Rocky Top Environmental Limited Purpose Landfill Third Quarter 2024 Groundwater Monitoring Report

Prepared for
DTG Recycling

DTG Debris to Green Recycling

December 2024

Parametrix

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Limited Purpose Landfill
Third Quarter 2024
Groundwater Monitoring Report

Prepared for

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Certification

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seal, as a professional hydrogeologist licensed to practice as such, is affixed below.

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Contents

Contents (continued)

FIGURES

TABLES

APPENDICES

Acronyms and Abbreviations

AFFF	Aqueous film-forming foam
AMSL	above mean sea level
bgs	below ground surface
CDL	Construction, demolition, and land-clearing debris
CULs	cleanup levels
CUSUM	cumulative sum
cm/sec	centimeters per second
DTG	DTG Recycling
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
GWQS	Groundwater Quality Criteria (Chapter 173-200 WAC)
h	control limit for CUSUM comparisons
HWA	HWA GeoSciences, Inc.
LPL	Limited Purpose Landfill
MCLs	Maximum Contaminant Levels (Chapter 246-290 WAC)
meq/L	milliequivalents per liter
mg/L	milligrams per liter
MTCA	Model Toxics Control Act (Chapter 173-340 WAC)
MRF	Materials Recovery Facility
On-Site	On-Site Environmental, Inc.
PCS	Petroleum-contaminated soil
PFAS	Per- and polyfluoroalkyl substances
RI	remedial investigation
RL	reporting limit
SAP	Sampling and Analysis Plan
SCL	Shewhart Control Limit
TDS	total dissolved solids
TPH	total petroleum hydrocarbons

Acronyms and Abbreviations (Continued)

µmhos/cm	micromhos per centimeter
UPLs	upper prediction limits
USACE	US Army Corps of Engineers
VOCs	volatile organic compounds
WAC	Washington Administrative Code
WRCC	Western Regional Climate Center
YHD	Yakima Health District
YRCAA	Yakima Regional Clean Air Agency

1. Introduction

This report presents the results of the third quarter 2024 environmental monitoring completed at the Rocky Top Environmental Limited Purpose Landfill (LPL) located at 41 Rocky Top Road in Yakima, Washington. The LPL is owned and operated by DTG Recycling (DTG). Figure 1 shows the LPL vicinity. The LPL layout and facility boundary are shown on Figure 2.

1.1 LPL Description

The facility was originally permitted as an unlined construction, demolition, and land-clearing debris (CDL) landfill that began operation in 1997 as Anderson Rock and Demolition Pit under Chapter 173-304 of the Washington Administrative Code (WAC). The facility was reclassified as an LPL in 2007, with the southern expansion area permitted in 2015. The LPL accepted treated petroleum-contaminated soil (PCS) that was stockpiled in a separate area on the northeast portion of the facility and managed until soil concentrations were below the Model Toxics Control Act (MTCA) Method A cleanup levels (CULs) for unrestricted land use. Once soils in the stockpiles were below MTCA CULs, they were used as daily cover in the LPL following approval from Yakima Health District (YHD).

In October 2019, DTG purchased the LPL and overtook operations of the facility. The LPL can accept, per WAC 173-350-100, segregated industrial solid waste, CDL, wood-waste, ash (other than special incinerator ash), and dredge spoils.

Phase 1 is the historical fill area and is unlined (Figure 2). Filling of Phase 1 continued through 2022, and then waste was placed in a permitted unlined expansion cell south of Phase 1. It was discovered that the area of the expansion cell had differing physical conditions than Phase 1. This area became known as the temporary fill area and DTG began plans for a lined expansion cell (Phase 2). Filling of the temporary fill area continued through June 2023 with plans that the waste would be moved to Phase 2 upon completion. In July 2023, YHD denied the permit renewal for the facility primarily due to the need for an air permit from the Yakima Regional Clean Air Agency (YRCAA), and filling of the temporary fill area ceased.

Phase 2 was constructed with a liner system and leachate collection system and is located on the southern portion of the facility. Phase 2 construction was completed in September 2024. The LPL is currently being re-permitted in accordance with Chapter 173-350 WAC to allow filling of the Phase 2 lined cell. An air permit has been received from the YRCAA. DTG is awaiting the final solid waste permit from YHD to move waste from the temporary fill area to the lined cell.

1.1.1 MTCA Site

Washington State Department of Ecology (Ecology) listed the northwest slope of the LPL as a MTCA site in September 2022 related to ambient air found above MTCA CULs. DTG and Ecology negotiated an Agreed Order that was executed in February 2023. A subsurface fire beneath the northwest slope of the LPL was confirmed in March 2023 and is likely the source of the ambient air emissions. Additional groundwater monitoring wells were installed related to the MTCA remedial investigation (RI). Environmental monitoring and additional investigations and actions were completed related to the fire.

Low permeability material was mined from the facility and placed as additional cover over the fire area. This was to prevent fire emissions from reaching ambient air and preventing oxygen from reaching the fire area. The low permeability cover is suppressing the fire and preventing vertical

migration out of the LPL. This may be forcing emissions and any landfill gas from the fire area downwards closer to groundwater. Ecology and YHD are concerned this may cause additional contaminants within the groundwater and monitoring of the on-site wells will assist in the MTCA evaluation related to the fire response.

DTG acquired the land north of the facility which allowed for an improved subsurface fire response and increased flexibility for installing groundwater monitoring wells for the facility.

Groundwater monitoring for the MTCA releases is being reported separately. This includes analysis of Per- and polyfluoroalkyl substances (PFAS) and dioxins/furans which were suspected to be present related to the MTCA site.

1.1.2 Additional Facility Operations

There is a materials recovery facility (MRF) operating on the central portion of the facility adjacent to the LPL. In 2023, YHD and Ecology required the MRF to develop a covered receiving area, impervious receiving floor, and leachate controls. DTG is in the process of design and construction of these systems for the MRF. Figure 1 displays the current MRF location as the sorting area at the facility. An active rock quarry also operates on the western portion of the facility and is permitted separately (Figure 1).

1.2 Physical Setting

The LPL is located on the northeast flank of Cowiche Mountain, northwest of Yakima in Section 10, Township 13 North, Range 17 East, Willamette Meridian, in Yakima County, Washington. Elevations range from 2,050 feet above mean sea level (AMSL) in the southwest corner, to around 1,860 feet AMSL in the northeast corner.

1.3 Monitoring History

Groundwater monitoring well locations at the LPL are shown on Figure 2. Until the second quarter of 2024, quarterly monitoring was conducted at downgradient wells MW-2S, MW-3S, and MW-4S for compliance with WAC 173-350-500 and permit requirements. Well MW-2S was installed in December 2005 with a screened interval of approximately 310 to 330 feet below ground surface (bgs). Well MW-3S was installed in September 2007 with a screened interval of approximately 188 and 198 feet bgs. Well MW-4S was installed in July 2022 with a screened interval of approximately 49.5 to 69.5 feet bgs.

Eight background monitoring events were conducted at MW-2S and MW-3S between August 2008 and August 2009 to establish baseline groundwater quality conditions. Background monitoring is described in the Groundwater Monitoring Report, Anderson Pit Limited Purpose Landfill, Yakima, Washington (HWA 2010). MW-2S and MW-3S are located downgradient of the LPL, and the landfill was in operation before this time. A revised statistical approach to establishing groundwater compliance is described in Section 4.2.5.

Since 2009, quarterly groundwater monitoring has been conducted at MW-2S and MW-3S and the results have been documented in annual reports. Quarterly groundwater reporting began in 2023. Monitoring well MW-4S was initially sampled in October 2022 and has been monitored quarterly since installation. The initial results were presented in the 2022 Annual Report (Parametrix 2023a) and subsequent results in quarterly and annual reports (Parametrix 2024a).

The Bertheas '95 domestic well, which is owned by DTG, is located southeast of the LPL and is completed in the Deep Aquifer. The well was sampled for four quarters in 2023 and results presented in the 2023 quarterly and annual reports (Parametrix 2024a). The Bertheas '95 well was decommissioned in September 2024 and is no longer available for sampling.

In May 2023, DTG presented a work plan (Parametrix in association with HWA 2023) for additional hydrogeologic characterization of the LPL related to the Phase 2 development. Drilling of two new Shallow Aquifer wells and four new Interflow Zone wells commenced in May 2024. The two new Shallow Aquifer wells MW-5S and MW-6S were installed prior to the second quarter 2024 sampling event in June. The screened intervals of wells MW-5S and MW-6S are 222 to243 feet bgs and 110 to130 feet bgs, respectively. Background sampling of these wells will continue until eight quarters have been completed.

1.3.1 Recent Changes

The Sampling and Analysis Plan (SAP) was updated in September 2024 (Parametrix 2024c) to reflect the new statistical analysis for the groundwater monitoring program as well as to update with the completed monitoring wells for the LPL. The September SAP also includes protocols for analysis of PFAS and dioxins/furans. Dedicated PFAS-free pumps were installed in the Shallow Aquifer wells following the 2024 second quarter event and sampling for PFAS for the Shallow Aquifer wells was completed in the 2024 third quarter event. The results for PFAS and dioxins/furans are not included in this report and will be presented in other reporting for the MTCA site as part of the AO.

Monitoring wells MW-7D through MW-10D were completed in September 2024 into the Interflow Zone and were sampled during hydraulic testing events at the same time as the third quarter 2024 monitoring event. The sampling is described in Section 3.2 below. The Interflow Zone is a water bearing zone located stratigraphically between the Shallow Aquifer and the Deep Aquifer and is the first water bearing unit below the Phase 2 development. Dedicated pumps and tubing will be installed in the Interflow Zone wells prior to the fourth quarter 2024 sampling event. Hydraulic testing of these wells overlapped with the third quarter 2024 sampling event, and nonroutine sampling was conducted at these wells (see Section 3.2). New dedicated QED PFAS-free bladder pumps were placed into the Interflow Zone wells in December 2024 prior to the fourth quarter event.

1.4 Objectives

This report documents the third quarter 2024 groundwater monitoring at the DTG LPL. Reporting requirements, as required by the LPL operating permit and WAC 173-350-500, entail quarterly groundwater monitoring and submission of an annual groundwater monitoring report to the YHD and Ecology by April 1 of each year.

Groundwater sampling and analysis for this quarter was conducted in accordance with the revised Groundwater SAP (Parametrix 2023c).

1.5 Compliance

If statistical analyses determine a significant increase over background (as described in Section 4.2.5), DTG will notify YHD and Ecology within 30 days of the evaluation finding. If the increase is not demonstrated to be attributable to a source other than the landfill, natural variation in groundwater quality, or an error in sampling, analyses, or statistical evaluation, and the concentrations of constituents exceed the groundwater quality criteria established by Chapter 173-200 WAC, Water Quality Standards for Groundwaters of the State of Washington,

DTG in consultation with YHD and Ecology, will determine additional measures. Additional measures to be considered are to characterize the chemical composition of the release and the contaminant fate and transport characteristics by installing additional monitoring wells; assess and, if necessary, implement appropriate intermediate measures to remedy the release; and evaluate, select, and implement remedial measures as required by Chapter 173-340 WAC, MTCA, where applicable.

2. Geology and Hydrogeology

The current understanding of the geology and hydrogeology of the LPL is described in the following reports and summarized in the following sections:

- Geotechnical & Hydrogeologic Investigation Report, Anderson Rock and Demolition Pits Limited Purpose Landfill Expansion (HWA 2015)
- Hydrogeologic Investigation Report DTG/Anderson Pit LPL (HWA 2022a),
- Hydrogeologic Approach (Parametrix 2023c)
- Hydrogeologic Characterization Work Plan (Parametrix in association with HWA 2023).
- 2023 Annual Groundwater Monitoring Report (Parametrix 2024a)
- Monitoring Well Construction Update (Parametrix 2024b).

2.1 Regional Geology and Hydrogeology

The LPL and the surrounding Yakima area are located within the Columbia Plateau (also known as the Columbia Basin). The Columbia Plateau encompasses an area including eastern Washington, southwestern Idaho, and northern Oregon. The topography is characterized by incised rivers, extensive plateaus, and anticlinal ridges.

2.1.1 Regional Geology

2.1.1.1 Stratigraphy

The Columbia Plateau is underlain by Miocene Columbia River Basalt Group rocks and interbedded sediments. The regional geologic units consist of gently warped to steeply folded volcanic basalt flows and interbedded sediment (fluvial sand and gravel, lacustrine silt and clay) that were deposited on top of and next to basalt flows between periods of basalt volcanism.

The Yakima Basalt Subgroup comprises the uppermost (youngest) portion of the regional Columbia River Basalt Group and includes (from oldest to youngest): the Grande Ronde Basalt, the Wanapum Basalt, and the Saddle Mountain Basalt. Cowiche Mountain, where the LPL is located, is underlain by the Grande Ronde and Wanapum basalts.

Between the individual basalt flow events, sedimentary deposits accumulated on the surface only to be later buried by subsequent lava flows. Some of these sedimentary interbeds are quite extensive and generally consist of clays and sandstones. Each basalt formation includes one or more sedimentary interbed.

A significant interbed, known as the Ellensburg Formation, extends throughout the region, and is exposed at the surface in areas of the project. The Vantage member of the Ellensburg Formation (Vantage Interbed) that occurs over large areas throughout the Columbia Plateau (including the LPL) between the Grande Ronde and Wanapum flows is a distinctive marker bed due to its light tan or white color. The Vantage Interbed consists of fluvial and volcaniclastic sand to clay with gravel and cobbles. The Vantage Interbed varies in thickness over the Columbia Plateau from 0 to 100 feet but is generally around 25 feet (Drost et al 1990).

2.1.1.2 Structure

The area of the LPL is within the Yakima fold and thrust belt, a series of east-west trending thrust faults and folds on the westernmost portion of the Columbia Plateau. The anticlines are usually formed over a thrust fault, and typically form topographic ridges. The synclines tend to form broad topographic valleys.

Cowiche Mountain is an east-west trending anticlinal structure that extends under the City of Yakima and forms Yakima Ridge to the east of the LPL. The axis of the anticline is located approximately 1,600 feet to the south of the LPL (Bentley & Campbell 1983).

2.1.2 Regional Hydrogeology

2.1.2.1 Groundwater Occurrence and Flow

Groundwater in the Columbia Plateau generally occurs within permeable sections of basalt, surficial sand and gravel alluvium, and sedimentary interbeds (e.g., Ellensburg Formation). Regional groundwater level contours typically mirror topographic relief, with the divides of the groundwater basins coinciding with topographic divides of the fold and thrust belts, and groundwater flow occurs from the crests of the anticlinal structures toward the synclinal axis in the valley, and then toward the Yakima River (Golder 2002). Deeper aquifers within the valleys are often under confined (artesian) conditions. Groundwater within the basalt units tends to occur in vesicular and highly fractured zones. Groundwater occurring less than 300 feet bgs generally is derived from recent groundwater recharge from precipitation and groundwater occurring below this depth is generally older and derived from regional recharge areas.

2.1.2.2 Recharge and Discharge

The Yakima area (including the LPL area) is classified as a “zone of little groundwater recharge potential from direct precipitation sources” (Myers et al 1979), which is the lowest of three relative groundwater recharge classifications in their study. Recharge to groundwater in the basalt aquifers occurs primarily between Cowiche Mountain and Bethel Ridge to the northwest, with some recharge north of the sub-basin boundary (USACE 1978). The reach of Yakima River east of the LPL is also classified as a suspected recharge area (Myers et al 1979). The shallowest groundwater in the Wanapum Basalt likely discharges to alluvial sediments at lower elevations to the north, and ultimately to Cowiche Creek, which flows into Naches River, and then into the Yakima River. Deeper groundwater in the Grande Ronde Basalt likely also discharges to Cowiche Creek or may flow under it to the Naches River.

2.2 LPL Geology and Hydrogeology

2.2.1 LPL Geology

The surface geology of the LPL (Bentley and Campbell, 1983) is mapped as the Kelley Hollow flow of the Frenchman Springs Member of the Wanapum Basalt with a thin band of the Vantage Interbed separating the Wanapum Basalt (north) from the Grande Ronde Basalt (south). Mining has since uncovered large portions of the Vantage Interbed at the facility including within the current temporary fill area.

The Vantage Interbed strikes roughly west-northwest in the LPL area, at a dip of approximately seven to 11 degrees to the north. Several monitoring wells and boreholes at the LPL fully penetrated the Vantage Interbed with apparent (not corrected for dip) thicknesses ranging from 26 to 35 feet, and overall confirming the geologic mapping. The measured vertical hydraulic conductivity of one fine-grained layer in the Vantage Interbed is about 1 x 10^{-7} cm/sec, although portions of it appear sandy and possibly water bearing (HWA 2015).

2.2.2 LPL Hydrogeology

2.2.2.1 Groundwater Occurrence

There are three groundwater zones below the LPL including a Shallow Aquifer, Interflow Zone, and a Deep Aquifer. The Shallow Aquifer below the LPL occurs near the Vantage Interbed. The aquifer is comprised of the fractured and porous flow bottom zone of the Wanapum Basalt, the sandy portions of the Vantage Interbed, and the fractured and porous flow top zone of the Grande Ronde Basalt as observed in monitoring wells MW-2S, MW-3S, MW-4S, MW-5S, and MW-6S and in several domestic water wells adjacent north of the LPL. Groundwater encountered in the Shallow Aquifer monitoring wells is under confined aquifer conditions. The Shallow Aquifer pinches out to the south around elevation 1,820 to 1,830 feet AMSL near where the Vantage Interbed outcrops at land surface. This is approximately close to the east-west alignment with Rocky Top Road and south of Phase 1.

The Interflow Zone is an intermediate water bearing zone occurring within the Grande Ronde Basalt above the Deep Aquifer. The Interflow Zone is a planar feature following a similar slope to the Vantage Interbed (Parametrix 2024b). Monitoring wells MW-7D, MW-8D, MW-9D, and MW-10D show the Interflow Zone is comprised of minor factures of basalt varying to larger fractures, vesicular basalt, and true interflow zones containing palagonite and pyrite mineralization.

The Deep Aquifer is located several hundred feet below the Vantage Interbed (where present) within the Grande Ronde Basalt and is estimated to occur approximately 700 to 1,000 feet below Phase 2. There are several domestic wells in the LPL vicinity completed within the Deep Aquifer at elevations of around 1,100 to 1,250 feet including the Bertheas ’95 well that was sampled for four quarters by DTG prior to being decommissioned in September 2024.

2.2.2.2 Groundwater Flow

Shallow Aquifer

The groundwater gradient for the Shallow Aquifer is predominantly northerly (HWA 2022b) following the topographic slope and dip of the Vantage Interbed. In March 2022, HWA measured groundwater depths in 18 private residential and orchard wells surrounding the LPL completed in the Shallow Aquifer, as well as in DTG monitoring wells MW-2S and MW-3S. Methods and results are detailed in the Groundwater Gradient Study, DTG/Anderson Pit Limited Purpose Landfill, Yakima, Washington (HWA 2022b). The interpreted groundwater elevation contour maps showed hydraulic gradients of 0.07 to 0.17 feet/feet, or approximately 370 to 900 feet per mile, with flow generally to the north, downslope and down-dip, as expected.

Interflow Zone

The groundwater gradient for the Interflow Zone is described in Section 4.1. The 2024 third quarter was the first monitoring event where static water level elevations for the Interflow Zone were evaluated.

Deep Aquifer

Parametrix reviewed domestic well logs in the vicinity of the LPL to develop an approximate groundwater gradient map for the Deep Aquifer to support future well drilling. The gradient map developed from the domestic wells (Parametrix 2023c) showed a similar approximately north-northwesterly gradient for the Deep Aquifer near the LPL at a rate of approximately 0.11 feet/feet, or approximately 600 feet per mile. The gradient map also demonstrated there is a local groundwater divide located 1,500 feet south of the LPL along the anticline axis of Cowiche Mountain.

2.2.2.3 Recharge and Discharge

The LPL receives approximately 8 inches of precipitation per year, including 24 inches per year of snowfall, on average. Twenty-four inches of snowfall may be equivalent to 0.6 to 2 inches of rain, depending on the temperature. Mean annual evapotranspiration in the area is 11 inches (Myers et al 1979).

Based on the average annual precipitation and evapotranspiration of 11 inches (WRCC 2005; Myers et al 1979), direct recharge at the LPL is likely very low. During the growing season, evapotranspiration rates exceed precipitation rates. During the winter, much of the snowfall on the LPL likely evaporates (sublimes). Little of the precipitation falling on the LPL therefore infiltrates below the surface.

3. Sampling and Analysis

The third quarter 2024 groundwater sampling and analysis was conducted in accordance with the SAP (Parametrix 2024c).

3.1 Routine Groundwater Sampling

Parametrix collected groundwater samples at Shallow Aquifer monitoring wells MW-2S, through MW-6S on September 10, 11, and 12, 2024. A duplicate sample (MW-13S) was collected at well MW-5S.

The shallow monitoring wells were purged and sampled using recently installed dedicated PFAS-free QED bladder pumps with an electronic pump control unit (QED Micropurge MP10H) and external nitrogen tank. Low flow purging methods were utilized in accordance with the SAP. Samples to be tested for dissolved metals were field filtered through a 0.45-micron filter.

3.2 Nonroutine Groundwater Sampling

Samples from the Interflow Zone wells were collected via atypical methods. Due to scheduling and the absence of dedicated pumps at the time of the third quarter 2024 event, Interflow Zone samples were collected during hydraulic pump tests using the drilling contractor's pumps. The samples for wells MW-7D, MW-8D, and MW-10D were collected on August 28, September 9, and 11, 2024, respectively. Development and hydraulic testing of MW-9D could not be completed due to a combination of an extremely low head and low groundwater production. Samples were collected with a bailer on September 10, 2024; however, no water had been removed from the well since the time of drilling indicating the sample may not reflect the true water chemistry at that location.

Groundwater levels in all the monitoring wells were measured to the nearest 0.01-foot prior to well purging using a decontaminated electronic well probe. Groundwater level measurement data are presented in Section 4.1.

Samples from Shallow Aquifer wells were also collected for PFAS and dioxins/furans. As noted above, the results for these analytes are presented separately for the MTCA Site.

3.3 Groundwater Analysis

The third quarter 2024 samples were analyzed by On-Site Environmental, Inc. (On-Site) located in Redmond, Washington. The analytical methods used are listed in Table 1. In addition to the parameters required by WAC 173-350-500, the samples were analyzed for the volatile organic compounds (VOCs) included in WAC 173-351-990 Appendix I and naphthalene, and gasoline and diesel/oil range total petroleum hydrocarbons (TPH).

4. Results

4.1 Groundwater Elevations and Flow

4.1.1 Groundwater Elevations

Table 2 summarizes the groundwater depths and elevations measured at the LPL during the third quarter 2024 monitoring period and previous groundwater monitoring events. Figure 3 presents a hydrograph of groundwater elevation and the cumulative deviation from average monthly precipitation recorded at the Yakima Air Terminal. The water levels appear consistent with deviations in precipitation over time (Figure 3).

Water levels declined over 50 feet at MW-2S between 2006 and 2015; however, since that time water levels have slightly increased and stabilized. The apparent increase in the MW-2S water level of over 10 feet observed in December 2022 continued through the third quarter 2024 monitoring event.

Water levels at well MW-3S also showed decreases of over 20 feet between 2006 and 2015 and since that time increased slightly and stabilized with some substantial short-term changes including increases of approximately 20 feet in June and September 2017. An apparent decrease in the MW-3S water level of over 10 feet observed in December 2022 continued through the second quarter 2024 monitoring event with another decrease of 14 feet during the third quarter 2024 event.

The water level at MW-4S increased by over 10 feet in the first through third quarters of 2023 compared to the previous two quarters but decreased approximately 8 feet in the fourth quarter of 2023 to within the previous range observed during 2022. An increase in MW-4S water level of approximately 6 feet to a level in the range of the first through third quarter 2023 measurements continued through the second quarter 2024 event. A decrease of 6 feet was observed during the third quarter 2024 event to levels similar to the fourth quarter of 2023. This well is anticipated to have the quickest response to recharge due to the depth to the Shallow Aquifer at that location, approximately 50 feet.

The initial water levels at new Shallow Aquifer (MW-5S and MW-6S) and Interflow Zone wells (MW-7D though MW-10D) are also shown on Figure 3. Trends will be determined with more data from future monitoring events.

4.1.2 Groundwater Flow

Based on the water levels measured in the five Shallow Aquifer monitoring wells, an approximate potentiometric surface was calculated showing the interpreted direction and gradient of groundwater flow in the Shallow Aquifer at the LPL and is shown on Figure 4. The northerly flow direction is consistent with the area wide direction of flow observed at LPL monitoring wells and surrounding wells in 2021 (HWA 2022b) as described in Section 2.2.2.2.

Groundwater particle velocity is described by the following relationship: $V = K i / n$, where:

V = particle velocity

K = hydraulic conductivity

i = gradient

n = effective porosity

Shallow Aquifer hydraulic conductivity was measured in MW-2S and MW-4S via short term pumping tests. Estimated hydraulic conductivity was 3.2 feet/day at MW-2S and 0.4 feet/day at MW-4S. Based on these values, an assumed effective porosity of 0.2 (Nimmo et al 2003), and the calculated gradient of 0.27 feet/feet in the vicinity of the three LPL monitoring wells; estimated horizontal groundwater particle flow velocity in the Shallow Aquifer below the LPL may range from approximately 0.5 to 4 feet per day (199 to 1,596 feet per year). These theoretical groundwater particle velocity estimates may be biased high due to heterogeneity of the Shallow Aquifer and the unknown lateral continuity of related fractured water bearing zones. Further hydraulic analyses will be completed during the upcoming hydrogeologic characterization of the LPL.

An approximate potentiometric surface was calculated showing the interpreted direction and gradient of groundwater flow in the Interflow Zone and is shown on Figure 5. The gradient for the third quarter of 2024 was observed to be 0.197 ft/ft, or approximately 1,040 ft per mile. The flow direction is north-northwesterly which generally follows the slope of the topography. The groundwater flow properties of the Interflow Zone, including hydraulic conductivity/transmissivity, will be evaluated and discussed in a hydrogeologic characterization report in addition to being summarized in the upcoming 2024 annual groundwater sampling summary report. However, the Interflow Zone appears to be a planar feature related to the anticline below the LPL similar to the Shallow Aquifer (Parametrix 2024b).

4.2 Groundwater Quality

4.2.1 Data Quality Evaluation

For the third quarter 2024 event, field data sheets are presented in Appendix A and laboratory reports are presented in Appendix B. Appendix C presents an evaluation of the third quarter 2024 analytical and field data quality.

4.2.2 Comparison of Data to Water Quality Criteria

4.2.2.1 Routine Sampling

The data from the Shallow Aquifer wells were compared to Water Quality Standards for Groundwaters of the State of Washington (GWQS; Chapter 173-200 WAC) and Maximum Contaminant Levels (MCLs; Chapter 246-290 WAC), see Table 3a. TPH and naphthalene concentrations were compared to MTCA Method A CULs (Table 3a). The following concentrations in the shallow wells above these criteria were observed during third quarter 2024:

Well MW-3S:

- Nitrate (11 mg/L) was above the GWQS of 10 mg/L.

Well MW-4S:

- Specific conductivity (973 µmhos/cm) was above the GWQS of 700 µmhos/cm.
- Nitrate (47 mg/L) was above the GWQS of 10 mg/L.
- Total dissolved solids (TDS; 590 mg/L) was above the MCL of 500 mg/L.

Well MW-5S:

- Total iron (0.55 to 0.85 mg/L) was above the GWQS and MCL of 0.3 mg/L
- Total Manganese (0.11 to 0.16 mg/L) and dissolved manganese (0.13 mg/L) were above the GWQS and MCL of 0.05 mg/L.
- Both total iron and total manganese results were J-flagged as estimated because of poor correlation between MW-5S and the duplicate MW-13S. The elevated concentrations of iron and manganese appear to be related to turbidity (2.52 NTU) in the samples.

No VOCs were detected above laboratory reporting limits (RLs). No gasoline or diesel/oil-range TPH were detected.

Specific conductivity, TDS, and nitrate exceedances at MW-4S are potential impacts related to the LPL. As noted below, statistical analysis of MW-4S is to be completed once eight quarters of data have been obtained. Since eight quarters of data for MW-4S has been acquired, statistical analysis will be completed and included in the 2024 annual groundwater summary report.

4.2.2.2 Nonroutine Sampling

The data from the Interflow Zone wells were compared to Water Quality Standards for Groundwaters of the State of Washington (GWQS; Chapter 173-200 WAC) and Maximum Contaminant Levels (MCLs; Chapter 246-290 WAC), see Table 3b. TPH and naphthalene concentrations were compared to MTCA Method A CULs (Table 3b). The following concentrations in the Interflow Zone wells above these criteria were observed during third quarter 2024:

Well MW-9D had the following exceedances:

- Total iron (23 mg/L) and dissolved iron (0.39 mg/L) were above the GWQS and MCL of 0.3 mg/L.
- Total manganese (0.42 mg/L) and dissolved manganese (0.17 mg/L) were above the GWQS and MCL of 0.05 mg/L.
- Diesel- and Lube Oil-Range TPH (533 micrograms per liter [µg/L]) were above the MTCA Method A cleanup level.

Well MW-9D was not properly developed, turbidity was recorded at 109.5 NTU, and samples are not likely representative. The TPH appears to be related to a broken hammer that occurred during drilling. None of the water since drilling has been evacuated from the well.

All the Interflow Zone wells had detections of toluene ranging from 1.4 to 11 µg/L. The detections of TPH and toluene appear related to cross contamination from the drilling and hydraulic testing equipment. All drilling and hydraulic testing equipment was to be free of petroleum hydrocarbons and VOCs and decontaminated prior to use, these detections show the driller may have been inefficient in decontamination. Since samples for the Interflow Zone monitoring wells were collected via atypical methods, data for TPH and VOCs will be confirmed with the next quarterly monitoring event following placement of dedicated pumps and development of MW-9D.

4.2.3 Time-Series Plots

Time-series plots for inorganic parameters are presented in Appendix D. The data show a considerable degree of variability in TDS and some other analytes. It should be noted that the analytical laboratory has changed several times over the history of monitoring.

Historically, concentrations of some analytes have typically been higher in samples collected from well MW-3S compared to well MW-2S. In MW-3S, slight apparent increases have been observed over the past few years in total and dissolved magnesium and nitrate. Nitrate in MW-3S has been slowly increasing from 2014 to the present. Over the past approximately 2 years higher specific conductivity and increased concentrations of bicarbonate, alkalinity, chloride, dissolved calcium, sulfate, and TDS have been measured, and notable increases in the concentrations of these analytes were observed in MW-3S in the third quarter 2024 event.

Alkalinity/bicarbonate concentrations began decreasing in wells MW-2S and MW-3S in 2018 but were again within historical ranges beginning in the fourth quarter of 2022. These changes at MW-3S correspond to the change to the current analytical laboratory On-Site. Historically, specific conductivity has typically been higher in MW-3S than MW-2S, consistent with the TDS concentrations. However, during the period between 2020 and second quarter 2022, specific conductivity was lower in MW-3S.

Specific conductivity and concentrations of analytes were typically higher in well MW-4S than in the other two monitoring wells including alkalinity/bicarbonate, dissolved cations (calcium, magnesium, potassium, and sodium), nitrate, sulfate, and TDS. Nitrate concentrations have recently fluctuated within a range below the two historic highs observed during the second quarters of 2023 and 2024.

4.2.4 Geochemical Evaluation

4.2.4.1 Cation/Anion Balances

Cation/anion balance evaluations for the third quarter 2024 data are presented in Appendix E. Cation/anion balances are a standard check of inorganic water quality data. When all the major anions and cations have been accurately determined, the sum of the anions in milliequivalents per liter (meq/L) should equal the sum of the cations expressed in the same units. WAC 173-351-420(5)(a) specifies that a 5 percent difference is acceptable if the anion plus cation sum of the sample is greater than 5 meq/L, while a 10 percent difference is acceptable if the anion plus cation sum of the sample is less than 5 meq/L.

The third quarter 2024 cation/anion balance differences were within acceptable limits.

4.2.4.2 Trilinear Diagram

A trilinear (Piper) diagram showing the third quarter 2024 data is presented in Appendix E. Piper diagrams are trilinear graphical representations of inorganic water quality, where major anions (chloride, sulfate, and bicarbonate plus carbonate) and cations (calcium, sodium, potassium, and magnesium) are plotted, on a molar equivalent basis, on two triangular graphs, and the combined data projected onto a quadrilateral field, or four-sided graph. The Piper diagram can be used to compare different water samples to evaluate the degree of similarity, mixing relationships, time trends, etc.

Groundwater quality in the monitoring wells shows some variations in cation and anion distributions suggesting slightly differing geochemical conditions. The cation distributions in all monitoring wells fell within a similar zone with the principal cations being calcium and magnesium. The anion distributions were more variable. Bicarbonate was the dominant anion in well MW-2S while the other Shallow Aquifer wells had higher proportions of chloride and sulfate.

MW-2S is screened slightly lower in the Shallow Aquifer than the other monitoring wells and includes the flow top zone of the Grande Ronde Basalt. The Piper diagram is consistent with the slight differences in geochemistry anticipated due to differing positions of these wells and more closely resembles the geochemistry of the other wells completed in the Interflow Zone of the Grande Ronde Basalt.

The chemistry of MW-9D appears different from the other Interflow Zone wells. The well has not been properly developed and was sampled using a bailer. It appears that residual water present from drilling the well was present in the samples and affected the data. The geochemistry looks similar to carry down water from the Shallow Aquifer.

Since all Interflow Zone wells were sampled using nonroutine methods, further analysis of their water chemistry will be evaluated after the fourth quarter 2024 sampling event. However, these results appear to be consistent with deeper groundwater having higher concentrations of sodium and potassium cations and carbonate/bicarbonate anions.

4.2.5 Statistical Analysis of Groundwater Quality Data

Washington's Solid Waste Landfill regulations (Chapter 173-350 WAC) require evaluation of groundwater monitoring data to identify if a statistically significant indication of a release has occurred. Because there are no established background groundwater quality data, either from an upgradient location or from downgradient locations predating the active use of the facility, an intrawell (i.e., within the same well) statistical approach will be used to determine compliance (Parametrix 2023b).

4.2.5.1 Statistical Approach

The statistical approach for evaluating data at the LPL consists of establishing a subset of parameters for formal detection monitoring and conducting quarterly comparisons of data to intrawell upper prediction limits (UPLs) calculated for each well/parameter case. Control charts are used to supplement the UPLs to evaluate whether any trends are occurring that could potentially be attributable to the landfill. Annually, the data is evaluated for trends using the Mann-Kendall/Sen's Slope test, and the results are used to support periodic updates of the control chart and prediction limit background data sets.

As recommended by Ecology guidance (Ecology 2018), the U.S. Environmental Protection Agency's (EPA's) Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (Unified Guidance; EPA 2009) was used for guidance on statistical analysis of landfill groundwater monitoring data.

Monitoring at MW-2S and MW-3S began in 2008, providing sufficient data for statistical analysis and calculation of UPLs and control charts for those wells. For these two wells, the first eight data points from 2008 and 2009 provide the baseline background data set. MW-4S was installed in 2022 and has only been sampled seven times (i.e., fewer than the minimum of eight data points recommended by the Unified Guidance); consequently, data from this well were not statistically evaluated or used to calculate UPLs or control charts for that well. Statistical analysis for MW-4S will be conducted at the end of 2024 monitoring after sufficient data is obtained.

The Unified Guidance (EPA 2009) provides a suggested rule for evaluating constituents that are "never detected," including the VOCs. Any constituent that has never been previously detected should be evaluated by the following simple, quasi-statistical rule: A confirmed exceedance is registered if any well-constituent pair in the '100% non-detect' group exhibits quantified measurements (i.e., at or above the RL) in two consecutive sample and resample events.

A technical memorandum was presented in Appendix F of the first quarter 2024 report (Parametrix 2024d) providing statistical limits to be used for evaluating the 2024 data. The statistical approach was revised from the initial approach presented in the 2023 annual report (Parametrix 2024a) based on recommendations from Ecology (Ecology 2024). UPLs were developed by removing statistical outliers as well as visual outliers for data sets with a high percentage of non-detects that invalidated the statistical outlier test.

As summarized in the SAP, the Unified Guidance recommends selecting a subset of monitoring parameters to balance the site-wide false positive rate and the power of the statistical program. These parameters should be limited to a few representative constituents thought to be reliable indicators of a contaminant release, that exhibit a large concentration contrast between leachate and groundwater and are relatively mobile in groundwater. Because leachate is not currently measured at the LPL, the following parameters listed in Chapter 173-350 WAC were selected for formal statistical analysis:

- pH
- chloride
- nitrate
- sulfate
- ammonia
- TDS
- total and dissolved iron
- total and dissolved manganese

Since 2020, both total and dissolved fractions of iron and manganese have been monitored. Both fractions were included in this evaluation, for a total of 10 parameters at two wells. Leachate samples are anticipated to be available once Phase 2 receives waste. This may alter the current statistical analysis program.

4.2.5.2 2024 Statistical Comparisons

The statistical approach for evaluating data at the LPL will be implemented following the approach outlined in the SAP (Parametrix 2024b) to evaluate whether any statistically significant increases are present that could potentially be attributable to the landfill.

The 2024 quarterly data collected at wells MW-2S and MW-3S are compared to the calculated UPLs presented in Appendix F. MW-4S did not have enough data points to establish UPLs previously. These will be calculated and updated in the annual report. The new wells will be evaluated for UPLs once eight data points have been collected (i.e. following the 2026 annual environmental monitoring). A 1-of-2 retesting scheme (EPA 2009) will be used to compare the new sample value(s) to the UPL. The 1-of-2 scheme assumes that two samples will be collected for a particular constituent at a given well, including the initial groundwater sample and one resample. The initial groundwater sample will be collected in the first and third quarters, and the resamples will be collected in the second and fourth quarters. Statistical comparisons will be made in the first and third quarters and, if necessary, in the second and fourth quarters for retests. However, because groundwater is sampled quarterly, any measured concentrations above the UPL during the second and fourth quarters will also be confirmed or disconfirmed using samples collected in the third and first quarters, respectively.

These limits will be used in the following way to evaluate groundwater quality at the DTG Yakima LPL:

- For a statistically significant increase (monitoring data exceeding a limit for two consecutive quarters) that cannot be attributed to sampling error, the monitoring data will be compared to the water quality standard in WAC 173-200 (if available).

- If the water quality standard is exceeded, the monitoring data will be compared to any historical data values that were flagged as outliers to determine whether the monitoring data are within the range of historical data. Because historical outliers were flagged based on statistical tests and visual assessments but could not be verified as outliers through additional data evaluation such as resampling or laboratory review, those values may actually represent a portion of the background population.

The control charts will be updated at the end of 2024 to show the cumulative sum (CUSUM) and the compliance data since the background period. These will be compared to the respective control limit (h) and upper Shewhart control limit (SCL) calculated using background data for the UPLs, to determine whether a statistically significant increase has occurred. The background data sets for the UPLs and control charts will be updated annually.

4.2.5.3 Third Quarter 2024 Statistical Evaluation

Comparison of the third quarter 2024 results with the calculated UPLs and SCLs for the wells MW-2S and MW-3S are presented in Table 4. UPLs and SCLs have not been calculated for MW-4S, MW-5S, MW-6S, MW-7D, MW-8D, MW-9D, or MW-10D.

The MW-2S result for pH exceeded the upper range of the calculated UPL. This exceedance will be verified in the fourth quarter of 2024.

The sulfate result for well MW-3S exceeded both the UPL and SCL, with the UPL exceedance occurring for the third consecutive quarter. The MW-3S results for chloride, nitrate and TDS exceeded the calculated UPLs. These exceedances will be verified in the fourth quarter of 2024.

MW-9D was drilled adjacent to MW-3S prior to the third quarter 2024 event. The effects of drilling the adjacent well through the Shallow Aquifer could have impacted the water quality at MW-3S. For example, water quality changes were confirmed at MW-5S when the adjacent well (MW-7D) was drilled through the aquifer and MW-5S was subsequently further developed. Water quality changes will be evaluated following the fourth quarter 2024 event.

4.3 Conclusions

The following conclusions are based on the data presented in this report.

- No TPH or VOCs were detected in any of the Shallow Aquifer wells.
- In well MW-2S, the result for pH exceeded the calculated upper range of the UPL. This exceedance will be verified in the fourth quarter of 2024.
- In well MW-3S, nitrate concentrations exceeded the GWQS and MCL. The MW-3S results for chloride, nitrate, and TDS exceeded the calculated UPLs and these exceedances will be verified in the fourth quarter of 2024. Some potentially increasing concentrations, including nitrate and total and dissolved magnesium, are apparent in well MW-3S, and concentrations of specific conductivity and concentrations of chloride, dissolved calcium, total iron, sulfate, and TDS have been higher during the past few quarters.
- A new monitoring well (MW-9D) was drilled adjacent to MW-3S that could have affected the water quality.
- In well MW-4S, specific conductivity measurements and TDS and nitrate concentrations continued to exceed the GWQS and MCL. UPLs and SCLs will be developed in the 2024 annual report.

- MW-5S, MW-6S, MW-7D, MW-8D, MW-9D, and MW-10D are new monitoring wells. UPLs and SCLs will be developed in the 2026 annual report.
- The trilinear plot shows some geochemical variability within the Shallow Aquifer. The cation distributions in all Shallow Aquifer monitoring wells (excluding MW-3S) were similar but the anion distributions varied slightly reflecting their slightly different positions within the aquifers.
- Interflow Zone wells showed some variability in water chemistry which may have been due to nonroutine sampling methods. Water chemistry of these wells will be evaluated during the fourth quarter 2024 event.
- A water level decrease of 14 feet was observed in well MW-3S. This could be related to the adjacent drilling. The water level in MW-4S was in the range of the fourth quarter of 2023.
- A potentiometric surface calculated using data from the Shallow Aquifer monitoring wells indicates a northerly flow direction generally consistent with the flow direction calculated previously based on additional area-wide wells. The gradient was observed to be 0.27 feet/feet consistent with previous quarters. A potentiometric surface for the Interflow Zone was observed to be similar at 0.197 feet/feet.
- Non-routine sampling of the Interflow Zone wells found diesel and oil-range TPH at MW-9D above the MTCA Method A CUL and detections of toluene in all the wells. MW-9D was not developed prior to sampling. The fourth quarter 2024 event will be completed using routine sampling procedures using dedicated pumps and MW-9D will be developed prior to sampling.
- The existing dedicated Solinst Model 407 bladder pumps were replaced with PFAS-free QED bladder pumps prior to the third quarter 2024 event.
- Additional monitoring wells have recently been installed surrounding the LPL. These wells will help delineate any potential impacts related to the MTCA site and detection monitoring program of the LPL.

4.4 Recommendations

The following recommendations and planned activities are based on the data presented in this report:

- Nitrate concentrations remain above the GWQS and MCL at well MW-4S. Increasing concentrations of nitrate are also apparent at MW-3S, with its first exceedance in the third quarter of 2024. Nitrate and other apparent increasing concentrations in groundwater should continue to be evaluated.
- UPLs and control charts should be prepared for well MW-4S and presented in the 2024 annual report using the first eight data points.
- The updated hydrogeologic setting below the LPL was summarized (Parametrix 2024b). A more thorough report including discussion of transmissivity/hydraulic conductivity, background water quality, and other aquifer parameters for the Shallow Aquifer and the Interflow Zone will be summarized in a hydrogeologic characterization report.
- Monitoring well MW-9D should be redeveloped, pumped dry, and allowed to recover prior to the fourth quarter 2024 sampling event. Monitoring well MW-3S may need to be redeveloped.

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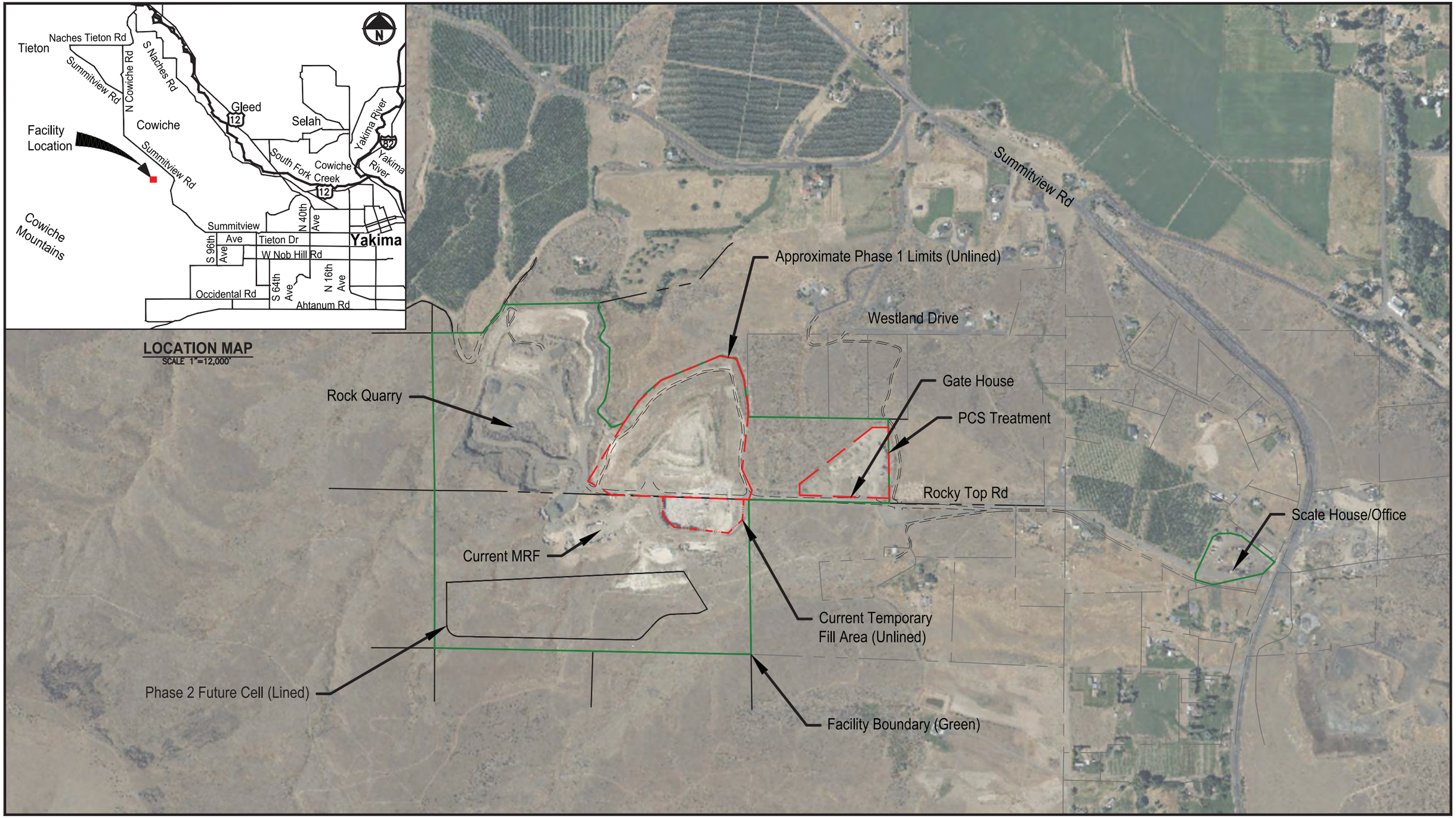
6. Limitations

The conclusions expressed herein are based solely on material referenced in this report. Observations were made under the conditions stated. Within the limitations of scope, schedule and budget, these services were executed in accordance with generally accepted professional principles and practices in the area at the time the report was prepared. No warranty, expressed or implied, is made. Experience has shown that subsurface soil and groundwater conditions can vary significantly over small distances. The findings and conclusions must not be considered as scientific or engineering certainties, but rather as our professional opinion concerning the significance of the limited data gathered and interpreted during the course of the assessment.

This study and report have been prepared on behalf of DTG, for the specific application to the subject property. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Figures



Parametrix

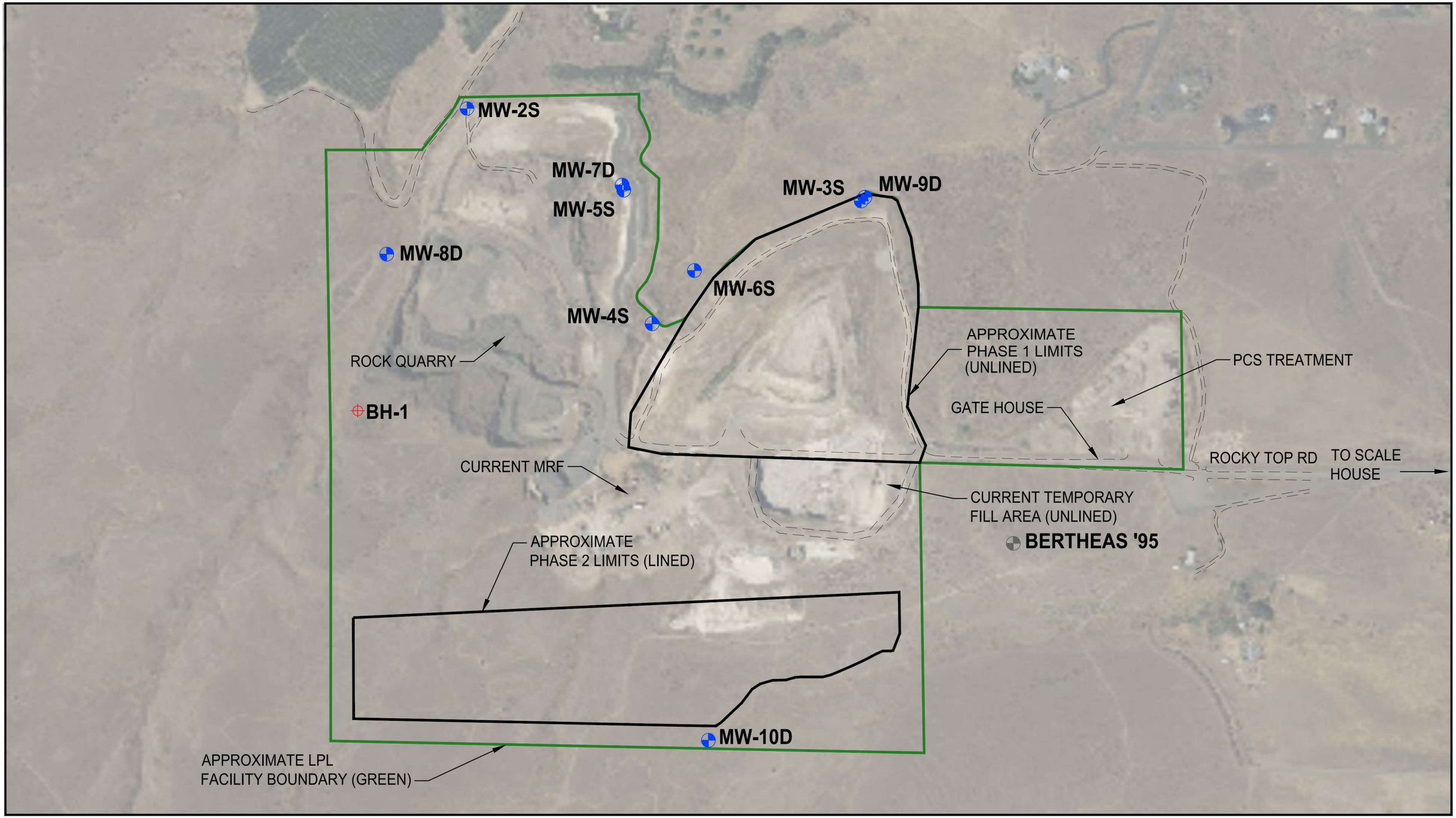
DATE: December 6, 2024

FILE: PS8472003-C01_QTY REPORT 052023_RECOVER

0 N 750

SCALE: 1"=750'

Figure 1
Facility Vicinity Map
Rocky Top Environmental Limited Purpose Landfill



Parametrix

DATE: September 16, 2024

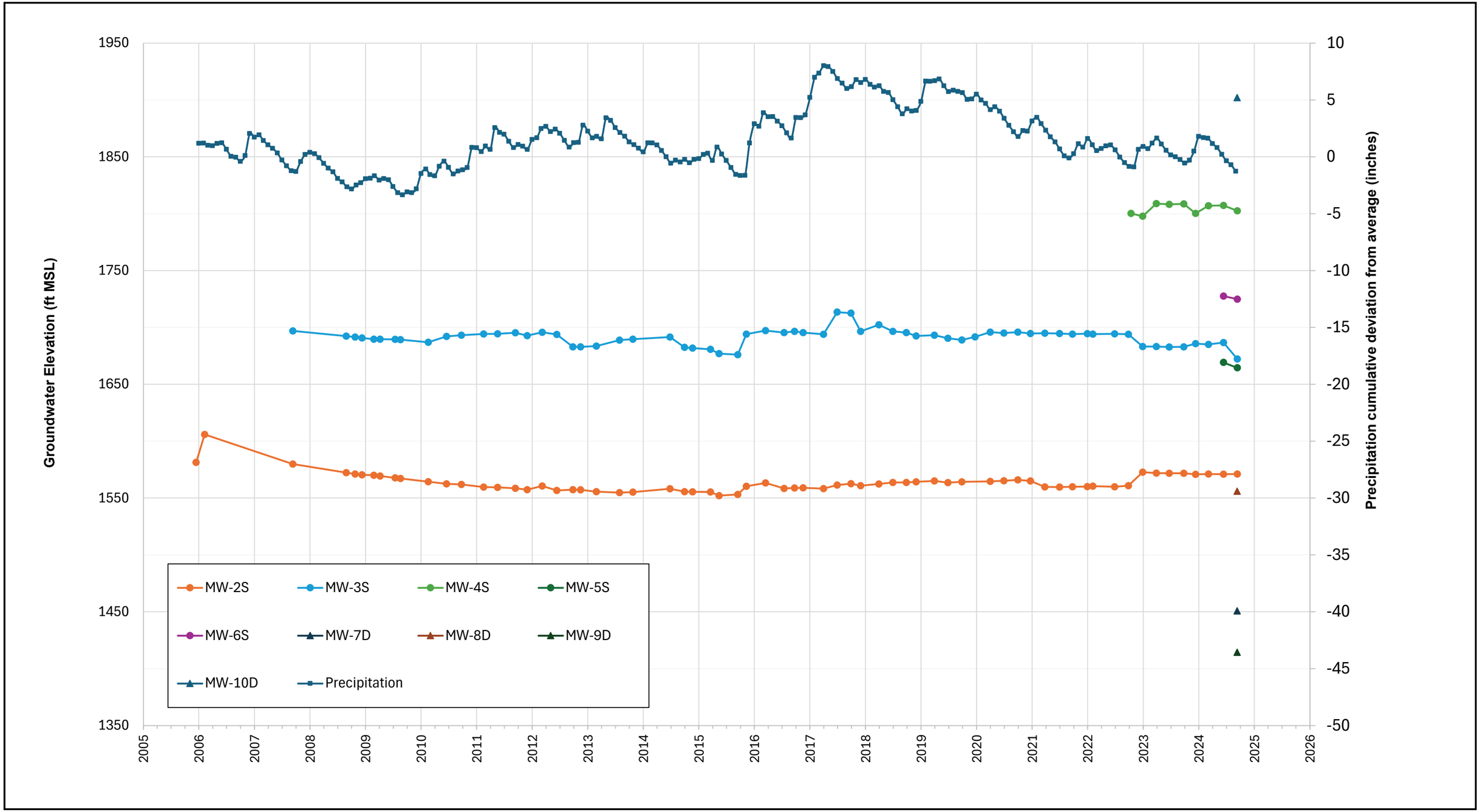
FILE: QUARTERLY REPORT FIGURE Q3-2024

0 N 400

1 INCH = 400 FT.

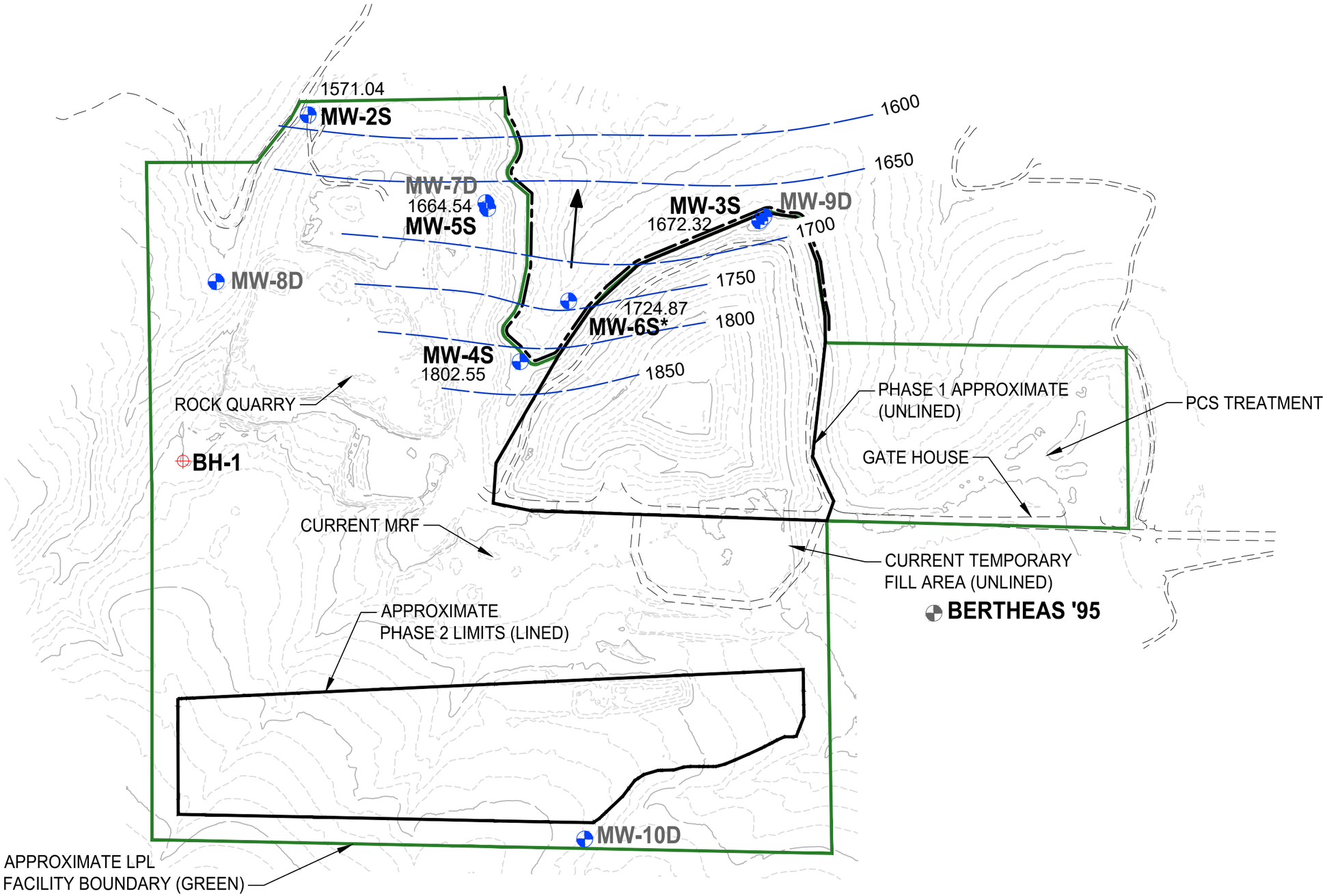
- Monitoring Well
- Domestic Well
- Decommissioned Well
- Borehole

Figure 2
Well Location Map
Rocky Top Environmental Limited Purpose Landfill



Parametrix

Figure 3
Water Level Summary
Rocky Top Environmental Limited Purpose Landfill



* Note: MW-6S measured on September 3, 2024

Parametrix DATE: September 16, 2024 FILE: QUARTERLY REPORT FIGURE Q3-2024

0 N 400
1 INCH = 400 FT.

1571.04 Monitoring Well with Water Level Elevation in feet measured on September 11, 2024

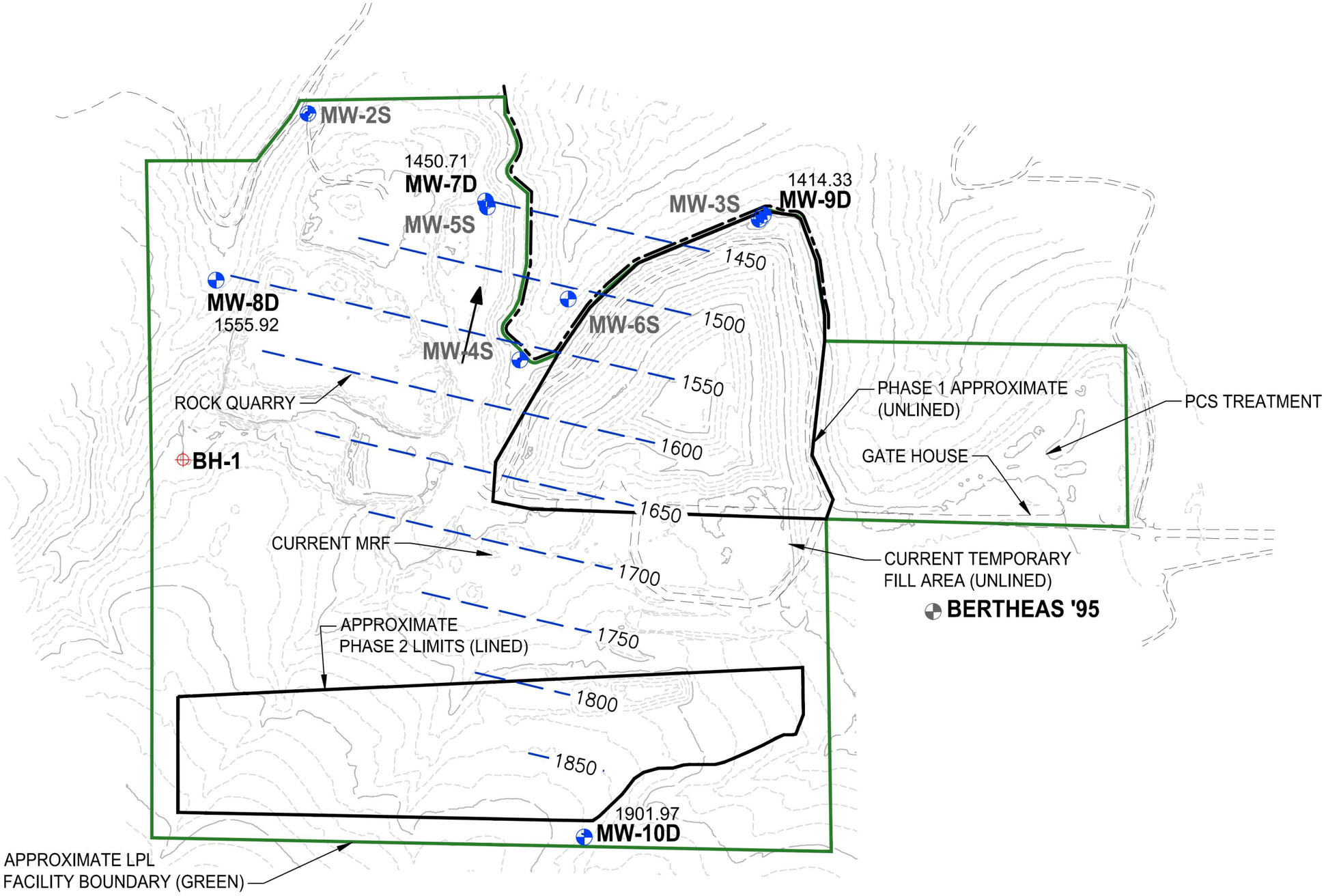
Decommissioned Well

Borehole

Approximate Groundwater flow direction

1700 Groundwater Elevation Contour (ft)

Figure 4
Third Quarter 2024
Shallow Aquifer Potentiometric Surface
Rocky Top Environmental Limited Purpose Landfill



Parametrix DATE: September 16, 2024 FILE: QUARTERLY REPORT FIGURE Q3–2024

0 N 400
1 INCH = 400 FT.

1450.71 Monitoring Well with Water Level Elevation in feet measured on September 11, 2024

Decommissioned Well

Borehole

Approximate Groundwater flow direction

1700 Groundwater Elevation Contour (ft)

Figure 5
Third Quarter 2024
Interflow Zone Potentiometric Surface
Rocky Top Environmental Limited Purpose Landfill

Tables

Table 1. Groundwater Analyses and Analytical Methods

Analyte	Methods
Temperature	field
pH	field
Specific conductivity	field
Alkalinity as $CaCO_3$	SM 2520B
Ammonia	EPA 350.1
Bicarbonate as $CaCO_3$	Calculation
Calcium (D)	SM3111B
Chloride	SM4500-Cl E
Iron (D&T)	SM3111B
Magnesium (D&T)	SM3111B
Manganese (D&T)	SM3111B
Nitrate as N	EPA 353.2
Potassium (D)	SM3111B
Sodium (D)	SM3111B
Sulfate	ASTM D516-90
Total Dissolved Solids	SM2540C
Total Organic Carbon	SM 2550B
Volatile Organic Compounds	EPA 8260D*
Total Petroleum Hydrocarbons – Gasoline range	NWTPH-Gx
Total Petroleum Hydrocarbons – Diesel/Oil range	NWTPH-Dx

D = dissolved

T = Total

*WAC 173-351-430 parameter list

Table 2. Groundwater Elevations, Third Quarter 2024, Rocky Top Environmental Limited Purpose Landfill

Well Number	Measurement Date	Elevation Top of PVC Casing (feet)	Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet)
MW-2S	9/12/2024	1858.36	287.32	1571.04
MW-3S	9/12/2024	1845.92	173.60	1672.32
MW-4S	9/11/2024	1845.59	43.04	1802.55
MW-5S	9/11/2024	1883.88	219.34	1664.54
MW-6S	9/11/2024	1825.31	100.44	1724.87
MW-7D	9/11/2024	1883.88	433.17	1450.71
MW-8D	9/11/2024	1863.94	308.02	1555.92
MW-9D	9/11/2024	1847.49	433.16	1414.33
MW-10D	9/11/2024	1988.77	86.80	1901.97

Notes:

Elevation datum based on NAD83

Water levels were taken on different dates due to aquifer testing and sampling event scheduling

Table 3a. Third Quarter 2024 Shallow Aquifer Groundwater Quality Monitoring Results, Rocky Top Environmental Limited Purpose Landfill

Analyte	GWQS	MCL	Units	MW-2S 9/12/2024	MW-3S 9/12/2024	MW-4S 9/11/2024	MW-5S 9/11/2024	MW-13S (MW-5S Dup) 9/11/2024	MW-6S 9/11/2024	Trip Blank 9/12/2024
Field Data										
pH	6.5-8.5			7.91	7.69	7.76	8.49	- -	8.25	- -
Conductivity		700 **	µmhos/cm	176.8	630	**973**	356.6	- -	501	- -
Temperature			C	14.2	14.4	13.1	15.6	- -	13.3	- -
Redox			mv	-72.1	-73.9	-96.9	-149.7	- -	-104.2	- -
Dissolved Oxygen			mg/L	6.04	4.88	4.04	0.14	- -	4.06	- -
Turbidity			NTU	0.00	0.00	0.00	2.52	- -	0.00	- -
Metals										
Calcium, Dissolved			mg/L	13	49	85	24	24	41	- -
Iron, Total	0.3 **	0.3 **	mg/L	<0.050	<0.050	<0.050	**0.55 J**	**0.85 J**	<0.050	- -
Iron, Dissolved			mg/L	<0.056	<0.056	<0.056	0.26	0.27	<0.056	- -
Magnesium, Total			mg/L	8.5	32	58	13 J	17 J	27	- -
Magnesium, Dissolved			mg/L	9.1	35	58	15	15	27	- -
Manganese, Total	0.05 **	0.05 **	mg/L	<0.010	<0.010	<0.010	**0.11 J**	**0.16 J**	<0.010	- -
Manganese, Dissolved			mg/L	<0.011	<0.011	<0.011	**0.13**	**0.13**	<0.011	- -
Potassium, Dissolved			mg/L	2.9	4.6	6.3	2.6	2.7	4.1	- -
Sodium, Dissolved			mg/L	9.5	18	21	14	14	15	- -
Water Quality Parameters										
Alkalinity, Total			mg CaCO3/L	80	96	180	92	92	82	- -
Ammonia (NH3) as Nitrogen (N)			mg/L	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	- -
Bicarbonate			mg CaCO3/L	80	96	180	92	92	82	- -
Chloride	250 **	250 **	mg/L	<2.0	73	41	19 J	27 J	62	- -
Nitrate	10 *	10 *	mg/L-N	0.60	**11**	**47**	<0.050	0.051	9.2	- -
Sulfate	250 **	250 **	mg/L	5.1	96	100	39	42	52	- -
Total Dissolved Solids	500 **	500 **	mg/L	140	320	**590**	190	170	170	- -
Total Organic Carbon			mg/L	<1.0	3.0	4.8	<1.0	<1.0	2.9	- -
Total Petroleum Hydrocarbons										
Gasoline Range Organics [a]	MTCA Method A:	1000	µg/L	<100	<100	<100	<100	<100	<100	<100
TPHDx										
Diesel Range Organics			mg/L	<0.21	<0.21	<0.21	<0.22	<0.21	<0.20	- -
Lube Oil Range Organics			mg/L	<0.21	<0.21	<0.21	<0.22	<0.21	<0.20	- -
Total TPHDx	MTCA Method A:	0.5	mg/L	<0.21	<0.21	<0.21	<0.22	<0.21	<0.20	- -
Volatile Organic Compounds										
Chloromethane			µg/L	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.4
Vinyl Chloride	0.02 ***	2 *	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Bromomethane			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CFC-11, Trichlorofluoromethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethene		7 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acetone			µg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl Iodide			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methylene Chloride	5 ***	5 *	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acrylonitrile	0.07 ***		µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trans-1,2-Dichloroethene		100 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	1 ***		µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Acetate			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		70 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-Butanone			µg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromochloromethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	7 ***	80 * THM	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	200 *	200 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Carbon Tetrachloride	0.3 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	1 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	0.5 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	3 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	0.6 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromomethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorobromomethane	0.3 ***	80 * THM	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
4-methyl-2-pentanone			µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Toluene		1000 *	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,3-Dichloropropene			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane		5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Tetrachloroethene	0.8 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-Hexanone			µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromochloromethane		80 * THM	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dibromoethane (EDB)	0.001 ***	0.05 *	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Chlorobenzene		100 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene		700 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
m, p-Xylene			µg/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
o-Xylene			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Styrene		100 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	5 ***	80 * THM	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2,3-Trichloropropane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
trans-1,4-Dichloro-2-butene			µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	4 ***	75 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene		600 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dibromo-3-chloropropane		0.2 *	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	MTCA Method A:	160	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

GWQS = Water Quality Standards for Ground Waters of the State of Washington (WAC 173-200)
MCL = Maximum Contaminant Level, State Drinking Water Regulations (WAC 246-290)
MTCA = Model Toxics Control Act (WAC 173-340)
[a] = Gasoline with no benzene present
* = Primary
** = Secondary
*** = Carcinogen
*THM = Primary MCL for the sum of all trihalomethanes
*XYL = Primary MCL for the sum of all xylenes

= Does not meet GWQS or MCL
- - = Not analyzed
J = Estimated value

Table 3b. Third Quarter 2024 Interflow Zone Groundwater Quality Monitoring Results, Rocky Top Environmental Limited Purpose Landfill

Analyte	GWQS	MCL	Units	MW-7D 8/28/2024	MW-8D 9/9/2024	MW-9D 9/10/2024	MW-10D 9/11/2024	Trip Blank 9/11/2024
Field Data								
pH	6.5-8.5			8.23	8.50	8.56	8.21	- -
Conductivity		700 **	µmhos/cm	204.7	406.8	680	227.8	- -
Temperature			C	19.4	23.2	18.2	17.2	- -
Redox			mv	-251.5	1.40	-158.6	-101.7	- -
Dissolved Oxygen			mg/L	0.70	1.38	6.74	7.74	- -
Turbidity			NTU	0.0	1.27	109.5	- -	- -
Metals								
Calcium, Dissolved			mg/L	15	24	48	17	- -
Iron, Total	0.3 **	0.3 **	mg/L	0.067	0.12	**23**	0.15	- -
Iron, Dissolved			mg/L	0.071	<0.056	**0.39**	<0.056	- -
Magnesium, Total			mg/L	10	16	28	10	- -
Magnesium, Dissolved			mg/L	11	16	27	10	- -
Manganese, Total	0.05 **	0.05 **	mg/L	0.032	0.026	**0.42**	0.022	- -
Manganese, Dissolved			mg/L	0.035	0.026	**0.17**	0.021	- -
Potassium, Dissolved			mg/L	2.8	3.0	<1.1	2.2	- -
Sodium, Dissolved			mg/L	11	18	52	15	- -
Water Quality Parameters								
Alkalinity, Total			mg CaCO3/L	100	94	68	94	- -
Ammonia (NH3) as Nitrogen (N)			mg/L	0.065	<0.053	0.78	<0.053	- -
Bicarbonate			mg CaCO3/L	100	94	68	94	- -
Chloride	250 **	250 **	mg/L	3.2	12	74	4.9	- -
Nitrate	10 *	10 *	mg/L-N	<0.050	0.85	0.17 H	1.5	- -
Sulfate	250 **	250 **	mg/L	<5.0	46	200	12	- -
Total Dissolved Solids	500 **	500 **	mg/L	100	230	460	160	- -
Total Organic Carbon			mg/L	<1.0	1.3	4.0	<1.0	- -
Total Petroleum Hydrocarbons								
Gasoline Range Organics [a]	MTCA Method A:	1000	µg/L	<100	<100	<100	<100	<100
TPHDx								
Diesel Range Organics			mg/L	<0.20	<0.21	0.46	<0.20	- -
Lube Oil Range Organics			mg/L	<0.20	<0.21	0.073	<0.20	- -
Total TPHDx	MTCA Method A:	0.5	mg/L	<0.20	<0.21	**0.533**	<0.20	
Volatile Organic Compounds								- -
Chloromethane			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	0.02 ***	2 *	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020
Bromomethane			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
CFC-11, Trichlorofluoromethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethene		7 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Acetone			µg/L	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl Iodide			µg/L	<1.0	<1.3	<1.3	<1.3	<1.3
Carbon Disulfide			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Methylene Chloride	5 ***	5 *	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Acrylonitrile	0.07 ***		µg/L	<0.69	<0.50	<0.50	<0.50	<0.50
Trans-1,2-Dichloroethene		100 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	1 ***		µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Acetate			µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		70 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
2-Butanone			µg/L	<5.0	<5.0	<5.0	<5.0	<5.0
Bromochloromethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	7 ***	80 * THM	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	200 *	200 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Carbon Tetrachloride	0.3 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	1 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	0.5 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	3 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	0.6 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromomethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorobromomethane	0.3 ***	80 * THM	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
4-methyl-2-pentanone			µg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Toluene		1000 *	µg/L	11	4.5	2.7	1.4	<1.0
Trans-1,3-Dichloropropene			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane		5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Tetrachloroethene	0.8 ***	5 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
2-Hexanone			µg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromochloromethane		80 * THM	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dibromoethane (EDB)	0.001 ***	0.05 *	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020
Chlorobenzene		100 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene		700 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
m, p-Xylene			µg/L	<0.40	<0.40	<0.40	<0.40	<0.40
o-Xylene			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Styrene		100 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	5 ***	80 * THM	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,2,3-Trichloropropane			µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
trans-1,4-Dichloro-2-butene			µg/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	4 ***	75 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene		600 *	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dibromo-3-chloropropane		0.2 *	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	MTCA Method A:	160	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

GWQS = Water Quality Standards for Ground Waters of the State of Washington (WAC 173-200)
MCL = Maximum Contaminant Level, State Drinking Water Regulations (WAC 246-290)
MTCA = Model Toxics Control Act (WAC 173-340)
[a] = Gasoline with no benzene present
* = Primary
** = Secondary
*** = Carcinogen
*THM = Primary MCL for the sum of all trihalomethanes
*XYL = Primary MCL for the sum of all xylenes

= Does not meet GWQS, MCL, or MTCA
- - = Not analyzed
J = Estimated value
H = Holding time exceeded

Table 4. Comparison of Third Quarter 2024 Groundwater Quality Data to Upper Prediction Limits (UPLs) and Shewhart Control Limits (SCLs) Calculated from Background Data, DTG Rocky Top Environmental Limited Purpose Landfill

Parameter	Units	Value	Qualifier	UPL	SCL
		Well MW-2S			
Ammonia	mg/L	0.053	U	0.1	--
Chloride	mg/L	2.0	U	18	--
Iron, dissolved	mg/L	0.056	U	0.281	--
Iron, total	mg/L	0.050	U	0.118	--
Manganese, dissolved	mg/L	0.011	U	0.1	--
Manganese, total	mg/L	0.010	U	0.01	--
Nitrate	mg/L	0.60		1.995	--
pH		**7.91**		7.79	8.245 & 5.827
Sulfate	mg/L	5.1		10.51	19.01
Total Dissolved Solids	mg/L	140		176.8	--
		Well MW-3S			
Ammonia	NH3	0.053	U	0.1	--
Chloride	mg/L	**73**		45.99	85.84
Iron, dissolved	mg/L	0.056	U	0.37	--
Iron, total	mg/L	0.050	U	0.138	--
Manganese, dissolved	mg/L	0.011	U	0.03	--
Manganese, total	mg/L	0.010	U	0.01	--
Nitrate	mg/L	**11**		9.201	18.23
pH		7.69		7.701	--
Sulfate	mg/L	**96**		44.84	81.34
Total Dissolved Solids	mg/L	**320**		286.3	533.1

* = WAC 173-351 Appendix I parameter.

U = Undetected at the specified detection limit

BOLD = Value exceeds UPL or SCL

BOLD = Value exceeds UPL and SCL

Appendix A

Third Quarter 2024 Field Data Sheets

Groundwater Sampling Field Data Sheet

Well #: **MW-2S**

Project Number:	553877 2005	**Date:**	9/12/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	C. Bourgeois & K. Burke

Casing Diameter: 2" _ 4" ✓ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	287.32	**Purge Rate Measurement Method:**	Graduated cylinder
Top of Screen (feet bgs):	310	**Date Purged:**	9/12/24
Bottom of Screen (feet bgs)	330	**Purge Time (from/to):**	1022 - 1040
Reference Point (surveyor's notch, etc.):	PVC	**Time Sampled:**	1050

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING (PSI)
Initial	287.32							
1030 ~~1025~~	287.91	7.97	178.5	14.1	-77.9	7.08	0.81	170
1035	287.79	7.94	177.7	13.9	-75.0	6.88	0.00	"
1040	287.72	7.91	176.8	14.2	-72.1	6.04	0.00	"
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:	Bladder pump	**Flow Rate:**	265 mL/min
Laboratory:	On Site	**Date Sent to Lab:**	9/12/24
Shipment Method	in-person	**Field QC Sample Number:**	NA

Remarks: 40/20 & 170 PSI used to initiate and sustain flow. could not get enough flow w/ 20/10 (GPM2)
- Ran low on gas

Signature: Chris

Groundwater Sampling Field Data Sheet

Well #: **MW-3S**

Project Number:	553847.2005	**Date:**	9/12/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	C Bourgeois & K. Burke

Casing Diameter: 2" _ 4" ✓ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	~~179.87~~ 173.60	**Purge Rate Measurement Method:**	Graduated cylinder
Top of Screen (feet bgs):	188	**Date Purged:**	9/12/24
Bottom of Screen (feet bgs)	198	**Purge Time (from/to):**	827 - 850
Reference Point (surveyor's notch, etc.):	PVC TOC	**Time Sampled:**	900

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING (PSI)
Initial	173.60							
830	174.05	7.61	616	14.4	-66.6	6.74	0.41	165
835	174.10	7.63	629	14.4	-71.3	4.99	0.00	"
840	—	7.66	629	14.5	-71.4	4.95	0.00	"
845	174.04	7.68	629	14.4	-72.5	5.06	0.00	"
850	174.06	7.69	630	14.4	-73.9	4.88	0.00	"
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment: QED PFAS FREE BLADDER **Flow Rate:** 450 mL/min

Laboratory:	Onsite	**Date Sent to Lab:**	9/12/24
Shipment Method	in-person	**Field QC Sample Number:**	NA

Remarks: Pump settings to initiate flow: 40/20 (CPM) + 170 PSI
... took 3-4 cycles
used 20/10 & 165 PSI to purge.

Signature: _____

Groundwater Sampling Field Data Sheet

Well #: **MW-4S**

Project Number:	5538472005	**Date:**	9/11/2024
Project Name:	Yakima LPL	**Company Name:**	PMX
Project Address:	Rocky Top	**Sampled By:**	C. Bourgeois & K. Burke

Casing Diameter: 2" _ 4" ✓ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	43.04	**Purge Rate Measurement Method:**	Poly bottle
Top of Screen (feet bgs):	49.5	**Date Purged:**	9/11/24
Bottom of Screen (feet bgs)	69.5	**Purge Time (from/to):**	905 - 925
Reference Point (surveyor's notch, etc.):	N. PVC.	**Time Sampled:**	930

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PSI PUMP SETTING
Initial	43.04							
910	—	7.77	961	13.4	-102.8	4.76	clear	59 PSI
915	—	7.78	969	13.1	-101.1	4.12	"	65
920	—	7.77	973	13.1	-96.6	4.16	"	65
925	—	7.76	973	13.1	-96.9	4.04	"	65
Stabilization Criteria		±0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment: Bladder pump **Flow Rate:** 300 mL/min

Laboratory:	Onsite	**Date Sent to Lab:**	9/12/24
Shipment Method	in-person	**Field QC Sample Number:**	NA

Remarks: used CPM4 10/5 settings

Signature: Chris

Groundwater Sampling Field Data Sheet

MW-55

Well #: ~~MW-6S~~

Project Number:	553847.2005	**Date:**	9/11/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	C. Bourgeois & K. Burke

Casing Diameter: 2" _ 4" ✓ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	219.34	**Purge Rate Measurement Method:**	graduated cylinder
Top of Screen (feet bgs):	~~110~~ 222	**Date Purged:**	9/11/24
Bottom of Screen (feet bgs)	~~130~~ 243	**Purge Time (from/to):**	~~1303~~ 1333 - 1400
Reference Point (surveyor's notch, etc.):	N. PVC.	**Time Sampled:**	1410

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING
Initial	_____							40/20
1346	~~219.15~~	8.43	368.2	16.5	-137.9	1.39	6.83	_____
1345	219.17	8.53	365.8	16.0	-148.8	0.62	4.24	11/9
1350	"	8.52	357.8	15.9	-149.2	0.31	2.45	_____
1355	"	8.48	352.5	15.6	-146.3	0.15	2.62	_____
1400	"	8.49	356.6	15.6	-149.7	0.14	2.52	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:	Bladder pump	**Flow Rate:**	300 mL/min
Laboratory:	Onsite	**Date Sent to Lab:**	9/12/24
Shipment Method	In-person	**Field QC Sample Number:**	MW-135-0911

Remarks: ~~40~~ ~~discharge~~ 40/20 ~~time~~ needed to initiate flow.

Pump settings cpm3 11/9

dup @ 1500

Signature: Chris

Groundwater Sampling Field Data Sheet

MW-65

Well #: ~~MW-53~~

Project Number:	553847.2005	**Date:**	9/11/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	C. Burgess & K. Burke

Casing Diameter: 2" _ 4" ✓ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	—	**Purge Rate Measurement Method:**	graduated cylinder
Top of Screen (feet bgs):	~~222~~ 110	**Date Purged:**	9/11/24
Bottom of Screen (feet bgs)	~~243~~ 243	**Purge Time (from/to):**	1046 - 1115
Reference Point (surveyor's notch, etc.):	N. PVC	**Time Sampled:**	~~1115~~ 1120

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING (PSI)
Initial	_____	8.28			-120.8			
1050	_____	~~8.32~~	531	13.2	~~450~~	4.50	clear	_____
1055	_____	8.28 ~~8.31~~	530	13.1	-115.5	4.42	0.00	105
1100	_____	8.32	511	13.2	-113.3	4.28	0.04	"
1105	_____	8.31	495	13.2	-109.5	4.09	0.14	"
1110	_____	8.28	498	13.3	-107.0	4.02	0.00	"
1115	_____	8.25	501	13.3	-104.2	4.06	0.00	"
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:	Bladder pump	**Flow Rate:**	320 ml/min
Laboratory:	onsite	**Date Sent to Lab:**	~~9/12/24~~ 9/12/24
Shipment Method	in-person	**Field QC Sample Number:**	NA

Remarks: ~~Dup MW-135-0911~~ @ ~~1115~~ ~~1145~~

CPM4 10/5 105 PSI

water level during pump test (9/3/24): 100.44 ft.

Signature: Chr

DTG Recycle

Groundwater Sampling Field Data Sheet

Well #: **MW-7D**

Project Number:	553-8472-005	**Date:**	8/28/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	C. Bourgeois M. Brady
Casing Diameter:	2" _ 4" _ 6" _ Other _		
Initial Depth to Water (feet below TOC):		**Purge Rate Measurement Method:**	
Top of Screen (feet bgs):	475	**Date Purged:**	
Bottom of Screen (feet bgs)	495	**Purge Time (from/to):**	
Reference Point (surveyor's notch, etc.):		**Time Sampled:**	

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING
Initial	443.45							
1136	~450	8.23	204.7	19.4	-251.5	0.70	0.0	
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:			
Laboratory:		**Flow Rate:**	
Shipment Method		**Date Sent to Lab:**	
Remarks:		**Field QC Sample Number:**	

Sample taken during hydraulic pump test
* Water level taken 9/11/24 : 433.17'

Signature: C. Bourgeois

Groundwater Sampling Field Data Sheet

Well #: **MW-8D**

Project Number:	553-8472-005	**Date:**	
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	Mike Brady

Casing Diameter: 2" _ 4" _ 6" _____ Other _____

Initial Depth to Water (feet below TOC):		**Purge Rate Measurement Method:**	
Top of Screen (feet bgs):	375	**Date Purged:**	
Bottom of Screen (feet bgs)	405	**Purge Time (from/to):**	
Reference Point (surveyor's notch, etc.):		**Time Sampled:**	

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING
Initial								
1522	358.52	8.50	406.8	23.2	1.40	1.38	1.27	
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:		**Flow Rate:**	
Laboratory:		**Date Sent to Lab:**	
Shipment Method		**Field QC Sample Number:**	

Remarks:

water level taken during 9/11/24: 308.02'

Signature:

Groundwater Sampling Field Data Sheet

Well #: **MW-9D**

Project Number:	553-8472-005	**Date:**	9/10/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	K. Burke & Chris B.

Casing Diameter: 2" _ 4" _ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	432.62	**Purge Rate Measurement Method:**	
Top of Screen (feet bgs):	420	**Date Purged:**	
Bottom of Screen (feet bgs)	440	**Purge Time (from/to):**	
Reference Point (surveyor's notch, etc.):		**Time Sampled:**	

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING
Initial	432.62						109.5 NTU	
1214		8.56	680	18.2	-158.6	6.74	trace	bailer
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:		**Flow Rate:**	
Laboratory:		**Date Sent to Lab:**	
Shipment Method		**Field QC Sample Number:**	

Remarks: used bailer.

~~435.90~~ 433.58' TOC after samples

*Water level taken 9/11/24: 433.16'

Signature: Chris

Groundwater Sampling Field Data Sheet

Well #: **MW-10D**

Project Number:	553-8472-005	**Date:**	9/11/24
Project Name:	Yakima LPL	**Company Name:**	Parametrix
Project Address:	Rocky Top	**Sampled By:**	C. Bourgeois & K. Burke

Casing Diameter: 2" _ 4" _ 6" _____ Other _____

Initial Depth to Water (feet below TOC):	86.80	**Purge Rate Measurement Method:**	
Top of Screen (feet bgs):		**Date Purged:**	
Bottom of Screen (feet bgs)		**Purge Time (from/to):**	
Reference Point (surveyor's notch, etc.):		**Time Sampled:**	

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units)	Ec (µmhos/cm 25°C)	TEMP °C	Redox (mv)	Dissolved Oxygen mg/L	TURBIDITY (visual)	PUMP SETTING
Initial	86.80							Grab
1222		8.21	227.8	17.2	~~7.71~~ -101.7	7.74	Clear	Sample
Stabilization Criteria		± 0.1	3%	3%	± 10 mv	10%, or 3 <0.5	10%, or 3<5.0	

Purge Equipment:		**Flow Rate:**	
Laboratory:		**Date Sent to Lab:**	
Shipment Method		**Field QC Sample Number:**	

Remarks: Sample taken during hydraulic pump test

Signature: [signature]

Appendix B

Third Quarter 2024 Laboratory Analytical Report

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

September 10, 2024

Michael Brady
Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle, WA 98104

Re: Analytical Data for Project 553-8472-006
Laboratory Reference No. 2408-369

Dear Michael:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 2024.

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

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

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

Case Narrative

Samples were collected on August 28, 2024 and received by the laboratory on August 28, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Chloromethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	8-30-24	8-30-24	
Bromomethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Chloroethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Acetone	ND	5.0	EPA 8260D	8-30-24	8-30-24	
Iodomethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Carbon Disulfide	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Methylene Chloride	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Acrylonitrile	ND	0.69	EPA 8260D	8-30-24	8-30-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Vinyl Acetate	ND	1.0	EPA 8260D	8-30-24	8-30-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
2-Butanone	ND	5.0	EPA 8260D	8-30-24	8-30-24	
Bromochloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Chloroform	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Benzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Trichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Dibromomethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Bromodichloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	8-30-24	8-30-24	
Toluene	11	1.0	EPA 8260D	8-30-24	8-30-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Tetrachloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
2-Hexanone	ND	2.0	EPA 8260D	8-30-24	8-30-24	
Dibromochloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	8-30-24	8-30-24	
Chlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Ethylbenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
m,p-Xylene	ND	0.40	EPA 8260D	8-30-24	8-30-24	
o-Xylene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Styrene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Bromoform	ND	1.0	EPA 8260D	8-30-24	8-30-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	8-30-24	8-30-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Naphthalene	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-133*				
Toluene-d8	*98*	*79-123*				
4-Bromofluorobenzene	*95*	*78-117*				

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	08-369-02					
Chloromethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	8-30-24	8-30-24	
Bromomethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Chloroethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Acetone	ND	5.0	EPA 8260D	8-30-24	8-30-24	
Iodomethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Carbon Disulfide	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Methylene Chloride	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Acrylonitrile	ND	0.69	EPA 8260D	8-30-24	8-30-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Vinyl Acetate	ND	1.0	EPA 8260D	8-30-24	8-30-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
2-Butanone	ND	5.0	EPA 8260D	8-30-24	8-30-24	
Bromochloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Chloroform	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Benzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Trichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Dibromomethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Bromodichloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	8-30-24	8-30-24	
Toluene	ND	1.0	EPA 8260D	8-30-24	8-30-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Tetrachloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	08-369-02					
2-Hexanone	ND	2.0	EPA 8260D	8-30-24	8-30-24	
Dibromochloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	8-30-24	8-30-24	
Chlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Ethylbenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
m,p-Xylene	ND	0.40	EPA 8260D	8-30-24	8-30-24	
o-Xylene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Styrene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Bromoform	ND	1.0	EPA 8260D	8-30-24	8-30-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	8-30-24	8-30-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Naphthalene	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*100*	*78-117*				

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
Chloromethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	8-30-24	8-30-24	
Bromomethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Chloroethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Acetone	ND	5.0	EPA 8260D	8-30-24	8-30-24	
Iodomethane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Carbon Disulfide	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Methylene Chloride	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Acrylonitrile	ND	0.69	EPA 8260D	8-30-24	8-30-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Vinyl Acetate	ND	1.0	EPA 8260D	8-30-24	8-30-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
2-Butanone	ND	5.0	EPA 8260D	8-30-24	8-30-24	
Bromochloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Chloroform	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Benzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Trichloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Dibromomethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Bromodichloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	8-30-24	8-30-24	
Toluene	ND	1.0	EPA 8260D	8-30-24	8-30-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Tetrachloroethene	ND	0.20	EPA 8260D	8-30-24	8-30-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
2-Hexanone	ND	2.0	EPA 8260D	8-30-24	8-30-24	
Dibromochloromethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	8-30-24	8-30-24	
Chlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Ethylbenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
m,p-Xylene	ND	0.40	EPA 8260D	8-30-24	8-30-24	
o-Xylene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Styrene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
Bromoform	ND	1.0	EPA 8260D	8-30-24	8-30-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	8-30-24	8-30-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	8-30-24	8-30-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	8-30-24	8-30-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Naphthalene	ND	1.0	EPA 8260D	8-30-24	8-30-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*68-133*				
Toluene-d8	*98*	*79-123*				
4-Bromofluorobenzene	*98*	*78-117*				

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0830W1									
	SB	SBD	SB	SBD	SB	SBD				
Chloromethane	**9.45**	**9.26**	10.0	10.0	95	93	45-145	2	19	
Vinyl Chloride	**9.88**	**9.48**	10.0	10.0	99	95	67-130	4	15	
Bromomethane	**8.84**	**9.59**	10.0	10.0	88	96	27-165	8	36	
Chloroethane	**8.80**	**8.71**	10.0	10.0	88	87	61-132	1	18	
Trichlorofluoromethane	**10.8**	**10.5**	10.0	10.0	108	105	67-136	3	17	
1,1-Dichloroethene	**10.3**	**9.98**	10.0	10.0	103	100	74-125	3	15	
Acetone	**9.01**	**9.29**	10.0	10.0	90	93	49-140	3	20	
Iodomethane	**10.8**	**10.6**	10.0	10.0	108	106	15-154	2	49	
Carbon Disulfide	**9.85**	**9.63**	10.0	10.0	99	96	58-122	2	18	
Methylene Chloride	**9.37**	**9.30**	10.0	10.0	94	93	70-123	1	15	
(trans) 1,2-Dichloroethene	**10.0**	**9.89**	10.0	10.0	100	99	77-125	1	15	
1,1-Dichloroethane	**9.81**	**9.70**	10.0	10.0	98	97	75-125	1	15	
Vinyl Acetate	**9.44**	**9.77**	10.0	10.0	94	98	61-138	3	16	
(cis) 1,2-Dichloroethene	**10.4**	**10.3**	10.0	10.0	104	103	78-130	1	15	
2-Butanone	**8.80**	**9.22**	10.0	10.0	88	92	58-144	5	16	
Bromochloromethane	**9.92**	**9.91**	10.0	10.0	99	99	79-132	0	15	
Chloroform	**9.57**	**9.60**	10.0	10.0	96	96	73-128	0	15	
1,1,1-Trichloroethane	**10.0**	**9.90**	10.0	10.0	100	99	72-127	1	15	
Carbon Tetrachloride	**10.0**	**9.82**	10.0	10.0	100	98	68-131	2	15	
Benzene	**10.2**	**9.88**	10.0	10.0	102	99	76-124	3	15	
1,2-Dichloroethane	**10.4**	**10.4**	10.0	10.0	104	104	68-133	0	15	
Trichloroethene	**11.7**	**11.5**	10.0	10.0	117	115	80-126	2	15	
1,2-Dichloropropane	**10.8**	**10.7**	10.0	10.0	108	107	78-124	1	15	
Dibromomethane	**11.1**	**11.2**	10.0	10.0	111	112	76-131	1	15	
Bromodichloromethane	**10.6**	**10.7**	10.0	10.0	106	107	81-128	1	15	
(cis) 1,3-Dichloropropene	**11.0**	**11.0**	10.0	10.0	110	110	80-131	0	15	
Methyl Isobutyl Ketone	**10.3**	**10.8**	10.0	10.0	103	108	67-133	5	16	
Toluene	**10.3**	**10.1**	10.0	10.0	103	101	75-120	2	15	
(trans) 1,3-Dichloropropene	**10.9**	**10.9**	10.0	10.0	109	109	77-128	0	15	
1,1,2-Trichloroethane	**10.1**	**9.94**	10.0	10.0	101	99	80-124	2	15	
Tetrachloroethene	**11.2**	**11.1**	10.0	10.0	112	111	80-125	1	15	
2-Hexanone	**9.41**	**9.71**	10.0	10.0	94	97	65-134	3	20	
Dibromochloromethane	**10.5**	**11.2**	10.0	10.0	105	112	81-131	6	15	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0830W1									
	SB	SBD	SB	SBD	SB	SBD				
1,2-Dibromoethane	**11.3**	**11.4**	10.0	10.0	113	114	82-129	1	15	
Chlorobenzene	**11.0**	**10.8**	10.0	10.0	110	108	80-119	2	15	
1,1,1,2-Tetrachloroethane	**11.1**	**11.3**	10.0	10.0	111	113	80-124	2	15	
Ethylbenzene	**10.9**	**10.7**	10.0	10.0	109	107	80-121	2	15	
m,p-Xylene	**21.5**	**21.2**	20.0	20.0	108	106	80-122	1	15	
o-Xylene	**10.8**	**10.6**	10.0	10.0	108	106	80-121	2	15	
Styrene	**11.2**	**11.2**	10.0	10.0	112	112	82-128	0	15	
Bromoform	**10.6**	**10.7**	10.0	10.0	106	107	77-131	1	15	
1,1,2,2-Tetrachloroethane	**9.73**	**9.63**	10.0	10.0	97	96	66-138	1	15	
1,2,3-Trichloropropane	**8.66**	**8.86**	10.0	10.0	87	89	67-127	2	18	
1,4-Dichlorobenzene	**10.8**	**10.8**	10.0	10.0	108	108	78-127	0	15	
1,2-Dichlorobenzene	**10.8**	**10.9**	10.0	10.0	108	109	79-129	1	15	
1,2-Dibromo-3-chloropropane	**9.44**	**9.65**	10.0	10.0	94	97	62-140	2	18	
Naphthalene	**8.46**	**9.88**	10.0	10.0	85	99	53-144	15	25	
Surrogate:										
Dibromofluoromethane					*88*	*90*	*68-133*			
Toluene-d8					*99*	*98*	*79-123*			
4-Bromofluorobenzene					*102*	*100*	*78-117*			

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Gasoline	**ND**	100	NWTPH-Gx	8-29-24	8-29-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*75*	*61-122*				
Client ID:	**Trip Blank**					
Laboratory ID:	08-369-02					
Gasoline	**ND**	100	NWTPH-Gx	8-29-24	8-29-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*61-122*				

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829W1					
Gasoline	**ND**	100	NWTPH-Gx	8-29-24	8-29-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*77*	*61-122*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-221-04										
	ORIG	DUP									
GRO	**486**	**449**	NA	NA		NA		NA	8	30	
Surrogate:											
Fluorobenzene						*80*	*83*	*61-122*			

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Diesel Range Organics	**ND**	0.20	NWTPH-Dx	8-30-24	8-30-24	
Lube Oil Range Organics	**ND**	0.20	NWTPH-Dx	8-30-24	8-30-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
Diesel Range Organics	**ND**	0.16	NWTPH-Dx	8-30-24	8-30-24	
Lube Oil Range Organics	**ND**	0.16	NWTPH-Dx	8-30-24	8-30-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*107*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	SB0830W1										
	ORIG	DUP									
Diesel Fuel #2	**0.428**	**0.398**	NA	NA		NA		NA	7	40	
Surrogate:											
o-Terphenyl						*112*	*104*	*50-150*			

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Iron	**0.067**	0.050	EPA 6010D	8-29-24	9-3-24	
Magnesium	**10**	1.0	EPA 6010D	8-29-24	9-3-24	
Manganese	**0.032**	0.010	EPA 6010D	8-29-24	9-3-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829WH1					
Iron	**ND**	0.050	EPA 6010D	8-29-24	9-3-24	
Magnesium	**ND**	1.0	EPA 6010D	8-29-24	9-3-24	
Manganese	**ND**	0.010	EPA 6010D	8-29-24	9-3-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-140-06										
	ORIG	DUP									
Iron	**5.56**	**5.38**	NA	NA		NA		NA	3	20	
Magnesium	**37.5**	**36.4**	NA	NA		NA		NA	3	20	
Manganese	**1.37**	**1.32**	NA	NA		NA		NA	3	20	
MATRIX SPIKES											
Laboratory ID:	08-140-06										
	MS	MSD	MS	MSD		MS	MSD				
Iron	**24.4**	**24.9**	20.0	20.0	5.56	**94**	**97**	75-125	2	20	
Magnesium	**59.7**	**60.2**	20.0	20.0	37.5	**111**	**114**	75-125	1	20	
Manganese	**1.79**	**1.78**	0.500	0.500	1.37	**85**	**84**	75-125	0	20	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

DISSOLVED METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Calcium	**15**	1.1	EPA 6010D		9-3-24	
Iron	**0.071**	0.056	EPA 6010D		9-3-24	
Magnesium	**11**	1.1	EPA 6010D		9-3-24	
Manganese	**0.035**	0.011	EPA 6010D		9-3-24	
Potassium	**2.8**	1.1	EPA 6010D		9-3-24	
Sodium	**11**	1.1	EPA 6010D		9-3-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

DISSOLVED METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0903D1					
Calcium	**ND**	1.1	EPA 6010D		9-3-24	
Iron	**ND**	0.056	EPA 6010D		9-3-24	
Magnesium	**ND**	1.1	EPA 6010D		9-3-24	
Manganese	**ND**	0.011	EPA 6010D		9-3-24	
Potassium	**ND**	1.1	EPA 6010D		9-3-24	
Sodium	**ND**	1.1	EPA 6010D		9-3-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-289-07									
	ORIG	DUP								
Calcium	**36.8**	**36.9**	NA	NA		NA	NA	0	20	
Iron	**17.6**	**17.6**	NA	NA		NA	NA	0	20	
Magnesium	**14.8**	**14.8**	NA	NA		NA	NA	0	20	
Manganese	**1.02**	**1.01**	NA	NA		NA	NA	0	20	
Potassium	**2.23**	**2.28**	NA	NA		NA	NA	2	20	
Sodium	**17.5**	**17.5**	NA	NA		NA	NA	0	20	

MATRIX SPIKES										
Laboratory ID:	08-289-07									
	MS	MSD	MS	MSD		MS	MSD			
Calcium	**58.1**	**57.5**	22.2	22.2	36.8	**96**	**93**	75-125	1	20
Iron	**103**	**110**	100	100	17.6	**85**	**93**	75-125	7	20
Magnesium	**36.3**	**36.2**	22.2	22.2	14.8	**97**	**97**	75-125	0	20
Manganese	**1.48**	**1.47**	0.556	0.556	1.02	**84**	**81**	75-125	1	20
Potassium	**25.6**	**25.9**	22.2	22.2	2.23	**105**	**106**	75-125	1	20
Sodium	**36.7**	**36.5**	22.2	22.2	17.5	**87**	**86**	75-125	1	20

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

NITRATE (as Nitrogen)
EPA 353.2

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Nitrate	**ND**	0.050	EPA 353.2	8-29-24	8-29-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

NITRATE (as Nitrogen)
EPA 353.2
QUALITY CONTROL

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829W1					
Nitrate	**ND**	0.050	EPA 353.2	8-29-24	8-29-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	08-367-03								
	ORIG	DUP							
Nitrate	**0.310**	**0.298**	NA	NA	NA	NA	4	22	
MATRIX SPIKE									
Laboratory ID:	08-367-03								
	MS		MS		MS				
Nitrate	**2.28**		2.00	0.310	99	86-119	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB0829W1								
	SB		SB		SB				
Nitrate	**1.96**		2.00	NA	98	85-117	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

CHLORIDE
SM 4500-Cl E

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Chloride	**3.2**	2.0	SM 4500-Cl E	9-5-24	9-5-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

CHLORIDE
SM 4500-Cl E
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0905W1					
Chloride	**ND**	2.0	SM 4500-Cl E	9-5-24	9-5-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	08-369-01							
	ORIG DUP							
Chloride	**3.20** **2.98**	NA	NA	NA	NA	7	21	
MATRIX SPIKE								
Laboratory ID:	08-369-01							
	MS	MS		MS				
Chloride	**59.3**	50.0	3.20	112	81-115	NA	NA	
SPIKE BLANK								
Laboratory ID:	SB0905W1							
	SB	SB		SB				
Chloride	**54.4**	50.0	NA	109	77-115	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

SULFATE
ASTM D516-11

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Sulfate	**ND**	5.0	ASTM D516-11	9-3-24	9-3-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

SULFATE
ASTM D516-11
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0903W1					
Sulfate	**ND**	5.0	ASTM D516-11	9-3-24	9-3-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	08-369-01							
	ORIG DUP							
Sulfate	**ND** **ND**	NA	NA	NA	NA	NA	11	
MATRIX SPIKE								
Laboratory ID:	08-369-01							
	MS	MS		MS				
Sulfate	**9.96**	10.0	ND	100	69-134	NA	NA	
SPIKE BLANK								
Laboratory ID:	SB0903W1							
	SB	SB		SB				
Sulfate	**9.50**	10.0	NA	95	81-106	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL DISSOLVED SOLIDS
SM 2540C

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Total Dissolved Solids	**100**	13	SM 2540C	8-30-24	8-30-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL DISSOLVED SOLIDS
SM 2540C
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
Total Dissolved Solids	**ND**	13	SM 2540C	8-30-24	8-30-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	08-369-01							
	ORIG DUP							
Total Dissolved Solids	**100** **112**	NA	NA	NA	NA	11	29	
SPIKE BLANK								
Laboratory ID:	SB0830W1							
	SB	SB		SB				
Total Dissolved Solids	**469**	500	NA	94	76-120	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL ALKALINITY
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Total Alkalinity	**100**	2.0	SM 2320B	8-29-24	8-29-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL ALKALINITY
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829W1					
Total Alkalinity	**ND**	2.0	SM 2320B	8-29-24	8-29-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	08-369-01								
	ORIG	DUP							
Total Alkalinity	**100**	**100**	NA	NA	NA	NA	0	10	
SPIKE BLANK									
Laboratory ID:	SB0829W1								
	SB		SB		SB				
Total Alkalinity	**96.0**		100	NA	96	82-101	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

BICARBONATE
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Bicarbonate	**100**	2.0	SM 2320B	8-29-24	8-29-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

BICARBONATE
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829W1					
Bicarbonate	**ND**	2.0	SM 2320B	8-29-24	8-29-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	08-369-01								
	ORIG	DUP							
Bicarbonate	**100**	**100**	NA	NA	NA	NA	0	10	
SPIKE BLANK									
Laboratory ID:	SB0829W1								
	SB		SB		SB				
Bicarbonate	**96.0**		100	NA	96	82-101	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

AMMONIA (as Nitrogen)
SM 4500-NH_3 D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Ammonia	**0.065**	0.053	SM 4500-NH3 D	9-4-24	9-4-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

AMMONIA (as Nitrogen)
SM 4500-NH_3 D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0904W1					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-4-24	9-4-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	08-369-01								
	ORIG	DUP							
Ammonia	**0.0654**	**0.0627**	NA	NA	NA	NA	4	15	
MATRIX SPIKE									
Laboratory ID:	08-369-01								
	MS		MS		MS				
Ammonia	**4.81**		5.00	0.0654	95	75-111	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB0904W1								
	SB		SB		SB				
Ammonia	**5.04**		5.00	NA	101	81-110	NA	NA	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL ORGANIC CARBON
SM 5310B

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-7D-0828**					
Laboratory ID:	08-369-01					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-9-24	9-9-24	

Date of Report: September 10, 2024
Samples Submitted: August 28, 2024
Laboratory Reference: 2408-369
Project: 553-8472-006

TOTAL ORGANIC CARBON
SM 5310B
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0909W1					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-9-24	9-9-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	08-369-01							
	ORIG DUP							
Total Organic Carbon	**ND** **ND**	NA	NA	NA	NA	NA	11	
MATRIX SPIKE								
Laboratory ID:	08-369-01							
	MS	MS		MS				
Total Organic Carbon	**10.9**	10.0	ND	109	85-120	NA	NA	
SPIKE BLANK								
Laboratory ID:	SB0909W1							
	SB	SB		SB				
Total Organic Carbon	**11.5**	10.0	NA	115	79-120	NA	NA	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

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

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

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

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

Q - Surrogate recovery is outside of the control limits.

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

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

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

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

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

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

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

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

Chain of Custody

Page 1 of 1

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

Company: Parametrix
Project Number: 553-8472-006
Project Name: DTG Yakima LPL
Project Manager: Mike Brady
Sampled by: Mike Brady

Turnaround Request (in working days)

(Check One)

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

Laboratory Number: 08-369

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	VOCs (8260D – WAC 173-351 Appendix I) Naphthalene; SIM-VC and 1,2-EDB	NWTPH-Gx	NWTPH-Dx	Total Metals (Fe, Mn, Mg)	Dissolved Metals (Fe, Mn, Mg, Ca, K, Na)	Nitrate, chloride, sulfate	TDS, Alkalinity, Bicarbonate	Ammonia	TOC	% Moisture
1	MW-7D- 0828	8/28/24	1120	Water	13	X	X	X	X	X	X	X	X	X	
2	Trip Blank	—	—	↓	3	X	X								

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		Parametrix	8/29/24	1700	
Received		ODE	8/29/24	1700	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

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

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

September 19, 2024

Michael Brady
Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle, WA 98104

Re: Analytical Data for Project 553-8472-006
Laboratory Reference No. 2409-088

Dear Michael:

Enclosed are the analytical results and associated quality control data for samples submitted on September 10, 2024.

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

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

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

Case Narrative

Samples were collected on September 8 and 9, 2024 and received by the laboratory on September 10, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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

Volatiles EPA 8260D Analysis

The percent recovery for Trichloroethene is outside the control limits on the high end in the Spike Blank and Spike Blank Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

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

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	4.5	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*103*	*78-117*				

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	09-088-02					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	09-088-02					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*68-133*				
Toluene-d8	*101*	*79-123*				
4-Bromofluorobenzene	*103*	*78-117*				

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*102*	*78-117*				

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0916W1									
	SB	SBD	SB	SBD	SB	SBD				
Chloromethane	**10.8**	**10.8**	10.0	10.0	108	108	45-145	0	19	
Vinyl Chloride	**11.1**	**11.0**	10.0	10.0	111	110	67-130	1	15	
Bromomethane	**9.58**	**11.1**	10.0	10.0	96	111	27-165	15	36	
Chloroethane	**9.46**	**9.36**	10.0	10.0	95	94	61-132	1	18	
Trichlorofluoromethane	**12.1**	**12.0**	10.0	10.0	121	120	67-136	1	17	
1,1-Dichloroethene	**11.2**	**11.3**	10.0	10.0	112	113	74-125	1	15	
Acetone	**8.44**	**8.94**	10.0	10.0	84	89	49-140	6	20	
Iodomethane	**7.65**	**9.38**	10.0	10.0	77	94	15-154	20	49	
Carbon Disulfide	**8.76**	**9.08**	10.0	10.0	88	91	58-122	4	18	
Methylene Chloride	**9.98**	**9.89**	10.0	10.0	100	99	70-123	1	15	
(trans) 1,2-Dichloroethene	**10.9**	**10.9**	10.0	10.0	109	109	77-125	0	15	
1,1-Dichloroethane	**10.7**	**10.8**	10.0	10.0	107	108	75-125	1	15	
Vinyl Acetate	**9.41**	**9.35**	10.0	10.0	94	94	61-138	1	16	
(cis) 1,2-Dichloroethene	**11.1**	**11.2**	10.0	10.0	111	112	78-130	1	15	
2-Butanone	**9.39**	**9.09**	10.0	10.0	94	91	58-144	3	16	
Bromochloromethane	**10.7**	**10.9**	10.0	10.0	107	109	79-132	2	15	
Chloroform	**10.4**	**10.7**	10.0	10.0	104	107	73-128	3	15	
1,1,1-Trichloroethane	**10.8**	**11.0**	10.0	10.0	108	110	72-127	2	15	
Carbon Tetrachloride	**11.0**	**11.1**	10.0	10.0	110	111	68-131	1	15	
Benzene	**11.1**	**11.2**	10.0	10.0	111	112	76-124	1	15	
1,2-Dichloroethane	**11.4**	**11.3**	10.0	10.0	114	113	68-133	1	15	
Trichloroethene	**12.7**	**13.0**	10.0	10.0	127	130	80-126	2	15	I,I
1,2-Dichloropropane	**11.4**	**11.5**	10.0	10.0	114	115	78-124	1	15	
Dibromomethane	**12.5**	**12.4**	10.0	10.0	125	124	76-131	1	15	
Bromodichloromethane	**11.2**	**11.4**	10.0	10.0	112	114	81-128	2	15	
(cis) 1,3-Dichloropropene	**11.8**	**11.9**	10.0	10.0	118	119	80-131	1	15	
Methyl Isobutyl Ketone	**10.2**	**9.99**	10.0	10.0	102	100	67-133	2	16	
Toluene	**11.1**	**11.3**	10.0	10.0	111	113	75-120	2	15	
(trans) 1,3-Dichloropropene	**10.5**	**10.4**	10.0	10.0	105	104	77-128	1	15	
1,1,2-Trichloroethane	**9.98**	**10.0**	10.0	10.0	100	100	80-124	0	15	
Tetrachloroethene	**11.3**	**11.4**	10.0	10.0	113	114	80-125	1	15	
2-Hexanone	**8.83**	**8.73**	10.0	10.0	88	87	65-134	1	20	
Dibromochloromethane	**10.3**	**10.5**	10.0	10.0	103	105	81-131	2	15	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0916W1									
	SB	SBD	SB	SBD	SB	SBD				
1,2-Dibromoethane	**11.3**	**11.6**	10.0	10.0	113	116	82-129	3	15	
Chlorobenzene	**10.8**	**11.0**	10.0	10.0	108	110	80-119	2	15	
1,1,1,2-Tetrachloroethane	**11.0**	**11.3**	10.0	10.0	110	113	80-124	3	15	
Ethylbenzene	**10.8**	**11.0**	10.0	10.0	108	110	80-121	2	15	
m,p-Xylene	**21.2**	**21.4**	20.0	20.0	106	107	80-122	1	15	
o-Xylene	**10.4**	**10.6**	10.0	10.0	104	106	80-121	2	15	
Styrene	**11.3**	**11.6**	10.0	10.0	113	116	82-128	3	15	
Bromoform	**10.8**	**11.0**	10.0	10.0	108	110	77-131	2	15	
1,1,2,2-Tetrachloroethane	**9.17**	**9.64**	10.0	10.0	92	96	66-138	5	15	
1,2,3-Trichloropropane	**8.28**	**8.41**	10.0	10.0	83	84	67-127	2	18	
1,4-Dichlorobenzene	**10.1**	**10.4**	10.0	10.0	101	104	78-127	3	15	
1,2-Dichlorobenzene	**10.0**	**10.4**	10.0	10.0	100	104	79-129	4	15	
1,2-Dibromo-3-chloropropane	**8.74**	**8.64**	10.0	10.0	87	86	62-140	1	18	
Naphthalene	**8.81**	**9.27**	10.0	10.0	88	93	53-144	5	25	
Surrogate:										
Dibromofluoromethane					*87*	*88*	*68-133*			
Toluene-d8					*97*	*99*	*79-123*			
4-Bromofluorobenzene					*104*	*103*	*78-117*			

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Gasoline	**ND**	100	NWTPH-Gx	9-12-24	9-12-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*61-122*				
Client ID:	**Trip Blank**					
Laboratory ID:	09-088-02					
Gasoline	**ND**	100	NWTPH-Gx	9-12-24	9-12-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*61-122*				

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0912W1					
Gasoline	**ND**	100	NWTPH-Gx	9-12-24	9-12-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*61-122*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-146-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*91*	*82*	*61-122*			

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	9-12-24	9-12-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	9-12-24	9-12-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0912W1					
Diesel Range Organics	**ND**	0.16	NWTPH-Dx	9-12-24	9-12-24	
Lube Oil Range Organics	**ND**	0.16	NWTPH-Dx	9-12-24	9-12-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*74*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-132-01										
	ORIG	DUP									
Diesel Range Organics	**0.996**	**0.864**	NA	NA		NA		NA	14	40	
Lube Oil Range Organics	**1.03**	**0.814**	NA	NA		NA		NA	23	40	
Surrogate:											
o-Terphenyl						*96*	*91*	*50-150*			

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Iron	**0.12**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**16**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**0.026**	0.010	EPA 6010D	9-16-24	9-16-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916WH1					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**ND**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Iron	**0.546**	**0.623**	NA	NA		NA		NA	13	20	
Magnesium	**12.9**	**14.3**	NA	NA		NA		NA	10	20	
Manganese	**0.110**	**0.122**	NA	NA		NA		NA	10	20	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Iron	**22.0**	**20.6**	20.0	20.0	0.546	**107**	**100**	75-125	7	20	
Magnesium	**35.8**	**34.3**	20.0	20.0	12.9	**114**	**107**	75-125	4	20	
Manganese	**0.668**	**0.631**	0.500	0.500	0.110	**112**	**104**	75-125	6	20	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

DISSOLVED METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Calcium	**24**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**16**	1.1	EPA 6010D		9-13-24	
Manganese	**0.026**	0.011	EPA 6010D		9-13-24	
Potassium	**3.0**	1.1	EPA 6010D		9-13-24	
Sodium	**18**	1.1	EPA 6010D		9-13-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

DISSOLVED METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913D1					
Calcium	**ND**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**ND**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**ND**	1.1	EPA 6010D		9-13-24	
Sodium	**ND**	1.1	EPA 6010D		9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	09-159-04									
	ORIG	DUP								
Calcium	**24.2**	**23.9**	NA	NA		NA	NA	1	20	
Iron	**0.261**	**0.345**	NA	NA		NA	NA	28	20	C
Magnesium	**15.5**	**15.4**	NA	NA		NA	NA	1	20	
Manganese	**0.130**	**0.129**	NA	NA		NA	NA	0	20	
Potassium	**2.65**	**2.62**	NA	NA		NA	NA	1	20	
Sodium	**13.5**	**13.4**	NA	NA		NA	NA	1	20	

MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Calcium	**43.9**	**45.3**	22.2	22.2	24.2	**89**	**95**	75-125	3	20	
Iron	**22.1**	**22.8**	22.2	22.2	0.261	**98**	**102**	75-125	3	20	
Magnesium	**35.9**	**36.4**	22.2	22.2	15.5	**92**	**94**	75-125	1	20	
Manganese	**0.638**	**0.646**	0.556	0.556	0.130	**92**	**93**	75-125	1	20	
Potassium	**25.9**	**26.6**	22.2	22.2	2.65	**105**	**108**	75-125	3	20	
Sodium	**32.9**	**33.4**	22.2	22.2	13.5	**87**	**90**	75-125	2	20	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

NITRATE (as Nitrogen)
EPA 353.2

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Nitrate	**0.85**	0.050	EPA 353.2	9-10-24	9-10-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

NITRATE (as Nitrogen)
EPA 353.2
QUALITY CONTROL

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910W1					
Nitrate	**ND**	0.050	EPA 353.2	9-10-24	9-10-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	09-088-01								
	ORIG	DUP							
Nitrate	**0.851**	**0.795**	NA	NA	NA	NA	7	22	
MATRIX SPIKE									
Laboratory ID:	09-088-01								
	MS		MS		MS				
Nitrate	**2.88**		2.00	0.851	101	86-119	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB0910W1								
	SB		SB		SB				
Nitrate	**2.06**		2.00	NA	103	85-117	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

CHLORIDE
SM 4500-Cl E

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Chloride	**12**	2.0	SM 4500-Cl E	9-12-24	9-12-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

CHLORIDE
SM 4500-Cl E
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0912W1					
Chloride	**ND**	2.0	SM 4500-Cl E	9-12-24	9-12-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-088-01							
	ORIG DUP							
Chloride	**12.0** **11.9**	NA	NA	NA	NA	1	21	
MATRIX SPIKE								
Laboratory ID:	09-088-01							
	MS	MS		MS				
Chloride	**67.5**	50.0	12.0	111	81-115	NA	NA	
SPIKE BLANK								
Laboratory ID:	SB0912W1							
	SB	SB		SB				
Chloride	**53.8**	50.0	NA	108	77-115	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

SULFATE
ASTM D516-11

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Sulfate	**46**	20	ASTM D516-11	9-10-24	9-10-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

SULFATE
ASTM D516-11
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910W1					
Sulfate	**ND**	5.0	ASTM D516-11	9-10-24	9-10-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-017-01							
	ORIG DUP							
Sulfate	**ND** **ND**	NA	NA	NA	NA	NA	11	
MATRIX SPIKE								
Laboratory ID:	09-017-01							
	MS	MS		MS				
Sulfate	**8.91**	10.0	ND	89	69-134	NA	NA	
SPIKE BLANK								
Laboratory ID:	SB0910W1							
	SB	SB		SB				
Sulfate	**8.81**	10.0	NA	88	81-106	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL DISSOLVED SOLIDS
SM 2540C

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Total Dissolved Solids	**230**	13	SM 2540C	9-10-24	9-10-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL DISSOLVED SOLIDS
SM 2540C
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910W1					
Total Dissolved Solids	**ND**	13	SM 2540C	9-10-24	9-10-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	09-017-01								
	ORIG	DUP							
Total Dissolved Solids	**3750**	**3710**	NA	NA	NA	NA	1	29	
SPIKE BLANK									
Laboratory ID:	SB0910W1								
	SB		SB		SB				
Total Dissolved Solids	**481**		500	NA	96	76-120	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL ALKALINITY
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Total Alkalinity	**94**	2.0	SM 2320B	9-13-24	9-13-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL ALKALINITY
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Total Alkalinity	**ND**	2.0	SM 2320B	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Alkalinity	**92.0**	**92.0**	NA		NA	NA		NA	0	10	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Alkalinity	**182**	**182**	100	100	92.0	90	90	80-120	0	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Total Alkalinity	**98.0**		100		NA	98		82-101	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

BICARBONATE
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Bicarbonate	**94**	2.0	SM 2320B	9-13-24	9-13-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

BICARBONATE
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Bicarbonate	**ND**	2.0	SM 2320B	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Alkalinity	**92.0**	**92.0**	NA		NA	NA		NA	0	10	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Alkalinity	**182**	**182**	100	100	92.0	90	90	80-120	0	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Total Alkalinity	**98.0**		100		NA	98		82-101	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

AMMONIA (as Nitrogen)
SM 4500-NH_3 D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

AMMONIA (as Nitrogen)
SM 4500-NH_3 D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Ammonia	**ND**	**ND**	NA		NA	NA		NA	NA	15	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Ammonia	**4.93**	**4.95**	5.00	5.00	ND	99	99	75-111	0	20	
SPIKE BLANK											
Laboratory ID:	SB0916W1										
	SB		SB			SB					
Ammonia	**4.95**		5.00		NA	99		81-110	NA	NA	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL ORGANIC CARBON
SM 5310B

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8D**					
Laboratory ID:	09-088-01					
Total Organic Carbon	**1.3**	1.0	SM 5310B	9-17-24	9-17-24	

Date of Report: September 19, 2024
Samples Submitted: September 10, 2024
Laboratory Reference: 2409-088
Project: 553-8472-006

TOTAL ORGANIC CARBON
SM 5310B
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W1					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Organic Carbon	**ND**	**ND**	NA		NA	NA		NA	NA	11	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Organic Carbon	**11.1**	**10.8**	10.0	10.0	ND	111	108	85-120	3	20	
SPIKE BLANK											
Laboratory ID:	SB0917W1										
	SB		SB			SB					
Total Organic Carbon	**10.3**		10.0		NA	103		79-120	NA	NA	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

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

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

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

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

Q - Surrogate recovery is outside of the control limits.

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

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

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

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

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

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

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

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

Chain of Custody

Page 1 of 1

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

Company: Parametrix
Project Number: 553-8472-006
Project Name: DTG Yakima LPL
Project Manager: Mike Brady
Sampled by: MB

Turnaround Request (in working days)

(Check One)

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

Laboratory Number: 09-088

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	VOCs (8260D – WAC 173-351 Appendix I) Naphthalene; SIM-VC and 1,2-EDB	NWTPH-Gx	NWTPH-Dx	Total Metals (Fe, Mn, Mg)	Dissolved Metals (Fe, Mn, Mg, Ca, K, Na)	Nitrate, chloride, sulfate	TDS, Alkalinity, Bicarbonate	Ammonia	TOC	% Moisture
1	MW-8D-	9/9/24	1530	Water	15	X	X	X	X	X	X	X	X	X	
2	Trip Blank	9/8-9/10	—	H2O	4	X	X								

	Signature	Company	Date	Time
Relinquished	MB	Parametrix	9/10/24	8:00
Received		OSE	9/10/24	0930
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* Field Filtered

Chromatograms with final report ☐

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

2

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

September 23, 2024

Michael Brady
Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle, WA 98104

Re: Analytical Data for Project 553-8472-006
Laboratory Reference No. 2409-157

Dear Michael:

Enclosed are the analytical results and associated quality control data for samples submitted on September 12, 2024.

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

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

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

Case Narrative

Samples were collected on September 10 and 11, 2024 and received by the laboratory on September 12, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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

Volatiles EPA 8260D Analysis

The percent recovery for Trichloroethene is outside the control limits on the high end in the Spike Blank and Spike Blank Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

Nitrate (as Nitrogen) EPA 353.2 Analysis

Sample MW-9D-0910 was received and analyzed outside of holding time.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	1.4	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*103*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	09-157-02					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	09-157-02					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*68-133*				
Toluene-d8	*99*	*79-123*				
4-Bromofluorobenzene	*103*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	2.7	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*104*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Chloromethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*102*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0916W1									
	SB	SBD	SB	SBD	SB	SBD				
Chloromethane	**10.8**	**10.8**	10.0	10.0	108	108	45-145	0	19	
Vinyl Chloride	**11.1**	**11.0**	10.0	10.0	111	110	67-130	1	15	
Bromomethane	**9.58**	**11.1**	10.0	10.0	96	111	27-165	15	36	
Chloroethane	**9.46**	**9.36**	10.0	10.0	95	94	61-132	1	18	
Trichlorofluoromethane	**12.1**	**12.0**	10.0	10.0	121	120	67-136	1	17	
1,1-Dichloroethene	**11.2**	**11.3**	10.0	10.0	112	113	74-125	1	15	
Acetone	**8.44**	**8.94**	10.0	10.0	84	89	49-140	6	20	
Iodomethane	**7.65**	**9.38**	10.0	10.0	77	94	15-154	20	49	
Carbon Disulfide	**8.76**	**9.08**	10.0	10.0	88	91	58-122	4	18	
Methylene Chloride	**9.98**	**9.89**	10.0	10.0	100	99	70-123	1	15	
(trans) 1,2-Dichloroethene	**10.9**	**10.9**	10.0	10.0	109	109	77-125	0	15	
1,1-Dichloroethane	**10.7**	**10.8**	10.0	10.0	107	108	75-125	1	15	
Vinyl Acetate	**9.41**	**9.35**	10.0	10.0	94	94	61-138	1	16	
(cis) 1,2-Dichloroethene	**11.1**	**11.2**	10.0	10.0	111	112	78-130	1	15	
2-Butanone	**9.39**	**9.09**	10.0	10.0	94	91	58-144	3	16	
Bromochloromethane	**10.7**	**10.9**	10.0	10.0	107	109	79-132	2	15	
Chloroform	**10.4**	**10.7**	10.0	10.0	104	107	73-128	3	15	
1,1,1-Trichloroethane	**10.8**	**11.0**	10.0	10.0	108	110	72-127	2	15	
Carbon Tetrachloride	**11.0**	**11.1**	10.0	10.0	110	111	68-131	1	15	
Benzene	**11.1**	**11.2**	10.0	10.0	111	112	76-124	1	15	
1,2-Dichloroethane	**11.4**	**11.3**	10.0	10.0	114	113	68-133	1	15	
Trichloroethene	**12.7**	**13.0**	10.0	10.0	127	130	80-126	2	15	I,I
1,2-Dichloropropane	**11.4**	**11.5**	10.0	10.0	114	115	78-124	1	15	
Dibromomethane	**12.5**	**12.4**	10.0	10.0	125	124	76-131	1	15	
Bromodichloromethane	**11.2**	**11.4**	10.0	10.0	112	114	81-128	2	15	
(cis) 1,3-Dichloropropene	**11.8**	**11.9**	10.0	10.0	118	119	80-131	1	15	
Methyl Isobutyl Ketone	**10.2**	**9.99**	10.0	10.0	102	100	67-133	2	16	
Toluene	**11.1**	**11.3**	10.0	10.0	111	113	75-120	2	15	
(trans) 1,3-Dichloropropene	**10.5**	**10.4**	10.0	10.0	105	104	77-128	1	15	
1,1,2-Trichloroethane	**9.98**	**10.0**	10.0	10.0	100	100	80-124	0	15	
Tetrachloroethene	**11.3**	**11.4**	10.0	10.0	113	114	80-125	1	15	
2-Hexanone	**8.83**	**8.73**	10.0	10.0	88	87	65-134	1	20	
Dibromochloromethane	**10.3**	**10.5**	10.0	10.0	103	105	81-131	2	15	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0916W1									
	SB	SBD	SB	SBD	SB	SBD				
1,2-Dibromoethane	**11.3**	**11.6**	10.0	10.0	113	116	82-129	3	15	
Chlorobenzene	**10.8**	**11.0**	10.0	10.0	108	110	80-119	2	15	
1,1,1,2-Tetrachloroethane	**11.0**	**11.3**	10.0	10.0	110	113	80-124	3	15	
Ethylbenzene	**10.8**	**11.0**	10.0	10.0	108	110	80-121	2	15	
m,p-Xylene	**21.2**	**21.4**	20.0	20.0	106	107	80-122	1	15	
o-Xylene	**10.4**	**10.6**	10.0	10.0	104	106	80-121	2	15	
Styrene	**11.3**	**11.6**	10.0	10.0	113	116	82-128	3	15	
Bromoform	**10.8**	**11.0**	10.0	10.0	108	110	77-131	2	15	
1,1,2,2-Tetrachloroethane	**9.17**	**9.64**	10.0	10.0	92	96	66-138	5	15	
1,2,3-Trichloropropane	**8.28**	**8.41**	10.0	10.0	83	84	67-127	2	18	
1,4-Dichlorobenzene	**10.1**	**10.4**	10.0	10.0	101	104	78-127	3	15	
1,2-Dichlorobenzene	**10.0**	**10.4**	10.0	10.0	100	104	79-129	4	15	
1,2-Dibromo-3-chloropropane	**8.74**	**8.64**	10.0	10.0	87	86	62-140	1	18	
Naphthalene	**8.81**	**9.27**	10.0	10.0	88	93	53-144	5	25	
Surrogate:										
Dibromofluoromethane					*87*	*88*	*68-133*			
Toluene-d8					*97*	*99*	*79-123*			
4-Bromofluorobenzene					*104*	*103*	*78-117*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Gasoline	**ND**	100	NWTPH-Gx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-122*				
Client ID:	**Trip Blank**					
Laboratory ID:	09-157-02					
Gasoline	**ND**	100	NWTPH-Gx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*61-122*				
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Gasoline	**ND**	100	NWTPH-Gx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*61-122*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W2					
Gasoline	**ND**	100	NWTPH-Gx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-122*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-148-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*85*	*81*	*61-122*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Diesel Range Organics	**ND**	0.20	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.20	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Diesel Range Organics	**0.46**	0.057	NWTPH-Dx	9-16-24	9-19-24	
Lube Oil Range Organics	**0.073**	0.057	NWTPH-Dx	9-16-24	9-19-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Diesel Range Organics	**ND**	0.053	NWTPH-Dx	9-16-24	9-19-24	
Lube Oil Range Organics	**ND**	0.053	NWTPH-Dx	9-16-24	9-19-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-174-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	40	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	40	
Surrogate:											
o-Terphenyl						*88*	*81*	*50-150*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Iron	**0.15**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**10**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**0.022**	0.010	EPA 6010D	9-16-24	9-16-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Iron	**23**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**28**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**0.42**	0.010	EPA 6010D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916WH1					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**ND**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Iron	**0.546**	**0.623**	NA	NA		NA		NA	13	20	
Magnesium	**12.9**	**14.3**	NA	NA		NA		NA	10	20	
Manganese	**0.110**	**0.122**	NA	NA		NA		NA	10	20	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Iron	**22.0**	**20.6**	20.0	20.0	0.546	**107**	**100**	75-125	7	20	
Magnesium	**35.8**	**34.3**	20.0	20.0	12.9	**114**	**107**	75-125	4	20	
Manganese	**0.668**	**0.631**	0.500	0.500	0.110	**112**	**104**	75-125	6	20	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

DISSOLVED METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Calcium	**17**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**10**	1.1	EPA 6010D		9-13-24	
Manganese	**0.021**	0.011	EPA 6010D		9-13-24	
Potassium	**2.2**	1.1	EPA 6010D		9-13-24	
Sodium	**15**	1.1	EPA 6010D		9-13-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Calcium	**48**	1.1	EPA 6010D		9-13-24	
Iron	**0.39**	0.056	EPA 6010D		9-13-24	
Magnesium	**27**	1.1	EPA 6010D		9-13-24	
Manganese	**0.17**	0.011	EPA 6010D		9-13-24	
Potassium	**ND**	1.1	EPA 6010D		9-13-24	
Sodium	**52**	1.1	EPA 6010D		9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

DISSOLVED METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913D1					
Calcium	**ND**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**ND**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**ND**	1.1	EPA 6010D		9-13-24	
Sodium	**ND**	1.1	EPA 6010D		9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	09-159-04									
	ORIG	DUP								
Calcium	**24.2**	**23.9**	NA	NA		NA	NA	1	20	
Iron	**0.261**	**0.345**	NA	NA		NA	NA	28	20	C
Magnesium	**15.5**	**15.4**	NA	NA		NA	NA	1	20	
Manganese	**0.130**	**0.129**	NA	NA		NA	NA	0	20	
Potassium	**2.65**	**2.62**	NA	NA		NA	NA	1	20	
Sodium	**13.5**	**13.4**	NA	NA		NA	NA	1	20	

MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Calcium	**43.9**	**45.3**	22.2	22.2	24.2	**89**	**95**	75-125	3	20	
Iron	**22.1**	**22.8**	22.2	22.2	0.261	**98**	**102**	75-125	3	20	
Magnesium	**35.9**	**36.4**	22.2	22.2	15.5	**92**	**94**	75-125	1	20	
Manganese	**0.638**	**0.646**	0.556	0.556	0.130	**92**	**93**	75-125	1	20	
Potassium	**25.9**	**26.6**	22.2	22.2	2.65	**105**	**108**	75-125	3	20	
Sodium	**32.9**	**33.4**	22.2	22.2	13.5	**87**	**90**	75-125	2	20	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

NITRATE (as Nitrogen)
EPA 353.2

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Nitrate	**1.5**	0.050	EPA 353.2	9-13-24	9-13-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Nitrate	**0.17**	0.050	EPA 353.2	9-13-24	9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

NITRATE (as Nitrogen)
EPA 353.2
QUALITY CONTROL

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Nitrate	**ND**	0.050	EPA 353.2	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Nitrate	**ND**	**ND**	NA		NA	NA		NA	NA	22	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Nitrate	**2.10**	**2.34**	2.00	2.00	ND	105	117	86-119	11	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Nitrate	**2.13**		2.00		NA	107		85-117	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

CHLORIDE
SM 4500-Cl E

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Chloride	**4.9**	2.0	SM 4500-Cl E	9-18-24	9-18-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Chloride	**74**	2.0	SM 4500-Cl E	9-18-24	9-18-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

CHLORIDE
SM 4500-Cl E
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0918W1					
Chloride	**ND**	2.0	SM 4500-Cl E	9-18-24	9-18-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Chloride	**18.7**	**19.4**	NA		NA	NA		NA	4	21	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Chloride	**74.0**	**74.8**	50.0	50.0	18.7	111	112	81-115	1	20	
SPIKE BLANK											
Laboratory ID:	SB0918W1										
	SB		SB			SB					
Chloride	**51.7**		50.0		NA	103		77-115	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

SULFATE
ASTM D516-11

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Sulfate	**12**	5.0	ASTM D516-11	9-17-24	9-17-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Sulfate	**200**	50	ASTM D516-11	9-17-24	9-17-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

SULFATE
ASTM D516-11
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W1					
Sulfate	**ND**	5.0	ASTM D516-11	9-17-24	9-17-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Sulfate	**39.2**	**42.3**	NA		NA	NA		NA	8	11	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Sulfate	**79.5**	**82.7**	40.0	40.0	39.2	101	109	69-134	4	20	
SPIKE BLANK											
Laboratory ID:	SB0917W1										
	SB		SB			SB					
Sulfate	**9.10**		10.0		NA	91		81-106	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL DISSOLVED SOLIDS
SM 2540C

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Total Dissolved Solids	**160**	13	SM 2540C	9-16-24	9-16-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Total Dissolved Solids	**460**	13	SM 2540C	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL DISSOLVED SOLIDS
SM 2540C
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Total Dissolved Solids	**ND**	13	SM 2540C	9-16-24	9-16-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	09-159-04								
	ORIG	DUP							
Total Dissolved Solids	**185**	**188**	NA	NA	NA	NA	2	29	
SPIKE BLANK									
Laboratory ID:	SB0916W1								
	SB		SB		SB				
Total Dissolved Solids	**479**		500	NA	96	76-120	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL ALKALINITY
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Total Alkalinity	**94**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Total Alkalinity	**68**	2.0	SM 2320B	9-13-24	9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL ALKALINITY
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Total Alkalinity	**ND**	2.0	SM 2320B	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Alkalinity	**92.0**	**92.0**	NA		NA	NA		NA	0	10	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Alkalinity	**182**	**182**	100	100	92.0	90	90	80-120	0	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Total Alkalinity	**98.0**		100		NA	98		82-101	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

BICARBONATE
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Bicarbonate	**94**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Bicarbonate	**68**	2.0	SM 2320B	9-13-24	9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

BICARBONATE
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Bicarbonate	**ND**	2.0	SM 2320B	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Alkalinity	**92.0**	**92.0**	NA		NA	NA		NA	0	10	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Alkalinity	**182**	**182**	100	100	92.0	90	90	80-120	0	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Total Alkalinity	**98.0**		100		NA	98		82-101	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

AMMONIA (as Nitrogen)
SM 4500-NH_3 D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Ammonia	**0.78**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

AMMONIA (as Nitrogen)
SM 4500-NH_3 D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Ammonia	**ND**	**ND**	NA		NA	NA		NA	NA	15	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Ammonia	**4.93**	**4.95**	5.00	5.00	ND	99	99	75-111	0	20	
SPIKE BLANK											
Laboratory ID:	SB0916W1										
	SB		SB			SB					
Ammonia	**4.95**		5.00		NA	99		81-110	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL ORGANIC CARBON
SM 5310B

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-10D-0911**					
Laboratory ID:	09-157-01					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-9D-0910**					
Laboratory ID:	09-157-03					
Total Organic Carbon	**4.0**	1.0	SM 5310B	9-17-24	9-17-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-157
Project: 553-8472-006

TOTAL ORGANIC CARBON
SM 5310B
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W1					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Organic Carbon	**ND**	**ND**	NA		NA	NA		NA	NA	11	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Organic Carbon	**11.1**	**10.8**	10.0	10.0	ND	111	108	85-120	3	20	
SPIKE BLANK											
Laboratory ID:	SB0917W1										
	SB		SB			SB					
Total Organic Carbon	**10.3**		10.0		NA	103		79-120	NA	NA	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

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

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

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

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

Q - Surrogate recovery is outside of the control limits.

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

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

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

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

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

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

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

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

Chain of Custody

Page 1 of 1

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

Company: Parametrix
Project Number: 553-8472-006
Project Name: DTG Yakima LPL
Project Manager: Mike Brady
Sampled by: C. Bourgeois

Turnaround Request (in working days)

(Check One)

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

Laboratory Number: 09-157

FF

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	VOCs (8260D – WAC 173-351 Appendix I) Naphthalene; SIM-VC and 1,2-EDB	NWTPH-Gx	NWTPH-Dx	Total Metals (Fe, Mn, Mg)	Dissolved Metals (Fe, Mn, Mg, Ca, K, Na)	Nitrate, chloride, sulfate	TDS, Alkalinity, Bicarbonate	Ammonia	TOC	% Moisture
1	~~MW-8D~~ MW-10D + 0911	9/11/24	1215	Water	13	X	X	X	X	X	X	X	X	X	
2	Trip Blank	9/11/24	1215	water	3	X	X								
3	MW-9D - 0910	9/10/24	1224	water	13	X	X	X	X	X	X	X	X	X	

	Signature	Company	Date	Time
Relinquished	[signature]	Parametrix	9/12/24	1540
Received	[signature]	[signature]	9/12/24	1540
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

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

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

September 23, 2024

Michael Brady
Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle, WA 98104

Re: Analytical Data for Project 553-8472-06
Laboratory Reference No. 2409-159

Dear Michael:

Enclosed are the analytical results and associated quality control data for samples submitted on September 12, 2024.

Please note that the data for the subcontracted analyses will follow in the final report.

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

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

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

Case Narrative

Samples were collected on September 11 and 12, 2024 and received by the laboratory on September 12, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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

Volatiles EPA 8260D Analysis

The percent recovery for Dibromochloromethane is outside the control limits in the Spike Blank/Spike Blank Duplicate and Matrix Spike/Matrix Spike Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

Nitrate (as Nitrogen) EPA 353.2 Analysis

The reported Nitrate results are a calculated value based on the subtraction of Nitrite from the Nitrate plus Nitrite result. The Nitrite analysis, which has a 48-hour holding time, was performed within the holding time. Immediately after this analysis, an aliquot from each sample was preserved with concentrated sulfuric acid and stored at 4 degrees C. The preserved samples were then analyzed within the maximum 28-day holding time for the Nitrate plus Nitrite analysis.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*68-133*				
Toluene-d8	*103*	*79-123*				
4-Bromofluorobenzene	*99*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*68-133*				
Toluene-d8	*102*	*79-123*				
4-Bromofluorobenzene	*101*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*68-133*				
Toluene-d8	*101*	*79-123*				
4-Bromofluorobenzene	*99*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*68-133*				
Toluene-d8	*100*	*79-123*				
4-Bromofluorobenzene	*98*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*68-133*				
Toluene-d8	*103*	*79-123*				
4-Bromofluorobenzene	*98*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*68-133*				
Toluene-d8	*103*	*79-123*				
4-Bromofluorobenzene	*97*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	09-159-07					
Chloromethane	ND	1.4	EPA 8260D	9-17-24	9-17-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-17-24	9-17-24	
Bromomethane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Chloroethane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Acetone	ND	5.0	EPA 8260D	9-17-24	9-17-24	
Iodomethane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Carbon Disulfide	ND	0.25	EPA 8260D	9-17-24	9-17-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-17-24	9-17-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-17-24	9-17-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
2-Butanone	ND	5.0	EPA 8260D	9-17-24	9-17-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Chloroform	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Benzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Trichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Dibromomethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-17-24	9-17-24	
Toluene	ND	1.0	EPA 8260D	9-17-24	9-17-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Trip Blank**					
Laboratory ID:	09-159-07					
2-Hexanone	ND	2.0	EPA 8260D	9-17-24	9-17-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-17-24	9-17-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-17-24	9-17-24	
o-Xylene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Styrene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Bromoform	ND	1.0	EPA 8260D	9-17-24	9-17-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-17-24	9-17-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Naphthalene	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*68-133*				
Toluene-d8	*101*	*79-123*				
4-Bromofluorobenzene	*99*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W2					
Chloromethane	ND	1.3	EPA 8260D	9-16-24	9-16-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Bromomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Chloroethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Acetone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Iodomethane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Carbon Disulfide	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-16-24	9-16-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
2-Butanone	ND	5.0	EPA 8260D	9-16-24	9-16-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Chloroform	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Benzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Trichloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Dibromomethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Toluene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W2					
2-Hexanone	ND	2.0	EPA 8260D	9-16-24	9-16-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-16-24	9-16-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-16-24	9-16-24	
o-Xylene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Styrene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
Bromoform	ND	1.0	EPA 8260D	9-16-24	9-16-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-16-24	9-16-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-16-24	9-16-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-16-24	9-16-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Naphthalene	ND	1.0	EPA 8260D	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*68-133*				
Toluene-d8	*101*	*79-123*				
4-Bromofluorobenzene	*98*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W2					
Chloromethane	ND	1.4	EPA 8260D	9-17-24	9-17-24	
Vinyl Chloride (SIM)	ND	0.020	EPA 8260D/SIM	9-17-24	9-17-24	
Bromomethane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Chloroethane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Acetone	ND	5.0	EPA 8260D	9-17-24	9-17-24	
Iodomethane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Carbon Disulfide	ND	0.25	EPA 8260D	9-17-24	9-17-24	
Methylene Chloride	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Acrylonitrile	ND	0.50	EPA 8260D	9-17-24	9-17-24	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Vinyl Acetate	ND	1.0	EPA 8260D	9-17-24	9-17-24	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
2-Butanone	ND	5.0	EPA 8260D	9-17-24	9-17-24	
Bromochloromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Chloroform	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Benzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Trichloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Dibromomethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Bromodichloromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	9-17-24	9-17-24	
Toluene	ND	1.0	EPA 8260D	9-17-24	9-17-24	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Tetrachloroethene	ND	0.20	EPA 8260D	9-17-24	9-17-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W2					
2-Hexanone	ND	2.0	EPA 8260D	9-17-24	9-17-24	
Dibromochloromethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dibromoethane (SIM)	ND	0.020	EPA 8260D/SIM	9-17-24	9-17-24	
Chlorobenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Ethylbenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
m,p-Xylene	ND	0.40	EPA 8260D	9-17-24	9-17-24	
o-Xylene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Styrene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
Bromoform	ND	1.0	EPA 8260D	9-17-24	9-17-24	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-17-24	9-17-24	
(trans) 1,4-Dichloro-2-butene	ND	0.50	EPA 8260D	9-17-24	9-17-24	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-17-24	9-17-24	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Naphthalene	ND	1.0	EPA 8260D	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-133*				
Toluene-d8	*98*	*79-123*				
4-Bromofluorobenzene	*99*	*78-117*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Chloromethane	**8.17**	**8.12**	10.0	10.0	ND	82	81	36-162	1	19	
Vinyl Chloride	**9.17**	**9.14**	10.0	10.0	ND	92	91	62-121	0	15	
Bromomethane	**9.44**	**9.13**	10.0	10.0	ND	94	91	48-166	3	22	
Chloroethane	**9.78**	**9.71**	10.0	10.0	ND	98	97	62-129	1	14	
Trichlorofluoromethane	**11.2**	**11.2**	10.0	10.0	ND	112	112	77-120	0	16	
1,1-Dichloroethene	**10.8**	**11.0**	10.0	10.0	ND	108	110	76-119	2	15	
Acetone	**10.9**	**10.7**	10.0	10.0	ND	109	107	56-132	2	17	
Iodomethane	**9.59**	**9.83**	10.0	10.0	ND	96	98	54-121	2	21	
Carbon Disulfide	**8.34**	**8.17**	10.0	10.0	ND	83	82	47-123	2	16	
Methylene Chloride	**10.7**	**10.5**	10.0	10.0	ND	107	105	74-114	2	16	
(trans) 1,2-Dichloroethene	**11.2**	**11.3**	10.0	10.0	ND	112	113	79-120	1	16	
1,1-Dichloroethane	**11.1**	**11.3**	10.0	10.0	ND	111	113	77-122	2	15	
Vinyl Acetate	**10.7**	**10.3**	10.0	10.0	ND	107	103	54-123	4	17	
(cis) 1,2-Dichloroethene	**11.5**	**11.3**	10.0	10.0	ND	115	113	81-128	2	16	
2-Butanone	**10.8**	**10.8**	10.0	10.0	ND	108	108	57-142	0	15	
Bromochloromethane	**11.7**	**11.7**	10.0	10.0	ND	117	117	80-129	0	17	
Chloroform	**11.3**	**11.5**	10.0	10.0	ND	113	115	75-126	2	16	
1,1,1-Trichloroethane	**11.4**	**11.3**	10.0	10.0	ND	114	113	74-126	1	17	
Carbon Tetrachloride	**11.7**	**12.0**	10.0	10.0	ND	117	120	70-128	3	18	
Benzene	**11.5**	**11.5**	10.0	10.0	ND	115	115	80-122	0	16	
1,2-Dichloroethane	**11.4**	**11.3**	10.0	10.0	ND	114	113	70-126	1	17	
Trichloroethene	**11.5**	**11.6**	10.0	10.0	ND	115	116	80-130	1	12	
1,2-Dichloropropane	**11.6**	**11.4**	10.0	10.0	ND	116	114	79-121	2	17	
Dibromomethane	**11.6**	**11.5**	10.0	10.0	ND	116	115	81-122	1	16	
Bromodichloromethane	**11.8**	**11.7**	10.0	10.0	ND	118	117	82-127	1	17	
(cis) 1,3-Dichloropropene	**12.2**	**12.0**	10.0	10.0	ND	122	120	81-128	2	17	
Methyl Isobutyl Ketone	**11.7**	**11.3**	10.0	10.0	ND	117	113	62-130	3	14	
Toluene	**12.0**	**11.9**	10.0	10.0	ND	120	119	75-124	1	19	
(trans) 1,3-Dichloropropene	**12.1**	**11.7**	10.0	10.0	ND	121	117	71-124	3	18	
1,1,2-Trichloroethane	**11.6**	**11.1**	10.0	10.0	ND	116	111	76-126	4	16	
Tetrachloroethene	**11.6**	**11.4**	10.0	10.0	ND	116	114	84-126	2	19	
2-Hexanone	**10.9**	**10.8**	10.0	10.0	ND	109	108	41-156	1	23	
Dibromochloromethane	**16.0**	**15.1**	10.0	10.0	ND	160	151	74-131	6	18	V,V

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
1,2-Dibromoethane	**11.9**	**11.5**	10.0	10.0	ND	119	115	74-131	3	16	
Chlorobenzene	**11.4**	**11.1**	10.0	10.0	ND	114	111	84-121	3	16	
1,1,1,2-Tetrachloroethane	**11.9**	**11.6**	10.0	10.0	ND	119	116	82-125	3	17	
Ethylbenzene	**11.7**	**11.6**	10.0	10.0	ND	117	116	85-125	1	17	
m,p-Xylene	**23.7**	**23.2**	20.0	20.0	ND	119	116	84-124	2	17	
o-Xylene	**11.7**	**11.4**	10.0	10.0	ND	117	114	84-126	3	17	
Styrene	**12.1**	**11.7**	10.0	10.0	ND	121	117	83-131	3	19	
Bromoform	**10.7**	**10.2**	10.0	10.0	ND	107	102	67-137	5	18	
1,1,2,2-Tetrachloroethane	**11.0**	**10.7**	10.0	10.0	ND	110	107	56-143	3	15	
1,2,3-Trichloropropane	**11.2**	**11.0**	10.0	10.0	ND	112	110	61-125	2	15	
1,4-Dichlorobenzene	**11.4**	**11.5**	10.0	10.0	ND	114	115	80-126	1	15	
1,2-Dichlorobenzene	**11.5**	**11.4**	10.0	10.0	ND	115	114	79-127	1	16	
1,2-Dibromo-3-chloropropane	**11.7**	**11.0**	10.0	10.0	ND	117	110	54-143	6	19	
Naphthalene	**12.5**	**12.3**	10.0	10.0	ND	125	123	48-143	2	17	
Surrogate:											
Dibromofluoromethane						*101*	*104*	*68-133*			
Toluene-d8						*102*	*101*	*79-123*			
4-Bromofluorobenzene						*103*	*103*	*78-117*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0917W2									
	SB	SBD	SB	SBD	SB	SBD				
Chloromethane	**7.38**	**7.23**	10.0	10.0	74	72	45-145	2	19	
Vinyl Chloride	**8.47**	**8.26**	10.0	10.0	85	83	67-130	3	15	
Bromomethane	**8.84**	**8.43**	10.0	10.0	88	84	27-165	5	36	
Chloroethane	**9.09**	**8.77**	10.0	10.0	91	88	61-132	4	18	
Trichlorofluoromethane	**10.2**	**9.85**	10.0	10.0	102	99	67-136	3	17	
1,1-Dichloroethene	**10.3**	**10.0**	10.0	10.0	103	100	74-125	3	15	
Acetone	**9.55**	**9.91**	10.0	10.0	96	99	49-140	4	20	
Iodomethane	**9.20**	**8.77**	10.0	10.0	92	88	15-154	5	49	
Carbon Disulfide	**7.86**	**7.46**	10.0	10.0	79	75	58-122	5	18	
Methylene Chloride	**10.1**	**9.74**	10.0	10.0	101	97	70-123	4	15	
(trans) 1,2-Dichloroethene	**10.4**	**10.2**	10.0	10.0	104	102	77-125	2	15	
1,1-Dichloroethane	**10.6**	**10.1**	10.0	10.0	106	101	75-125	5	15	
Vinyl Acetate	**10.5**	**10.1**	10.0	10.0	105	101	61-138	4	16	
(cis) 1,2-Dichloroethene	**10.8**	**10.5**	10.0	10.0	108	105	78-130	3	15	
2-Butanone	**10.0**	**10.2**	10.0	10.0	100	102	58-144	2	16	
Bromochloromethane	**11.0**	**10.6**	10.0	10.0	110	106	79-132	4	15	
Chloroform	**10.7**	**10.3**	10.0	10.0	107	103	73-128	4	15	
1,1,1-Trichloroethane	**10.5**	**10.3**	10.0	10.0	105	103	72-127	2	15	
Carbon Tetrachloride	**11.0**	**10.7**	10.0	10.0	110	107	68-131	3	15	
Benzene	**10.6**	**10.3**	10.0	10.0	106	103	76-124	3	15	
1,2-Dichloroethane	**10.6**	**10.4**	10.0	10.0	106	104	68-133	2	15	
Trichloroethene	**10.7**	**10.3**	10.0	10.0	107	103	80-126	4	15	
1,2-Dichloropropane	**10.6**	**10.4**	10.0	10.0	106	104	78-124	2	15	
Dibromomethane	**10.6**	**10.6**	10.0	10.0	106	106	76-131	0	15	
Bromodichloromethane	**10.9**	**10.8**	10.0	10.0	109	108	81-128	1	15	
(cis) 1,3-Dichloropropene	**11.1**	**10.8**	10.0	10.0	111	108	80-131	3	15	
Methyl Isobutyl Ketone	**10.8**	**10.6**	10.0	10.0	108	106	67-133	2	16	
Toluene	**10.6**	**10.3**	10.0	10.0	106	103	75-120	3	15	
(trans) 1,3-Dichloropropene	**10.8**	**10.8**	10.0	10.0	108	108	77-128	0	15	
1,1,2-Trichloroethane	**10.3**	**10.3**	10.0	10.0	103	103	80-124	0	15	
Tetrachloroethene	**10.5**	**10.6**	10.0	10.0	105	106	80-125	1	15	
2-Hexanone	**10.4**	**10.2**	10.0	10.0	104	102	65-134	2	20	
Dibromochloromethane	**14.5**	**14.2**	10.0	10.0	145	142	81-131	2	15	I,I

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0917W2									
	SB	SBD	SB	SBD	SB	SBD				
1,2-Dibromoethane	**10.5**	**10.6**	10.0	10.0	105	106	82-129	1	15	
Chlorobenzene	**10.4**	**10.3**	10.0	10.0	104	103	80-119	1	15	
1,1,1,2-Tetrachloroethane	**10.7**	**10.5**	10.0	10.0	107	105	80-124	2	15	
Ethylbenzene	**10.7**	**10.6**	10.0	10.0	107	106	80-121	1	15	
m,p-Xylene	**21.5**	**21.5**	20.0	20.0	108	108	80-122	0	15	
o-Xylene	**10.7**	**10.5**	10.0	10.0	107	105	80-121	2	15	
Styrene	**10.9**	**10.7**	10.0	10.0	109	107	82-128	2	15	
Bromoform	**9.39**	**9.25**	10.0	10.0	94	93	77-131	2	15	
1,1,2,2-Tetrachloroethane	**10.2**	**10.4**	10.0	10.0	102	104	66-138	2	15	
1,2,3-Trichloropropane	**10.1**	**10.2**	10.0	10.0	101	102	67-127	1	18	
1,4-Dichlorobenzene	**10.5**	**10.6**	10.0	10.0	105	106	78-127	1	15	
1,2-Dichlorobenzene	**10.6**	**10.7**	10.0	10.0	106	107	79-129	1	15	
1,2-Dibromo-3-chloropropane	**10.2**	**11.0**	10.0	10.0	102	110	62-140	8	18	
Naphthalene	**11.3**	**11.3**	10.0	10.0	113	113	53-144	0	25	
Surrogate:										
Dibromofluoromethane					*103*	*101*	*68-133*			
Toluene-d8					*102*	*99*	*79-123*			
4-Bromofluorobenzene					*104*	*103*	*78-117*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-122*				
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-122*				
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*61-122*				
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-122*				
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*82*	*61-122*				
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-122*				
Client ID:	**Trip Blank**					
Laboratory ID:	09-159-07					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*61-122*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W1					
Gasoline	**ND**	100	NWTPH-Gx	9-17-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*61-122*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*85*	*85*	*61-122*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Diesel Range Organics	**ND**	0.22	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.22	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Diesel Range Organics	**ND**	0.20	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.20	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-17-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	9-16-24	9-17-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Diesel Range Organics	**ND**	0.16	NWTPH-Dx	9-16-24	9-16-24	
Lube Oil Range Organics	**ND**	0.16	NWTPH-Dx	9-16-24	9-16-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-174-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	40	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	40	
Surrogate:											
o-Terphenyl						*88*	*81*	*50-150*			
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Diesel Range	**0.546**	**0.487**	0.500	0.500	**ND**	**109**	**97**	50-129	11	40	
Surrogate:											
o-Terphenyl						*100*	*81*	*50-150*			

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**8.5**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**32**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**58**	10	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Iron	**0.55**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**13**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**0.11**	0.010	EPA 6010D	9-16-24	9-16-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**27**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Iron	**0.85**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**17**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**0.16**	0.010	EPA 6010D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916WH1					
Iron	**ND**	0.050	EPA 6010D	9-16-24	9-16-24	
Magnesium	**ND**	1.0	EPA 6010D	9-16-24	9-16-24	
Manganese	**ND**	0.010	EPA 6010D	9-16-24	9-16-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Iron	**0.546**	**0.623**	NA	NA		NA		NA	13	20	
Magnesium	**12.9**	**14.3**	NA	NA		NA		NA	10	20	
Manganese	**0.110**	**0.122**	NA	NA		NA		NA	10	20	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Iron	**22.0**	**20.6**	20.0	20.0	0.546	**107**	**100**	75-125	7	20	
Magnesium	**35.8**	**34.3**	20.0	20.0	12.9	**114**	**107**	75-125	4	20	
Manganese	**0.668**	**0.631**	0.500	0.500	0.110	**112**	**104**	75-125	6	20	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

DISSOLVED METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Calcium	**13**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**9.1**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**2.9**	1.1	EPA 6010D		9-13-24	
Sodium	**9.5**	1.1	EPA 6010D		9-13-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Calcium	**49**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**35**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**4.6**	1.1	EPA 6010D		9-13-24	
Sodium	**18**	1.1	EPA 6010D		9-13-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Calcium	**85**	10	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**58**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**6.3**	1.1	EPA 6010D		9-13-24	
Sodium	**21**	1.1	EPA 6010D		9-13-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Calcium	**24**	1.1	EPA 6010D		9-13-24	
Iron	**0.26**	0.056	EPA 6010D		9-13-24	
Magnesium	**15**	1.1	EPA 6010D		9-13-24	
Manganese	**0.13**	0.011	EPA 6010D		9-13-24	
Potassium	**2.6**	1.1	EPA 6010D		9-13-24	
Sodium	**14**	1.1	EPA 6010D		9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

DISSOLVED METALS
EPA 6010D

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Calcium	**41**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**27**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**4.1**	1.1	EPA 6010D		9-13-24	
Sodium	**15**	1.1	EPA 6010D		9-13-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Calcium	**24**	1.1	EPA 6010D		9-13-24	
Iron	**0.27**	0.056	EPA 6010D		9-13-24	
Magnesium	**15**	1.1	EPA 6010D		9-13-24	
Manganese	**0.13**	0.011	EPA 6010D		9-13-24	
Potassium	**2.7**	1.1	EPA 6010D		9-13-24	
Sodium	**14**	1.1	EPA 6010D		9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

DISSOLVED METALS
EPA 6010D
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913D1					
Calcium	**ND**	1.1	EPA 6010D		9-13-24	
Iron	**ND**	0.056	EPA 6010D		9-13-24	
Magnesium	**ND**	1.1	EPA 6010D		9-13-24	
Manganese	**ND**	0.011	EPA 6010D		9-13-24	
Potassium	**ND**	1.1	EPA 6010D		9-13-24	
Sodium	**ND**	1.1	EPA 6010D		9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	09-159-04									
	ORIG	DUP								
Calcium	**24.2**	**23.9**	NA	NA		NA	NA	1	20	
Iron	**0.261**	**0.345**	NA	NA		NA	NA	28	20	C
Magnesium	**15.5**	**15.4**	NA	NA		NA	NA	1	20	
Manganese	**0.130**	**0.129**	NA	NA		NA	NA	0	20	
Potassium	**2.65**	**2.62**	NA	NA		NA	NA	1	20	
Sodium	**13.5**	**13.4**	NA	NA		NA	NA	1	20	

MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Calcium	**43.9**	**45.3**	22.2	22.2	24.2	**89**	**95**	75-125	3	20	
Iron	**22.1**	**22.8**	22.2	22.2	0.261	**98**	**102**	75-125	3	20	
Magnesium	**35.9**	**36.4**	22.2	22.2	15.5	**92**	**94**	75-125	1	20	
Manganese	**0.638**	**0.646**	0.556	0.556	0.130	**92**	**93**	75-125	1	20	
Potassium	**25.9**	**26.6**	22.2	22.2	2.65	**105**	**108**	75-125	3	20	
Sodium	**32.9**	**33.4**	22.2	22.2	13.5	**87**	**90**	75-125	2	20	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

NITRATE (as Nitrogen)
EPA 353.2

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Nitrate	**0.60**	0.050	EPA 353.2	9-13-24	9-13-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Nitrate	**11**	0.20	EPA 353.2	9-13-24	9-13-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Nitrate	**47**	0.50	EPA 353.2	9-13-24	9-13-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Nitrate	**ND**	0.050	EPA 353.2	9-13-24	9-13-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Nitrate	**9.2**	0.10	EPA 353.2	9-13-24	9-13-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Nitrate	**0.051**	0.050	EPA 353.2	9-13-24	9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

NITRATE (as Nitrogen)
EPA 353.2
QUALITY CONTROL

Matrix: Water
Units: mg/L-N

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Nitrate	**ND**	0.050	EPA 353.2	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Nitrate	**ND**	**ND**	NA		NA	NA		NA	NA	22	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Nitrate	**2.10**	**2.34**	2.00	2.00	ND	105	117	86-119	11	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Nitrate	**2.13**		2.00		NA	107		85-117	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

CHLORIDE
SM 4500-Cl E

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Chloride	**ND**	2.0	SM 4500-Cl E	9-18-24	9-18-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Chloride	**73**	2.0	SM 4500-Cl E	9-18-24	9-18-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Chloride	**41**	2.0	SM 4500-Cl E	9-18-24	9-18-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Chloride	**19**	2.0	SM 4500-Cl E	9-18-24	9-18-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Chloride	**62**	2.0	SM 4500-Cl E	9-18-24	9-18-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Chloride	**27**	2.0	SM 4500-Cl E	9-18-24	9-18-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

CHLORIDE
SM 4500-Cl E
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0918W1					
Chloride	**ND**	2.0	SM 4500-Cl E	9-18-24	9-18-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Chloride	**18.7**	**19.4**	NA		NA	NA		NA	4	21	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Chloride	**74.0**	**74.8**	50.0	50.0	18.7	111	112	81-115	1	20	
SPIKE BLANK											
Laboratory ID:	SB0918W1										
	SB		SB			SB					
Chloride	**51.7**		50.0		NA	103		77-115	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

SULFATE
ASTM D516-11

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Sulfate	**5.1**	5.0	ASTM D516-11	9-17-24	9-17-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Sulfate	**96**	20	ASTM D516-11	9-17-24	9-17-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Sulfate	**100**	25	ASTM D516-11	9-17-24	9-17-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Sulfate	**39**	20	ASTM D516-11	9-17-24	9-17-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Sulfate	**52**	20	ASTM D516-11	9-17-24	9-17-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Sulfate	**42**	10	ASTM D516-11	9-17-24	9-17-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

SULFATE
ASTM D516-11
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W1					
Sulfate	**ND**	5.0	ASTM D516-11	9-17-24	9-17-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Sulfate	**39.2**	**42.3**	NA		NA	NA		NA	8	11	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Sulfate	**79.5**	**82.7**	40.0	40.0	39.2	101	109	69-134	4	20	
SPIKE BLANK											
Laboratory ID:	SB0917W1										
	SB		SB			SB					
Sulfate	**9.10**		10.0		NA	91		81-106	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL DISSOLVED SOLIDS
SM 2540C

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Total Dissolved Solids	**140**	13	SM 2540C	9-16-24	9-16-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Total Dissolved Solids	**320**	13	SM 2540C	9-16-24	9-16-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Total Dissolved Solids	**590**	13	SM 2540C	9-16-24	9-16-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Total Dissolved Solids	**190**	13	SM 2540C	9-16-24	9-16-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Total Dissolved Solids	**170**	13	SM 2540C	9-16-24	9-16-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Total Dissolved Solids	**170**	13	SM 2540C	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL DISSOLVED SOLIDS
SM 2540C
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Total Dissolved Solids	**ND**	13	SM 2540C	9-16-24	9-16-24	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	09-159-04								
	ORIG	DUP							
Total Dissolved Solids	**185**	**188**	NA	NA	NA	NA	2	29	
SPIKE BLANK									
Laboratory ID:	SB0916W1								
	SB		SB		SB				
Total Dissolved Solids	**479**		500	NA	96	76-120	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL ALKALINITY
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Total Alkalinity	**80**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Total Alkalinity	**96**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Total Alkalinity	**180**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Total Alkalinity	**92**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Total Alkalinity	**82**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Total Alkalinity	**92**	2.0	SM 2320B	9-13-24	9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL ALKALINITY
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Total Alkalinity	**ND**	2.0	SM 2320B	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Alkalinity	**92.0**	**92.0**	NA		NA	NA		NA	0	10	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Alkalinity	**182**	**182**	100	100	92.0	90	90	80-120	0	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Total Alkalinity	**98.0**		100		NA	98		82-101	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

BICARBONATE
SM 2320B

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Bicarbonate	**80**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Bicarbonate	**96**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Bicarbonate	**180**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Bicarbonate	**92**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Bicarbonate	**82**	2.0	SM 2320B	9-13-24	9-13-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Bicarbonate	**92**	2.0	SM 2320B	9-13-24	9-13-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

BICARBONATE
SM 2320B
QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
Bicarbonate	**ND**	2.0	SM 2320B	9-13-24	9-13-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Alkalinity	**92.0**	**92.0**	NA		NA	NA		NA	0	10	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Alkalinity	**182**	**182**	100	100	92.0	90	90	80-120	0	20	
SPIKE BLANK											
Laboratory ID:	SB0913W1										
	SB		SB			SB					
Total Alkalinity	**98.0**		100		NA	98		82-101	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

AMMONIA (as Nitrogen)
SM 4500-NH_3 D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

AMMONIA (as Nitrogen)
SM 4500-NH_3 D
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916W1					
Ammonia	**ND**	0.053	SM 4500-NH3 D	9-16-24	9-16-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Ammonia	**ND**	**ND**	NA		NA	NA		NA	NA	15	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Ammonia	**4.93**	**4.95**	5.00	5.00	ND	99	99	75-111	0	20	
SPIKE BLANK											
Laboratory ID:	SB0916W1										
	SB		SB			SB					
Ammonia	**4.95**		5.00		NA	99		81-110	NA	NA	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL ORGANIC CARBON
SM 5310B

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2S-0912**					
Laboratory ID:	09-159-01					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-3S-0912**					
Laboratory ID:	09-159-02					
Total Organic Carbon	**3.0**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-4S-0911**					
Laboratory ID:	09-159-03					
Total Organic Carbon	**4.8**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-5S-0911**					
Laboratory ID:	09-159-04					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-6S-0911**					
Laboratory ID:	09-159-05					
Total Organic Carbon	**2.9**	1.0	SM 5310B	9-17-24	9-17-24	
Client ID:	**MW-13S-0911**					
Laboratory ID:	09-159-06					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	

Date of Report: September 23, 2024
Samples Submitted: September 12, 2024
Laboratory Reference: 2409-159
Project: 553-8472-06

TOTAL ORGANIC CARBON
SM 5310B
QUALITY CONTROL

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0917W1					
Total Organic Carbon	**ND**	1.0	SM 5310B	9-17-24	9-17-24	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-159-04										
	ORIG	DUP									
Total Organic Carbon	**ND**	**ND**	NA		NA	NA		NA	NA	11	
MATRIX SPIKES											
Laboratory ID:	09-159-04										
	MS	MSD	MS	MSD		MS	MSD				
Total Organic Carbon	**11.1**	**10.8**	10.0	10.0	ND	111	108	85-120	3	20	
SPIKE BLANK											
Laboratory ID:	SB0917W1										
	SB		SB			SB					
Total Organic Carbon	**10.3**		10.0		NA	103		79-120	NA	NA	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

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

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

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

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

Q - Surrogate recovery is outside of the control limits.

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

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

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

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

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

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

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

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

Chain of Custody

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

Company: Parametrix
Project Number: 553-8472-006
Project Name: DTG Yakima LPL
Project Manager: Mike Brady
Sampled by: C. Bourgeois

Turnaround Request (in working days)

(Check One)

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

Laboratory Number: 09-159

PF

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	VOCs (8260D – WAC 173-351 Appendix I) Naphthalene; SIM-VC and 1,2-EDB	NWTPH-Gx	NWTPH-Dx	Total Metals (Fe, Mn, Mg)	Dissolved Metals (Fe, Mn, Mg, Ca, K, Na)	Nitrate, chloride, sulfate	TDS, Alkalinity, Bicarbonate	Ammonia	TOC	Dioxins & furans	EPA 1633 (PFAS)	% Moisture
1	MW-2S- 0912	9/12/24	1050	Water	15	X	X	X	X	X	X	X	X	X	X	X	
2	MW-3S- 0912	9/12/24	900	Water	15	X	X	X	X	X	X	X	X	X	X	X	
3	MW-4S- 0911	9/11/24	930	Water	15	X	X	X	X	X	X	X	X	X	X	X	
4	MW-5S- 0911	↓	1410	Water	~~25~~ 35	X	X	X	X	X	X	X	X	X	X	X	
5	MW-6S- 0911	↓	1120	Water	15	X	X	X	X	X	X	X	X	X	X	X	
6	MW-13S- 0911	↓	1500	Water	15	X	X	X	X	X	X	X	X	X	X	X	
7	Trip Blank	9/12/24	~~1500~~	Water	3	X	X										

	Signature	Company	Date	Time
Relinquished		Parametrix	9/12/24	1540
Received		OSE	9/12/24	1540
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

MS/MSD extra volume provided for MW-5S-

Chromatograms with final report ☐

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

Appendix C

Third Quarter 2024 Data Quality Evaluation

Parametrix
let's create tomorrow, together

Memorandum

DATE: October 10, 2024
TO: Project File
FROM: Sally Nguyen
SUBJECT: Third Quarter 2024 Data Quality Evaluation
CC: Lisa Gilbert
PROJECT NUMBER: 553-8472-005
PROJECT NAME: DTG Rocky Top Environmental Limited Purpose Landfill

---

A data quality evaluation was conducted for the Third Quarter 2024 sampling event at the DTG Rocky Top Environmental Limited Purpose Landfill (LPL). Samples were collected between August 28 and September 12, 2024, by Parametrix under contract to DTG. The samples were analyzed by OnSite Environmental under four associated work orders:

- Work Order 2408-369 (MW-7D, Trip Blank)
- Work Order 2409-088 (MW-8D, Trip Blank)
- Work Order 2409-157 (MW-9D, MW-10D, Trip Blank)
- Work Order 2409-159 (MW-2S, MW-3S, MW-4S, MW-5S, MW-6S, MW-13S, Trip Blank)

The data were evaluated in accordance with EPA guidance (EPA 2020a, 2020b, and 2009) at a Stage 2A level. Sample MW-13S is a field duplicate of MW-5S.

Field Narrative

Groundwater sampling field data sheets were provided by Parametrix. Bertheas was decommissioned prior to Third Quarter 2024 sampling and therefore is no longer being sampled. There are multiple work orders for this sampling event with the laboratory because the deep well samples were collected at the time of aquifer testing following well installation.

Laboratory Case Narrative

Work Order 2408-369 (MW-7D, Trip Blank)

Samples collected on August 28, 2024 were received by the laboratory on August 28, 2024. They were maintained at the laboratory at a temperature of 2 to 6 degrees Celsius.

Volatiles - EPA Method SW8260D

No VOCs were detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The spike blank recoveries and relative percent differences (RPDs) were within control limits.

No matrix spike/matrix spike duplicate (MS/MSD) samples were submitted for this project.

Total Petroleum Hydrocarbons (NWTPH-Gx and Dx)

No TPH-Gx was detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

Total and Dissolved Metals (EPA Method 6010D)

The sample(s) were digested and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS recoveries and relative percent differences (RPDs) were within advisory control limits; however, the MS for total and dissolved metals were not associated with the project.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS (if required) and spike blank recoveries and RPDs were within control limits; however, the MS for the nitrate was not associated with the project.

Work Order 2409-088 (MW-8D, Trip Blank)

Samples collected on September 9, 2024 were received by the laboratory on September 10, 2024. They were maintained at the laboratory at a temperature of 2 to 6 degrees Celsius.

Volatiles - EPA Method SW8260D

No VOCs were detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The percent recovery for Trichloroethene is outside the control limits on the high end in the Spike Blank and Spike Blank Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

No matrix spike/matrix spike duplicate (MS/MSD) samples were submitted for this project.

Total Petroleum Hydrocarbons (NWTPH-Gx and Dx)

No TPH-Gx was detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

Total and Dissolved Metals (EPA Method 6010D)

The sample(s) were digested and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS recoveries and relative percent differences (RPDs) were within advisory control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS (if required) and spike blank recoveries and RPDs were within control limits; however, the MS for Sulfate, TDS, Alkalinity, Ammonia, and Total Organic Carbon were not associated with the project.

Work Order 2409-157 (MW-9D, MW-10D, Trip Blank)

Samples collected on September 10 and 11, 2024 were received by the laboratory on September 12, 2024. They were maintained at the laboratory at a temperature of 2 to 6 degrees Celsius.

Volatiles - EPA Method SW8260D

No VOCs were detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The percent recovery for Trichloroethene is outside the control limits on the high end in the Spike Blank and Spike Blank Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

No matrix spike/matrix spike duplicate (MS/MSD) samples were submitted for this project.

Total Petroleum Hydrocarbons (NWTPH-Gx and Dx)

No TPH-Gx was detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

Total and Dissolved Metals (EPA Method 6010D)

The sample(s) were digested and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits except for dissolved iron, which was qualified "C" outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

The MS recoveries and relative percent differences (RPDs) were within advisory control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times, except for sample MW-9D for Nitrate. Nitrate results for MW-9D will be flagged "H" as estimated due to analysis outside of holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS (if required) and spike blank recoveries and RPDs were within control limits.

Work Order 2409-159 (MW-2S, MW-3S, MW-4S, MW-5S, MW-6S, MW-13S, Trip Blank)

Samples collected on September 11 and 12, 2024 were received by the laboratory on September 12, 2024. They were maintained at the laboratory at a temperature of 2 to 6 degrees Celsius.

Volatiles - EPA Method SW8260D

No VOCs were detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The percent recovery for Dibromochloromethane is outside the control limits in the Spike Blank/Spike Blank Duplicate and Matrix Spike/Matrix Spike Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

Total Petroleum Hydrocarbons (NWTPH-Gx and Dx)

No TPH-Gx was detected in the trip blank.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

Total and Dissolved Metals (EPA Method 6010D)

The sample(s) were digested and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS recoveries and relative percent differences (RPDs) were within advisory control limits.

Wet Chemistry

The reported Nitrate results are a calculated value based on the subtraction of Nitrite from the Nitrate plus Nitrite result. The Nitrite analysis, which has a 48-hour holding time, was performed within the holding time. Immediately after this analysis, an aliquot from each sample was preserved with concentrated sulfuric acid and stored at 4 degrees C. The preserved samples were then analyzed within the maximum 28-day holding time for the Nitrate plus Nitrite analysis.

The sample(s) were prepared and analyzed within the recommended holding times.

The method blank(s) were clean at the reporting limits.

The duplicate RPDs were within control limits.

The MS (if required) and spike blank recoveries and RPDs were within control limits.

Field Duplicate Evaluation

Relative Percent Differences (RPDs) were calculated for the results of sample MW-5S and duplicate MW-13S. Field Duplicate Relative Percent Difference Calculations are included in Attachment A.

The duplicate percent RPDs were within control limits for all analytes except for total iron, total magnesium, and chloride; therefore, results for these analytes will be flagged “J” as estimated.

Data Qualification

- Qualify nitrate for sample MW-9D “H” as estimated due to analysis outside of recommended holding times.
- Qualify total iron, total magnesium, total manganese, and chloride "J" as estimated for sample MW-5S and its duplicate MW-13S due to RPD outside acceptable limits.

References

EPA (U.S. Environmental Protection Agency). 2002. Guidance on Environmental Data Verification and Data Validation. EPA QA/G-8. EPA240R-02/004.

EPA. 2020a. National Functional Guidelines for Inorganic Superfund Data Review. EPA 540R- 2017-001. November.

EPA. 2020b. National Functional Guidelines for Organic Superfund Data Review. EPA 542-R-20-006. November.

Attachment A

Third Quarter 2024 Field Duplicate Relative Percent Difference Calculations

DTG Rocky Top Environmental LPL Field Duplicate Relative Percent Difference Calculations
553-8472-005

Third Quarter 2024
Sample Dates: 8/28/24, 9/9/24, 9/10/24, 9/11/24, 9/12/24
Sample numbers: On-Site Environmental 2408-369: MW-7D
On-Site Environmental 2409-088: MW-8D
On-Site Environmental 2409-157: MW-9D, MW-10D
On-Site Environmental 2409-159: MW-2S, MW-3S, MW-4S, MW-5S, MW-6S, MW-13S
DUP MW-13S collected at MW-5S
Completed by: Sally Nguyen 10/1/2024

Groundwater	**sample**	**duplicate**	**avg**	**diff**	**RPD**	**=/<25%?**	**RL**	[1]**w/in RL?**
units = mg/L	**MW-5S**	**MW-13S**						
Iron, Total	**0.55**	**0.85**	**0.70**	**-0.3**	**42.9**	**n**	**0.050**	**n**
Magnesium, Total	**13**	**17**	**15**	**-4**	**26.7**	**n**	**1.0**	**n**
Manganese, Total	**0.11**	**0.16**	**0.135**	**-0.05**	**37.0**	**n**	**0.010**	**n**
Calcium, Dissolved	24	24	24	0	0.0	y	1.1	
Iron, Dissolved	0.26	0.27	0.265	-0.01	3.8	y	0.056	
Magnesium, Dissolved	15	15	15	0	0.0	y	1.1	
Manganese, Dissolved	0.13	0.13	0.13	0	0.0	y	0.011	
Potassium, Dissolved	2.6	2.7	2.65	-0.1	3.8	y	1.1	
Sodium, Dissolved	14	14	14	0	0.0	y	1.1	
Nitrate	<0.050	0.051	0.051	n/a	n/a		0.050	y
Chloride	**19**	**27**	**23**	**-8**	**34.8**	**n**	**2.0**	**n**
Sulfate	39	42	40.5	-3	7.4	y	20/10	
TDS	190	170	180	20	11.1	y	13	
Alkalinity	92	92	234	0	0.0	y	2.0	
Bicarbonate	92	92	234	0	0.0	y	2.0	
Ammonia	<0.053	<0.053	n/a	n/a	n/a		0.053	y
TOC	<1.0	<1.0	n/a	n/a	n/a		1.0	y
TPH-Gasoline (ug/L)	<100	<100	n/a	n/a	n/a		100	y
TPH-Diesel	<0.22	<0.21	n/a	n/a	n/a		0.22/0.21	y
TPH-Oil	<0.22	<0.21	n/a	n/a	n/a		0.22/0.21	y

VOCs None detected

Comments: Qualify total iron, total magnesium, total manganese, and chloride "J" as estimated due to RPD outside acceptable limits.

Notes

[1] = secondary comparison. When a RPD calculation is not available or is above limits, a reportling limit comparison is done.

RPD = relative percent difference

RL = reporting limit

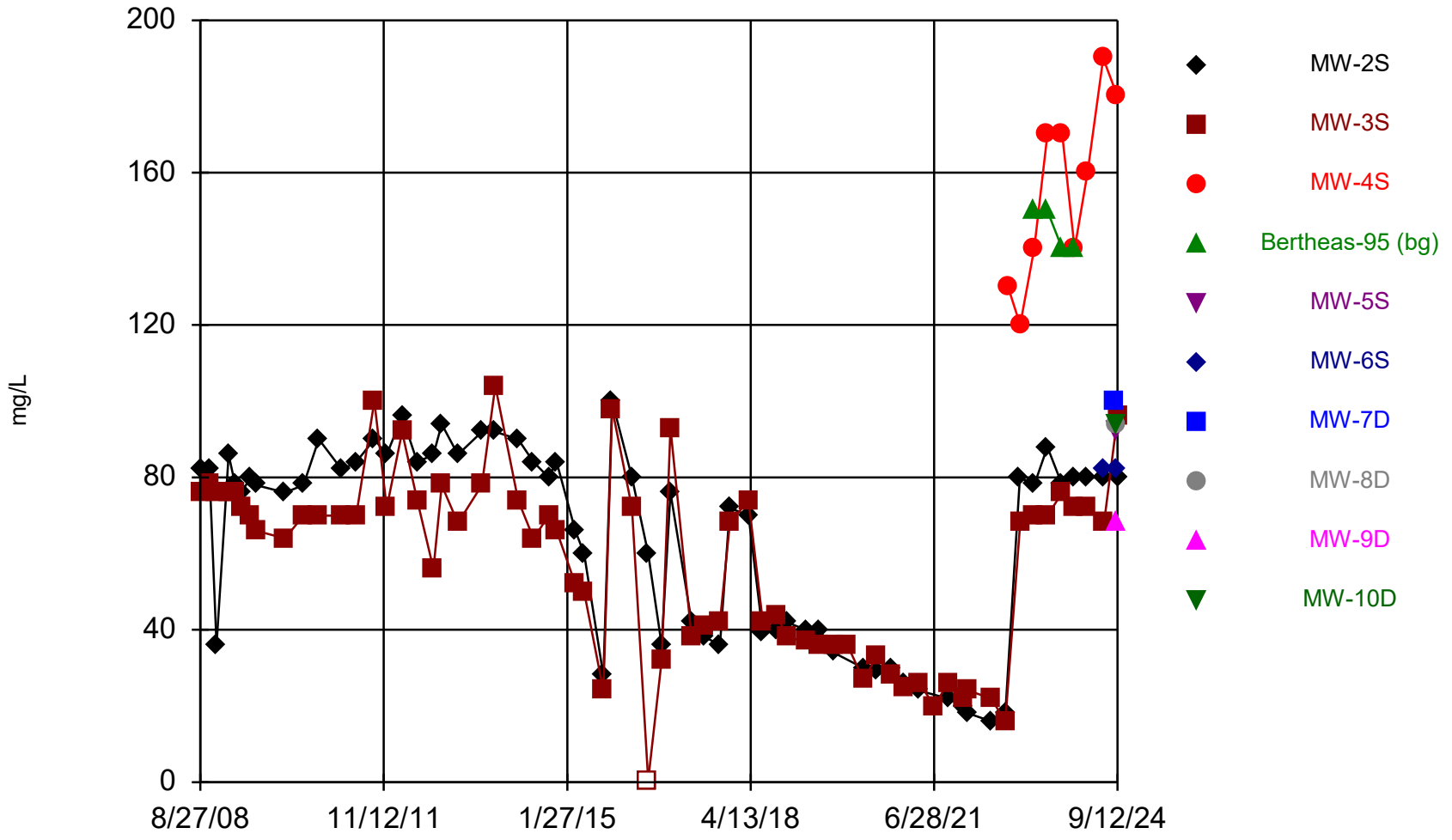
n/a = not applicable

Appendix D

Time-Series Plots

Hollow symbols indicate censored values.

Time Series



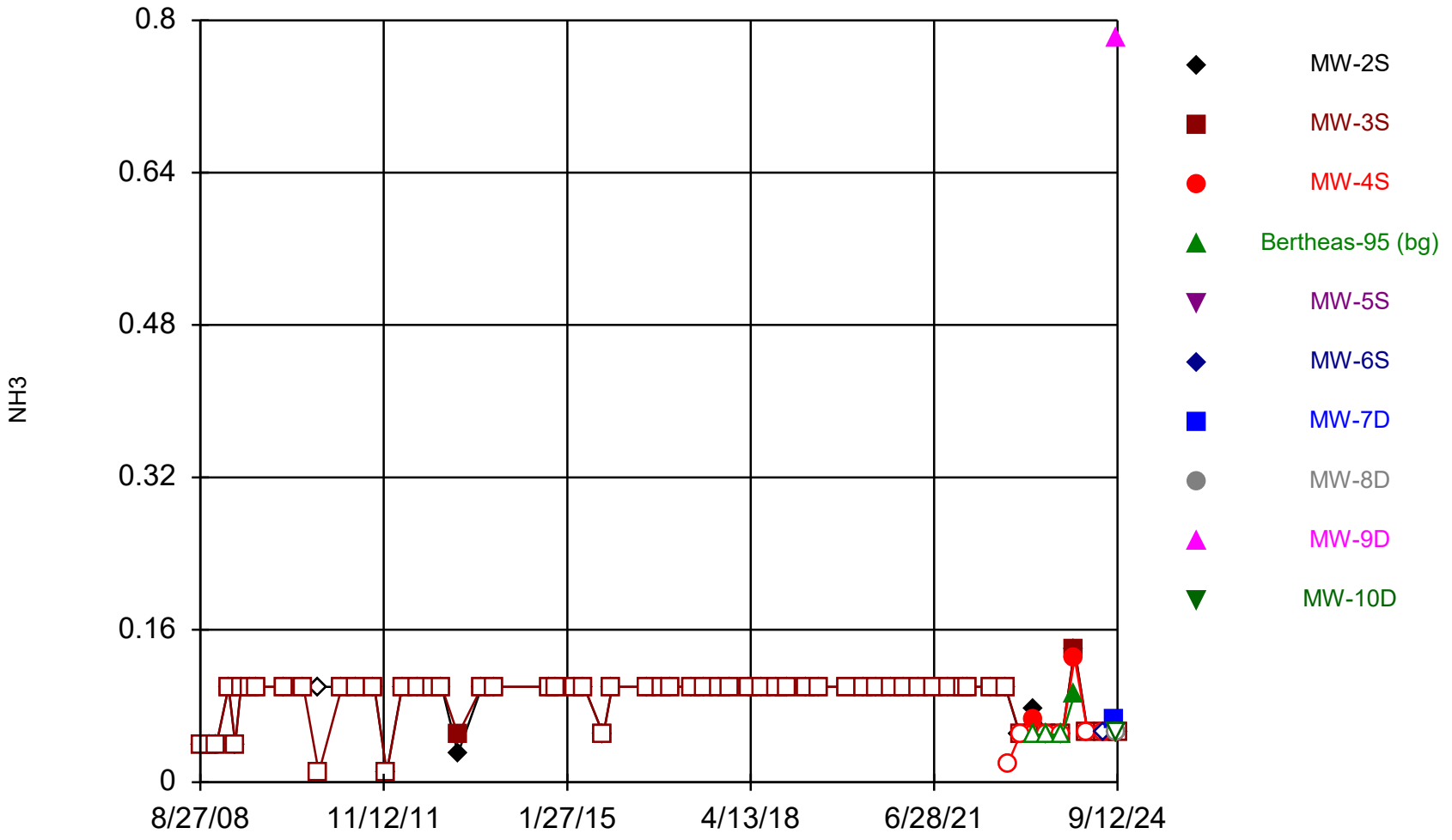
Constituent: Alkalinity, Total Analysis Run 10/15/2024 5:07 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series

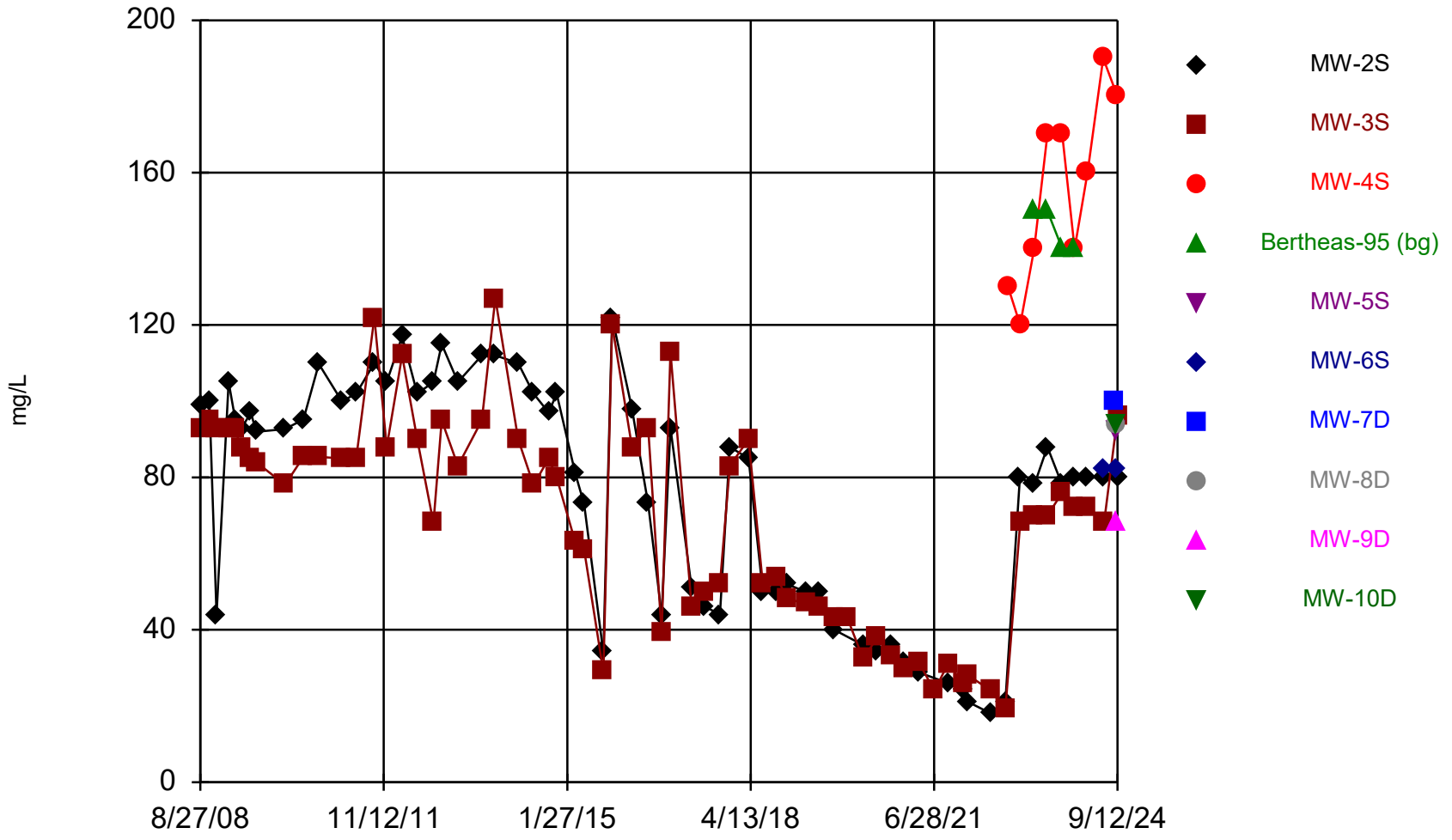


Constituent: Ammonia Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Time Series



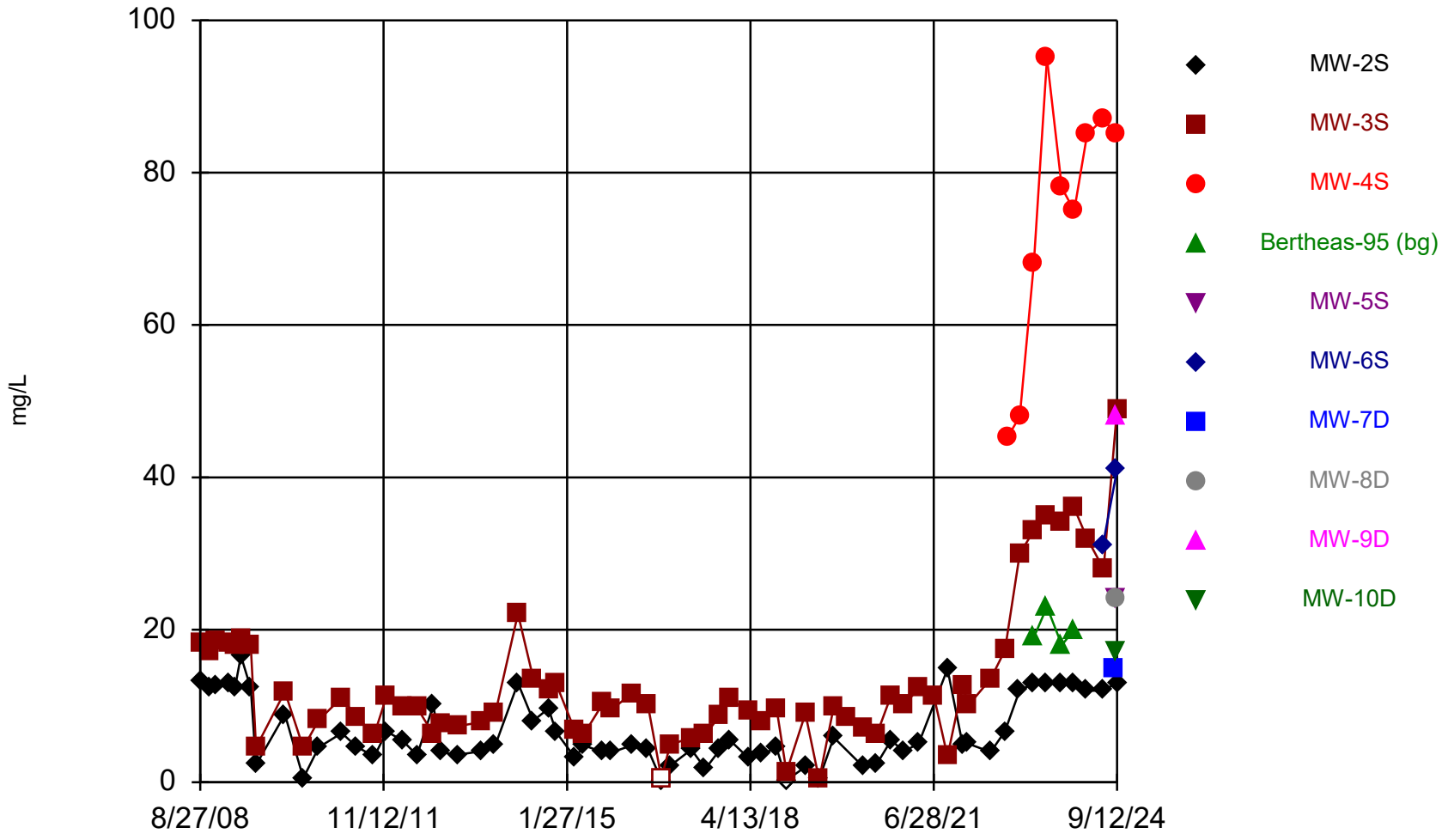
Constituent: Bicarbonate Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series



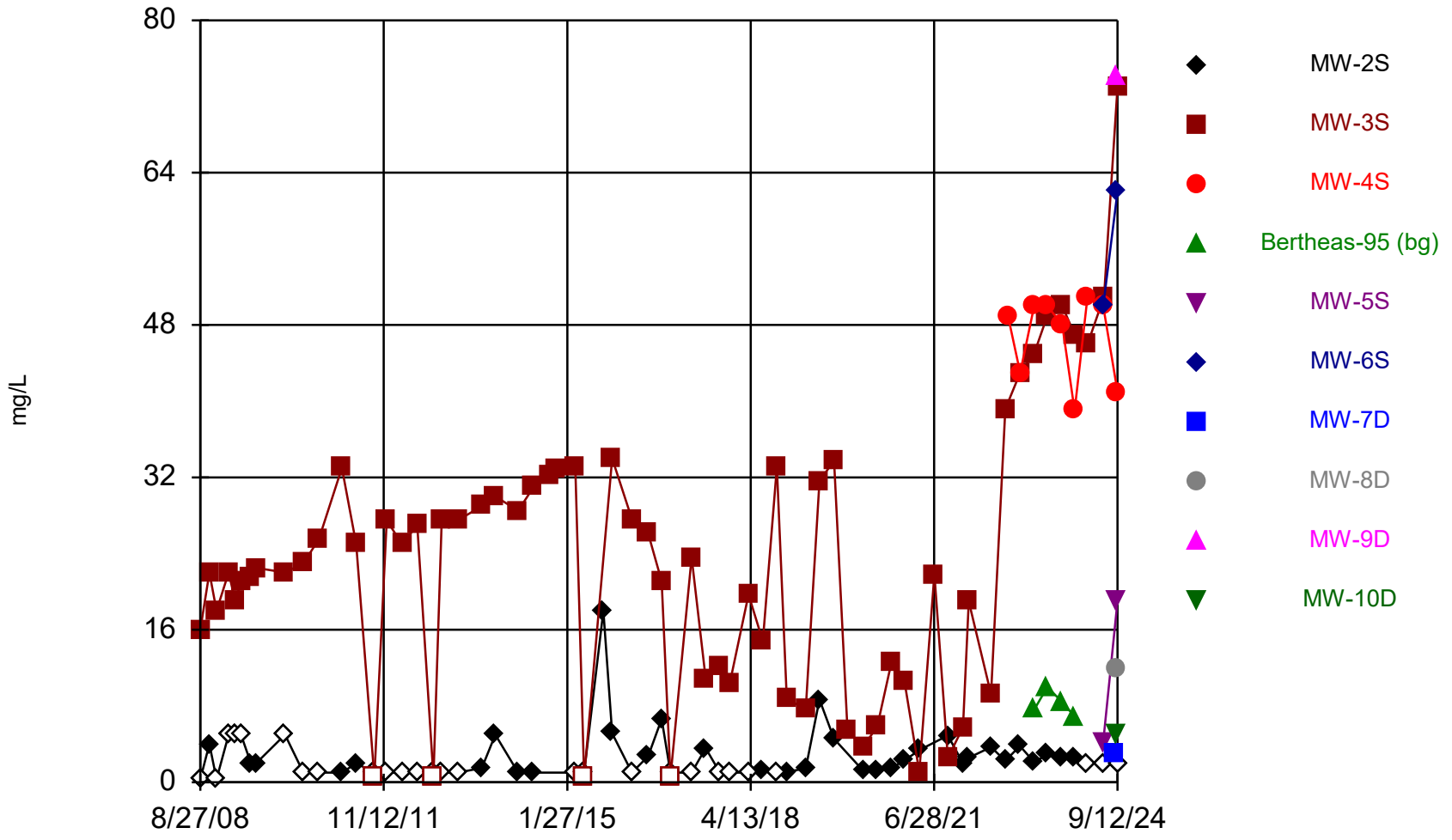
Constituent: Calcium, Dissolved Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series

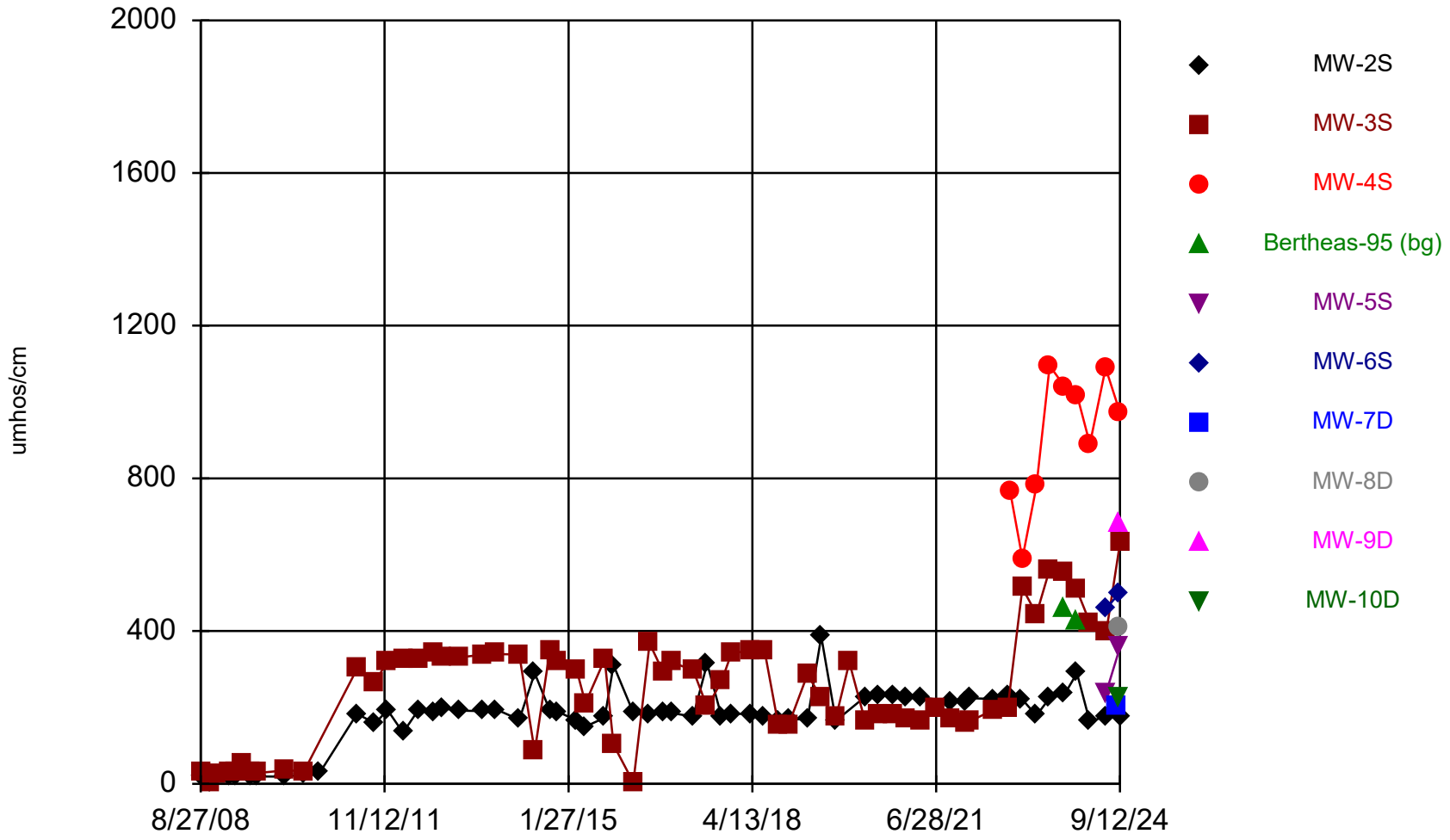


Constituent: Chloride Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Time Series



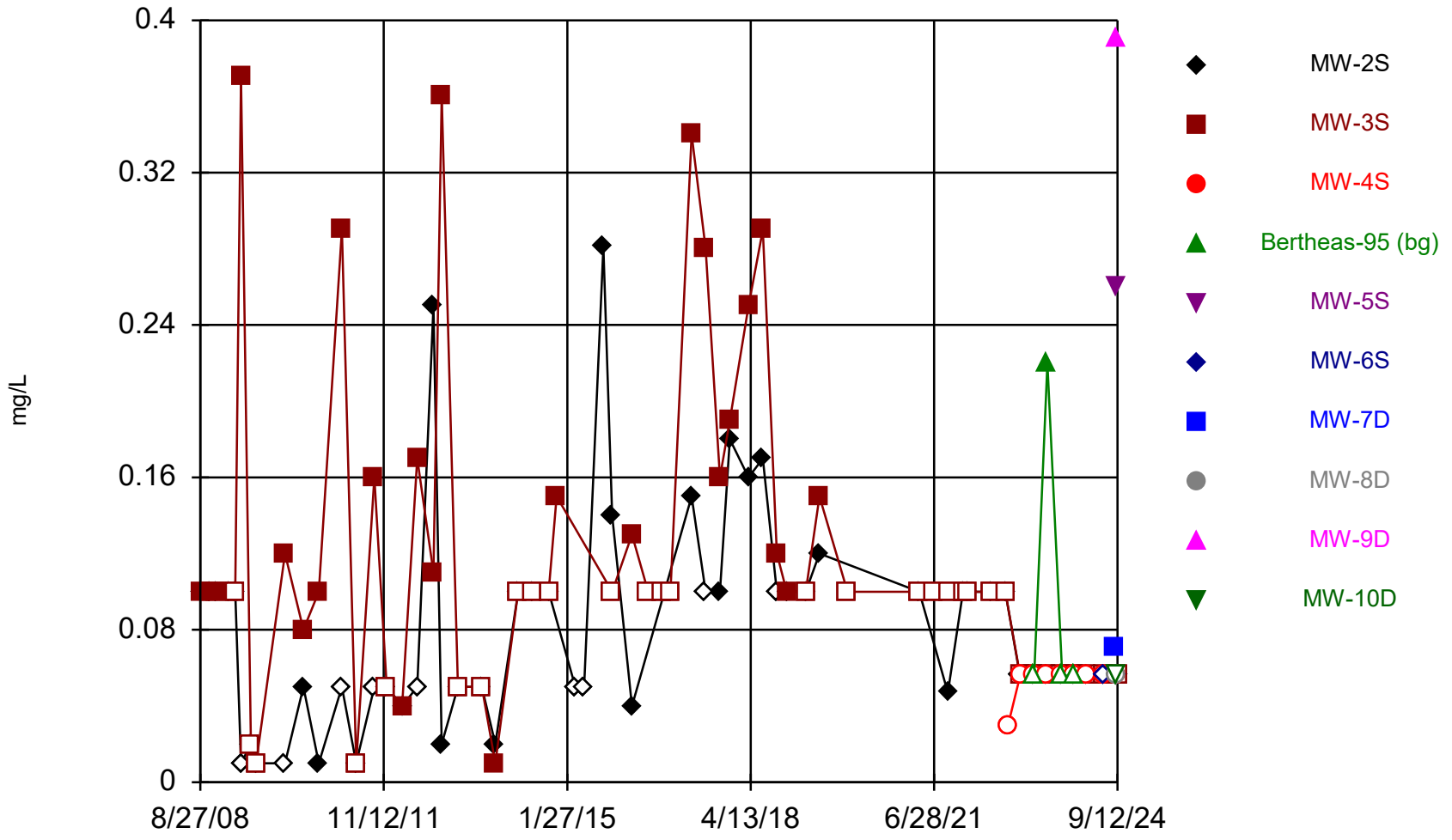
Constituent: Conductivity Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series



Constituent: Iron, Dissolved Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

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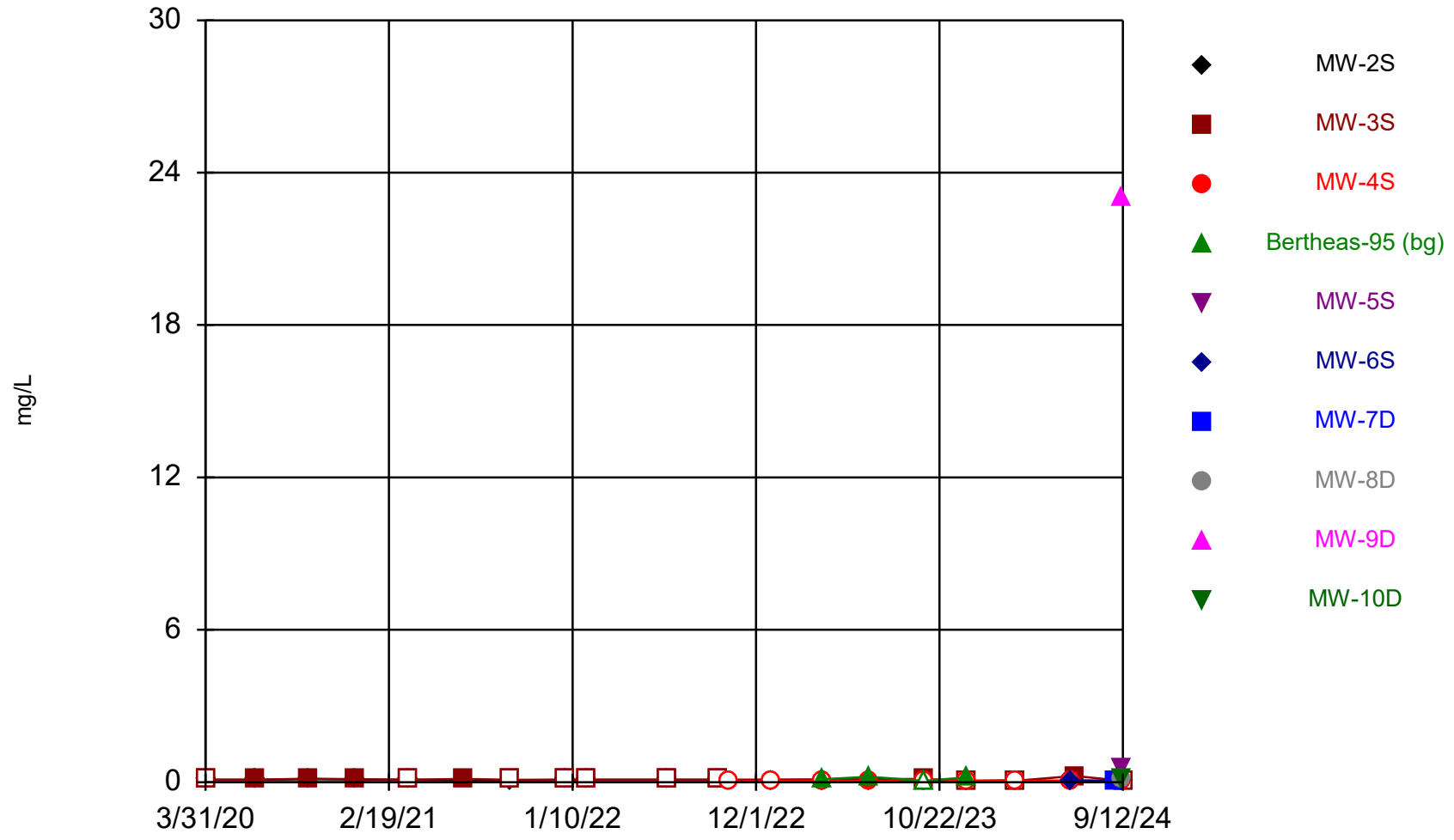
Hollow symbols indicate censored values.

Time Series



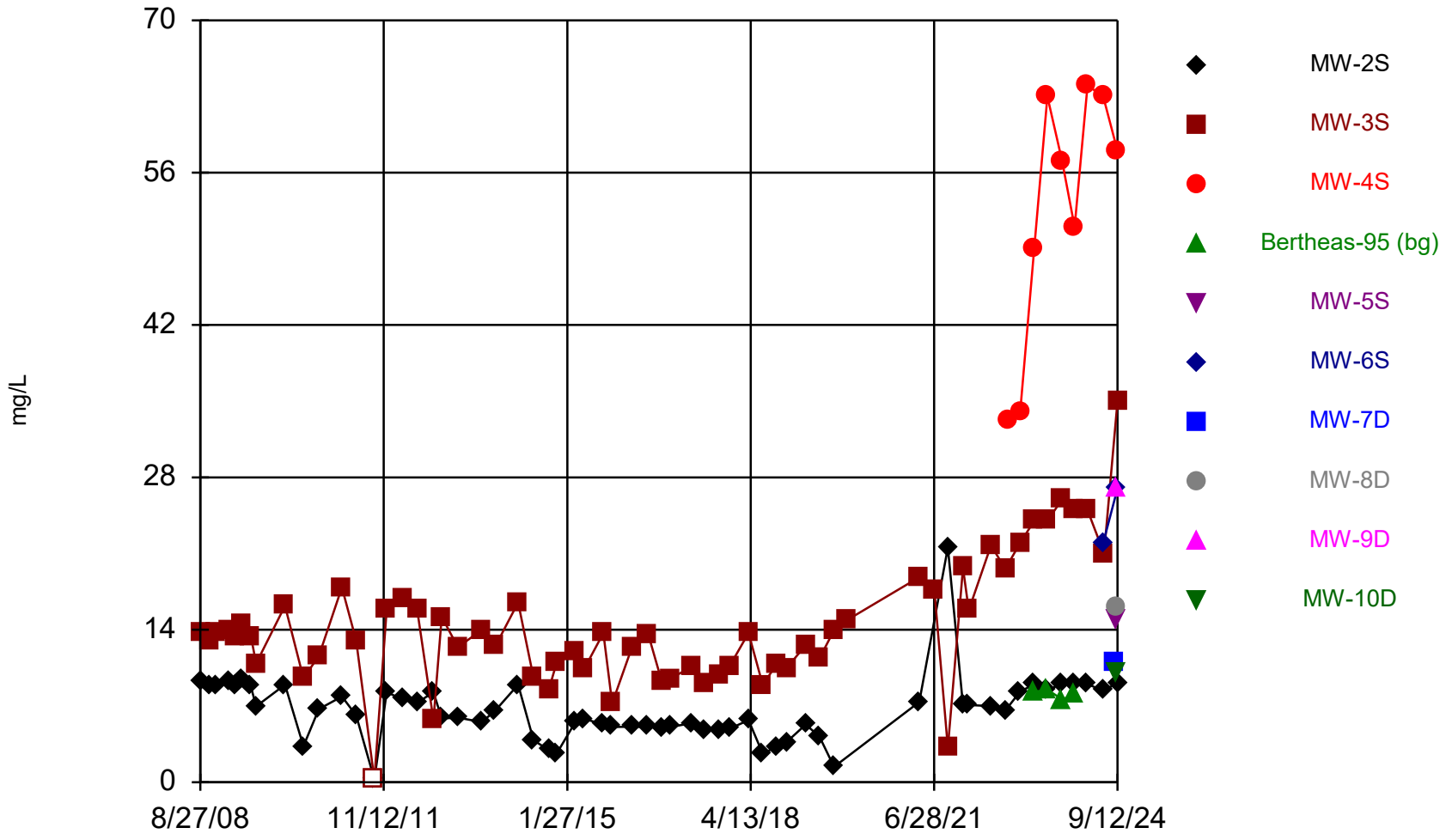
Constituent: Iron, Total Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series

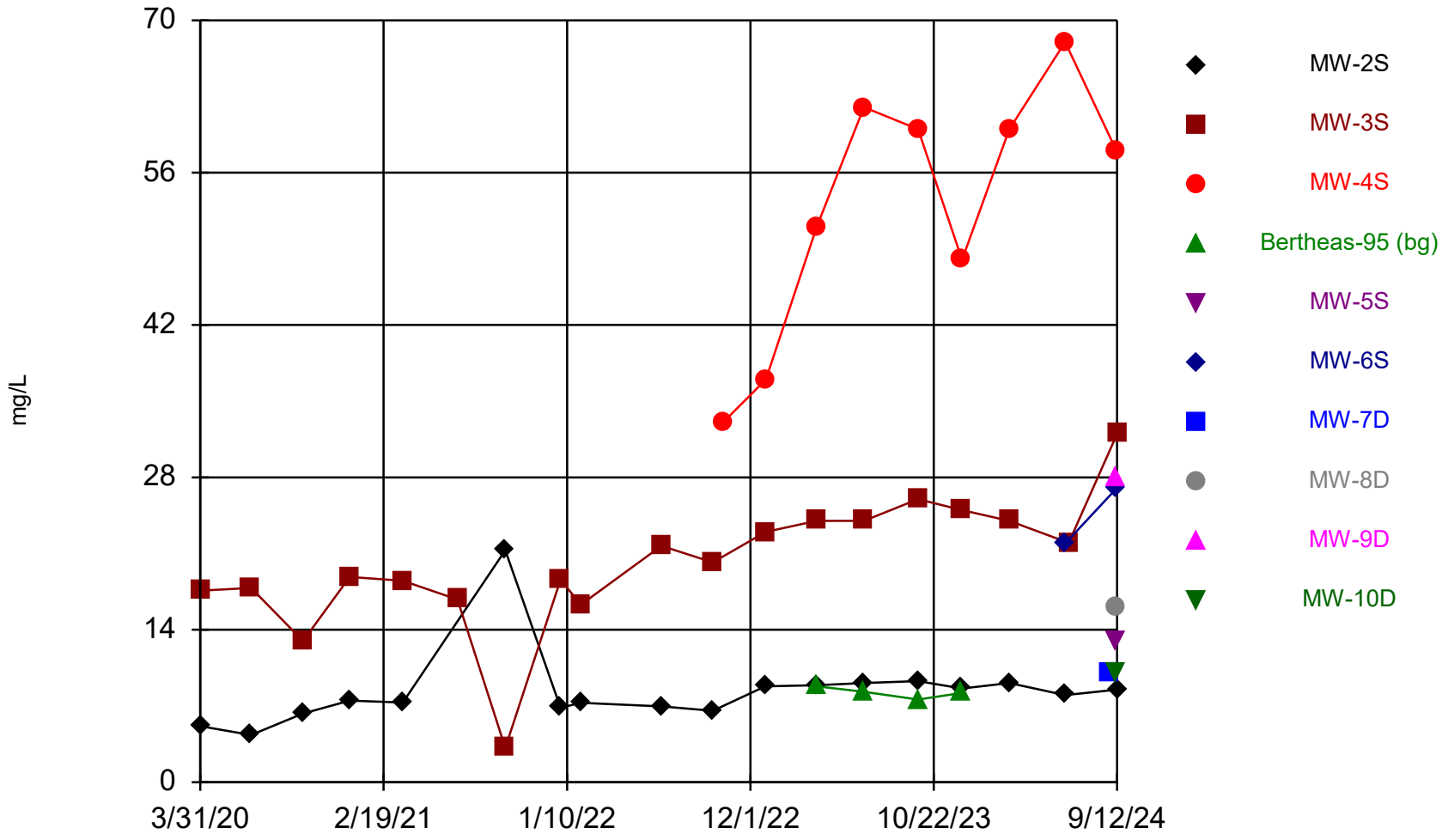


Constituent: Magnesium, Dissolved Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Time Series



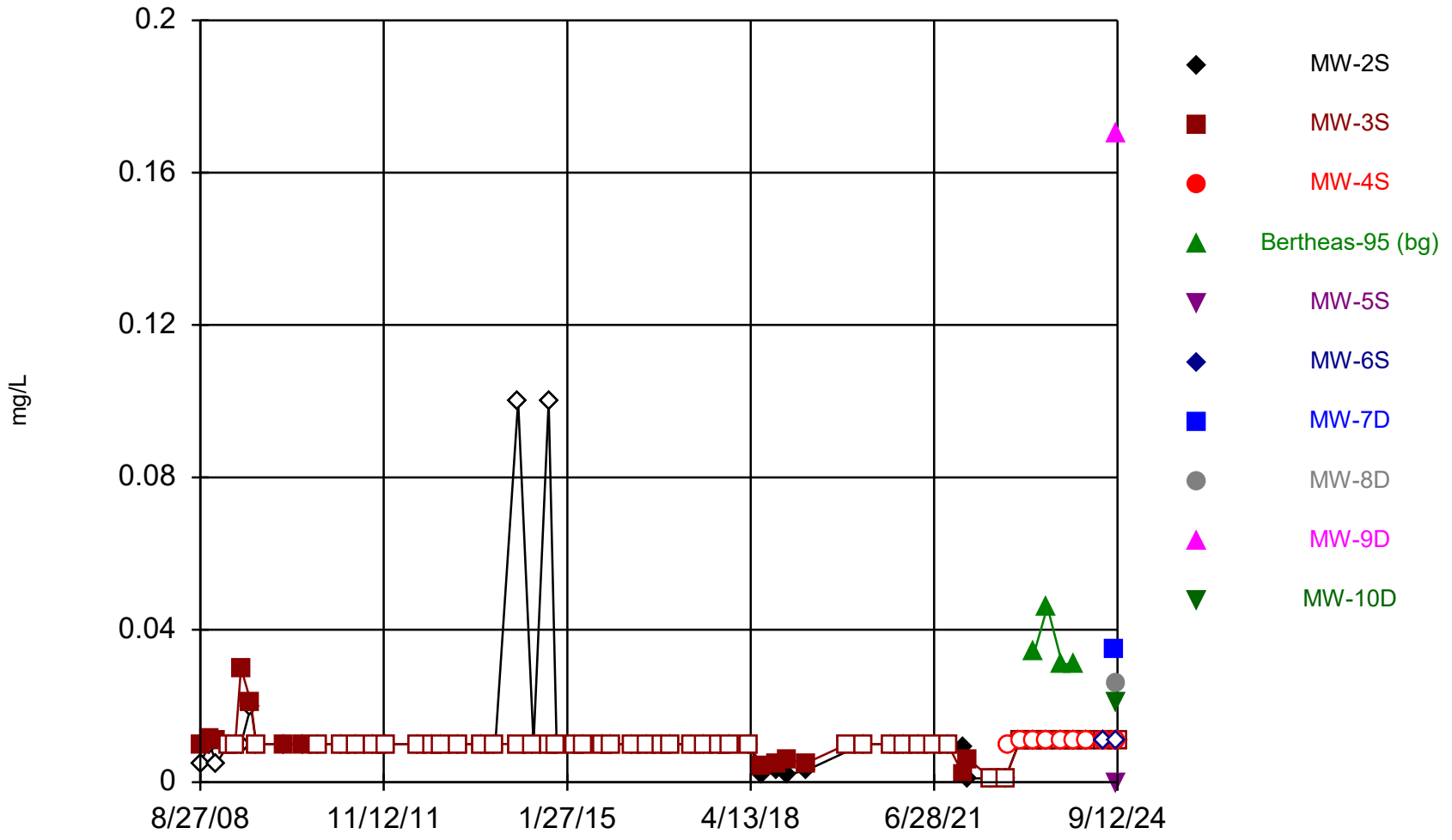
Constituent: Magnesium, Total Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series



Constituent: Manganese, Dissolved Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

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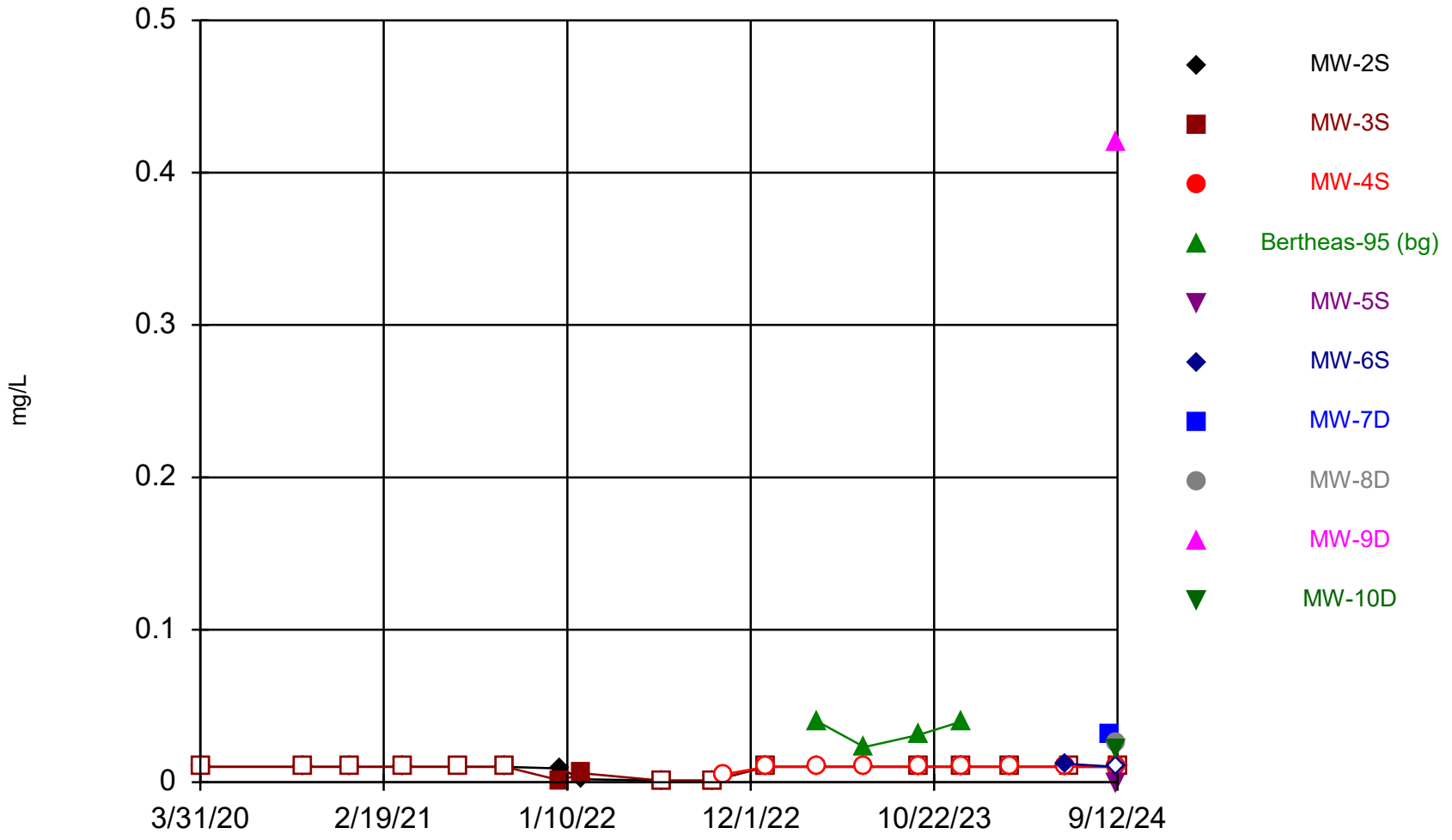
Hollow symbols indicate censored values.

Time Series



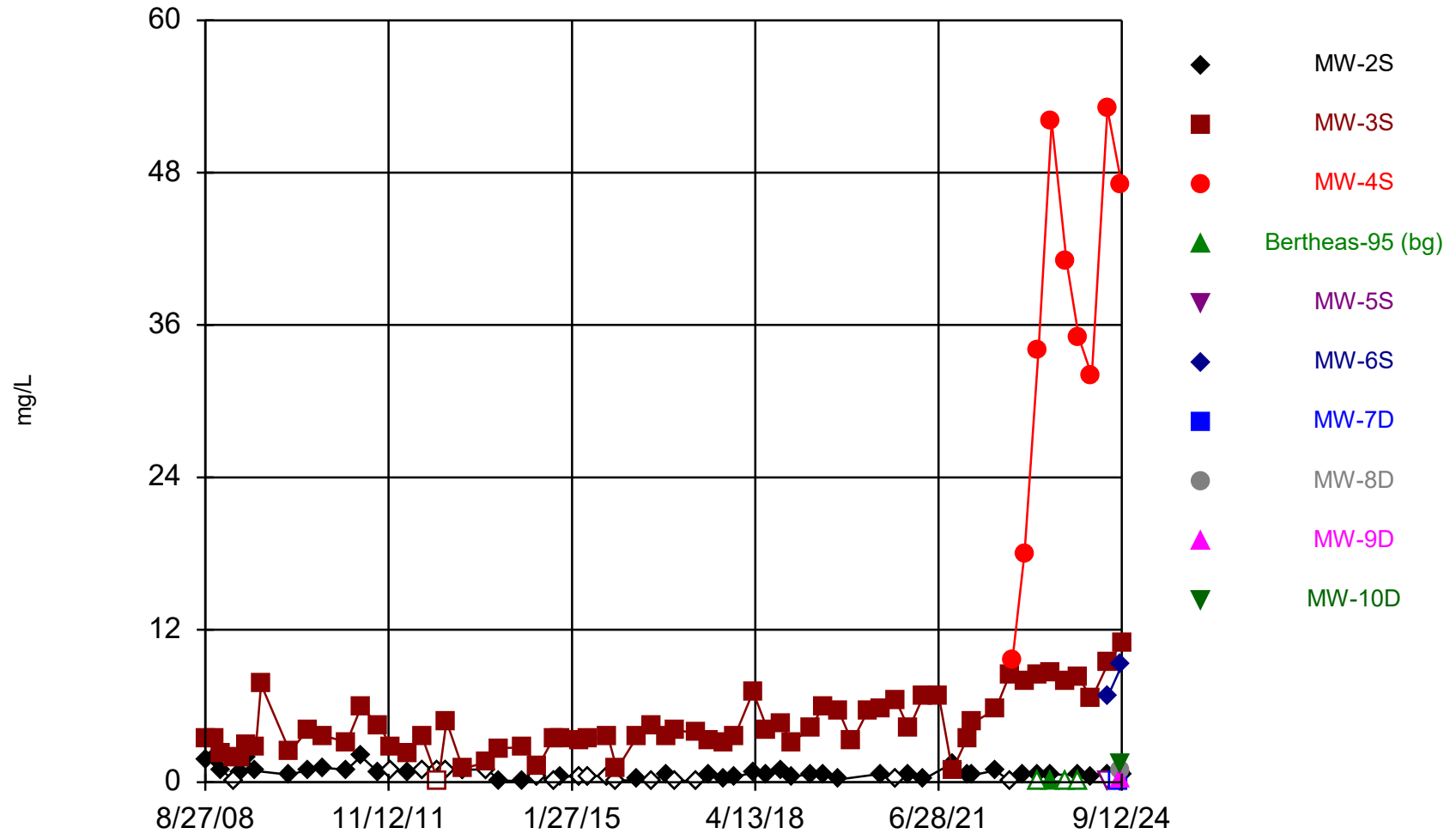
Constituent: Manganese, Total Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series

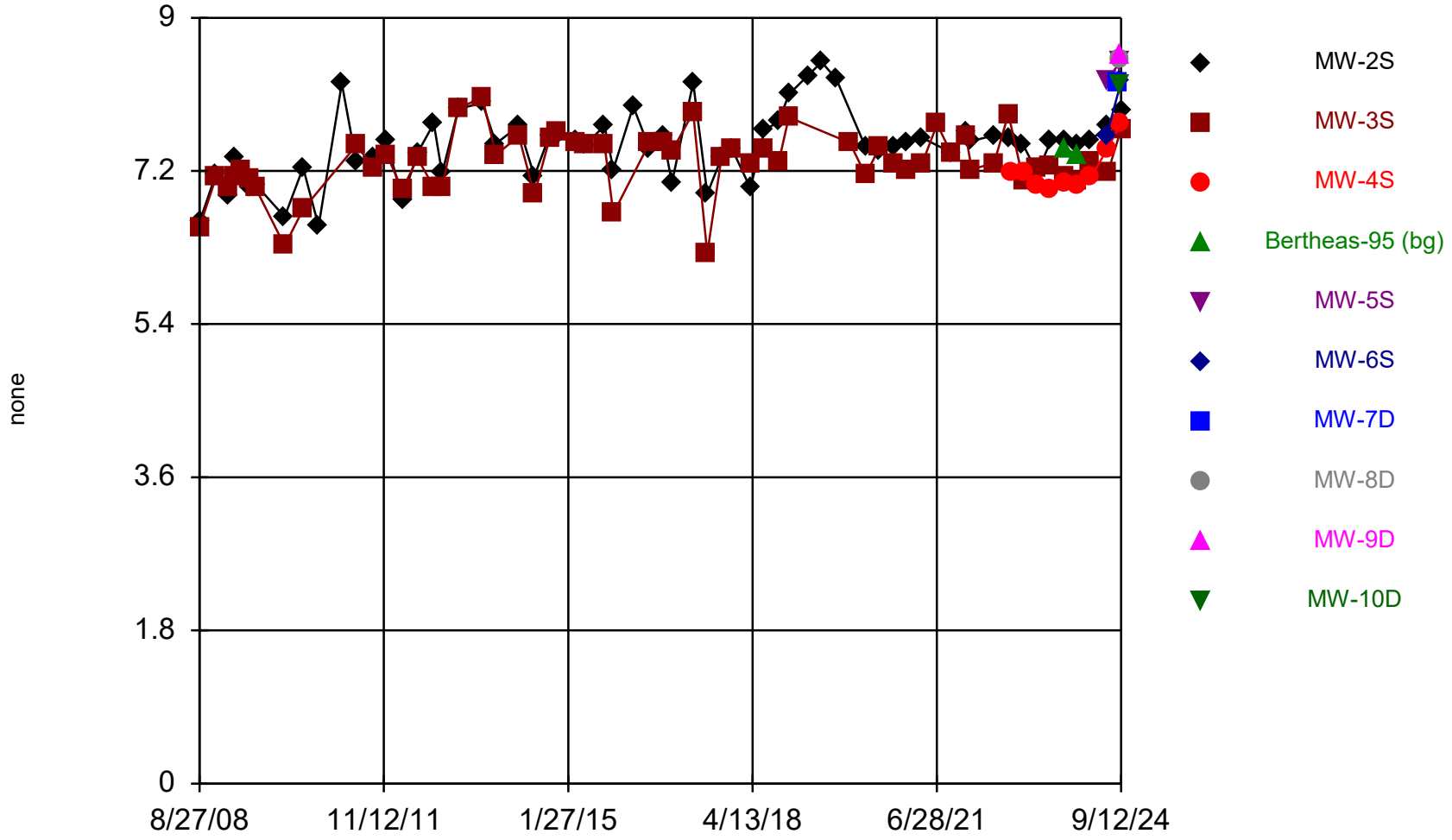


Constituent: Nitrate Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Time Series



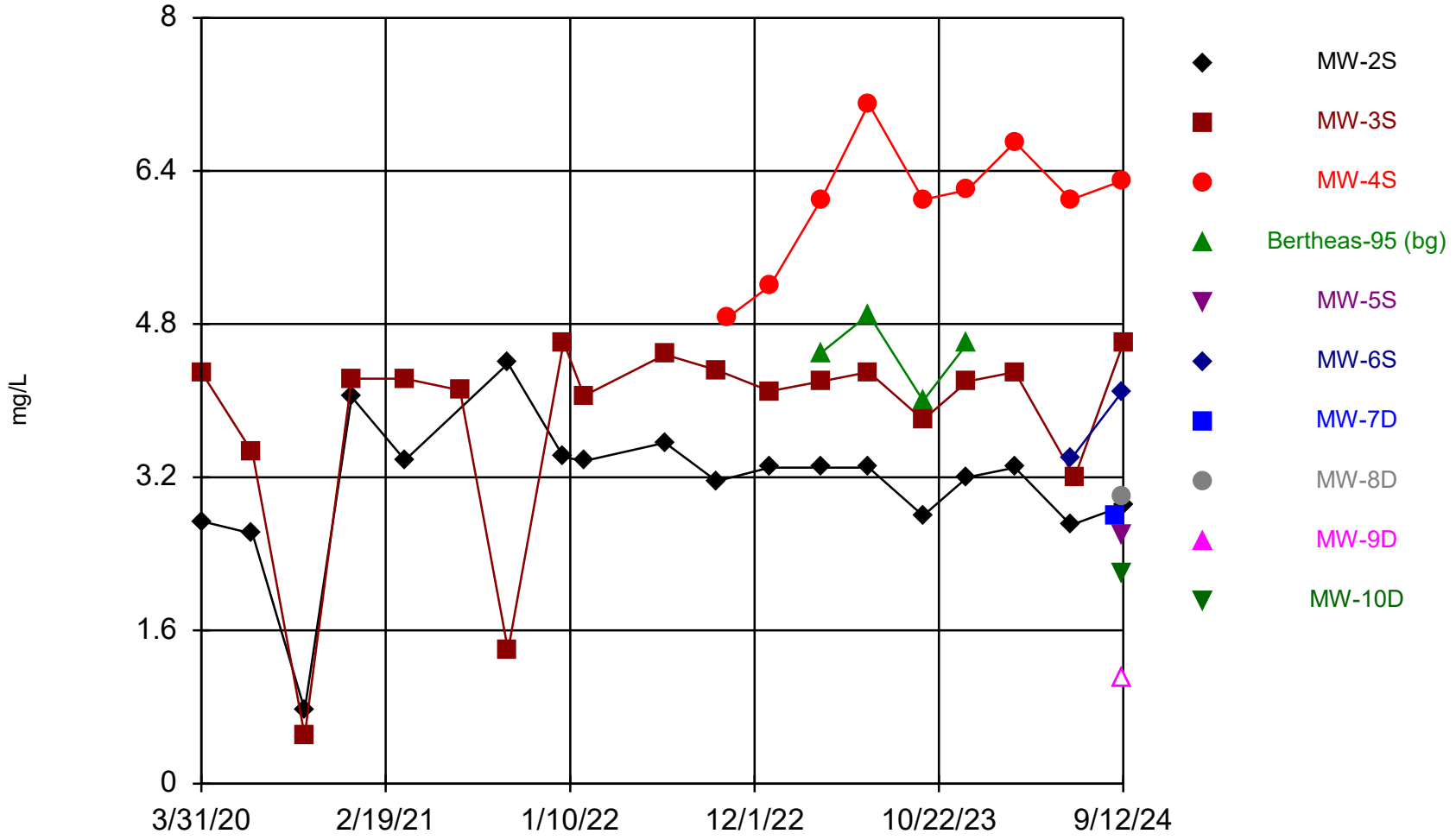
Constituent: pH Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series

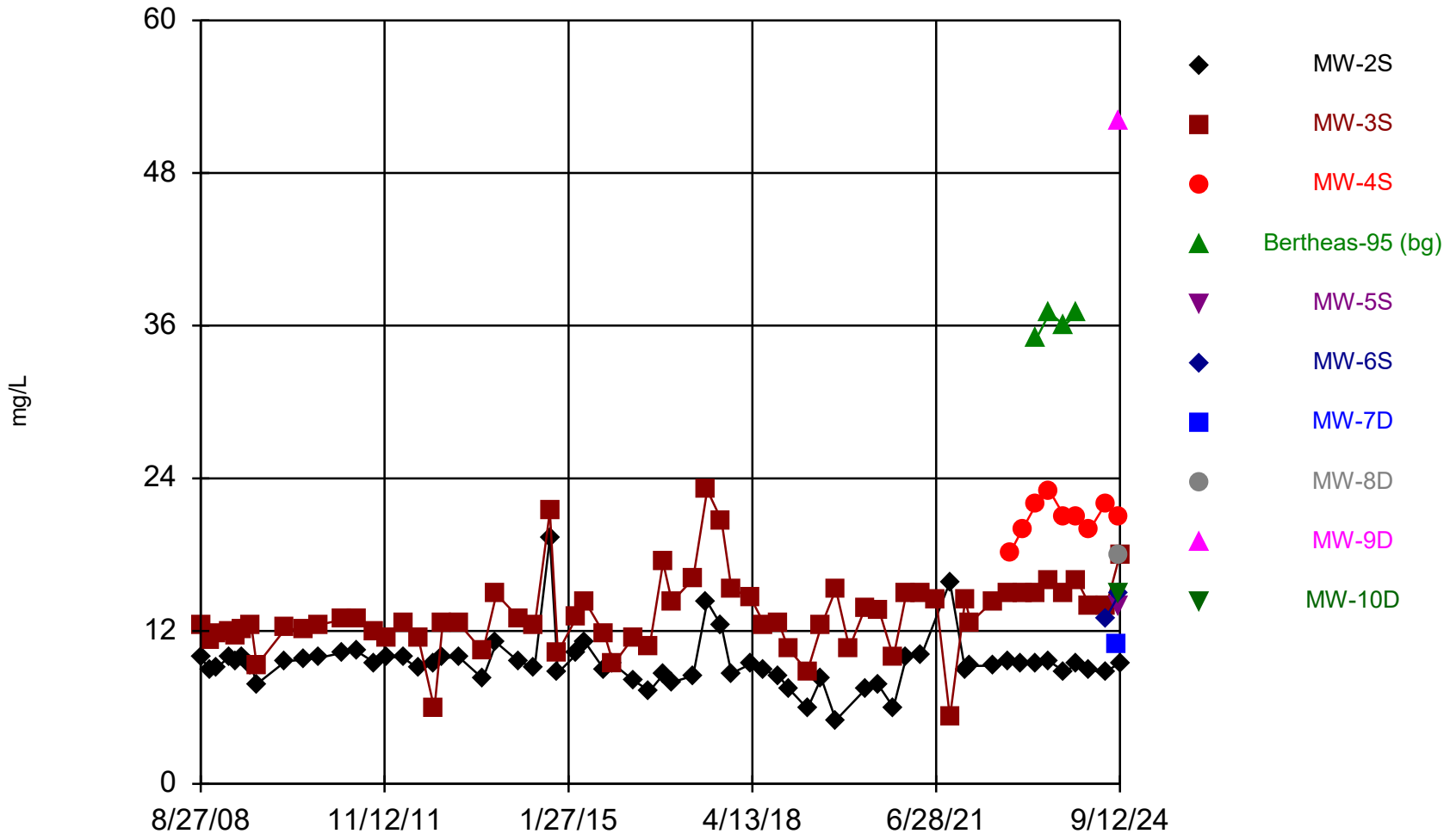


Constituent: Potassium, Dissolved Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Time Series



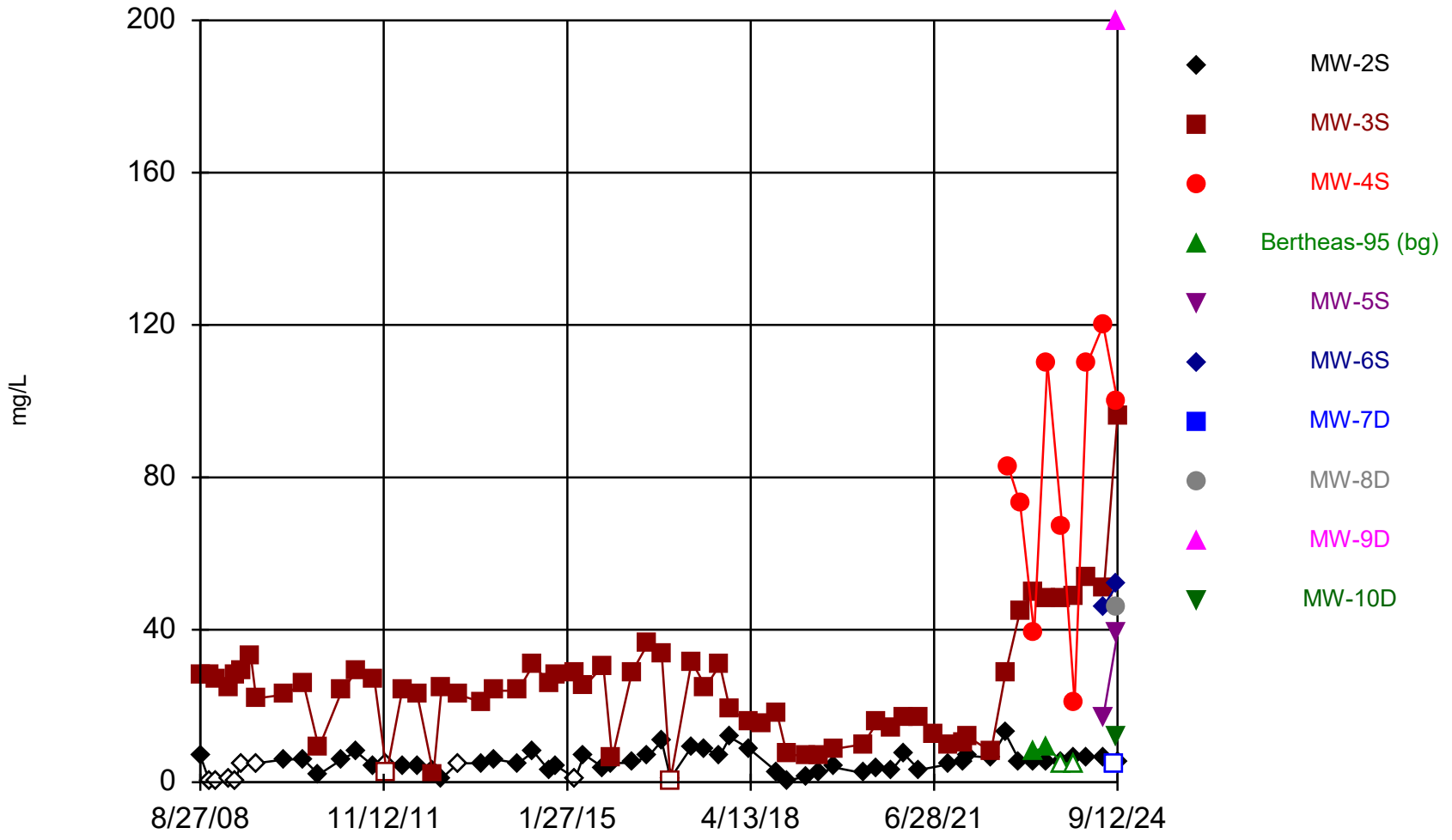
Constituent: Sodium, Dissolved Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series

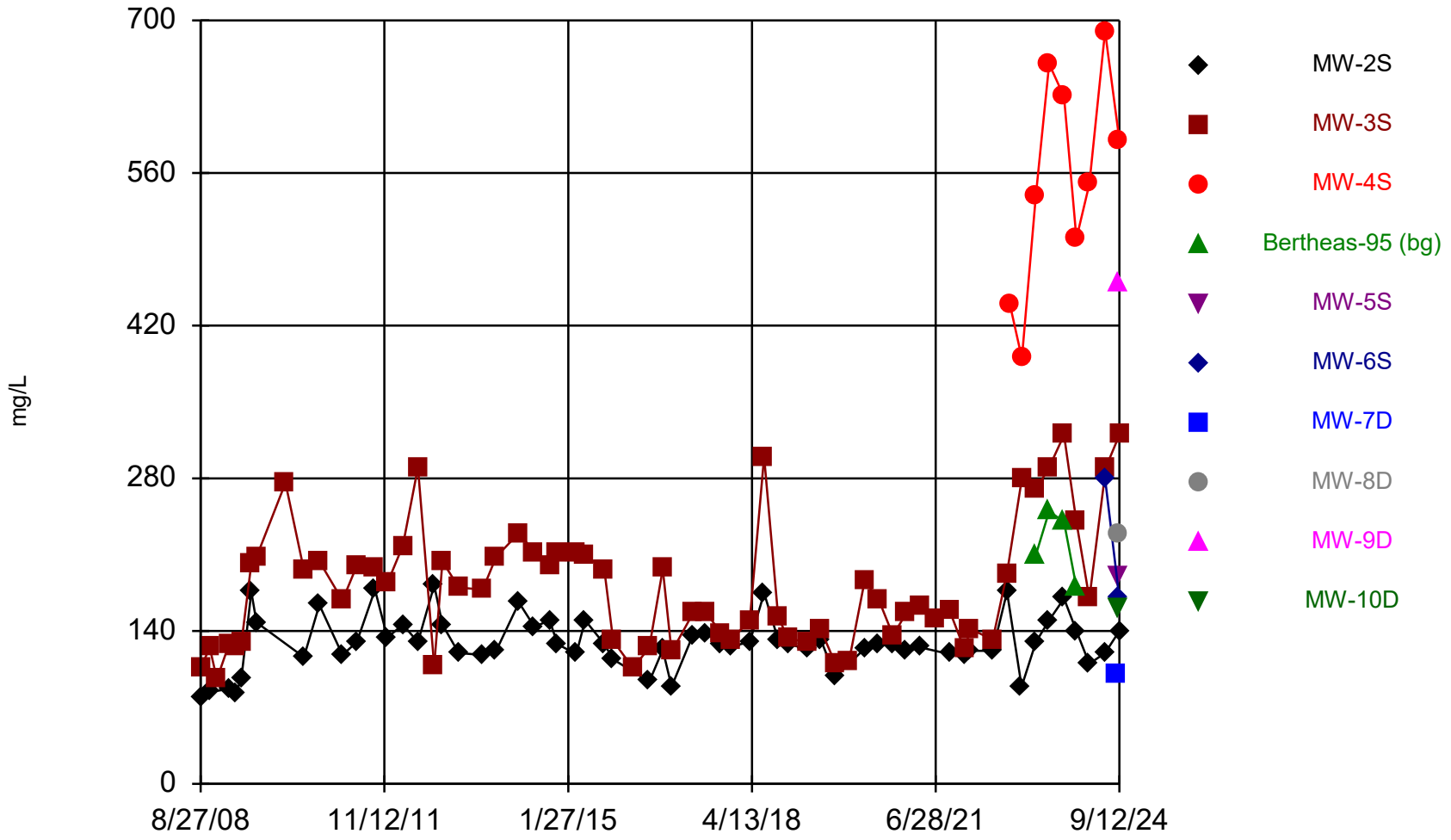


Constituent: Sulfate Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Time Series



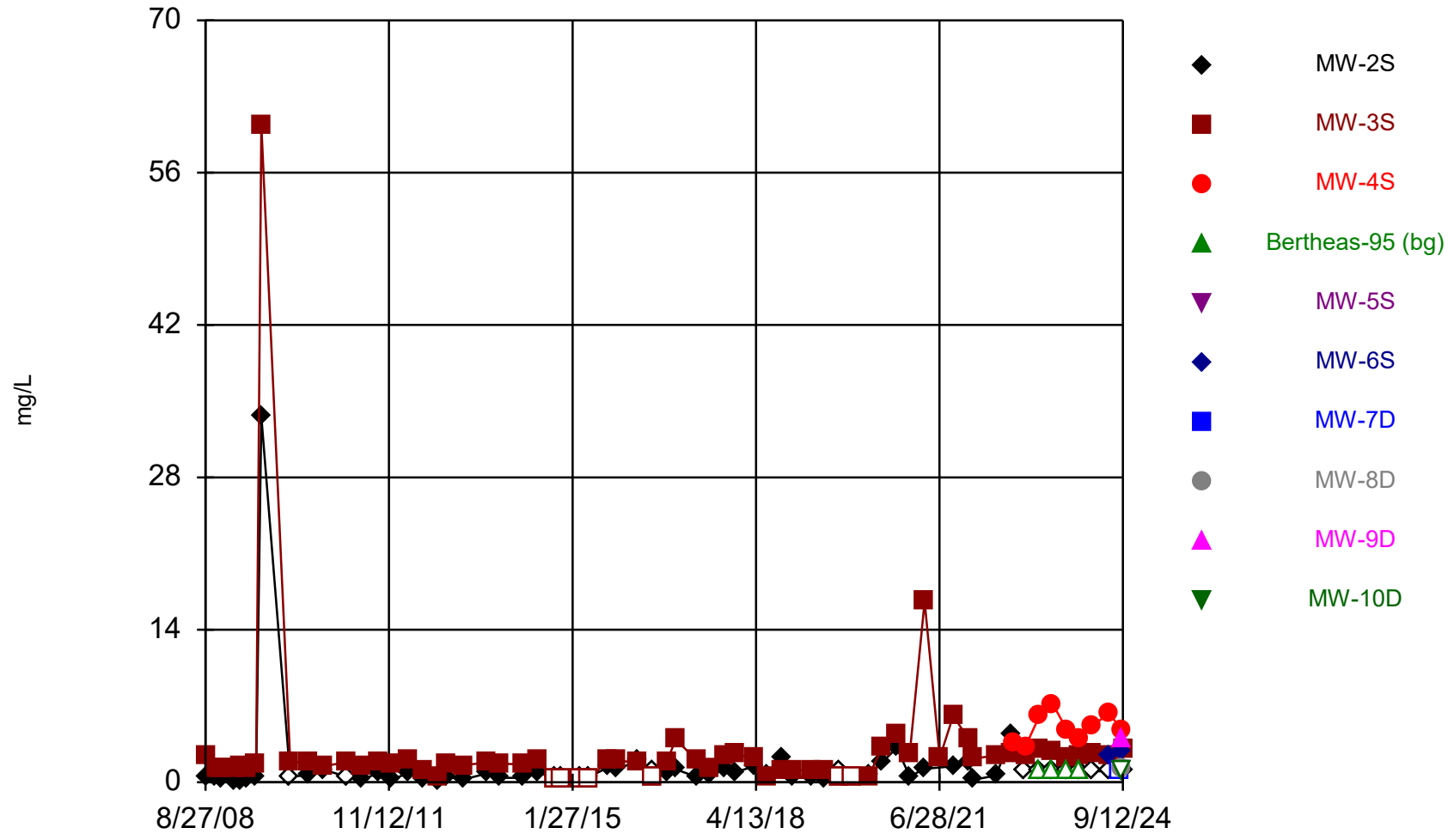
Constituent: TDS Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Hollow symbols indicate censored values.

Time Series



Constituent: Total Organic Carbon Analysis Run 10/15/2024 5:08 PM View: TSPs

Yakima Limited Purpose Landfill Client: DTG Data: DTG Yakima LPL Stats

Non detected values are indicated with a hollow symbol

Appendix E

Geochemistry

Cation/Anion Balance Calculations, Rocky Top Environmental Limited Purpose Landfill, Third Quarter 2024

	Conversion Factor[1] (mg/L to meq/L)	MW-2S			MW-3S			MW-4S			MW-5S			MW-6S		
		Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)
CATIONS																
Na	0.0435	9.5	0.41	21.91	18	0.78	12.57	21	0.91	9.05	14	0.61	19.51	15	0.65	12.98
Ca	0.0499	13	0.65	34.39	49	2.45	39.27	85	4.24	42.04	24	1.20	38.37	41	2.05	40.70
Mg	0.08229	9.1	0.75	39.70	35	2.88	46.25	58	4.77	47.30	15	1.23	39.54	27	2.22	44.20
Fe(+2)	0.03581	0.028	0.00	0.05	0.028	0.00	0.02	0.028	0.00	0.01	0.26	0.01	0.30	0.028	0.00	0.02
K	0.02558	2.9	0.07	3.93	4.6	0.12	1.89	6.3	0.16	1.60	2.6	0.07	2.13	4.1	0.10	2.09
Mn	0.0364	0.0055	0.00	0.01	0.0055	0.00	0.00	0.0055	0.00	0.00	0.13	0.00	0.15	0.0055	0.00	0.00
		TOTAL	1.89	100.00	TOTAL	6.23	100.00	TOTAL	10.09	100.00	TOTAL	3.12	100.00	TOTAL	5.03	100.00
ANIONS																
HCO_3[2]	0.02	80	1.60	90.03	96	1.92	28.39	180	3.60	35.31	92	1.84	57.68	82	1.64	31.98
SO_4	0.02082	5.1	0.11	5.97	96	2.00	29.55	100	2.08	20.42	39	0.81	25.46	52	1.08	21.11
Cl	0.02821	1.0	0.03	1.59	73	2.06	30.45	41	1.16	11.35	19	0.54	16.80	62	1.75	34.10
CO_3[2]	0.02	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
NO_3[3]	0.0714	0.60	0.04	2.41	11	0.79	11.61	47	3.36	32.92	0.025	0.00	0.06	9.2	0.66	12.81
		TOTAL	1.78	100.00	TOTAL	6.76	100.00	TOTAL	10.19	100.00	TOTAL	3.19	100.00	TOTAL	5.13	100.00
anion + cation Sum (meq/L)			3.66			12.99			20.28			6.31			10.15	
(meq/L cations-anions)/(meq/L cations+anions)*100			2.97			-4.13			-0.51			-1.08			-1.01	

Cation/Anion Balance Calculations, Rocky Top Environmental Limited Purpose Landfill, Third Quarter 2024

	Conversion Factor[1] (mg/L to meq/L)	MW-7D			MW-8D			MW-9D			MW-10D		
		Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)	Value (mg/L)	Value (meq/L)	Percent of Total (meq/L)
CATIONS													
Na	0.0435	11	0.48	21.67	18	0.78	23.19	52	2.26	32.72	15	0.65	27.40
Ca	0.0499	15	0.75	33.91	24	1.20	35.47	48	2.40	34.65	17	0.85	35.62
Mg	0.08229	11	0.91	41.00	16	1.32	39.00	27	2.22	32.14	10	0.82	34.55
Fe(+2)	0.03581	0.071	0.00	0.12	0.028	0.00	0.03	0.39	0.01	0.20	0.028	0.00	0.04
K	0.02558	2.8	0.07	3.24	3.0	0.08	2.27	0.55	0.01	0.20	2.2	0.06	2.36
Mn	0.0364	0.035	0.00	0.06	0.026	0.00	0.03	0.17	0.01	0.09	0.021	0.00	0.03
		TOTAL	2.21	100.00	TOTAL	3.38	100.00	TOTAL	6.91	100.00	TOTAL	2.38	100.00
ANIONS													
HCO_3[2]	0.02	100	2.00	93.28	94	1.88	58.08	68	1.36	17.84	94	1.88	79.15
SO_4	0.02082	2.5	0.05	2.43	46	0.96	29.59	200	4.16	54.62	12	0.25	10.52
Cl	0.02821	3.2	0.09	4.21	12	0.34	10.46	74	2.09	27.38	4.9	0.14	5.82
CO_3[2]	0.02	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
NO_3[3]	0.0714	0.025	0.00	0.08	0.85	0.06	1.87	0.17	0.01	0.16	1.5	0.11	4.51
		TOTAL	2.14	100.00	TOTAL	3.24	100.00	TOTAL	7.62	100.00	TOTAL	2.38	100.00
anion + cation Sum (meq/L)			4.35			6.61			14.54			4.76	
(meq/L cations-anions)/(meq/L cations+anions)*100			1.46			2.10			-4.89			0.14	

[1]Reference: Hem 1985.

[2]HCO_3 and CO_3 reported as $CaCO_3$, conversion factor adjusted accordingly.

[3]NO_3 reported as NO_3-N, conversion factor adjusted accordingly.

= Outside WAC 173-351-420(5)(a) acceptable range

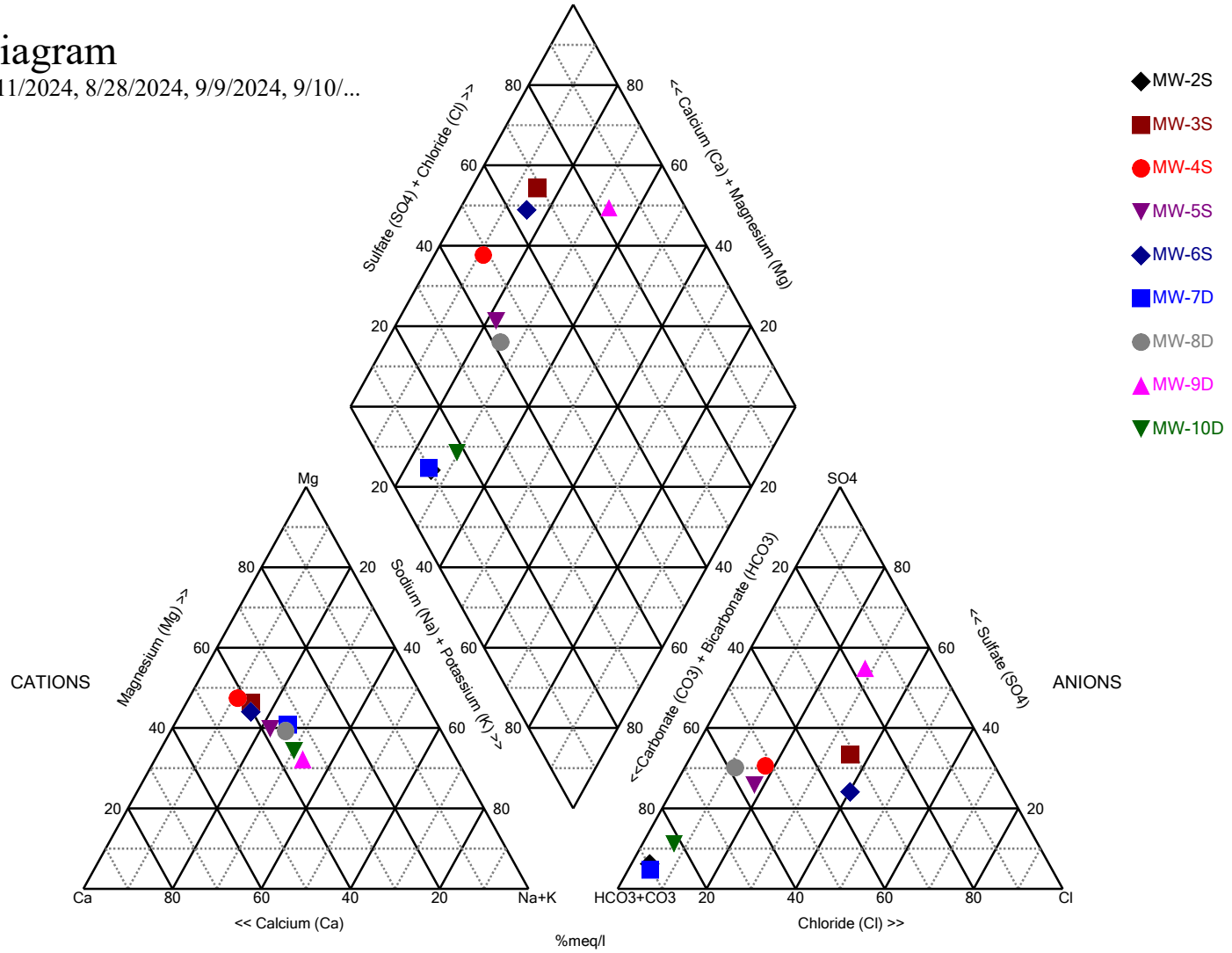
+/-5 percent (for anion plus cation sums greater than 5 meq/L), or

+/-10 percent (for anion plus cation sums less than 5 meq/L)

Note: Values for cations in groundwater samples are measured as dissolved (field-filtered).
5 percent if anion plus cation sum greater than 5 meq/L; 10 percent if anion plus cation sum less than 5 meq/L

Piper Diagram

9/12/2024, 9/11/2024, 8/28/2024, 9/9/2024, 9/10/...



Analysis Run 11/1/2024 11:46 AM

Yakima Limited Purpose Landfill Client: DTG Data: DTG Piper

Appendix F

Statistics

Calculated UPLs for 1-of-2 2024 Groundwater Monitoring

Constituent Name	Background Data Set	Upper Limit	Lower Limit	Observation	Background N	Background Mean	Standard Deviation	% Non-detects	Non-detect Adjustment	Transformation	Alpha	Method
MW-2S												
Ammonia (NH3)	2008–2009 only	0.1	n/a	1 future	8	n/a	n/a	100	n/a	n/a	0.0201	NP Intra (NDs) 1 of 2
Chloride (mg/L)	All data	18	n/a	1 future	58	n/a	n/a	41.38	n/a	n/a	0.0005716	NP Intra (normality) 1 of 2
Iron, Dissolved (mg/L)	All data	0.281	n/a	1 future	51	n/a	n/a	68.63	n/a	n/a	0.000728	NP Intra (NDs) 1 of 2
Iron, Total (mg/L)	All data	0.118	n/a	1 future	15	n/a	n/a	80	n/a	n/a	0.007314	NP Intra (NDs) 1 of 2
Manganese, Dissolved (mg/L)	All data	0.1	n/a	1 future	56	n/a	n/a	89.29	n/a	n/a	0.0006163	NP Intra (NDs) 1 of 2
Manganese, Total (mg/L)	All data	0.01	n/a	1 future	14	n/a	n/a	85.71	n/a	n/a	0.008332	NP Intra (NDs) 1 of 2
Nitrate (mg/L)	All data	1.995	n/a	1 future	57	0.5657	0.4465	31.58	Aitchison`s	sqrt(x)	0.001316	Param Intra 1 of 2
pH (none)	2008–2009 only	7.79	6.281	1 future	7	7.036	0.2418	0	None	No	0.0006581	Param Intra 1 of 2
Sulfate (mg/L)	All data	10.51	n/a	1 future	58	4.5	3.175	17.24	Aitchison`s	No	0.001316	Param Intra 1 of 2
TDS (mg/L)	All data	176.8	n/a	1 future	57	129.3	25.07	0	None	No	0.001316	Param Intra 1 of 2
MW-3S												
Ammonia (NH3)	2008–2009 only	0.1	n/a	1 future	8	n/a	n/a	100	n/a	n/a	0.0201	NP Intra (NDs) 1 of 2
Chloride (mg/L)	All data	45.99	n/a	1 future	61	21.8	12.81	6.557	None	No	0.001316	Param Intra 1 of 2
Iron, Dissolved (mg/L)	All data	0.37	n/a	1 future	54	n/a	n/a	51.85	n/a	n/a	0.000661	NP Intra (NDs) 1 of 2
Iron, Total (mg/L)	All data	0.138	n/a	1 future	13	n/a	n/a	61.54	n/a	n/a	0.009354	NP Intra (NDs) 1 of 2
Manganese, Dissolved (mg/L)	All data	0.03	n/a	1 future	58	n/a	n/a	77.59	n/a	n/a	0.0005716	NP Intra (NDs) 1 of 2
Manganese, Total (mg/L)	All data	0.01	n/a	1 future	13	n/a	n/a	84.62	n/a	n/a	0.009354	NP Intra (NDs) 1 of 2
Nitrate (mg/L)	2008–2009 only	9.201	n/a	1 future	8	1.765	0.448	0	None	sqrt(x)	0.001316	Param Intra 1 of 2
pH (none)	2008–2009 only	7.701	6.325	1 future	7	7.013	0.2205	0	None	No	0.0006581	Param Intra 1 of 2
Sulfate (mg/L)	All data	44.84	n/a	1 future	61	22.68	11.73	3.279	None	No	0.001316	Param Intra 1 of 2
TDS (mg/L)	All data	286.3	n/a	1 future	62	13.18	1.982	0	None	sqrt(x)	0.001316	Param Intra 1 of 2

Calculated Control Charts for 1-of-2 2024 Groundwater Monitoring

Constituent Name	Background Data Set	h	SCL	Background N	Background Mean	Standard Deviation	% Non-detects	Adjustment for NDs	Deseasonalized	Transformation	Method
MW-2S											
Ammonia (NH3)	2008–2009 only	PL=0.1	n/a	8	n/a	n/a	100	None	No	No	NP Intra PL (NDs)
Chloride (mg/L)	All data	PL=18	n/a	58	n/a	n/a	41.38	None	No	No	NP Intra PL (normality)
Iron, Dissolved (mg/L)	All data	PL=0.281	n/a	51	n/a	n/a	68.63	None	No	No	NP Intra PL (NDs)
Iron, Total (mg/L)	All data	PL=0.118	n/a	15	n/a	n/a	80	None	No	No	NP Intra PL (NDs)
Manganese, Dissolved (mg/L)	All data	PL=0.1	n/a	56	n/a	n/a	89.29	None	No	No	NP Intra PL (NDs)
Manganese, Total (mg/L)	All data	PL=0.01	n/a	14	n/a	n/a	85.71	None	No	No	NP Intra PL (NDs)
Nitrate (mg/L)	All data	PL=2.04	n/a	57	n/a	n/a	31.58	None	No	No	NP Intra PL (xf/Cohens)
pH (none)	2008–2009 only	8.245 & 5.827	8.245 & 5.827	7	7.036	0.2418	0	None	No	No	Param Intra
Sulfate (mg/L)	All data	19.01	19.01	58	4.912	2.819	17.24	None	No	No	Param Intra
TDS (mg/L)	All data	PL=182	n/a	57	n/a	n/a	0	None	No	No	NP Intra PL (normality)
MW-3S											
Ammonia (NH3)	2008–2009 only	PL=0.1	n/a	8	n/a	n/a	100	None	No	No	NP Intra PL (NDs)
Chloride (mg/L)	All data	85.84	85.84	61	21.8	12.81	6.557	None	No	No	Param Intra
Iron, Dissolved (mg/L)	All data	PL=0.37	n/a	54	n/a	n/a	51.85	None	No	No	NP Intra PL (NDs)
Iron, Total (mg/L)	All data	PL=0.138	n/a	13	n/a	n/a	61.54	None	No	No	NP Intra PL (NDs)
Manganese, Dissolved (mg/L)	All data	PL=0.03	n/a	58	n/a	n/a	77.59	None	No	No	NP Intra PL (NDs)
Manganese, Total (mg/L)	All data	PL=0.01	n/a	13	n/a	n/a	84.62	None	No	No	NP Intra PL (NDs)
Nitrate (mg/L)	2008–2009 only	18.23	18.23	8	1.453	0.2359	0	None	No	x^(1/3)	Param Intra
pH (none)	2008–2009 only	PL=7.2 & 6.54	n/a	7	n/a	n/a	0	None	No	No	NP Intra PL (normality)
Sulfate (mg/L)	All data	81.34	81.34	61	22.68	11.73	3.279	None	No	No	Param Intra
TDS (mg/L)	All data	533.1	533.1	62	13.18	1.982	0	None	No	sqrt(x)	Param Intra

Note: PL = prediction limit (two values indicate upper and lower limits)