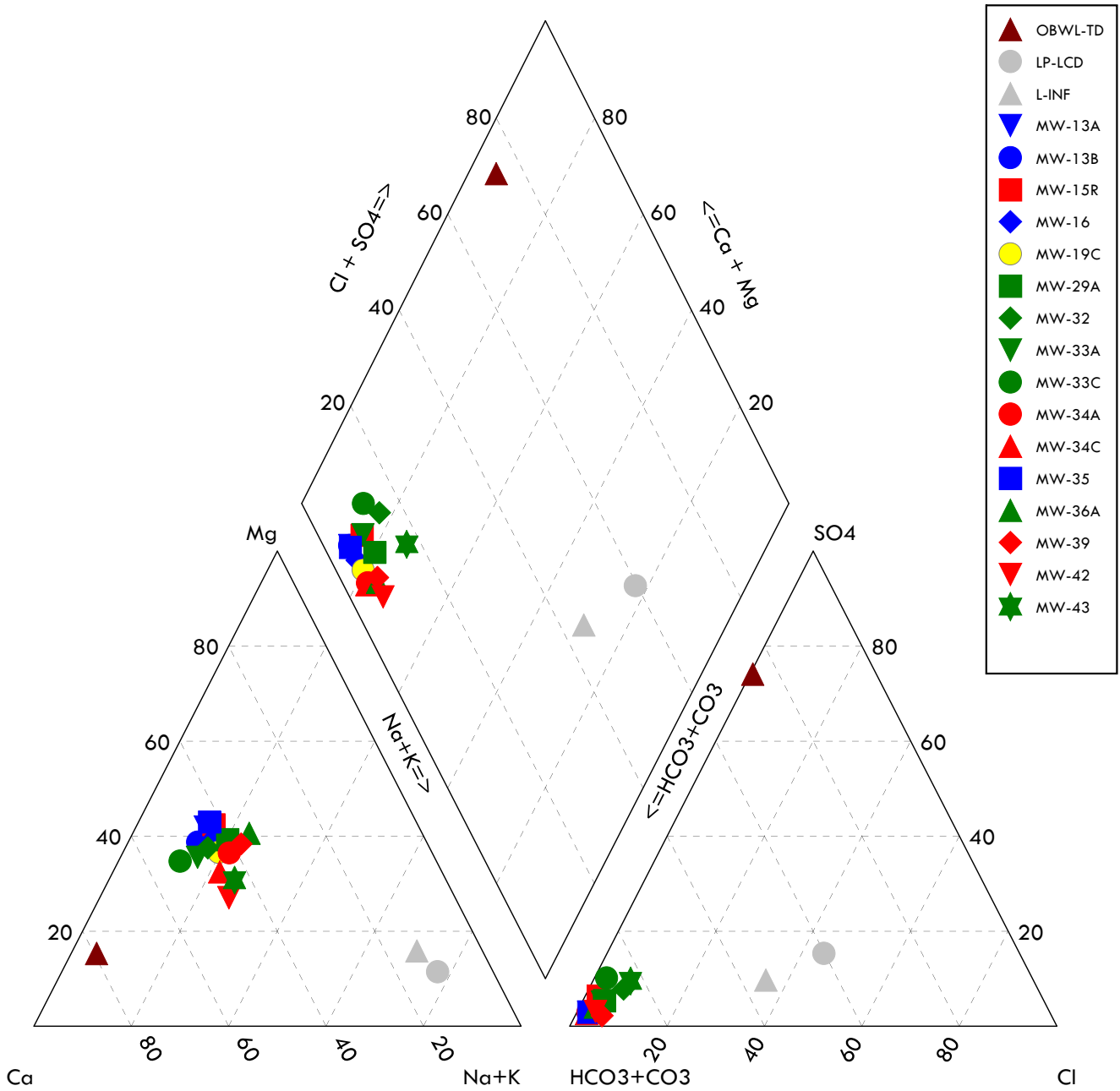


Appendix D

November 2020 Groundwater Geochemical Evaluation



2020 Semi-Annual #2 Report - Piper Diagram



DESCRIPTION: Piper Diagram, 2020 Semi-Annual #2

	PROJECT: Olympic View Sanitary Landfill	PROJECT NO: 04204027.24
	CLIENT: Waste Management Closed Sites	DATE: March 2021

Cation/Anion Balance

Location MW-13A
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	<0.00	<0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	5.30	0.23
K	0.02258	0.50	0.013
Ca	0.04990	15.00	0.75
Mg	0.08229	8.70	0.72
		Sum of Cations	1.708 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.42	0.01
HCO3	0.01639	100.80	1.65
		Sum of Anions	1.848 meq/L
Balance (% difference) *			-3.93 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-13B
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	<0.00	<0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	5.30	0.23
K	0.02258	0.46	0.012
Ca	0.04990	16.00	0.80
Mg	0.08229	8.00	0.66
		Sum of Cations	1.7 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.35	0.01
HCO3	0.01639	100.80	1.65
		Sum of Anions	1.846 meq/L
Balance (% difference) *			-4.16 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-15R
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.00	0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	5.60	0.24
K	0.02258	0.72	0.018
Ca	0.04990	14.00	0.70
Mg	0.08229	8.60	0.71
		Sum of Cations	1.67 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	5.00	0.10
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	90.00	1.47
		Sum of Anions	1.665 meq/L
Balance (% difference) *			0.11 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-16
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.00	0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	5.60	0.24
K	0.02258	0.79	0.020
Ca	0.04990	13.00	0.65
Mg	0.08229	7.40	0.61
		Sum of Cations	1.52 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	102.00	1.67
		Sum of Anions	1.86 meq/L
Balance (% difference) *			-10.04 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-19C
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	1.00	0.036
Fe	0.03581	0.13	0.000
Na	0.04350	6.50	0.28
K	0.02258	1.20	0.031
Ca	0.04990	14.00	0.70
Mg	0.08229	7.10	0.58
		Sum of Cations	1.633 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	97.20	1.59
		Sum of Anions	1.783 meq/L
Balance (% difference) *			-4.39 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-29A
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	1.40	0.051
Fe	0.03581	4.10	0.000
Na	0.04350	3.80	0.17
K	0.02258	0.30	0.008
Ca	0.04990	7.00	0.35
Mg	0.08229	4.10	0.34
		Sum of Cations	0.91 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	52.80	0.87
		Sum of Anions	1.055 meq/L
Balance (% difference) *			-7.34 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-32
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	2.40	0.087
Fe	0.03581	0.74	0.000
Na	0.04350	13.00	0.57
K	0.02258	1.10	0.028
Ca	0.04990	32.00	1.60
Mg	0.08229	16.00	1.32
		Sum of Cations	3.594 meq/L
Cl	0.02821	8.80	0.25
SO4	0.02082	13.00	0.27
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	180.00	2.95
		Sum of Anions	3.47 meq/L
Balance (% difference) *			1.76 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-33A
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.09	0.003
Fe	0.03581	2.10	0.000
Na	0.04350	3.30	0.14
K	0.02258	0.56	0.014
Ca	0.04990	9.70	0.48
Mg	0.08229	4.30	0.35
		Sum of Cations	1.0 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	56.40	0.92
		Sum of Anions	1.114 meq/L
Balance (% difference) *			-5.43 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-33C
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.13	0.005
Fe	0.03581	0.05	0.000
Na	0.04350	4.00	0.17
K	0.02258	1.20	0.031
Ca	0.04990	17.00	0.85
Mg	0.08229	6.80	0.56
		Sum of Cations	1.617 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	8.10	0.17
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	88.80	1.46
		Sum of Anions	1.71 meq/L
Balance (% difference) *			-2.77 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-34A
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.00	0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	9.30	0.40
K	0.02258	0.61	0.016
Ca	0.04990	16.00	0.80
Mg	0.08229	8.50	0.70
		Sum of Cations	1.918 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.51	0.01
HCO3	0.01639	105.60	1.73
		Sum of Anions	1.928 meq/L
Balance (% difference) *			-0.25 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-34C
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.51	0.019
Fe	0.03581	0.59	0.000
Na	0.04350	10.00	0.43
K	0.02258	0.80	0.020
Ca	0.04990	19.00	0.95
Mg	0.08229	8.20	0.67
		Sum of Cations	2.097 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	114.00	1.87
		Sum of Anions	2.058 meq/L
Balance (% difference) *			0.94 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-35
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.00	0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	5.20	0.23
K	0.02258	0.52	0.013
Ca	0.04990	14.00	0.70
Mg	0.08229	8.60	0.71
		Sum of Cations	1.646 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.43	0.01
HCO3	0.01639	102.00	1.67
		Sum of Anions	1.867 meq/L
Balance (% difference) *			-6.31 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-36A
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	<0.00	<0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	6.30	0.27
K	0.02258	0.83	0.021
Ca	0.04990	8.80	0.44
Mg	0.08229	6.10	0.50
		Sum of Cations	1.236 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.64	0.01
HCO3	0.01639	73.20	1.20
		Sum of Anions	1.4 meq/L
Balance (% difference) *			-6.16 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-39
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.50	0.018
Fe	0.03581	37.00	0.000
Na	0.04350	9.20	0.40
K	0.02258	<1.00	<0.026
Ca	0.04990	14.00	0.70
Mg	0.08229	8.50	0.70
		Sum of Cations	1.842 meq/L
Cl	0.02821	4.60	0.13
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.11	0.00
HCO3	0.01639	132.00	2.16
		Sum of Anions	2.4 meq/L
Balance (% difference) *			-13.13 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-42
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	3.70	0.135
Fe	0.03581	22.00	0.000
Na	0.04350	18.00	0.78
K	0.02258	7.30	0.187
Ca	0.04990	34.00	1.70
Mg	0.08229	12.00	0.99
		Sum of Cations	3.79 meq/L
Cl	0.02821	5.90	0.17
SO4	0.02082	6.60	0.14
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	252.00	4.13
		Sum of Anions	4.435 meq/L
Balance (% difference) *			-7.86 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location MW-43
Sample Date 11/19/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.01	0.000
Fe	0.03581	<0.06	<0.000
Na	0.04350	3.00	0.13
K	0.02258	0.59	0.015
Ca	0.04990	4.90	0.24
Mg	0.08229	2.10	0.17
		Sum of Cations	0.563 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	<5.00	<0.10
NO3	0.01613	0.94	0.02
HCO3	0.01639	27.60	0.45
		Sum of Anions	0.656 meq/L
Balance (% difference) *			-7.63 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location OBWL-TD
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.01	0.000
Fe	0.03581	0.03	0.000
Na	0.04350	7.50	0.33
K	0.02258	2.70	0.069
Ca	0.04990	120.00	5.99
Mg	0.08229	14.00	1.15
		Sum of Cations	7.54 meq/L
Cl	0.02821	<3.00	<0.08
SO4	0.02082	270.00	5.63
NO3	0.01613	0.61	0.01
HCO3	0.01639	117.60	1.93
		Sum of Anions	7.65 meq/L
Balance (% difference) *			-0.73 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$

Cation/Anion Balance

Location L-INF
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	2.60	0.095
Fe	0.03581	7.60	0.000
Na	0.04350	780.00	33.93
K	0.02258	110.00	2.813
Ca	0.04990	140.00	6.99
Mg	0.08229	100.00	8.23
		Sum of Cations	52.1 meq/L
Cl	0.02821	810.00	22.85
SO4	0.02082	300.00	6.25
NO3	0.01613	<0.05	<0.00
HCO3	0.01639	2160.0 0	35.40
		Sum of Anions	64.5 meq/L
Balance (% difference) *			-10.68 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$


Cation/Anion Balance

Location LP-LCD
Sample Date 11/20/2020

Major Ions	Conversion Factor +	mg/l	meq/l
Mn	0.0364	0.20	0.007
Fe	0.03581	0.03	0.000
Na	0.04350	630.00	27.40
K	0.02258	80.00	2.046
Ca	0.04990	87.00	4.34
Mg	0.08229	53.00	4.36
		Sum of Cations	38.16 meq/L
Cl	0.02821	580.00	16.36
SO4	0.02082	270.00	5.63
NO3	0.01613	8.60	0.14
HCO3	0.01639	900.00	14.75
		Sum of Anions	36.9 meq/L
Balance (% difference) *			1.71 %

+ mg/l to meq/l

* $[(\text{Total anions} - \text{Total cations}) / (\text{Total anions} + \text{Total cations})] * 100$



Appendix E
Landfill Gas Monitoring Results



Table E1. Historical Results of Methane (CH₄) Measurements
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Date Monitored	OV-GP-07	OV-GP-08	OV-GP-9S	OV-GP-9D	OV-GP10S	OV-GP10D	OV-GP11S	OV-GP11D	OV-GP12S	OV-GP12M	OV-GP12D	OV-GP13S	OV-GP13M	OV-GP13D	OV-GP14	OV-GP15	OV-GP16
11/18/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/21/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
6/5/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0
3/11/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
11/14/2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
8/5/2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0
4/22/2019	0.0	0.0	0.0	0.0	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/28/2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/23/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/10/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/16/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
3/14/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/22/2017	—	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.5	0.0
8/28/2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
5/30/2017	0.0	0.0	0.0	—	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0
3/17/2017	—	0.0	0.0	—	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
11/15/2016	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
9/20/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/27/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/24/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
12/15/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/29/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/7/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
3/30/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.2	0.0
12/29/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
9/24/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/16/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	1.0	0.0
3/28/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	3.7	0.0
12/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0
7/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.7	0.0
5/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
11/12/2012	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
8/12/2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
5/18/2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.2	0.0
3/12/2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0
12/22/2011	0.0	0.0	0.0	—	0.0	—	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	1.5	0.0
9/27/2011	0.0	0.0	0.0	—	0.0	—	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	0.3	0.0
6/29/2011	0.1	0.0	0.0	—	0.0	—	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	1.0	0.0
3/16/2011	0.0	0.0	0.0	—	0.0	—	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0

Notes:
 OV-GP = Gas Probe
 S = Shallow Monitoring Zone
 M = Middle Monitoring Zone
 D = Deep Monitoring Zone
 Detected CH₄>0.3% vol.
 — Screened interval submerged

Table E2. Historical Results of Carbon Dioxide (CO₂) Measurements
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Port Orchard, Washington

Date Monitored	OV-GP-07	OV-GP-08	OV-GP-9S	OV-GP-9D	OV-GP10S	OV-GP10D	OV-GP11S	OV-GP11D	OV-GP12S	OV-GP12M	OV-GP12D	OV-GP13S	OV-GP13M	OV-GP13D	OV-GP14	OV-GP15	OV-GP16
11/18/2020	11.2	4.4	2.5	1.4	1.1	0.9	3.1	2.8	1.8	1.7	1.7	5.3	4.5	4.4	9.2	9.4	4.2
9/21/2020	11.5	6.3	2.0	1.4	0.9	0.7	2.9	2.4	0.1	1.4	1.4	3.9	3.8	3.7	8.5	11.1	3.1
6/5/2020	8.9	3.8	2.2	1.4	0.8	0.7	3.0	2.1	1.3	1.2	1.0	4.3	3.3	3.2	6.1	6.1	4.3
3/11/2020	6.8	3.0	2.2	1.5	0.9	0.8	2.7	—	1.1	1.4	—	4.5	3.8	3.5	5.0	5.7	2.5
11/14/2019	10.9	6.3	2.3	1.5	1.1	0.8	2.9	2.7	1.6	1.5	1.5	4.3	4.0	3.8	8.6	11.2	4.1
8/5/2019	10.8	4.4	1.6	1.1	0.6	0.5	2.7	1.3	1.1	1.1	0.8	3.7	3.4	3.0	7.5	9.0	3.0
4/22/2019	7.7	3.1	2.2	1.8	—	—	3.0	0.7	0.9	1.2	0.9	4.0	3.5	2.8	6.5	0.1	2.8
3/28/2019	6.5	2.9	2.1	1.7	0.7	0.8	2.5	0.7	0.9	0.9	0.9	3.6	3.6	1.9	4.2	0.2	2.1
10/23/2018	10.0	0.1	1.6	1.4	0.7	0.7	2.1	0.6	1.1	1.0	1.4	3.0	3.6	3.1	7.6	9.5	2.2
9/10/2018	10.6	5.6	1.9	1.3	0.7	0.6	2.5	0.6	1.2	1.0	1.3	3.2	3.4	3.2	7.7	9.8	2.1
5/16/2018	5.8	2.1	1.1	1.7	0.6	0.5	0.8	2.5	0.9	1.6	0.6	3.4	3.0	1.7	4.3	5.2	2.3
3/14/2018	4.5	2.2	1.8	1.3	0.8	0.7	2.3	1.0	0.9	1.1	0.7	3.4	3.3	1.1	4.3	6.0	2.0
11/22/2017	—	3.7	2.0	1.6	0.9	0.7	2.7	—	1.3	1.2	—	3.4	3.6	0.0	6.5	5.8	2.8
8/28/2017	8.9	4.8	2.2	1.1	0.7	0.5	3.0	—	1.0	1.2	—	3.2	2.4	2.9	6.3	1.6	2.3
5/30/2017	4.5	1.1	2.3	—	0.8	0.6	3.2	—	1.0	2.5	—	3.5	3.2	—	4.7	3.7	1.5
3/17/2017	—	1.2	1.7	—	0.6	0.7	0.0	—	1.1	1.4	—	3.4	3.3	0.0	3.4	4.2	1.6
11/15/2016	8.2	3.6	2.1	1.4	0.9	0.7	2.2	1.5	1.2	1.3	0.4	3.0	2.6	0.2	5.6	6.6	1.5
9/20/2016	11.2	5.0	2.2	1.4	0.5	0.3	1.9	0.6	0.9	0.9	0.7	1.8	2.5	0.1	2.0	3.0	2.0
6/27/2016	7.3	2.8	1.9	1.0	0.7	0.5	1.0	2.9	1.0	1.1	0.5	2.8	2.4	0.3	5.8	3.3	2.5
3/24/2016	3.1	1.4	1.8	1.3	0.7	0.7	2.1	2.1	1.7	1.6	1.1	3.3	3.3	2.1	4.8	4.3	2.4
12/15/2015	6.4	2.3	1.9	1.6	0.9	0.7	2.6	2.0	1.2	1.0	1.0	3.9	3.5	1.6	5.9	3.5	3.8
9/29/2015	10.8	6.2	1.6	1.5	0.6	0.7	2.0	2.6	0.9	1.0	1.3	2.9	1.9	0.2	8.7	9.4	4.0
5/7/2015	7.9	3.6	2.6	1.7	0.9	0.8	3.6	—	1.1	2.4	—	3.4	3.3	0.0	6.1	5.0	4.5
3/30/2015	6.2	2.0	2.4	1.7	0.9	0.8	3.3	—	1.3	1.4	—	0.8	3.3	3.4	5.7	6.5	3.8
12/29/2014	8.3	2.6	2.6	1.8	1.0	0.9	3.2	3.5	1.3	1.2	1.7	3.6	3.5	0.1	6.8	7.3	3.9
9/24/2014	11.2	6.1	2.0	1.6	0.8	0.7	3.4	3.0	1.2	1.3	1.6	2.9	3.3	1.3	9.3	10.1	4.2
6/16/2014	8.9	4.0	2.9	1.8	1.2	1.0	4.2	—	2.0	1.7	—	3.7	3.3	1.1	6.6	6.1	5.0
3/28/2014	5.9	2.0	1.8	1.8	0.8	0.9	2.5	—	1.9	2.2	—	3.3	3.5	3.2	6.4	2.2	3.3
12/13/2013	9.6	5.4	2.6	1.7	1.1	0.9	3.5	3.6	1.7	1.9	1.7	3.9	3.8	3.7	8.5	9.5	5.1
7/13/2013	9.6	4.5	2.9	1.5	1.1	0.7	3.9	0.4	1.8	1.7	0.4	3.5	3.1	3.1	7.8	7.8	7.4
5/13/2013	6.2	2.6	2.3	1.7	0.8	0.7	2.4	2.2	1.9	1.0	0.8	2.3	2.6	0.1	5.3	4.0	5.0
2/13/2013	4.2	2.5	1.7	1.5	0.7	0.7	1.8	2.4	1.1	0.9	0.8	2.3	2.4	0.8	5.1	6.2	3.9
11/20/2012	8.3	2.8	1.9	1.6	0.9	0.7	2.2	2.9	1.3	1.2	1.2	2.9	2.1	3.0	7.5	3.5	4.8
8/20/2012	9.6	4.6	2.5	1.4	0.8	0.6	2.8	2.8	1.8	1.5	—	3.5	2.1	1.6	7.9	1.7	6.1
5/18/2012	6.0	3.1	2.6	1.7	0.8	0.6	2.1	—	2.2	1.1	—	2.6	1.7	1.1	5.7	3.4	5.1
3/12/2012	4.2	1.7	2.3	1.7	0.7	0.7	1.7	2.4	1.9	1.9	0.1	3.0	3.2	2.8	—	6.2	4.4
12/22/2011	1.5	5.5	3.2	—	1.3	—	1.3	—	1.4	1.0	—	2.0	2.0	—	5.1	5.2	4.6
9/27/2011	9.7	4.7	1.7	—	0.7	—	1.8	—	0.7	0.7	—	2.9	1.8	—	8.9	8.8	2.4
6/29/2011	6.6	3.0	3.0	—	0.7	—	2.1	—	2.3	0.9	—	3.4	3.0	—	6.4	3.9	6.2
3/16/2011	1.5	0.5	2.1	—	0.7	—	1.4	—	2.4	1.7	—	3	3.1	—	0.3	0.3	3.8

Notes:
 OV-GP = Gas Probe
 S = Shallow Monitoring Zone
 M = Middle Monitoring Zone
 D = Deep Monitoring Zone
 Detected CO₂>0.3% vol.
 — Screened interval submerged

Table E3. Historical Results of Oxygen (O₂) Measurements
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Port Orchard, Washington

Date Monitored	OV-GP-07	OV-GP-08	OV-GP-9S	OV-GP-9D	OV-GP10S	OV-GP10D	OV-GP11S	OV-GP11D	OV-GP12S	OV-GP12M	OV-GP12D	OV-GP13S	OV-GP13M	OV-GP13D	OV-GP14	OV-GP15	OV-GP16
11/18/2020	4.3	10.8	19.0	19.8	20.4	19.9	18.4	18.9	18.3	18.9	16.9	16.0	16.4	16.4	3.5	0.7	16.7
9/21/2020	8.0	9.9	19.3	19.1	20.3	19.6	18.9	18.7	20.9	18.7	15.8	17.6	16.7	16.6	6.6	0.1	18.4
6/5/2020	5.8	9.5	17.9	18.6	19.7	18.8	17.7	18.3	18.5	19.0	17.9	16.5	17.0	17.2	5.0	0.2	16.1
3/11/2020	4.1	10.5	19.1	18.7	20.7	19.0	18.9	—	21.0	20.5	—	17.2	17.7	18.1	7.1	0.3	18.2
11/14/2019	5.6	8.9	19.3	10.8	20.7	20.4	18.9	19.3	18.9	19.4	17.6	17.6	17.5	17.5	5.0	0.1	17.3
8/5/2019	7.7	11.1	21.7	21.7	22.5	21.8	20.6	21.7	19.7	20.6	19.7	18.6	18.0	19.7	7.1	0.0	19.5
4/22/2019	6.3	11.7	19.7	19.9	—	—	19.1	21.5	21.1	20.9	20.1	17.6	17.1	18.2	5.7	20.1	18.7
3/28/2019	5.5	12.1	19.3	19.2	20.6	19.1	18.9	21.0	20.6	20.6	19.1	17.5	17.4	19.6	8.3	21.6	19.2
10/23/2018	8.8	20.8	20.0	19.7	20.9	20.1	19.7	21.1	20.0	20.3	16.8	18.7	17.5	18.5	9.6	5.4	19.6
9/10/2018	8.8	10.4	19.7	19.7	20.9	20.0	19.5	20.8	17.9	19.6	15.4	17.7	16.7	17.1	8.8	4.0	19.2
5/16/2018	6.2	11.6	19.1	18.8	19.7	18.4	19.8	17.6	19.4	19.3	19.9	17.2	16.9	18.6	7.0	4.2	18.4
3/14/2018	6.1	10.5	19.9	19.3	20.8	19.3	17.4	19.6	20.5	19.9	18.7	17.6	17.4	20.2	5.4	1.5	19.2
11/22/2017	—	10.0	18.9	19.2	20.2	19.7	18.9	—	19.7	19.7	—	17.7	17.4	21.2	7.6	0.1	17.8
8/28/2017	7.8	8.6	18.7	18.5	20.1	18.9	18.1	—	16.4	16.4	—	17.3	17.0	16.1	8.0	16.1	19.0
5/30/2017	4.6	13.3	18.3	—	20.2	18.6	17.5	—	19.9	19.2	—	17.2	16.3	—	6.5	10.4	18.7
3/17/2017	—	8.8	18.2	—	20.0	18.1	0.0	—	19.7	19.1	—	17.7	17.0	0.0	6.7	1.1	19.2
11/15/2016	4.7	4.0	17.5	18.9	19.7	19.4	18.3	19.1	18.3	18.1	20.0	16.6	17.8	20.7	8.2	0.0	17.3
9/20/2016	7.7	11.9	19.7	19.6	20.5	20.7	19.2	19.9	19.5	20.0	17.8	18.5	17.9	21.1	15.8	16.8	18.8
6/27/2016	6.8	11.3	19.3	18.6	20.2	19.3	18.7	18.2	19.7	19.9	19.4	18.5	17.5	20.6	8.0	7.0	18.5
3/24/2016	9.7	6.7	18.4	18.8	20.1	18.2	17.5	15.6	18.7	18.8	17.7	16.7	15.9	18.5	4.9	0.0	17.6
12/15/2015	5.9	3.7	18.6	19.7	20.1	19.3	18.3	17.5	20.7	20.3	18.8	16.6	17.3	19.0	5.0	5.7	16.1
9/29/2015	7.0	7.8	19.8	19.6	20.4	19.6	19.2	18.5	19.9	19.6	16.2	17.4	18.4	20.4	7.4	5.0	16.6
5/7/2015	4.1	7.0	19.0	19.4	20.2	18.9	17.6	—	18.9	18.3	—	16.9	16.6	20.7	5.5	5.5	16.0
3/30/2015	4.5	9.4	18.6	19.0	20.3	18.9	17.7	—	19.3	18.3	—	19.7	17.1	17.7	5.0	0.1	16.3
12/29/2014	3.6	5.3	18.5	19.6	20.5	19.8	17.9	14.4	20.1	19.5	16.4	17.5	17.5	20.7	5.7	0.0	16.4
9/24/2014	8.3	8.6	19.9	19.6	20.4	19.4	18.6	17.4	19.5	18.7	15.2	18.5	17.7	19.5	7.0	3.2	17.7
6/16/2014	3.7	5.7	18.5	18.8	20.0	18.5	16.9	—	19.1	18.8	—	17.7	17.3	20.1	5.9	0.0	16.9
3/28/2014	4.8	3.3	19.0	19.5	20.9	18.8	18.7	—	18.7	18.2	—	18.3	18.1	18.2	5.5	5.8	16.8
12/13/2013	4.9	6.3	19.4	19.6	20.1	19.3	17.6	11.5	18.5	17.8	16.6	17.6	17.3	17.3	3.9	1.2	16.1
7/13/2013	4.4	5.8	18.5	19.1	20.0	19.2	16.9	20.2	17.3	16.3	19.1	17.0	17.7	18.0	0.0	0.0	13.6
5/13/2013	4.5	8.4	18.8	19.0	20.1	18.7	18.2	15.7	19.6	20.0	18.7	18.2	17.9	20.8	6.2	7.2	15.4
2/13/2013	4.0	7.4	19.2	18.2	20.4	18.4	18.9	14.2	20.5	20.2	18.1	18.6	17.1	20.2	5.8	0.3	15.9
11/20/2012	4.8	4.5	18.0	19.5	20.2	19.7	18.9	14.0	18.9	18.9	16.8	17.9	18.9	18.1	5.2	7.2	13.8
8/20/2012	5.0	6.7	18.5	18.4	19.3	18.6	17.9	12.5	18.3	18.0	—	16.9	17.5	18.4	4.3	19.1	15.3
5/18/2012	4.2	5.8	17.7	18.7	19.8	19.3	18.1	—	19.2	19.3	—	18.0	19.1	19.8	5.5	13.0	15.0
3/12/2012	3.5	5.4	18.6	19.0	20.1	18.6	19.1	15.4	18.0	17.7	21.4	18.2	17.6	18.3	—	0.0	15.6
12/22/2011	20.0	5.7	17.6	—	19.8	—	18.9	—	19.6	19.3	—	17.7	18.4	—	6.7	12.4	15.2
9/27/2011	8.9	10.8	19.9	—	20.6	—	20.0	—	20.4	19.9	—	18.3	18.8	—	7.6	4.4	18.8
6/29/2011	3.6	6.5	17.9	—	20.2	—	18.7	—	19.4	19.8	—	17.2	14.9	—	4.8	6.5	14.8
3/16/2011	20.1	20.7	18.3	—	20.5	—	16.5	—	16.7	17.4	—	16.6	15	—	20.6	20.4	15.3

Notes:
 OV-GP = Gas Probe
 S = Shallow Monitoring Zone
 M = Middle Monitoring Zone
 D = Deep Monitoring Zone
 Depressed O₂<20.3% vol.
 — Screened interval submerged

Table E-4. 2020 Landfill Gas Collection (at Flare Inlet)
2020 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Device Name	Date Time	CH4 (Methane %)	CO ₂ (Carbon Dioxide %)	O ₂ (Oxygen %)	Balance Gas (%)	Temperature (°F)	Flow (SCFM)
OV-FL-IN	1/6/2020 11:54	26.9	18.5	2.1	52.5	49.4	205.1
OV-FL-IN	1/13/2020 12:27	24.0	16.9	3.7	55.4	43.8	200.4
OV-FL-IN	1/20/2020 11:40	26.6	18.2	2.4	52.8	47.9	207.3
OV-FL-IN	1/27/2020 11:12	24.5	17.5	2.6	55.4	51.4	179.9
OV-FL-IN	2/3/2020 15:49	26.0	18.3	2.7	53.0	49.0	197.6
OV-FL-IN	2/4/2020 13:14	24.6	17.2	2.8	55.4	51.5	199.3
OV-FL-IN	2/10/2020 14:45	22.9	17.4	2.6	57.1	45.5	200.0
OV-FL-IN	2/18/2020 13:58	25.2	17.6	2.6	54.6	49.4	204.1
OV-FL-IN	2/24/2020 17:04	25.3	17.1	2.9	54.7	60.4	178.2
OV-FL-IN	3/2/2020 15:07	25.6	17.0	2.7	54.7	56.1	202.5
OV-FL-IN	3/9/2020 10:53	23.6	17.0	3.1	56.3	41.0	175.8
OV-FL-IN	3/11/2020 15:23	23.5	15.0	3.2	58.3	59.0	181.5
OV-FL-IN	3/16/2020 11:38	23.4	16.9	3.0	56.7	65.1	184.3
OV-FL-IN	3/24/2020 15:21	23.2	15.9	3.1	57.8	64.6	188.7
OV-FL-IN	3/30/2020 11:31	25.9	17.6	2.2	54.3	55.6	188.9
OV-FL-IN	4/6/2020 9:59	23.3	17.1	2.6	57.0	64.5	175.7
OV-FL-IN	4/13/2020 11:14	21.7	16.3	2.6	59.4	75.4	184.0
OV-FL-IN	4/20/2020 10:55	22.8	16.8	2.4	58.0	80.8	192.5
OV-FL-IN	4/27/2020 11:58	23.9	17.3	2.1	56.7	70.6	179.2
OV-FL-IN	5/4/2020 10:54	22.1	15.6	2.4	59.9	69.5	191.2
OV-FL-IN	5/11/2020 9:07	24.3	17.1	2.3	56.3	72.6	188.1
OV-FL-IN	5/18/2020 10:24	23.1	17.2	2.5	57.2	67.0	181.2
OV-FL-IN	5/26/2020 11:29	22.2	16.8	1.8	59.2	70.0	171.5
OV-FL-IN	6/1/2020 11:42	20.8	15.7	2.5	61.0	82.5	175.5
OV-FL-IN	6/8/2020 11:12	20.4	16.3	2.8	60.5	69.3	172.4
OV-FL-IN	6/15/2020 10:27	23.6	17.5	2.1	56.8	61.9	190.6
OV-FL-IN	6/22/2020 10:27	20.9	16.4	2.5	60.2	77.7	178.2
OV-FL-IN	6/29/2020 11:01	21.4	16.6	2.5	59.5	76.6	177.1
OV-FL-IN	7/6/2020 10:20	22.0	16.0	2.3	59.7	78.9	186.6
OV-FL-IN	7/13/2020 9:57	21.3	15.9	2.4	60.4	76.3	179.8
OV-FL-IN	7/20/2020 10:23	22.5	16.9	2.2	58.4	88.9	181.0
OV-FL-IN	7/27/2020 12:47	23.0	16.9	2.1	58.0	109.7	185.3
OV-FL-IN	8/3/2020 10:36	20.2	15.7	2.6	61.5	84.0	180.9
OV-FL-IN	8/10/2020 10:18	22.4	17.3	2.2	58.1	87.3	186.2
OV-FL-IN	8/17/2020 11:05	20.7	16.1	2.6	60.6	93.5	167.9
OV-FL-IN	8/24/2020 13:11	21.5	16.4	2.2	59.9	90.7	167.0
OV-FL-IN	8/31/2020 10:01	22.6	17.4	2.3	57.7	67.0	162.4
OV-FL-IN	9/8/2020 13:42	21.6	16.1	2.2	60.1	89.6	174.1
OV-FL-IN	9/9/2020 14:57	15.1	9.9	11.6	63.4	103.4	337.5
OV-FL-IN	9/14/2020 16:30	16.5	10.5	11.1	61.9	79.1	356.5
OV-FL-IN	9/18/2020 14:59	29.8	19.4	1.1	49.7	70.2	192.8
OV-FL-IN	9/21/2020 10:03	23.0	15.5	3.8	57.7	66.1	195.8
OV-FL-IN	9/28/2020 10:30	21.9	16.0	4.1	58.0	70.4	189.7
OV-FL-IN	10/5/2020 10:20	21.5	15.7	4.3	58.5	67.2	181.2
OV-FL-IN	10/5/2020 12:13	21.5	15.5	4.3	58.7	68.9	181.2
OV-FL-IN	10/12/2020 12:03	19.8	15.1	5.4	59.7	65.4	142.6
OV-FL-IN	10/19/2020 10:20	22.2	16.4	4.2	57.2	63.2	175.6
OV-FL-IN	10/26/2020 10:58	18.6	15.1	4.5	61.8	52.2	197.1
OV-FL-IN	11/2/2020 11:55	23.7	16.3	4.3	55.7	51.9	192.7
OV-FL-IN	11/23/2020 11:05	29.9	18.6	3.0	48.5	55.3	317.6
OV-FL-IN	11/30/2020 10:29	27.7	16.9	4.2	51.2	51.3	163.5

Table E-4. 2020 Landfill Gas Collection (at Flare Inlet)
 2020 Annual Monitoring Report
 Olympic View Sanitary Landfill, Kitsap County, Washington

Device Name	Date Time	CH4 (Methane %)	CO ₂ (Carbon Dioxide %)	O2 (Oxygen %)	Balance Gas (%)	Temperature (°F)	Flow (SCFM)
OV-FL-IN	12/7/2020 11:11	24.6	15.8	4.6	55.0	54.3	204.4
OV-FL-IN	12/14/2020 10:23	22.6	15.1	5.4	56.9	58.4	174.8
OV-FL-IN	12/22/2020 12:25	22.7	15.1	5.6	56.6	41.2	126.6
OV-FL-IN	12/28/2020 11:06	25.2	16.2	4.3	54.3	43.2	168.7
Annualized Average LFG Component (% , °F or scfm)		23.01	16.41	3.30	57.27	66.47	191.28
Estimated Volume of LFG Removed During 2020 (MMscf)							100.54

% = percent by volume

°F = degrees Fahrenheit

scfm = standard cubic foot per minute

MMscf = million cubic feet

Figure E-1: LFG Probe Methane Timeseries

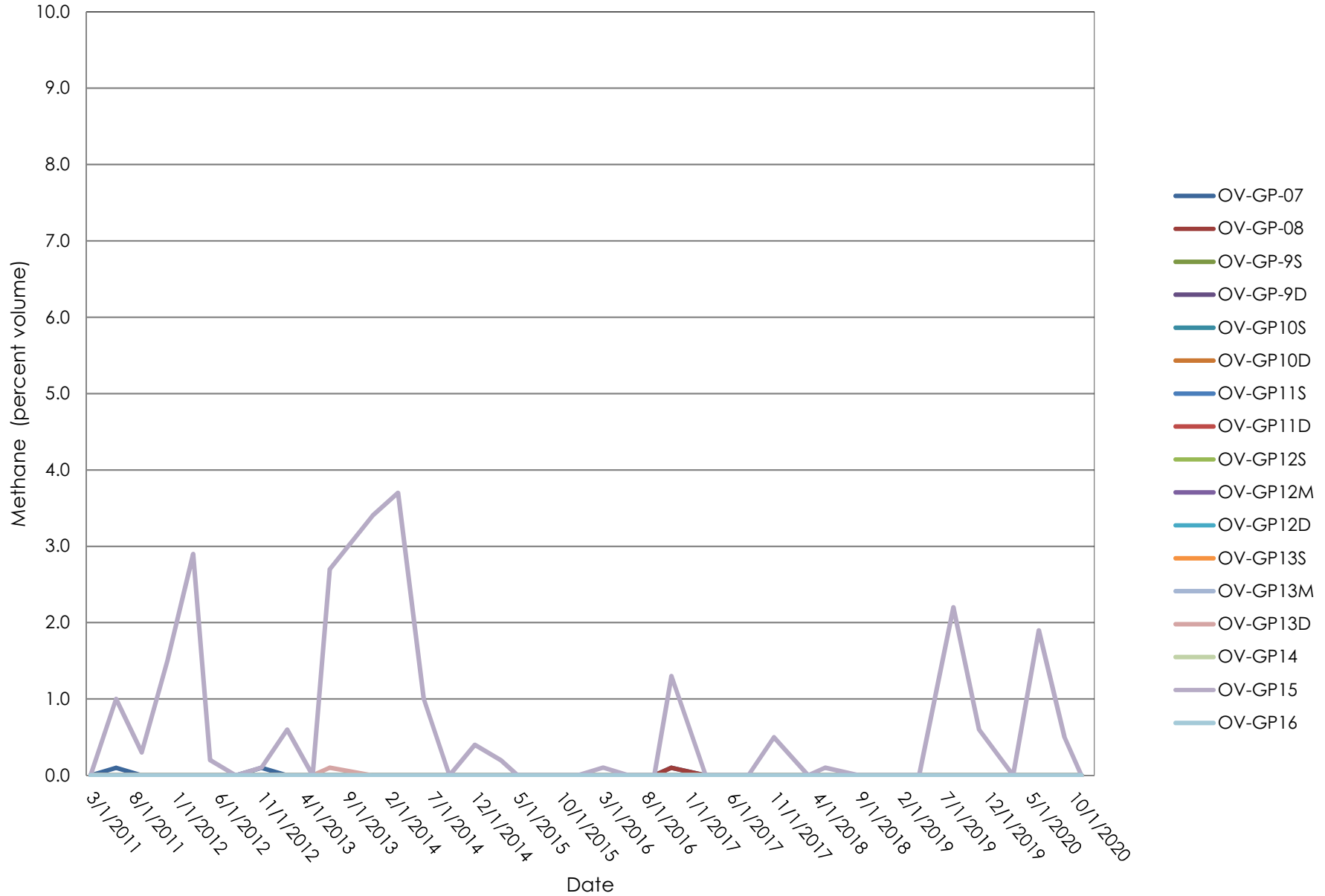


Figure E-2: LFG Probe Carbon Dioxide Timeseries

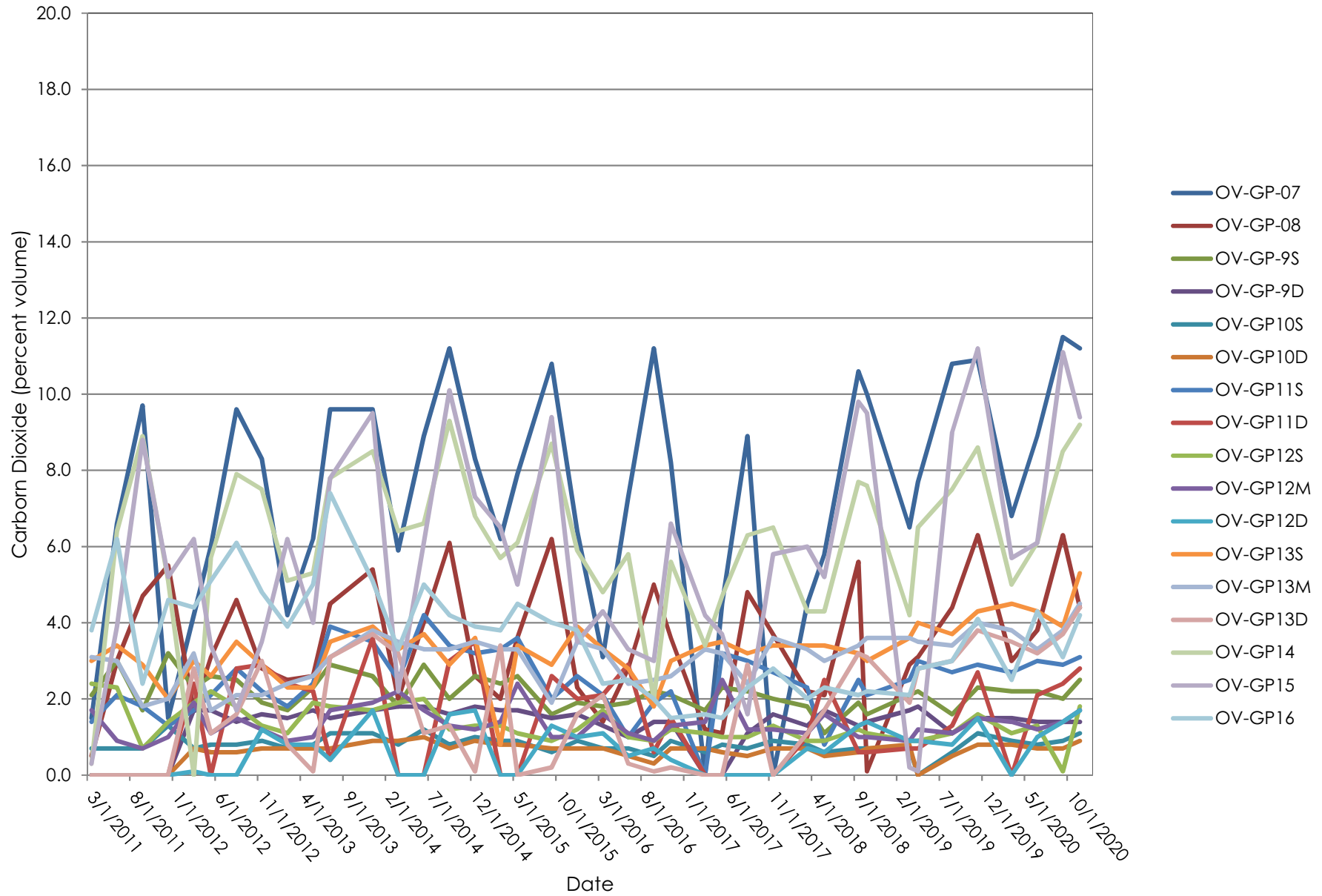


Figure E-3: LFG Probe Depressed Oxygen Timeseries

