April 14, 2023

Ms. Shelly Wells
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
Shelly.Wells@emnrd.nm.gov

Re: 2022 Annual Facility-Wide Groundwater Monitoring Report, HF Sinclair Navajo Refining LLC, Lovington, New Mexico, GW-014.

Dear Ms. Wells:

Please find attached the 2022 Annual Facility-Wide Groundwater Monitoring Report (Report) for the HF Sinclair Navajo Refining LLC (HFSNR) Refinery located in Lovington, New Mexico. The Report summarizes the results of groundwater monitoring and remediation activities conducted at the Refinery under GW-014 during calendar year 2022.

If you should have any questions or comments regarding this Report, please feel free to contact me at (575) 746-5487 or Mike Holder at (575) 308-1115.

Sincerely,

Kawika Tupou
Environmental Manager
HF Sinclair Navajo Refining LLC

cc: HF Sinclair: M. Holder
TRC: J. Speer, A. Eljuri, S. Hoover

2022 Annual Facility-Wide Groundwater Monitoring Report

April 2023

HF Sinclair Navajo Refining LLC

GW-014

Lovington, New Mexico

Prepared For:

HF Sinclair Navajo Refining LLC

Prepared By:

TRC Environmental Corporation
Austin, Texas



2022 Annual Facility-Wide Groundwater Monitoring Report

HF Sinclair Navajo Refining LLC
GW-014
Lovington, New Mexico

Prepared for:

HF Sinclair Navajo Refining LLC
Artesia, New Mexico

Prepared by:

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TRC Project No. 527021

April 2023

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EXECUTIVE SUMMARY

This *2022 Annual Facility-Wide Groundwater Monitoring Report* documents groundwater monitoring activities conducted at the HF Sinclair Navajo Refining LLC (HFSNR) facility (Refinery) located in Lovington, New Mexico, during calendar year 2022. The Refinery is currently regulated by New Mexico Oil Conservation Division (OCD) under Groundwater Discharge Permit GW-014 (Permit) issued by the OCD on November 16, 2022. The facility was subject to Abatement Plan AP-110 prior to issuance of the Permit.

The groundwater monitoring program consists of semi-annual groundwater gauging of monitoring wells, semi-annual groundwater sampling of monitoring wells, quarterly sampling of Refinery water supply wells, and annual reporting. The monitoring objectives are to (1) determine groundwater elevations, flow direction, and gradient; (2) determine the presence, extent, and apparent thickness of light non-aqueous phase liquid (LNAPL); and (3) obtain dissolved-phase concentration data. Monitoring activities were conducted in general accordance with the November 2017 *Revised Facility-Wide Groundwater Monitoring Work Plan* (Revised FWGMWP) that was approved by OCD on February 1, 2018.

The 2022 groundwater monitoring results indicate physical and chemical groundwater conditions are consistent with historical data. Groundwater flows radially (southeast, south, and north/northwest) towards a cone of depression near the three Refinery water supply wells located within the central portion of the Refinery. This cone of depression is induced by groundwater pumping from the three on-site water supply wells for Refinery process use and non-potable restroom and safety shower use. Groundwater elevations across the Refinery have been decreasing since 2010 and continued to decrease during 2022. Three monitoring wells (MW-27, MW-28, and MW-29) were dry in October 2022 due to declining groundwater elevations. The presence of select anions (chloride, nitrate, and fluoride), total dissolved solids (TDS), and metals in select wells at concentrations above the New Mexico Water Quality Control Commission (WQCC) Standards is due to off-site sources, background concentrations, and/or non-HFSNR sources at the Refinery.

LNAPL is present in monitoring well MW-31, which was installed in December 2016 to investigate the historical release at the asphalt loading rack. LNAPL recovery was continuously conducted at MW-31 throughout 2022 using a pneumatic skimmer recovery system. Approximately 284 gallons of LNAPL were recovered using the skimmer system in 2022.

HFSNR will implement groundwater monitoring activities at the Refinery in 2023 under the November 2017 Revised FWGMWP until the submittal of a new FWGMWP and subsequent approval by the OCD. HFSNR will also continue LNAPL recovery activities at well MW-31 in

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accordance with the November 17, 2017, letter report that was approved with comments by the OCD on December 22, 2017.

Released to Imaging: 4/14/2023 4:34:58 PM

TABLE OF CONTENTS

EXECUTIVE SUMMARY ii

1.0 INTRODUCTION 1-1

1.1 Refinery Description 1-1

2.0 SEMI-ANNUAL GROUNDWATER MONITORING ACTIVITIES 2-1

2.1 Fluid Level Gauging 2-2

2.2 Groundwater Sample Collection 2-2

3.0 SEMI-ANNUAL GROUNDWATER MONITORING RESULTS 3-1

3.1 Fluid Gauging Results 3-1

3.1.1 Light Non-Aqueous Phase Liquid (LNAPL) 3-1

3.1.2 Groundwater 3-1

3.2 Groundwater Sampling Results 3-2

3.2.1 Organic Constituent Results 3-2

3.2.2 Inorganic Constituent Results 3-4

4.0 QUARTERLY REFINERY WATER SUPPLY WELL MONITORING 4-1

5.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) 5-1

6.0 2022 RELEASES AND REMEDIATION ACTIVITIES 6-1

6.1 Asphalt Loading Rack (LNAPL Recovery at MW-31) 6-1

7.0 CONCLUSIONS 7-1

8.0 WORK PLANNED FOR 2023 8-1

Released to Imaging: 4/14/2023 4:34:58 PM

LIST OF FIGURES

Figure 1	Refinery Vicinity Map
Figure 2	Refinery Site Plan
Figure 3	Groundwater Potentiometric Surface Map – April 2022
Figure 4	Groundwater Potentiometric Surface Map – October 2022
Figure 5	Anions Concentration Map – April 2022
Figure 6	Anions Concentration Map – October 2022
Figure 7	Total Dissolved Solids Concentration Map – April 2022
Figure 8	Total Dissolved Solids Concentration Map – October 2022
Figure 9	Metals Concentration Map – April 2022
Figure 10	Metals Concentration Map – October 2022

LIST OF TABLES

Table 1	Water Elevation Measurements
Table 2	Organic Constituent Concentrations in Groundwater
Table 3	Inorganic Constituent Concentrations in Groundwater

LIST OF APPENDICES

Appendix A	Plot of Groundwater Elevations over Time
Appendix B	Laboratory Analytical Reports
Appendix C	Plots of Groundwater Concentrations over Time
Appendix D	Quality Assurance/Quality Control Data Summary
Appendix E	LNAPL Gauging and Recovery Results, Monitoring Well MW-31

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LIST OF ACRONYMS AND ABBREVIATIONS

DO	Dissolved Oxygen
DRO	Diesel Range Organics
FWGMWP	Facility-Wide Groundwater Monitoring Work Plan
GRO	Gasoline Range Organics
HEP	Holly Energy Partners – Operating, L.P.
HFSNR	HF Sinclair Navajo Refining LLC
HMI	Hydrologic Monitoring
LCS/LCSD	Laboratory control sample and laboratory control sample duplicate
LNAPL	Light Non-Aqueous Phase Liquid
mg/L	Milligrams per liter
NMAC	New Mexico Administrative Code
NMOSE	New Mexico Office of the State Engineer
MS/MSD	Matrix spike and matrix spike duplicate
O&M	Operation and Maintenance
OCD	New Mexico Oil Conservation Division
ORC®	Oxygen-Releasing Compound
ORP	Oxidation-Reduction Potential
Pace National	Pace Analytical National Center for Testing & Innovation
QA/QC	Quality Assurance/Quality Control
RDL	Reported Detection Limit
RPD	Relative Percent Difference
SM	Standard Method
SVOCs	Semi-Volatile Organic Compounds
TRC	TRC Environmental Corporation
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
WQCC	New Mexico Water Quality Control Commission

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1.0 INTRODUCTION

On behalf of HF Sinclair Navajo Refining LLC (HFSNR), TRC Environmental Corporation (TRC) prepared this *2022 Annual Facility-Wide Groundwater Monitoring Report* to summarize the results of groundwater monitoring activities conducted at the facility (Refinery) located in Lovington, New Mexico, during calendar year 2022. Groundwater monitoring reports prior to 2012 were submitted in accordance with a Groundwater Discharge Permit GW-014 issued by the New Mexico Oil Conservation Division (OCD). The Groundwater Discharge Permit was due to expire on October 30, 2011, and a renewal draft permit was issued in August 2011 that was to go into effect by November 1, 2011. However, the OCD rescinded the Groundwater Discharge Permit on February 9, 2012. The Refinery was then regulated by the OCD under Abatement Plan AP-110 until November 16, 2022, when the OCD issued a new Groundwater Discharge Permit GW-014 (the Permit).

1.1 Refinery Description

The Refinery is located approximately five miles south of Lovington in Lea County, New Mexico. The Refinery started operation in 1974 (Southern Union) and HFSNR became operator of the Refinery in early 1989. The Refinery is located on leased property owned by the City of Lovington. The property is located within the Permian oil field and surrounded by grazing land, oilfield production that started in approximately the 1940s, and produced water disposal wells. There are active and plugged oil wells and saltwater disposal wells within and surrounding the Refinery. The Refinery consists of refining operations, as well as Holly Energy Partners – Operating, L.P. (HEP) pipeline and receiving stations. A Refinery vicinity map is provided as Figure 1 and a Refinery site plan is provided as Figure 2.

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2.0 SEMI-ANNUAL GROUNDWATER MONITORING ACTIVITIES

Semi-annual groundwater monitoring activities were conducted at the Refinery in April and October 2022 in accordance with the November 2017 *Revised Facility-Wide Groundwater Monitoring Work Plan* (Revised FWGMWP) that was approved by the OCD on February 1, 2018. Hydrologic Monitoring (HMI) conducted the first semi-annual groundwater monitoring event on April 14, 2022, and the second semi-annual event on October 13, 2022. Groundwater monitoring activities consisted of (1) gauging existing Refinery monitoring wells (MW-1 through MW-24R and MW-26R through MW-33) and one recovery well (RW-1) and (2) collecting groundwater samples for laboratory analysis from select Refinery monitoring wells and three Refinery water supply wells (WW-North, WW-South, and WW-East). The locations of the monitoring wells, recovery well, and Refinery water supply wells are presented on Figure 2.

The following deviations to the November 2017 Revised FWGMWP occurred during the April 2022 monitoring event:

- Well MW-31 was not sampled due to the presence of light non-aqueous phase liquid (LNAPL). This is consistent with previous sampling events conducted since 2017.
- Wells MW-17R, MW-27, MW-28, and MW-29 were sampled using bailing techniques rather than low-flow procedures with a submersible pump due to poor recharge and insufficient water column in the well. These wells were purged dry with a new disposable bailer and a grab sample was collected for laboratory analysis after the wells recharged.
- Wells MW-27, MW-28, and MW-29 could not be sampled for field water quality parameters due to poor recharge resulting in insufficient sample volume; however, the wells had enough water volume to be sampled for laboratory analysis.

The following deviations to the November 2017 Revised FWGMWP occurred during the October 2022 monitoring event:

- Well MW-31 was not sampled due to the presence of LNAPL. This is consistent with previous sampling events conducted since 2017.
- Wells MW-27, MW-28, and MW-29 were dry and could not be sampled.
- Well MW-22 could not be sampled for TDS and total mercury due to poor recharge resulting in insufficient sample volume.
- Wells MW-17R, MW-21, MW-22, and MW-30 were sampled using bailing techniques rather than low-flow procedures with a submersible pump due to poor recharge and

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insufficient water column in the well. These wells were purged dry with a new disposable bailer and a grab sample was collected for laboratory analysis after the wells recharged.

- Wells MW-21, MW-22, and MW-30 could not be sampled for field water quality parameters due to poor recharge resulting in insufficient sample volume; however, the wells had enough water volume to be sampled for laboratory analysis.

2.1 Fluid Level Gauging

Existing Refinery monitoring and recovery wells were gauged during the April 2022 and October 2022 semi-annual monitoring events to determine the groundwater elevation, flow direction and gradient, the presence or absence of LNAPL, and apparent LNAPL thickness. A decontaminated oil-water interface probe was used to measure depths to water and LNAPL, if present. Depths to water and LNAPL were measured to the nearest 0.01-foot from the top of the well casing.

2.2 Groundwater Sample Collection

Groundwater samples were collected for laboratory analysis from the following wells during each semi-annual monitoring event:

- April 2022: 17 monitoring wells (MW-1 through MW-3, MW-6, MW-8, MW-11R, MW-12R2, MW-13R, MW-15R, MW-17R, MW-19R, MW-27 through MW-30, MW-32, MW-33) and three Refinery water supply wells (WW-North, WW-East, and WW-South).
- October 2022: 27 monitoring wells (MW-1 through MW-6, MW-8 through MW-24R, MW-26R, MW-30, MW-32, and MW-33) and three Refinery water supply wells (WW-North, WW-East, and WW-South).

Except as identified as deviations in Section 2.0, each monitoring and recovery well was purged and sampled using low-flow sampling procedures. Dedicated bladder pumps installed in each monitoring well were used to purge and sample monitoring wells during the April and October 2022 events. The pump intake was placed at the middle of the water column because the water elevations were within the screened well intervals. A water-quality meter and turbidity meter were used to measure pH, temperature, specific conductivity, oxidation-reduction potential (ORP), dissolved oxygen (DO), and turbidity at regular intervals during the purging process to obtain geochemical data and to monitor for stabilization of the groundwater. The purging process was considered complete when three of the six water quality parameters achieved stabilization.

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The Refinery water supply wells were sampled from a sampling point (i.e., tap or spigot) located at or near the well head or pump house and before the water supply is introduced into any storage tank or treatment unit. The wells were purged to remove any standing water from the well casing and surface piping. Grab readings of geochemical parameters including pH, temperature, conductivity, ORP, DO, and turbidity were also collected during the purging process.

After the purging process was complete, groundwater samples were collected directly from the dedicated or disposable tubing (for the monitoring wells) or from the Refinery water supply well sampling point into method-specific containers provided by the laboratory. All groundwater samples were submitted to Pace Analytical National Center for Testing & Innovation (Pace National) in Mount Juliet, Tennessee, under appropriate chain-of-custody documentation for one or more of the following analyses in accordance with the November 2017 Revised FWGMWP:

- Volatile organic compounds (VOCs) by SW-846 Method 8260B;
- Semi-volatile organic compounds (SVOCs) by SW-846 Method 8270C;
- Total petroleum hydrocarbons (TPH) gasoline range organics (GRO) by SW-846 Method 8015D;
- TPH diesel range organics (DRO) by SW-846 Method 3511/8015;
- Dissolved metals (aluminum, arsenic, barium, boron, cadmium, chromium, cobalt, copper, iron, lead, magnesium, molybdenum, nickel, selenium, silver, uranium, zinc) by SW-846 Method 6010B or 6020;
- Total mercury by SW-846 Method 7470A;
- Anions (chloride, fluoride, nitrate-nitrite or nitrate and nitrite, and sulfate) by EPA Method 353.2 or SW-846 Method 9056A;
- Alkalinity by Standard Method (SM) 2320B-2011; and/or
- TDS by SM M2540C-2011.

The 2017 Revised FWGWMP included analysis of nitrate-nitrite as 20.6.2.3103 New Mexico Administrative Code (NMAC) only included standards for nitrate at the time. In December 2018, 20.6.3103 NMAC was updated to include separate standards for both nitrate and nitrite. Samples collected during the second semi-annual monitoring event were submitted for separate laboratory analysis of nitrate and nitrite in accordance with the OCD email on June 22, 2022, and letter dated July 19, 2022.

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3.0 SEMI-ANNUAL GROUNDWATER MONITORING RESULTS

The results of the semi-annual groundwater monitoring activities conducted in April 2022 and October 2022 are discussed below.

3.1 Fluid Gauging Results

Fluid level gauging was performed on April 14, 2022, and on October 13, 2022, and the results are presented in Table 1. Potentiometric groundwater surface maps for the April 2022 and October 2022 gauging events are presented as Figures 3 and 4, respectively.

3.1.1 Light Non-Aqueous Phase Liquid (LNAPL)

LNAPL was detected in one well (MW-31) during both semi-annual gauging events. The presence of LNAPL in MW-31 is associated with the historical release discovered at the asphalt loading rack during construction activities in November 2015. Measured apparent LNAPL thicknesses in MW-31 during the April and October 2022 gauging events were 5.76 and 5.91 feet, respectively. HFSNR conducted routine LNAPL recovery using a pneumatic skimmer system at MW-31 throughout 2022, as discussed in Section 6.0. Additional fluid gauging results obtained at MW-31 during recovery activities are provided in Appendix E.

3.1.2 Groundwater

Groundwater elevations measured during both semi-annual gauging events indicate groundwater elevations are decreasing and groundwater flows radially (southeast, south, and north/northwest) towards a cone of depression near the three Refinery water supply wells located within the central portion of the Refinery. This cone of depression is consistent with previous events and is induced by groundwater pumping from the three on-site Refinery water supply wells for Refinery process use and non-potable restroom and safety shower use. The natural groundwater flow direction at the Refinery (i.e., not influenced by pumping) is to the southeast, as observed in the northern portion of the Refinery.

Groundwater elevations measured during the April 2022 event decreased an average 0.24 feet from those measured in April 2021 (first semi-annual event of 2021). The April 2022 groundwater elevation data indicates groundwater northwest of the cone of depression flows southeast at a hydraulic gradient ranging from 0.005 to 0.009 feet per foot. South/southeast of the cone of depression, groundwater flows north/northwest at a hydraulic gradient ranging from 0.0009 to 0.002 feet per foot.

Groundwater elevations measured during the October 2022 event decreased an average 0.47 feet from those measured in September 2021 (second semi-annual event of 2021). The October 2022 groundwater elevation data indicates groundwater northwest of the cone of depression

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flows southeast at a hydraulic gradient ranging from of 0.005 to 0.009 feet per foot. South/southeast of the cone of depression, groundwater flows north/northwest at a hydraulic gradient ranging from 0.0006 to 0.005 feet per foot.

A graph of groundwater elevations versus time for representative wells MW-4 and MW-6 is provided in Appendix A. As shown on the graph, groundwater elevations in wells MW-4 and MW-6 have decreased 16.03 feet and 15.87 feet, respectively, from June 2009 to October 2022. These reductions in groundwater levels are consistent across the Refinery and are likely caused by (1) limited recharge due to low rainfall levels and (2) regional groundwater pumping including active pumping from three on-site Refinery water supply wells and City of Lovington water supply wells located northwest and west (i.e., upgradient) of the Refinery.

3.2 Groundwater Sampling Results

Analytical results of organic, anions, and metal constituents in groundwater samples collected during the 2022 sampling events are summarized in Tables 2, 3, and 4, respectively. Analytical results are compared to the New Mexico Water Quality Control Commission (WQCC) Standards for groundwater and any results that exceeded these standards are shaded gray. Groundwater concentration maps are provided as Figures 5 through 10 for constituents that exceeded WQCC Standards. Laboratory analytical reports are provided in Appendix B. Plots of groundwater concentrations over time for constituents detected above the reported detection limit (RDL), or equivalent, more than once in each well are provided in Appendix C. Constituents that were never detected above the RDL, including those only detected at estimated J-flagged concentrations (i.e., detected above the method detection limit but below the RDL), are not included on the concentration plots in Appendix C.

3.2.1 Organic Constituent Results

Analytical results for VOCs, SVOCs, and TPH (i.e., organic constituents) that have historically been detected in groundwater are presented in Table 2. Naphthalene results are included in both the VOC (Method 8260B) and SVOC (Method 8270C) sections of Table 2 as it is reported by both analytical methods.

3.2.1.1 Volatile Organic Compounds

VOCs were not detected above their respective WQCC Standards in any of the wells sampled in April 2022 and October 2022. Reported concentrations of VOCs during the 2022 sampling events were generally consistent with or less than previous sampling results, with notable increases in the following wells:

- MW-4: Chloroform concentrations increased over the four most recent sampling events from an estimated J-flagged concentration of 0.000574 J mg/L in October 2019 to a

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historical maximum of 0.00906 mg/L in October 2022. Concentrations remain two orders of magnitude below the WQCC Standard of 0.1 mg/L. Chloroform concentrations in this well will be reviewed again in 2023.

- MW-30: Chloroform concentrations overall increased from February 2015 (0.00072 J mg/L) to a historical maximum in April 2022 (0.0311 mg/L), and then decreased slightly in October 2022 (0.0288 mg/L). Concentrations remain one order of magnitude below the WQCC Standard of 0.1 mg/L. Chloroform concentrations in this well will be reviewed again in 2023.

Concentration maps of VOCs in groundwater for the April 2022 and October 2022 monitoring events are not provided because none of the reported concentrations exceeded the WQCC Standards.

Benzene historically fluctuated above and below the WQCC Standard in well MW-11 but remained below the WQCC Standard from March 2016 until the well went dry in August 2016. From March 2015 to August 2016, HFSNR installed and maintained oxygen-releasing compound (ORC®) socks in MW-11 to promote enhanced aerobic biodegradation of benzene historically detected in this well. In December 2016, monitoring well MW-11 was plugged and abandoned and a deeper replacement well (MW-11R) was installed at a location adjacent to the former well. In 2021, benzene was detected in MW-11R for the first time since its installation in 2016, at estimated J-flagged concentrations of 0.000660 J mg/L in April 2021 and 0.000157 JB mg/L in September 2021. Benzene was not detected in well MW-11R during the April 2022 and October 2022 groundwater monitoring events. HFSNR will continue to monitor benzene concentrations in MW-11R during subsequent groundwater monitoring events.

3.2.1.2 Semi-Volatile Organic Compounds

SVOCs were not detected above their respective WQCC Standards in any of the wells sampled in April 2022 and October 2022, except for total phenols in MW-12R2, which was detected at an estimated concentration (0.00662 J mg/L) above the WQCC Standard of 0.005 mg/L in October 2022. Total phenols at well MW-12R2 is further discussed below. Analytical results for SVOCs during the 2022 semi-annual monitoring events were generally consistent with previous sampling results.

Concentrations of total phenols in well MW-12R2 increased from non-detect in April 2022 to an estimated J-flagged concentration of 0.00662 J mg/L in October 2022. Total phenols has been detected intermittently in select Refinery wells over time, including in former well MW-12R. However, the 2022 result for total phenols in MW-12R2 is estimated (i.e., not detected above

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the RDL) and therefore does not confirm an exceedance of the WQCC Standard. Concentrations of total phenols in this well will be reviewed again in 2023.

Concentration maps of SVOCs in groundwater for the April 2022 and October 2022 sampling events are not provided because none of the reported concentrations were confirmed exceedances of the WQCC Standards.

3.2.1.3 Total Petroleum Hydrocarbons

During the April 2022 sampling event, TPH GRO was detected at a concentration above the RDL in well MW-33 (0.188 mg/L). TPH GRO was not detected in the other four wells sampled and analyzed for TPH GRO in April 2022 (MW-32, WW-South, WW-North, and WW-East). TPH DRO was detected at concentrations above the RDL in wells MW-32 (0.385 mg/L) and MW-33 (0.142 mg/L, duplicate sample). Of the three other wells sampled and analyzed for TPH DRO in April 2022, TPH DRO was detected at estimated J-flagged concentrations below the RDL in wells WW-South, WW-North, and WW-East.

During the October 2022 monitoring event, TPH GRO was detected at an estimated J-flagged concentration below the RDL in well MW-33 of (0.0398 J mg/L). TPH GRO was not detected in the other seven wells sampled and analyzed for TPH GRO in October 2022: MW-5, MW-21, MW-22, MW-32, WW-South, WW-North, and WW-East. TPH DRO was detected at concentrations above the RDL in wells MW-21 (0.136 mg/L), MW-22 (0.450 mg/l), MW-32 (0.382 mg/L), and MW-33 (0.177 mg/L, duplicate sample). Of the four other wells sampled and analyzed for TPH DRO in October 2022, TPH DRO was detected at estimated J-flagged concentrations below the RDL in wells MW-5, WW-South, WW-North, and WW-East.

There is no WQCC Standard for TPH DRO or TPH GRO. No indicator VOCs or SVOCs associated with TPH mixtures were detected above their respective WQCC Standard in samples collected from any of these wells.

Reported TPH concentrations for the 2022 monitoring events were consistent with historical monitoring results (i.e., stable trends).

3.2.2 Inorganic Constituent Results

Analytical results for anions and TDS in groundwater are presented in Table 3 and for metals in groundwater are presented in Table 4 (i.e., inorganic constituents). A discussion of the inorganic constituent results is provided below.

3.2.2.1 Anions

The April 2022 analytical results indicate that chloride, fluoride, and nitrate-nitrite are present in groundwater at concentrations above their respective WQCC Standards. Chloride was

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detected at concentrations above the WQCC Standard of 250 mg/L in three of the 16 wells sampled for anions (MW-15R, MW-19R, and WW-South) with a maximum concentration of 595 mg/L in MW-15R. Fluoride was detected at a concentration above the WQCC Standard of 1.6 mg/L in one of the 16 wells sampled for anions at a concentration of 1.94 mg/L in MW-28. Nitrate-nitrite was detected at a concentration above the nitrate WQCC Standard of 10.0 mg/L in one of the 16 wells sampled for anions at a concentration of 12.7 mg/L (duplicate sample) in MW-32.

The October 2022 analytical results indicate that chloride, fluoride, and nitrate are present at concentrations above their respective WQCC Standards. Chloride was detected at concentrations above the WQCC Standard of 250 mg/L in eight of the 29 wells sampled for anions (MW-8, MW-9, MW-11R, MW-14R, MW-15R, MW-19R, MW-26R, and WW-South) with a maximum detected concentration of 466 mg/L in MW-15R. Fluoride was detected at a concentration above the WQCC Standard of 1.6 mg/L in one of the 29 wells sampled for anions at a concentration of 2.35 mg/L in MW-24R. Nitrate was detected at concentrations above the WQCC Standard of 10.0 mg/L in three of the 29 wells sampled for anions at concentrations of 10.9 mg/L in MW-9, 12.0 mg/L in MW-20R, and 12.9 mg/L (duplicate sample) in MW-32. Nitrite was not detected in any monitoring wells above the RDL, indicating the previously reported nitrate-nitrite concentrations are likely representative of nitrate only.

Concentration maps of anions that exceeded WQCC Standards in groundwater for the April 2022 and October 2022 sampling events are provided as Figures 5 and 6, respectively.

Reported anion concentrations for the 2022 sampling events were generally consistent with previous sampling results. Notable increases of anion concentrations in the following wells were observed that may be associated with continually reducing groundwater elevations and will be reviewed again in 2023:

- Chloride concentrations in wells MW-4 and MW-12/MW-12R/MW-12R2 overall increased over the five most recent sampling events to 114 mg/L in MW-4 and 95.0 mg/L in MW-12R2 in October 2022. Chloride concentrations in these wells remain below the WQCC Standard of 250 mg/L.
- Chloride and nitrate concentrations in well MW-9 increased to their historical maximums of 278 mg/L and 10.9 mg/L in October 2022, respectively, which are above their WQCC Standards (250 mg/L and 10.0 mg/L, respectively). These are the first exceedances of the WQCC Standards for chloride and nitrate in well MW-9. Chloride and nitrate concentrations in well MW-9 will continue to be monitored in 2023.

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- Nitrate (and prior nitrate-nitrite) concentrations in wells MW-6 and MW-20/MW-20R exhibited an overall increasing trend since approximately 2015 and increased to historical maximums of 5.60 mg/L in April 2022 and 12.0 mg/L in October 2022, respectively. Nitrate concentrations in MW-6 decreased slightly to 5.26 mg/L in October 2022 and remain below the WQCC Standard of 10.0 mg/L. Nitrate concentrations in these wells will continue to be monitored in 2023.
- Nitrate and nitrate-nitrite concentrations in well MW-32 have increased over the three most recent sampling events and exceeded the WQCC Standard of 10.0 mg/L for the first time during both 2022 sampling events. The concentrations reached a historical maximum of 12.9 mg/L (duplicate sample) in October 2022. Nitrate concentrations in this well will continue to be monitored in 2023.

As discussed in the 2021 *Annual Facility-Wide Groundwater Monitoring Report*, nitrate-nitrate concentrations in wells MW-4, MW-13/MW-13R, and MW-26/MW-26R exhibited an overall increasing trend since approximately 2015 to historical maximums in 2021. Nitrate concentrations in all three of these wells decreased in 2022 and are below the WQCC Standard of 10.0 mg/L in 2022.

As discussed in the December 2013 *Refinery Investigation Report*, the presence of anions at concentrations above WQCC Standards at select well locations, including chloride (wells MW-8, MW-9, MW-11R, MW-14R, MW-15R, MW-19R, MW-26R, and WW-South) and fluoride (wells MW-24R and MW-28) is due to off-site sources, background concentrations, and/or non-HFSNR sources at the Refinery.

3.2.2.2 Total Dissolved Solids

During the April 2022 sampling event, TDS was detected at concentrations above the WQCC Standard of 1,000 mg/L in four of the 13 wells sampled for TDS (MW-11R, MW-13R, MW-15R, and MW-33) with a maximum detected concentration of 1,430 mg/L in MW-15R. During the October 2022 sampling event, TDS was detected at concentrations above the WQCC Standard of 1,000 mg/L in seven of the 24 wells sampled for TDS (MW-8, MW-11R, MW-13R, MW-14R, MW-15R, MW-19R, and MW-33) with a maximum detected concentration of 1,440 mg/L in MW-15R. Concentration maps of TDS in groundwater for the April 2022 and October 2022 sampling events are provided as Figures 7 and 8, respectively.

Reported TDS concentrations for both 2022 sampling events were generally consistent with previous sampling results. TDS concentrations have fluctuated above and below the WQCC Standard in multiple wells across the Refinery, including in wells MW-8, MW-15/MW-15R, and MW-19/MW-19R.

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As discussed in the December 2013 *Refinery Investigation Report*, the presence of TDS at concentrations above WQCC Standards at select well locations (including wells MW-8, MW-11R, MW-13R, MW-14R, MW-15R, MW-19R, and MW-33) is due to off-site sources, background concentrations, and/or non-HFSNR sources at the Refinery.

3.2.2.3 Metals

Iron, manganese, and uranium 238 were detected at concentrations above the WQCC Standards of 1.0 mg/L, 0.20 mg/L, and 0.03 mg/L, respectively, in one (MW-33) of the 14 wells sampled in April 2022 and in one (MW-33) of the 24 wells sampled in October 2022. Iron was detected at concentrations of 1.99 mg/L and 2.02 mg/L (duplicate sample) in MW-33 during April 2022 and October 2022, respectively. Manganese was detected at concentrations of 0.897 mg/L and 0.973 mg/L in MW-33 during April 2022 and October 2022, respectively. Uranium 238 was detected at concentrations of 0.0355 mg/L (duplicate sample) and 0.0438 mg/L (duplicate sample) in MW-33 during April 2022 and October 2022, respectively.

Concentration maps of metals that exceeded WQCC Standards in groundwater for the April 2022 and October 2022 sampling events are provided as Figures 9 and 10, respectively. Metal concentrations in groundwater across the Refinery were generally consistent with or less than previous sampling events. The presence of iron, manganese, and uranium 238 above WQCC Standards in well MW-33, located along the southern Refinery boundary, is potentially attributed to nearby produced-water injection wells LPU-38 and LSAU-23 and oil production wells LA-9 and LPU-96 (Figure 2) based on the (1) distribution of iron, manganese, and uranium 238 in groundwater and (2) lack of potential sources for metals identified in this portion of the Refinery as discussed in the December 2013 *Refinery Investigation Report*.

Reported metal concentrations for the 2022 sampling events were generally consistent with or less than previous sampling results, with notable increases in the following wells:

- Zinc concentrations in wells MW-4, MW-6, MW-12R2, and MW-20/MW-20R have overall increased over the at least three most recent sampling events to historical maximums of 0.0352 mg/L (MW-4), 0.105 mg/L (MW-6), 0.109 mg/L (MW-12R2), and MW-20R (0.0931 mg/L) in October 2022. However, zinc concentrations in all these wells remained at least two orders of magnitude below the WQCC Standard of 10.0 mg/L. Zinc concentrations have historically fluctuated across the Refinery.
- Chromium concentrations in wells MW-15/MW-15R and MW-30 have overall increased over the seven most recent sampling events to historical maximums of 0.0147 mg/L (MW-15R) and 0.0279 mg/L (MW-30) in October 2022. However, chromium concentrations in all these wells remained below the WQCC Standard of 0.05 mg/L.

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- MW-33: Iron concentrations increased during both 2022 monitoring events to a historical maximum of 2.02 mg/L (duplicate sample) in October 2022. The 2022 iron results were the first exceedances of the WQCC Standard of 1.0 mg/L in MW-33. Uranium 238 concentrations have increased from April 2018 (0.00269 J mg/L) to October 2022 (0.0438 mg/L [duplicate sample]), which is the historical maximum in this well. Uranium 238 concentrations in MW-33 first exceeded the WQCC Standard of 0.03 mg/L in this well in April 2021, and have continued to exhibit an increasing trend. Iron and uranium 238 concentrations in MW-33 will continue to be monitored in 2023.

Notable concentration increases of the following metals were discussed in the *2021 Annual Facility-Wide Groundwater Monitoring Report*, but the 2022 results decreased or were consistent with historical results: zinc in MW-5; molybdenum, nickel, and zinc in MW-15R; and chromium in MW-22.

As discussed in the December 2013 *Refinery Investigation Report*, the presence of metals at concentrations above WQCC Standards at select well locations is due to off-site sources, background concentrations, and/or non-HFSNR sources at the Refinery.

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4.0 QUARTERLY REFINERY WATER SUPPLY WELL MONITORING

Groundwater samples were collected from Refinery water supply wells WW-North, WW-East, and WW-South on a quarterly basis in 2022. The objective of the quarterly sampling is to evaluate the potential risk associated with use of the water in Refinery restrooms and safety showers (the water is not used for drinking or cooking). No deviations to the November 2017 Revised FWGMWP occurred during the quarterly water well sampling events in 2022.

Groundwater samples were collected from Refinery water supply wells WW-North, WW-South, and WW-East on January 20, 2022; April 14, 2022; July 14, 2022; and October 13, 2022. Groundwater samples collected from the Refinery water supply wells were submitted to Pace National in Mount Juliet, Tennessee, under appropriate chain-of-custody documentation for the same analyses as the semi-annual monitoring events. Samples were submitted for separate nitrate and nitrite analysis starting in the July 2022 quarterly event in accordance with the OCD's June 22, 2022, email. Organic, anions, and metals analytical results of the quarterly Refinery water supply well samples are summarized and compared to WQCC Standards in Tables 2, 3, and 4, respectively.

Consistent with historical results, chloride was detected in WW-South at concentrations above the WQCC Standard of 250 mg/L in each of the quarterly sampling events with results ranging from 264 mg/L in January 2022 to 318 mg/L in April 2022. TDS has historically exceeded the WQCC Standard of 1,000 mg/L in WW-South, but was detected at concentrations below the WQCC Standard in all four quarterly sampling events ranging from 860 mg/L (duplicate sample) in January 2022 to 974 mg/L in October 2022. None of the remaining inorganic analytes were detected at concentrations above their respective WQCC Standards in any of the samples.

Chloroform was detected at J-flagged estimated concentrations in WW-South during all four quarterly sampling events in 2022. Benzene was also detected at J-flagged estimated concentrations in WW-South during two of the four quarterly sampling events in 2022. The reported benzene and chloroform concentrations were consistent with historical results and at least one order of magnitude below the WQCC Standards of 0.005 mg/L and 0.1 mg/L, respectively.

TPH DRO was detected at estimated J-flagged concentrations in WW-South and WW-North during the January, April, and October 2022 events; and in WW-East during the April and October 2022 events. TPH DRO was detected at an estimated J-flagged and B-flagged concentration during July 2022 in WW-North, WW-South, and WW-East, with the "B" qualifier indicating it was detected within five times the associated laboratory method blank detection.

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Therefore, the detected TPH DRO concentrations in wells WW-North, WW-South, and WW-East likely include laboratory contributions.

Estimated TPH DRO concentrations in the water supply wells during 2022 ranged from 0.0267 JB mg/L in WW-East in July 2022 (which likely included laboratory contributions) to 0.0932 J mg/L in WW-South in October 2022. There is no WQCC Standard for TPH DRO. No indicator VOCs or SVOCs associated with TPH mixtures were detected above their respective WQCC Standard in samples collected from any of the Refinery water supply wells.

Water from the Refinery water supply wells poses no risk associated with continued use in Refinery restrooms and safety showers based on these results.

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5.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Three water samples and one field duplicate were collected on January 20, 2022. Twenty water samples, three field duplicates, two equipment blanks, and two trip blanks were collected on April 14, 2022. Three water samples, one field duplicate, and one trip blank were collected on July 14, 2022. Thirty water samples, four field duplicates, two equipment blanks, and two trip blanks were collected on October 13, 2022. These samples were submitted to Pace National in Mount Juliet, Tennessee, for analysis.

TRC Quality Assurance (QA) staff reviewed resultant data. Four data packages identified as L1453625, L1482976 (revised 07/01/2022), L1515221 (revised 08/23/2022), and L1546506 (revised 01/05/2023) were reviewed. Data were reviewed for compliance with the analytical protocols used for sample analysis and laboratory-defined quality control (QC) limits. Items reviewed during the data validation process included the following:

- Sample integrity, preservation, and holding times
- Blank analyses
- Surrogate recoveries
- Matrix spike and matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs)
- Laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries and RPDs
- Field duplicate and laboratory duplicate RPDs
- Sample documentation

QC data indicate that measurement data are sufficient to meet method quality objectives, reported data are defensible, and QC mechanisms were generally effective in ensuring measurement data reliability within the expected limits of sampling and analytical error with one exception. Due to significantly low SVOC acid surrogate recovery (<10%), the non-detect results for 4-chloro-3-methylphenol, 2-chlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 4,6-dinitro-2-methylphenol, 2,4-dinitrophenol, 2-nitrophenol, 2-methylphenol, 3&4-methyl phenol, 4-nitrophenol, pentachlorophenol, phenol, 2,4,5-trichlorophenol, and 2,4,6-trichlorophenol in sample WW-SOUTH collected in July 2022 are not usable for project objectives. Phenol is the only SVOC from this list that has historically been detected in groundwater and therefore the July 2022 phenol result for WW-South is shown in Table 2 qualified with an [R]. It should be noted that a field duplicate, DUP-01, was collected from WW-

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SOUTH and all SVOC results are usable for project objectives in the field duplicate sample. Complete QA/QC data review results are provided in Appendix D.

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6.0 2022 RELEASES AND REMEDIATION ACTIVITIES

No reportable releases per 19.15.29.9 NMAC occurred during 2022. Per Item 2.G of the Permit issued on November 16, 2022, all future leaks, spills, and releases will be summarized in Annual Facility-Wide Groundwater Monitoring Reports.

Throughout 2022, HFSNR continued to recover LNAPL associated with the historical release discovered at the asphalt loading rack in November 2015.

6.1 Asphalt Loading Rack (LNAPL Recovery at MW-31)

HFSNR has conducted routine LNAPL recovery at monitoring well MW-31 since LNAPL was discovered in this well in February 2017. A passive skimmer (Petro-Bailer™) was installed and maintained in MW-31 through March 2019 and the skimmer was emptied on a daily to weekly basis. In addition to the passive skimmer, LNAPL was manually bailed from MW-31 on a primarily weekly basis from February 2018 through March 2019. In April 2019, HFSNR installed a pneumatic skimmer pump system (Geotech SpOILer System) in MW-31 that was programmed to operate at regular intervals to continuously recover LNAPL and reduce in-well apparent LNAPL thickness.

Throughout 2022, HFSNR conducted operation and maintenance (O&M) of the recovery system on at least a weekly basis, but gauging of the well was only conducted when the skimmer pump was removed for more intensive O&M and optimization events on a quarterly basis. Fluid gauging and LNAPL recovery results to date are summarized in Appendix E. Approximately 284 gallons of LNAPL were recovered by the pneumatic skimmer pump system from MW-31 during 2022. An approximate total of 1,727 gallons of LNAPL have been recovered manually or by the pneumatic skimmer pump system from MW-31 since February 2017. Apparent LNAPL thickness in MW-31 fluctuated during 2022 with operation of the skimmer system with thicknesses comparable to 2021. The apparent LNAPL thickness in MW-31 increased between January 2022 (5.00 feet) and April 2022 (5.76 feet), decreased in July 2022 (3.80 feet), and increased again in October 2022 (5.91 mg/L). The increased apparent LNAPL thickness in MW-31 during 2022 is attributed to (1) declining groundwater elevations and (2) a failed pump which was replaced on June 29, 2022. The skimmer system has operated with no issues since then.

HFSNR will continue to monitor and evaluate recovery system data and adjust system operation parameters as necessary in order to optimize recovery. Recovery data collected thus far indicates the skimmer system has increased LNAPL recovery rates. Apparent in-well LNAPL thickness fluctuates with the water table because it relates to the hydrogeologic conditions and characteristics of the LNAPL and soil and is therefore a poor indicator of LNAPL mobility and

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recoverability. O&M activities will be conducted on at least a weekly basis with more intensive maintenance activities (including optimization) conducted on at least a quarterly basis.

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7.0 CONCLUSIONS

Conclusions based on data collected during groundwater monitoring activities conducted during calendar year 2022 are discussed below.

Groundwater flow directions were consistent with previous groundwater monitoring events. Groundwater elevations decreased an average of 0.24 feet from April 2021 to April 2022 and an average of 0.47 feet from September 2021 to October 2022. Groundwater elevations have continually decreased from June 2009 to October 2022 and groundwater elevations in a few wells are approaching their current total depth. These reductions in groundwater elevation are likely caused by limited recharge and active regional pumping. Groundwater elevations in the refinery's monitoring well network will be closely monitored during future events and evaluated for potential well replacement. Consistent with previous results, LNAPL was detected in monitoring well MW-31. The apparent LNAPL thickness in MW-31 ranged from 3.80 feet to 5.91 feet throughout 2022.

Analytical results of groundwater samples collected during semi-annual groundwater monitoring events conducted in April 2022 and October 2022 indicated the following:

- No VOCs were reported at concentrations above WQCC Standards in any well during the reporting period.
- Total phenols was reported at an estimated J-flagged concentration above the WQCC Standard in well MW-12R2. The 2022 result for total phenols is estimated and does not confirm an exceedance of the WQCC Standard. No other SVOCs were reported at concentrations above WQCC Standards in any well during the reporting period.
- TPH GRO was detected above the RDL in well MW-33 during the April 2022. TPH DRO was detected above the RDL in wells MW-32 and MW-33 in April 2022, and wells MW-21, MW-22, MW-32, and MW-33 in October 2022. There is no WQCC Standard for TPH GRO and TPH DRO; no indicator VOCs or SVOCs associated with TPH mixtures were detected above their respective WQCC Standard in samples collected from any of these wells.
- Anions were reported at concentrations above the WQCC Standard for chloride (wells MW-15R, MW-19R, and WW-South), fluoride (well MW-28), and nitrate-nitrite (well MW-32) in April 2022; and chloride (wells MW-8, MW-9, MW-11R, MW-14R, MW-15R, MW-20R, MW-26R, and WW-South), fluoride (well MW-24R), and nitrate (wells MW-9, MW-20R, and MW-32) in October 2022.

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- TDS was reported at concentrations above its WQCC Standard in wells MW-11R, MW-13R, MW-15R, and MW-33 in April 2022; and in wells MW-8, MW-11R, MW-13R, MW-14R, MW-15R, MW-19R, and MW-33 in October 2022.
- Metals were reported at concentrations above the WQCC Standard for iron, manganese, and uranium 238 in well MW-33 in April 2022 and October 2022.

The presence of select anions, TDS, and select metals at concentrations above WQCC Standards at select well locations is due to off-site sources, background concentrations, and/or non-HFSNR sources at the Refinery. No constituents attributable to Refinery sources or operations, as discussed in the December 2013 *Refinery Investigation Report*, exceeded WQCC Standards in wells located along the southeastern Refinery boundary (wells MW-12R2, MW-14R, MW-21, MW-22, MW-32, and MW-33), which is the natural downgradient portion of the facility (i.e., if active pumping from the Refinery water supply wells ceased). Groundwater pumping from Refinery water supply wells WW-East, WW-North, and WW-South for industrial use causes radial groundwater flow towards a cone of depression at the central portion of the Refinery preventing migration of constituents off-site, but also enables on-site migration of constituents from potential off-site sources (e.g., active oil production and injection wells).

WQCC Standards were not exceeded in any of the quarterly samples collected from Refinery water supply wells WW-North, WW-South, and WW-East except for chloride in WW-South. Based on these results, the water poses no risk associated with continued use in Refinery restrooms and safety showers.

LNAPL was continually recovered from MW-31 throughout 2022 using the pneumatic skimmer pump system. A total of 284 gallons of LNAPL was recovered from MW-31 during 2022.

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8.0 WORK PLANNED FOR 2023

The following summarizes the scope of work planned for 2023 at the Refinery:

- Submit a revised FWGMWP that includes updates to the monitoring well network and analytical program.
- Implement semi-annual groundwater monitoring and annual reporting activities in accordance with the sampling and analysis plan presented in the November 2017 Revised FWGMWP that was submitted to the OCD on November 17, 2017, and approved by OCD on February 1, 2018, or in accordance with the forthcoming revised FWGMWP once approved by OCD. HFSNR will continue to evaluate the sampling plan and recommend revisions based on historical analytical trends in groundwater.
- Continue to implement quarterly Refinery water supply well monitoring in accordance with OCD's May 16, 2014, letter, HFSNR's response letter on June 20, 2014, and the November 2017 Revised FWGMWP, or the forthcoming revised FWGMWP once approved by OCD.
- Conduct routine LNAPL recovery at well MW-31 using the pneumatic skimmer pump system. O&M activities will continue to be conducted on at least a weekly basis with more intensive maintenance activities (including optimization) to be conducted on at least a quarterly basis.
- Evaluate and potentially replace monitor wells that are screened at depths too shallow for optimal monitoring of the current groundwater elevation, which has continually decreased since June 2009.

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FIGURES

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Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



LEGEND

W LW - CITY OF LOVINGTON WATER WELL
RAIL
FENCE

SOURCE: BASEMAP: WORLD IMAGERY - ESRI, VIVID MAXAR; 4/21/2022.

0 350 700
FEET
1 " = 700 '
1:8,400

N

TRC
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
REFINERY VICINITY MAP

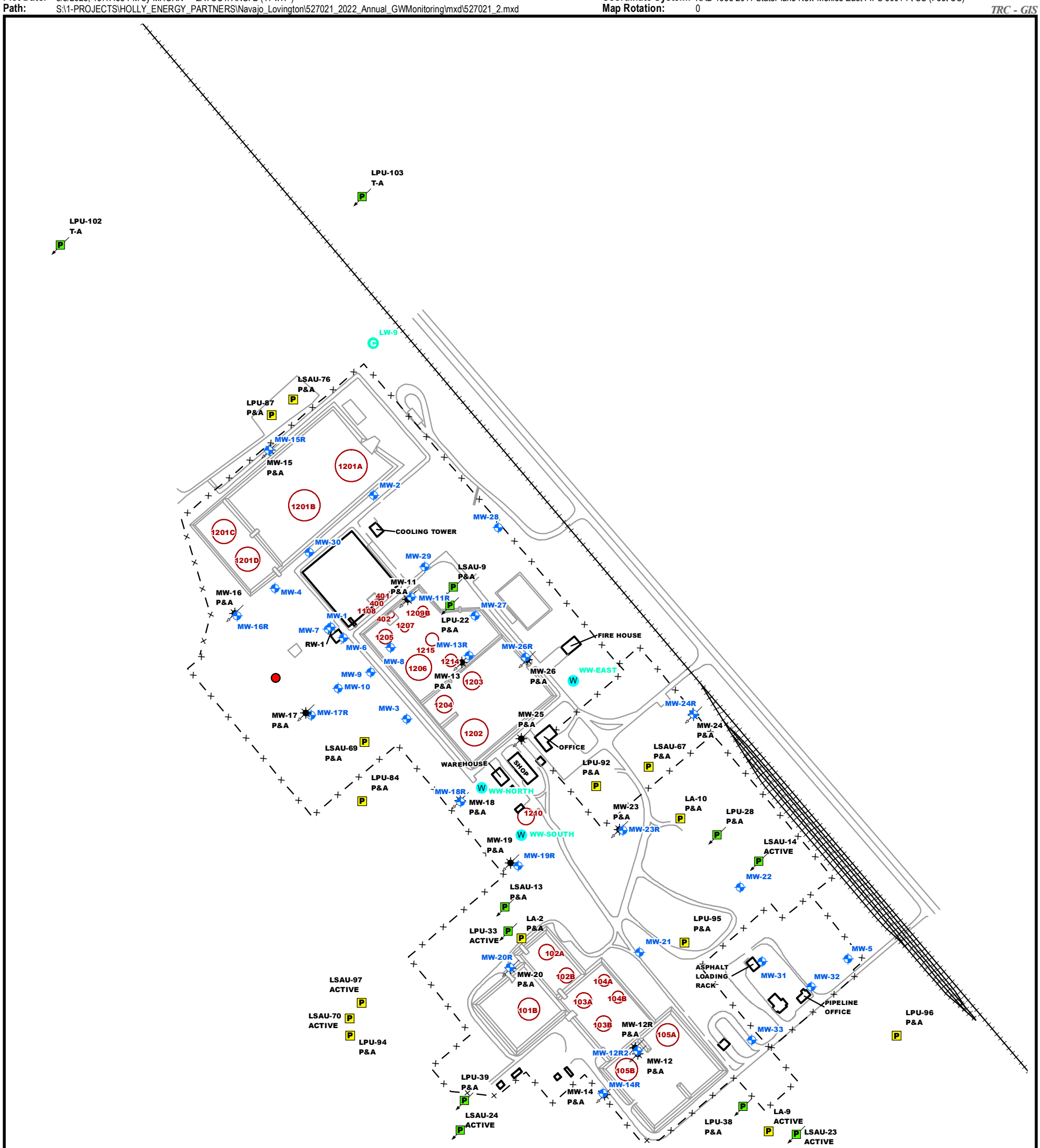
DRAWN BY:	S. RAY
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_1.mxd

FIGURE 1

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Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

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LEGEND

- MONITORING WELL
- MONITORING WELL - PLUGGED AND ABANDONED (P&A)
- OIL PRODUCTION WELL
- OIL PRODUCTION WELL CONVERTED TO INJECTION WELL
- RECOVERY WELL
- WATER WELL
- CITY OF LOVINGTON WATER WELL
- FLARE
- RAIL
- FENCE
- BUILDINGS
- TANKS

0 250 500 FEET
1 " = 500 '
1:6,000

N

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Austin, TX 78752
Phone: 512.329.6080

PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
REFINERY SITE PLAN

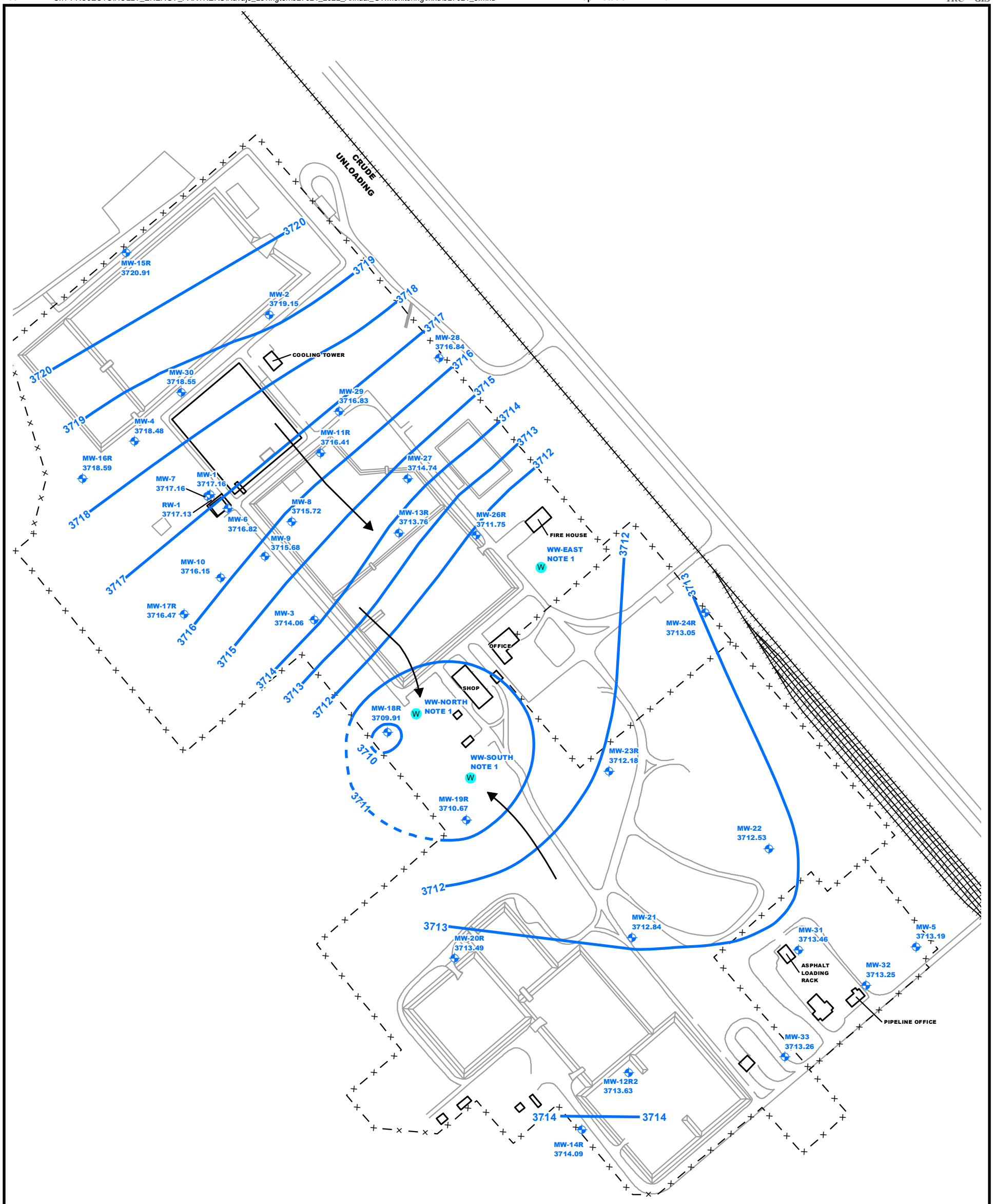
DRAWN BY:	S. RAY
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_2.mxd

FIGURE 2

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Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTE:
1. WATER WELL NOT ACCESSIBLE FOR GAUGING.
2. WELLS GAUGED ON APRIL 14, 2022.

LEGEND

- GROUNDWATER CONTOURS (DASHED WHERE INFERRED)
- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- FENCE
- RAIL
- GROUNDWATER FLOW DIRECTION
- 3713.63 GROUNDWATER ELEVATION (FEET)
- BUILDINGS

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PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE MAP - APRIL 2022

DRAWN BY:	M. JAGOE
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_3.mxd

FIGURE 3

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Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTE:
1. WATER WELL NOT ACCESSIBLE FOR GAUGING.
2. WELLS GAUGED ON OCTOBER 13, 2022.

LEGEND

- GROUNDWATER CONTOURS (DASHED WHERE INFERRED)
- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- FENCE
- RAIL
- GROUNDWATER FLOW DIRECTION
- 3713.18 GROUNDWATER ELEVATION (FEET)
- BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200

N

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PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE MAP - OCTOBER 2022

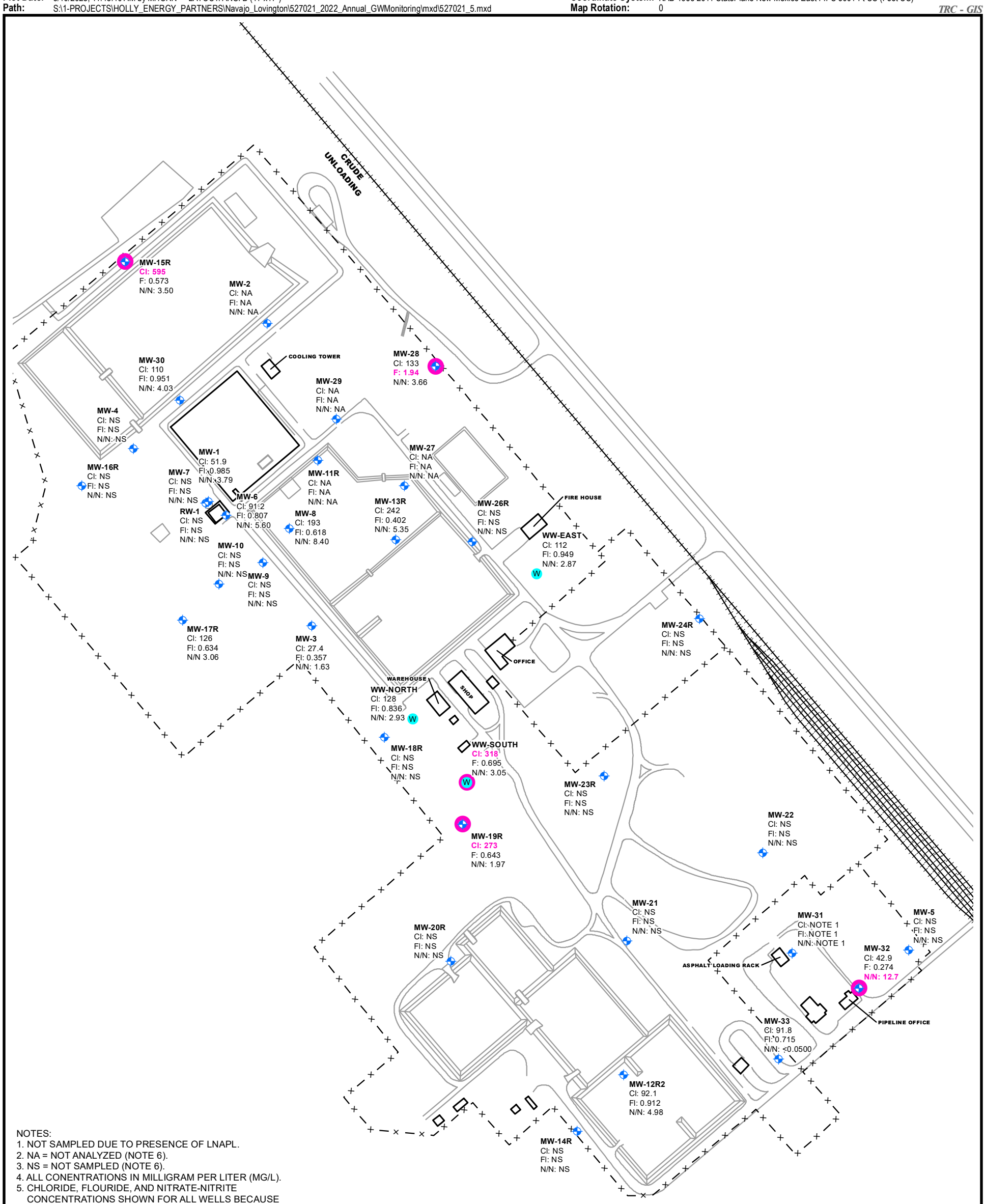
DRAWN BY:	M. JAGOE
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_4.mxd

FIGURE 4

Plot Date: 3/10/2023, 11:46:10 AM by MHORN -- LAYOUT: ANSI B (11"x17")
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Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTES:
1. NOT SAMPLED DUE TO PRESENCE OF LNAPL.
2. NA = NOT ANALYZED (NOTE 6).
3. NS = NOT SAMPLED (NOTE 6).
4. ALL CONENTRATIONS IN MILLIGRAM PER LITER (MG/L).
5. CHLORIDE, FLOURIDE, AND NITRATE-NITRITE CONCENTRATIONS SHOWN FOR ALL WELLS BECAUSE THEY ARE THE ONLY ANIONS THAT EXCEEDED THEIR RESPECTIVE WQCC STANDARDS.
6. IN ACCORDANCE WITH DECEMBER 2017 REVISED FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN.

LABEL KEY:
Cl: 318 - CHLORIDE CONCENTRATION (WQCC STANDARD = 250 mg/L)
F: 1.94 - FLUORIDE CONCENTRATION (WQCC STANDARD = 1.6 mg/L)
N/N: 12.7 - NITRATE/NITRITE CONCENTRATION (WQCC STANDARD = 10.0 mg/L)

PINK HIGHLIGHTED VALUES IN EXCEEDANCE OF WATER QUALITY CONTROL COMMISSION (WQCC) STANDARD.

LEGEND

- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- WQCC STANDARD EXCEEDED AT THIS LOCATION
- RAIL
- FENCE
- BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200

N

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PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
ANIONS CONCENTRATION MAP - APRIL 2022

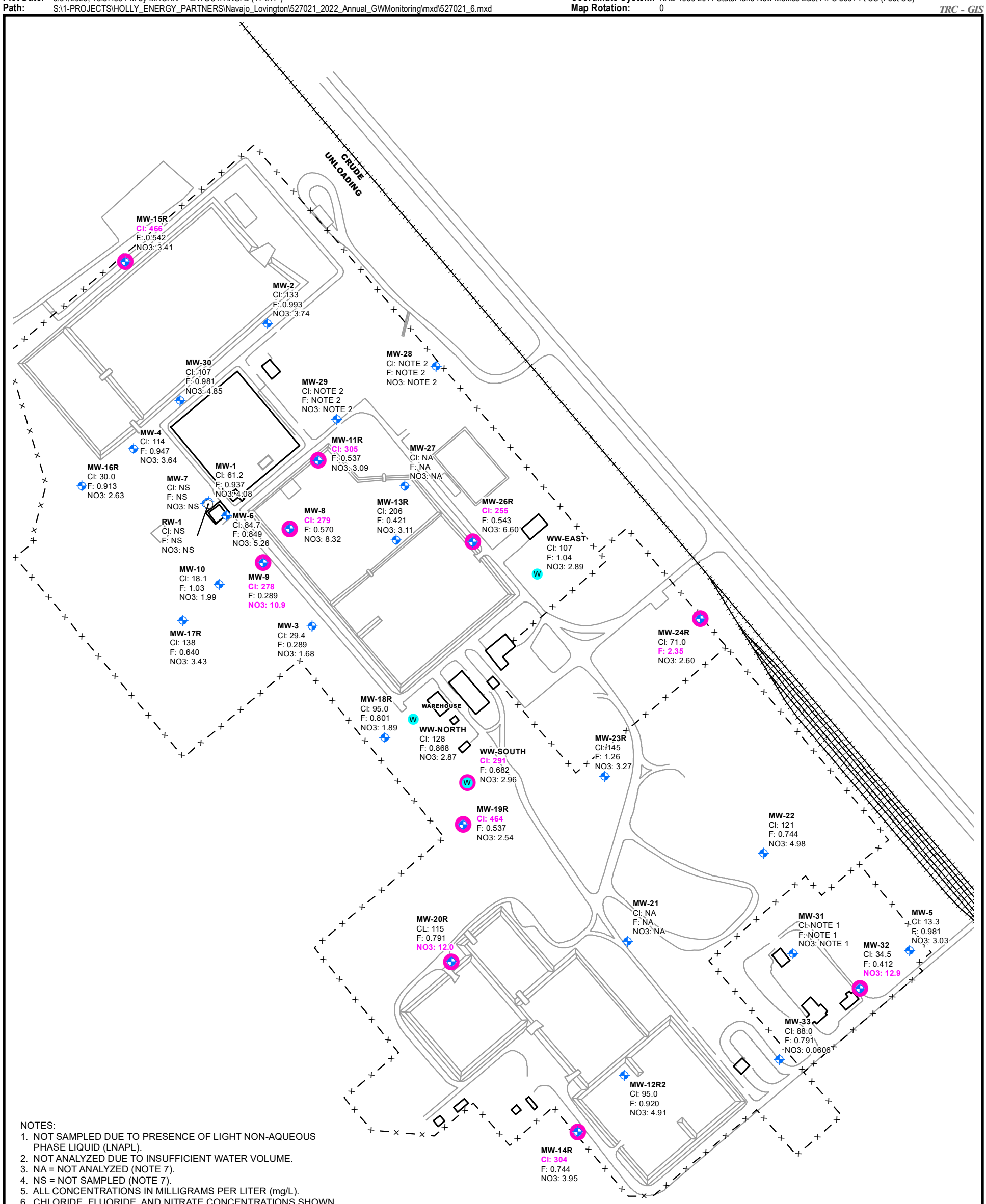
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CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_5.mxd

FIGURE 5

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Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTES:
1. NOT SAMPLED DUE TO PRESENCE OF LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL).
2. NOT ANALYZED DUE TO INSUFFICIENT WATER VOLUME.
3. NA = NOT ANALYZED (NOTE 7).
4. NS = NOT SAMPLED (NOTE 7).
5. ALL CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L).
6. CHLORIDE, FLUORIDE, AND NITRATE CONCENTRATIONS SHOWN FOR ALL WELLS BECAUSE THEY ARE THE ONLY ANIONS THAT EXCEEDED THEIR RESPECTIVE WQCC STANDARDS.
7. IN ACCORDANCE WITH DECEMBER 2017 REVISED FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN.

LABEL KEY:
Cl: 95.0 - CHLORIDE CONCENTRATION (WQCC STANDARD = 250 mg/L)
F: 0.920 - FLUORIDE CONCENTRATION (WQCC STANDARD = 1.6 mg/L)
NO3: 4.91 - NITRATE CONCENTRATION (WQCC STANDARD = 10.0 mg/L)

PINK HIGHLIGHTED VALUES IN EXCEEDANCE OF WATER QUALITY CONTROL COMMISSION (WQCC) STANDARD.

LEGEND

- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- WQCC STANDARD EXCEEDED AT THIS LOCATION
- RAIL
- FENCE
- BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200

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Suite #250
Austin, TX 78752
Phone: 512.329.6080

PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
ANIONS CONCENTRATION MAP - OCTOBER 2022

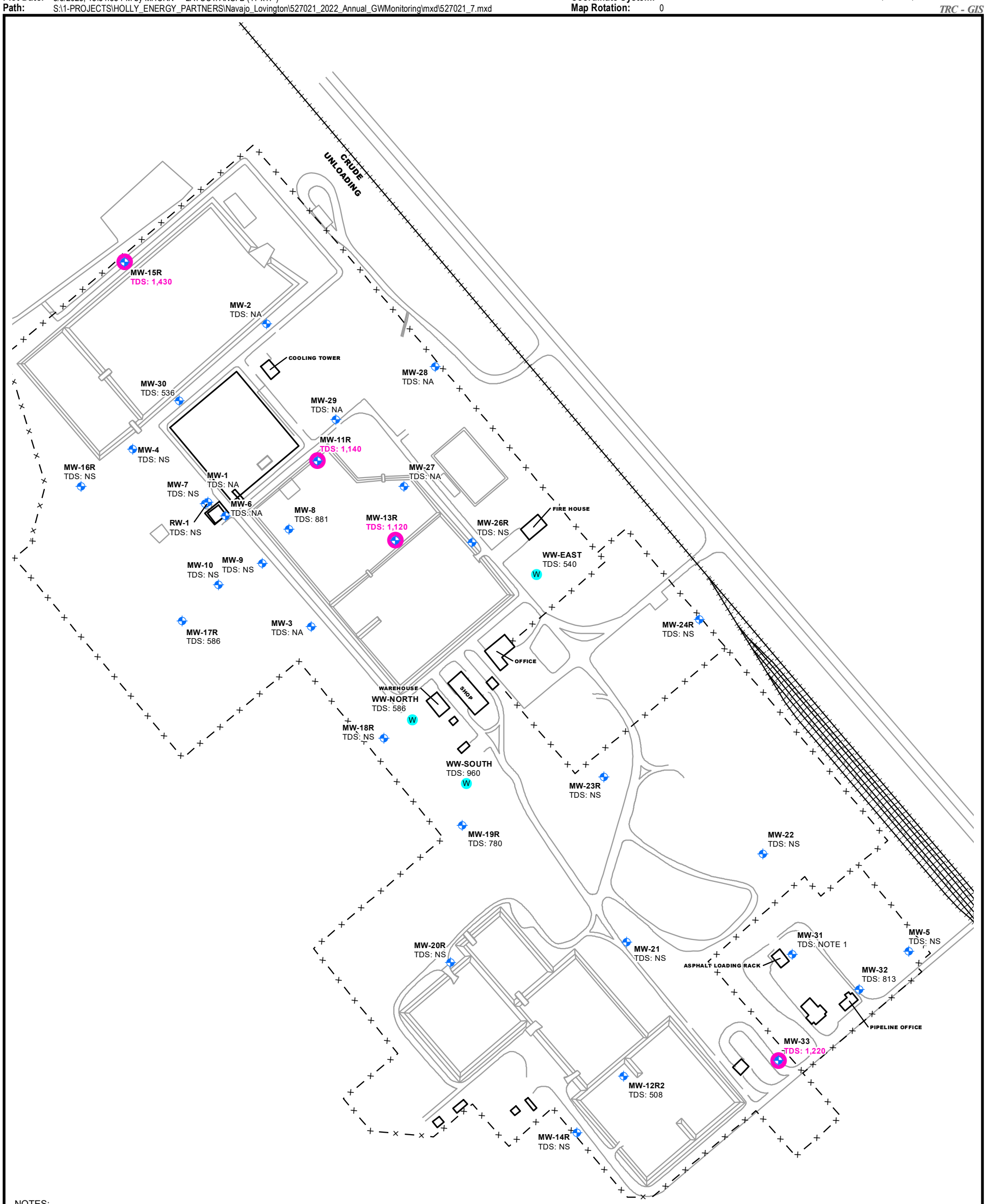
DRAWN BY:	J. CRAHAN
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_6.mxd

FIGURE 6

Plot Date: 3/8/2023, 15:54:38 PM by MHORN -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Navajo_Lovington\527021_2022_Annual_GWMonitoring\mxd\527021_7.mxd

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTES:
1. NOT SAMPLED DUE TO PRESENCE OF LNAPL.
2. NA = NOT ANALYZED (NOTE 5).
3. NS = NOT SAMPLED (NOTE 5).
4. ALL CONENTRATIONS IN MILLIGRAM PER LITER (mg/L).
5. IN ACCORDANCE WITH DECEMBER 2017 REVISED FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN.

LABEL KEY:
TDS: 1,220 - TOTAL DISSOLVED SOLIDS CONCENTRATION (WQCC STANDARD = 1,000 mg/L)

PINK HIGHLIGHTED VALUES IN EXCEEDANCE OF WATER QUALITY CONTROL COMMISSION (WQCC) STANDARD.

LEGEND

- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- WQCC STANDARD EXCEEDED AT THIS LOCATION
- RAIL
- FENCE
- BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200

N

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Austin, TX 78752
Phone: 512.329.6080

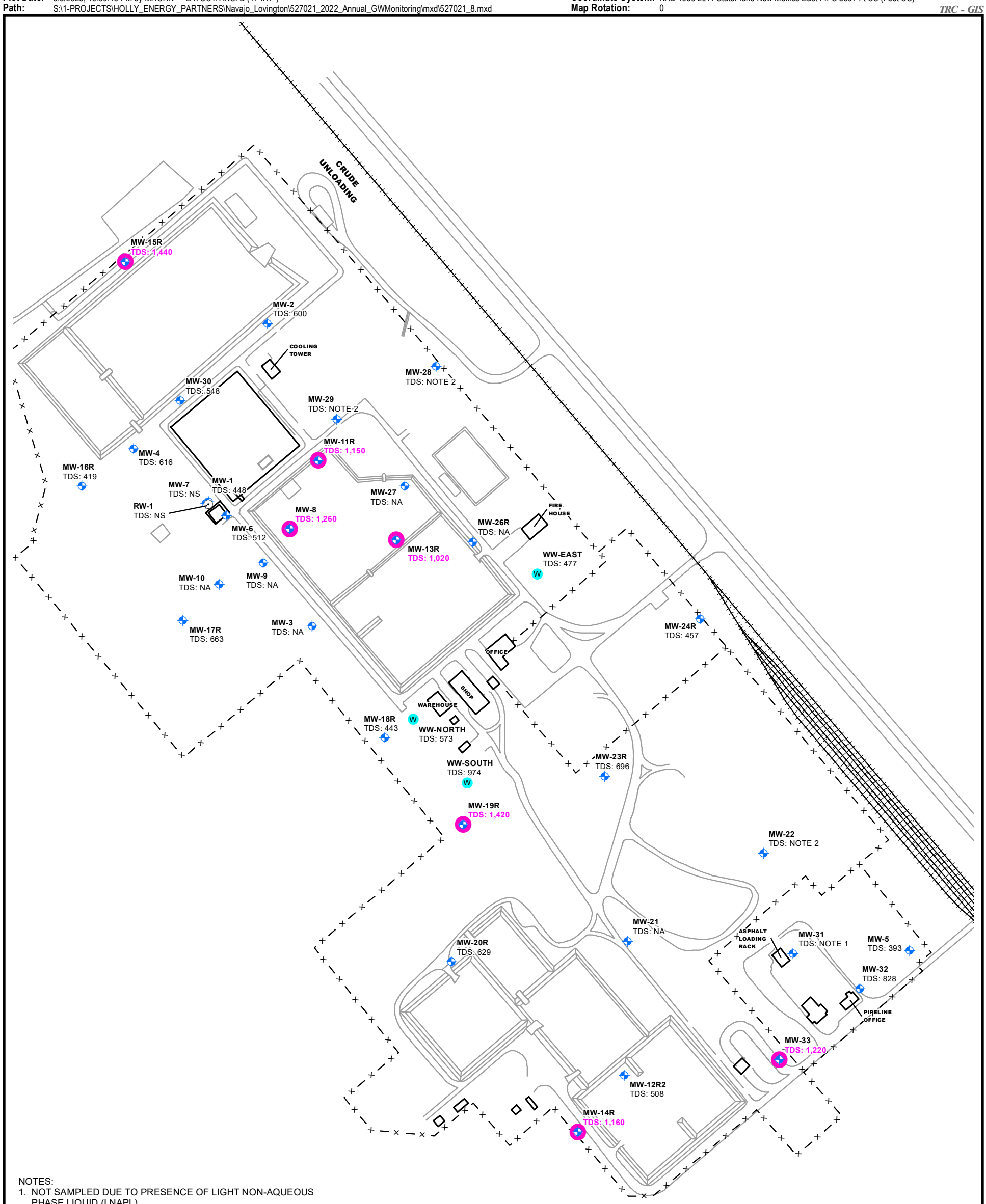
PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
TOTAL DISSOLVED SOLIDS CONCENTRATION MAP - APRIL 2022

DRAWN BY:	M. JAGOE
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_7.mxd

FIGURE 7

Plot Date: 3/8/2023, 16:00:15 PM by MHORN -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Navajo_Lovington\527021_2022_Annual_GWMonitoring\mxd\527021_8.mxd
Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0
TRC - GIS



NOTES:
1. NOT SAMPLED DUE TO PRESENCE OF LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL).
2. NOT ANALYZED DUE TO INSUFFICIENT WATER VOLUME.
3. NA = NOT ANALYZED (NOTE 6).
4. NS = NOT SAMPLED (NOTE 6).
5. ALL CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L).
6. IN ACCORDANCE WITH DECEMBER 2017 REVISED FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN.

LABEL KEY:
TDS: 508 - TOTAL DISSOLVED SOLIDS CONCENTRATION (WQCC STANDARD = 1,000 mg/L)

PINK HIGHLIGHTED VALUES IN EXCEEDANCE OF WATER QUALITY CONTROL COMMISSION (WQCC) STANDARD.

LEGEND

MONITORING WELL
RECOVERY WELL
WATER WELL
WQCC STANDARD EXCEEDED AT THIS LOCATION
RAIL
FENCE
BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200
N

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GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
TOTAL DISSOLVED SOILDS CONCENTRATION MAP - OCTOBER 2022

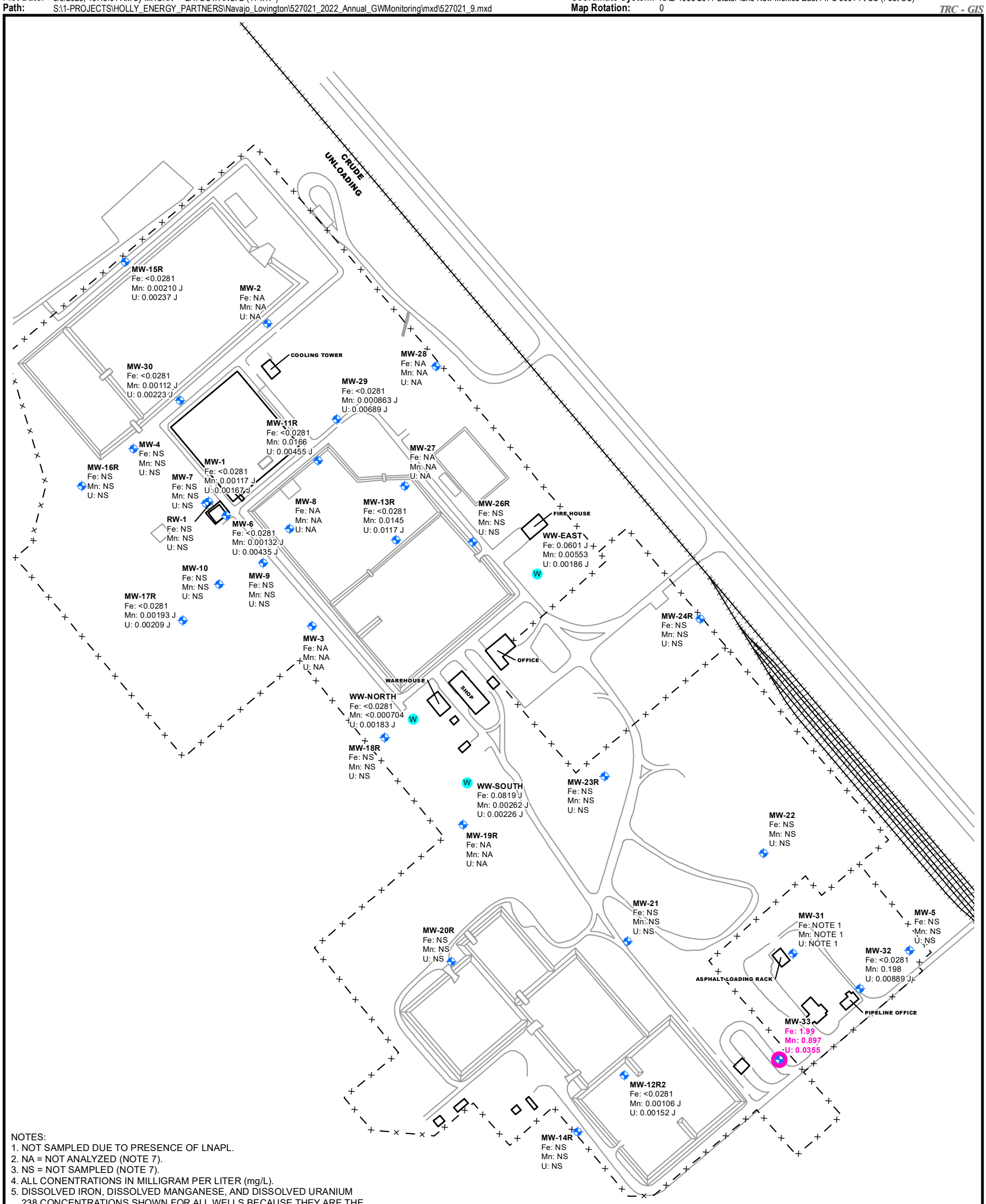
DRAWN BY:	J. CRAHAN
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_8.mxd

FIGURE 8

Plot Date: 3/9/2023, 10:43:01 AM by MHORN -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Navajo_Lovington\527021_2022_Annual_GWMonitoring\mxd\527021_9.mxd

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTES:
1. NOT SAMPLED DUE TO PRESENCE OF LNAPL.
2. NA = NOT ANALYZED (NOTE 7).
3. NS = NOT SAMPLED (NOTE 7).
4. ALL CONENTRATIONS IN MILLIGRAM PER LITER (mg/L).
5. DISSOLVED IRON, DISSOLVED MANGANESE, AND DISSOLVED URANIUM 238 CONCENTRATIONS SHOWN FOR ALL WELLS BECAUSE THEY ARE THE ONLY METALS THAT EXCEEDED THEIR RESPECTIVE WQCC STANDARD.
6. J = ANALYTE DETECTED BELOW REPORTING LIMIT, ESTIMATED VALUE.
7. IN ACCORDANCE WITH DECEMBER 2017 REVISED FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN.

LABEL KEY:
Fe: 1.99 - DISSOLVED IRON CONCENTRATION (WQCC STANDARD = 1.0 mg/L)
Mn: 0.897 - DISSOLVED MANGANESE CONCENTRATION (WQCC STANDARD = 0.2 mg/L)
U: 0.0355 - DISSOLVED URANIUM 238 CONCENTRATION (WQCC STANDARD = 0.03 mg/L)
PINK HIGHLIGHTED VALUES IN EXCEEDANCE OF WATER QUALITY CONTROL COMMISSION (WQCC) STANDARD.

LEGEND

- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- WQCC STANDARD EXCEEDED AT THIS LOCATION
- RAIL
- FENCE
- BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200

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Austin, TX 78752
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PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
METALS CONCENTRATION MAP - APRIL 2022

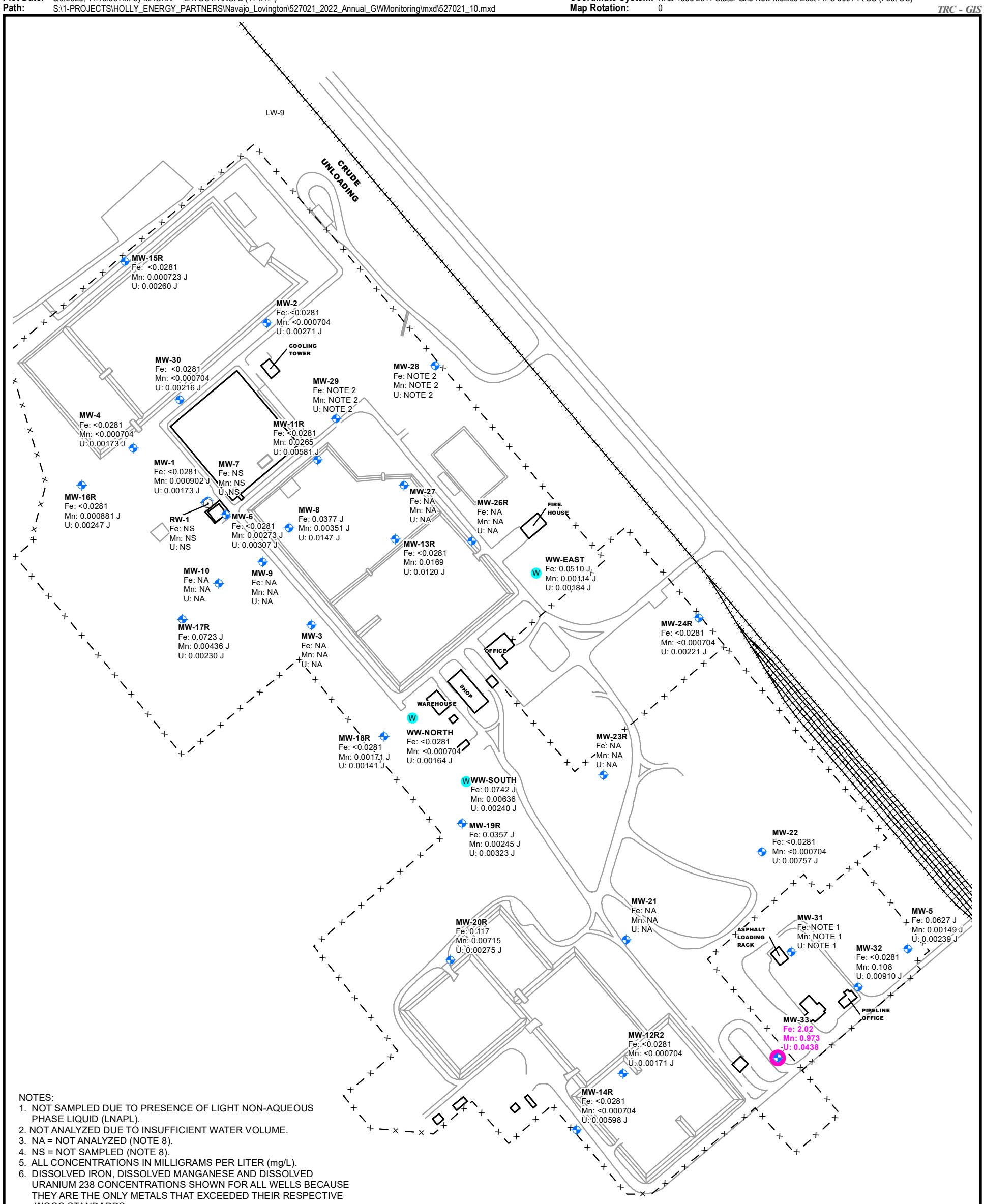
DRAWN BY:	M. JAGOE
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_9.mxd

FIGURE 9

Plot Date: 3/9/2023, 11:13:58 AM by MHORN -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Navajo_Lovington\527021_2022_Annual_GWMonitoring\mxd\527021_10.mxd

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

TRC - GIS



NOTES:
1. NOT SAMPLED DUE TO PRESENCE OF LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL).
2. NOT ANALYZED DUE TO INSUFFICIENT WATER VOLUME.
3. NA = NOT ANALYZED (NOTE 8).
4. NS = NOT SAMPLED (NOTE 8).
5. ALL CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L).
6. DISSOLVED IRON, DISSOLVED MANGANESE AND DISSOLVED URANIUM 238 CONCENTRATIONS SHOWN FOR ALL WELLS BECAUSE THEY ARE THE ONLY METALS THAT EXCEEDED THEIR RESPECTIVE WQCC STANDARDS.
7. J = ANALYTE DETECTED BELOW REPORTING LIMIT, ESTIMATED VALUE.
8. IN ACCORDANCE WITH DECEMBER 2017 REVISED FACILITY-WIDE GROUNDWATER MONITORING WORK PLAN.

LABEL KEY:
Fe: 0.117 - DISSOLVED IRON CONCENTRATION (WQCC STANDARD = 1.0 mg/L)
Mn: 0.00715 - DISSOLVED MANGANESE CONCENTRATION (WQCC STANDARD = 0.2 mg/L)
U: 0.00275 J - DISSOLVED URANIUM 238 CONCENTRATION (WQCC STANDARD = 0.03 mg/L)

PINK HIGHLIGHTED VALUES IN EXCEEDANCE OF WATER QUALITY CONTROL COMMISSION (WQCC) STANDARD.

LEGEND

- MONITORING WELL
- RECOVERY WELL
- WATER WELL
- WQCC STANDARD EXCEEDED AT THIS LOCATION
- RAIL
- FENCE
- BUILDINGS

0 175 350 FEET
1 " = 350 '
1:4,200

N

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Suite #250
Austin, TX 78752
Phone: 512.329.6080

PROJECT:
HF SINCLAIR NAVAJO REFINING LLC
GW-014, LOVINGTON REFINERY, LOVINGTON, NM

TITLE:
METALS CONCENTRATION MAP - OCTOBER 2022

DRAWN BY:	J. CRAHAN
CHECKED BY:	A. ELJURI
APPROVED BY:	J. SPEER
DATE:	MARCH 2023
PROJ. NO.:	527021
FILE:	527021_10.mxd

FIGURE 10

TABLES

Released to Imaging: 4/14/2023 4:34:58 PM

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[1] (feet)	Corrected Water Level Elev.[1] (feet)	Water Elevation Change
MW-1 [2,6]	3838.40	3838.19	3739.19 to 3709.19	04/30/09	- -	106.35	136.10	0.00	106.35	3732.05	NA
				06/10/09	- -	106.49	NM	0.00	106.49	3731.91	-0.14
				06/19/09	- -	106.57	129.12	0.00	106.57	3731.83	-0.08
				07/02/09	- -	106.74	129.13	0.00	106.74	3731.66	-0.17
				07/24/09	- -	106.83	129.11	0.00	106.83	3731.57	-0.09
				09/24/09	- -	107.31	129.12	0.00	107.31	3731.09	-0.48
				10/27/09	- -	107.44	129.10	0.00	107.44	3730.96	-0.13
				01/13/10	- -	107.57	129.11	0.00	107.57	3730.83	-0.13
				04/01/10	- -	107.51	NM	0.00	107.51	3730.89	0.06
				08/11/10	- -	108.09	129.16	0.00	108.09	3730.31	-0.58
				02/23/11	- -	108.12	129.14	0.00	108.12	3730.28	-0.03
				07/12/11	- -	109.00	129.11	0.00	109.00	3729.40	-0.88
				02/02/12	- -	109.68	129.12	0.00	109.68	3728.72	-0.68
				07/23/12	- -	110.88	128.87	0.00	110.88	3727.52	-1.20
				02/18/13	- -	110.51	129.22	0.00	110.51	3727.89	0.37
				08/19/13	- -	111.55	130.60	0.00	111.55	3726.85	-1.04
				02/24/14	- -	112.49	129.35	0.00	112.49	3725.91	-0.94
				08/18/14	- -	113.37	129.09	0.00	113.37	3725.03	-0.88
				02/23/15	- -	113.82	129.20	0.00	113.82	3724.58	-0.45
				08/24/15	- -	114.56	129.19	0.00	114.56	3723.84	-0.74
				03/07/16	- -	114.81	129.19	0.00	114.81	3723.59	-0.25
				08/15/16	- -	115.42	129.19	0.00	115.42	3722.98	-0.61
				02/06/17	- -	115.81	129.19	0.00	115.81	3722.59	-0.39
				06/22/17	- -	115.88	129.22	0.00	115.88	3722.52	-0.07
				08/17/17	- -	116.34	129.22	0.00	116.34	3722.06	-0.46
				04/05/18	- -	116.63	129.22	0.00	116.63	3721.77	-0.29
				10/01/18	- -	116.67	129.22	0.00	116.67	3721.73	-0.04
				04/04/19	- -	118.06	129.22	0.00	118.06	3720.34	-1.39
				10/24/19	- -	119.35	129.22	0.00	119.35	3719.05	-1.29
				06/18/20	- -	120.01	129.22	0.00	120.01	3718.39	-0.66
				10/08/20	- -	120.91	129.22	0.00	120.91	3717.49	-0.90
				04/15/21	- -	120.94	129.22	0.00	120.94	3717.46	-0.03
				09/16/21	- -	121.49	129.22	0.00	121.49	3716.91	-0.55
				04/14/22	- -	121.24	129.22	0.00	121.24	3717.16	0.25
				10/13/22	- -	122.49	129.22	0.00	122.49	3715.91	-1.25
MW-2 [2,6]	3837.35	3837.27	3740.94 to 3710.94	06/22/09	- -	104.32	126.41	0.00	104.32	3733.03	NA
				01/13/10	- -	105.44	126.68	0.00	105.44	3731.91	-1.12
				08/11/10	- -	105.97	126.42	0.00	105.97	3731.38	-0.53
				02/23/11	- -	105.92	126.46	0.00	105.92	3731.43	0.05
				07/12/11	- -	107.22	126.47	0.00	107.22	3730.13	-1.30
				01/30/12	- -	107.55	126.47	0.00	107.55	3729.80	-0.33
				07/23/12	- -	108.72	126.48	0.00	108.72	3728.63	-1.17
				02/18/13	- -	108.15	126.69	0.00	108.15	3729.20	0.57
				08/19/13	- -	109.43	126.75	0.00	109.43	3727.92	-1.28
				02/24/14	- -	110.59	127.70	0.00	110.59	3726.76	-1.16
				08/18/14	- -	111.25	126.58	0.00	111.25	3726.10	-0.66
				02/23/15	- -	111.45	126.77	0.00	111.45	3725.90	-0.20
				08/24/15	- -	112.13	126.75	0.00	112.13	3725.22	-0.68
				03/07/16	- -	112.02	126.71	0.00	112.02	3725.33	0.11
				08/15/16	- -	113.01	126.70	0.00	113.01	3724.34	-0.99
				02/06/17	- -	112.96	126.70	0.00	112.96	3724.39	0.05
				06/22/17	- -	113.44	126.69	0.00	113.44	3723.91	-0.48
				08/16/17	- -	113.73	126.69	0.00	113.73	3723.62	-0.29
				04/05/18	- -	114.15	126.69	0.00	114.15	3723.20	-0.42
				10/01/18	- -	114.93	126.69	0.00	114.93	3722.42	-0.78
				04/04/19	- -	115.40	126.69	0.00	115.40	3721.95	-0.47
				10/24/19	- -	116.99	126.69	0.00	116.99	3720.36	-1.59
				06/18/20	- -	117.90	126.69	0.00	117.90	3719.45	-0.91
				10/08/20	- -	118.80	126.69	0.00	118.80	3718.55	-0.90
				04/15/21	- -	118.37	126.69	0.00	118.37	3718.98	0.43
				09/16/21	- -	118.58	126.69	0.00	118.58	3718.77	-0.21
				04/14/22	- -	118.20	126.69	0.00	118.20	3719.15	0.38
				10/13/22	- -	120.18	126.69	0.00	120.18	3717.17	-1.98

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-3 [(2,6)]	3831.65	3831.73	3731.20 to 3701.20	06/16/09	- -	102.65	130.45	0.00	102.65	3729.00	NA
				01/13/10	- -	103.29	130.69	0.00	103.29	3728.36	-0.64
				08/11/10	- -	104.82	130.42	0.00	104.82	3726.83	-1.53
				09/28/10	- -	104.70	NM	0.00	104.70	3726.95	0.12
				02/23/11	- -	104.11	130.47	0.00	104.11	3727.54	0.59
				07/12/11	- -	104.89	130.50	0.00	104.89	3726.76	-0.78
				01/30/12	- -	105.22	130.45	0.00	105.22	3726.43	-0.33
				07/23/12	- -	107.59	130.46	0.00	107.59	3724.06	-2.37
				02/18/13	- -	106.21	130.63	0.00	106.21	3725.44	1.38
				08/19/13	- -	108.11	130.88	0.00	108.11	3723.54	-1.90
				02/24/14	- -	108.45	130.75	0.00	108.45	3723.20	-0.34
				08/18/14	- -	110.33	130.71	0.00	110.33	3721.32	-1.88
				02/23/15	- -	110.35	130.60	0.00	110.35	3721.30	-0.02
				08/24/15	- -	111.14	130.57	0.00	111.14	3720.51	-0.79
				03/07/16	- -	112.20	130.51	0.00	112.20	3719.45	-1.06
				08/15/16	- -	112.68	130.68	0.00	112.68	3718.97	-0.48
				02/06/17	- -	112.74	130.61	0.00	112.74	3718.91	-0.06
				06/22/17	- -	112.76	130.59	0.00	112.76	3718.89	-0.02
				08/16/17	- -	112.94	130.59	0.00	112.94	3718.71	-0.18
				04/05/18	- -	113.40	130.59	0.00	113.40	3718.25	-0.46
				10/01/18	- -	114.50	130.59	0.00	114.50	3717.15	-1.10
				04/04/19	- -	114.37	130.59	0.00	114.37	3717.28	0.13
				10/24/19	- -	115.28	130.59	0.00	115.28	3716.37	-0.91
				06/18/20	- -	116.31	130.59	0.00	116.31	3715.34	-1.03
				10/08/20	- -	117.27	130.59	0.00	117.27	3714.38	-0.96
				04/15/21	- -	117.53	130.59	0.00	117.53	3714.12	-0.26
				09/16/21	- -	118.05	130.59	0.00	118.05	3713.60	-0.52
				04/14/22	- -	117.59	130.59	0.00	117.59	3714.06	0.46
				10/13/22	- -	118.53	130.59	0.00	118.53	3713.12	-0.94
MW-4 [(2,6)]	3839.89	3839.76	3741.76 to 3711.76	06/16/09	- -	106.79	128.02	0.00	106.79	3733.10	NA
				01/13/10	- -	107.72	127.94	0.00	107.72	3732.17	-0.93
				08/11/10	- -	108.19	128.03	0.00	108.19	3731.70	-0.47
				09/28/10	- -	108.47	NM	0.00	108.47	3731.42	-0.28
				02/23/11	- -	108.31	127.82	0.00	108.31	3731.58	0.16
				07/12/11	- -	109.27	128.02	0.00	109.27	3730.62	-0.96
				01/30/12	- -	109.91	128.02	0.00	109.91	3729.98	-0.64
				07/23/12	- -	111.00	127.82	0.00	111.00	3728.89	-1.09
				02/18/13	- -	110.70	127.95	0.00	110.70	3729.19	0.30
				08/19/13	- -	111.60	128.01	0.00	111.60	3728.29	-0.90
				02/24/14	- -	112.78	127.80	0.00	112.78	3727.11	-1.18
				08/18/14	- -	113.42	127.63	0.00	113.42	3726.47	-0.64
				02/23/15	- -	113.89	127.68	0.00	113.89	3726.00	-0.47
				08/24/15	- -	114.47	127.99	0.00	114.47	3725.42	-0.58
				03/07/16	- -	114.66	127.78	0.00	114.66	3725.23	-0.19
				08/15/16	- -	115.38	128.10	0.00	115.38	3724.51	-0.72
				02/06/17	- -	115.71	128.04	0.00	115.71	3724.18	-0.33
				06/22/17	- -	115.88	127.73	0.00	115.88	3724.01	-0.17
				08/17/17	- -	116.12	127.73	0.00	116.12	3723.77	-0.24
				04/05/18	- -	116.73	127.73	0.00	116.73	3723.16	-0.61
				10/01/18	- -	117.74	127.73	0.00	117.74	3722.15	-1.01
				04/04/19	- -	118.25	127.73	0.00	118.25	3721.64	-0.51
				10/24/19	- -	119.54	127.73	0.00	119.54	3720.35	-1.29
				06/18/20	- -	120.32	127.73	0.00	120.32	3719.57	-0.78
				10/08/20	- -	121.18	127.73	0.00	121.18	3718.71	-0.86
				04/15/21	- -	121.06	127.73	0.00	121.06	3718.83	0.12
				09/16/21	- -	121.53	127.73	0.00	121.53	3718.36	-0.47
				04/14/22	- -	121.41	127.73	0.00	121.41	3718.48	0.12
				10/13/22	- -	122.82	127.73	0.00	122.82	3717.07	-1.41

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-5 [(2,6)]	3819.15	3816.13	3730.85 to 3700.85	06/16/09	- -	90.84	NM	0.00	90.84	3728.31	NA
				01/13/10	- -	92.02	118.30	0.00	92.02	3727.13	-1.18
				08/11/10	- -	92.67	117.93	0.00	92.67	3726.48	-0.65
				02/23/11	- -	92.68	118.00	0.00	92.68	3726.47	-0.01
				07/12/11	- -	93.38	117.97	0.00	93.38	3725.77	-0.70
				01/31/12	- -	94.75	117.75	0.00	94.75	3724.40	-1.37
				07/23/12	- -	95.22	117.92	0.00	95.22	3723.93	-0.47
				02/18/13	- -	95.95	118.85	0.00	95.95	3723.20	-0.73
				08/19/13	- -	96.65	117.90	0.00	96.65	3722.50	-0.70
				02/24/14	- -	97.06	117.45	0.00	97.06	3722.09	-0.41
				08/18/14	- -	97.57	117.22	0.00	97.57	3721.58	-0.51
				02/23/15	- -	98.01	117.19	0.00	98.01	3721.14	-0.44
				08/24/15	- -	98.46	117.22	0.00	98.46	3720.69	-0.45
				03/07/16	- -	98.62	117.12	0.00	98.62	3720.53	-0.16
				08/15/16	- -	99.40	117.70	0.00	99.40	3719.75	-0.78
				02/06/17	- -	100.00	117.29	0.00	100.00	3719.15	-0.60
				06/22/17	- -	100.11	117.82	0.00	100.11	3719.04	-0.11
				08/16/17	- -	100.51	117.82	0.00	100.51	3718.64	-0.40
				04/05/18	- -	100.85	117.82	0.00	100.85	3718.30	-0.34
				10/01/18	- -	102.01	117.82	0.00	102.01	3717.14	-1.16
				04/04/19	- -	102.23	117.82	0.00	102.23	3716.92	-0.22
				10/24/19	- -	103.42	117.82	0.00	103.42	3715.73	-1.19
				06/18/20	- -	103.91	117.82	0.00	103.91	3715.24	-0.49
				10/08/20	- -	104.49	117.82	0.00	104.49	3714.66	-0.58
				04/15/21	- -	104.99	117.82	0.00	104.99	3714.16	-0.50
				09/16/21	- -	105.65	117.82	0.00	105.65	3713.50	-0.66
				04/14/22	- -	105.96	117.82	0.00	105.96	3713.19	-0.31
				10/13/22	- -	106.82	117.82	0.00	106.82	3712.33	-0.86
MW-6 [(2,6)]	3838.16	3838.17	3738.17 to 3708.17	06/18/09	- -	106.64	129.48	0.00	106.64	3731.52	NA
				07/24/09	- -	106.92	129.71	0.00	106.92	3731.24	-0.28
				09/24/09	- -	107.44	129.74	0.00	107.44	3730.72	-0.52
				10/27/09	- -	107.55	129.73	0.00	107.55	3730.61	-0.11
				01/13/10	- -	107.64	129.71	0.00	107.64	3730.52	-0.09
				02/02/10	- -	107.69	NM	0.00	107.69	3730.47	-0.05
				04/01/10	- -	107.65	NM	0.00	107.65	3730.51	0.04
				08/11/10	- -	108.00	129.71	0.00	108.00	3730.16	-0.35
				02/23/11	- -	108.22	129.72	0.00	108.22	3729.94	-0.22
				07/12/11	- -	109.09	129.74	0.00	109.09	3729.07	-0.87
				02/02/12	- -	109.78	129.74	0.00	109.78	3728.38	-0.69
				07/23/12	- -	111.00	129.47	0.00	111.00	3727.16	-1.22
				02/18/13	- -	110.60	133.32	0.00	110.60	3727.56	0.40
				08/19/13	- -	111.70	130.84	0.00	111.70	3726.46	-1.10
				02/24/14	- -	112.57	130.00	0.00	112.57	3725.59	-0.87
				08/18/14	- -	113.50	129.71	0.00	113.50	3724.66	-0.93
				02/23/15	- -	114.00	129.90	0.00	114.00	3724.16	-0.50
				08/24/15	- -	114.63	129.69	0.00	114.63	3723.53	-0.63
				03/07/16	- -	115.02	129.69	0.00	115.02	3723.14	-0.39
				08/15/16	- -	115.62	129.69	0.00	115.62	3722.54	-0.60
				02/06/17	- -	115.99	129.69	0.00	115.99	3722.17	-0.37
				06/22/17	- -	116.05	129.76	0.00	116.05	3722.11	-0.06
				08/17/17	- -	116.31	129.76	0.00	116.31	3721.85	-0.26
				04/05/18	- -	116.78	129.76	0.00	116.78	3721.38	-0.47
				10/01/18	- -	117.81	129.76	0.00	117.81	3720.35	-1.03
				04/04/19	- -	118.19	129.76	0.00	118.19	3719.97	-0.38
				10/24/19	- -	119.38	129.76	0.00	119.38	3718.78	-1.19
				06/18/20	- -	120.11	129.76	0.00	120.11	3718.05	-0.73
				10/08/20	- -	121.02	129.76	0.00	121.02	3717.14	-0.91
				04/15/21	- -	121.11	129.76	0.00	121.11	3717.05	-0.09
				09/16/21	- -	121.57	129.76	0.00	121.57	3716.59	-0.46
				04/14/22	- -	121.34	129.76	0.00	121.34	3716.82	0.23
				10/13/22	- -	122.51	129.76	0.00	122.51	3715.65	-1.17

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[1] (feet)	Corrected Water Level Elev.[1] (feet)	Water Elevation Change
MW-7 [2,6]	3838.42	3838.19	3738.19 to 3708.19	04/30/09	- -	106.37	135.54	0.00	106.37	3732.05	NA
				06/10/09	- -	106.48	NM	0.00	106.48	3731.94	-0.11
				06/19/09	- -	106.68	129.34	0.00	106.68	3731.74	-0.20
				07/02/09	- -	106.75	129.51	0.00	106.75	3731.67	-0.07
				07/24/09	- -	106.84	129.52	0.00	106.84	3731.58	-0.09
				09/24/09	- -	107.33	129.29	0.00	107.33	3731.09	-0.49
				10/27/09	- -	107.46	129.53	0.00	107.46	3730.96	-0.13
				01/13/10	- -	107.60	129.55	0.00	107.60	3730.82	-0.14
				02/02/10	- -	107.61	NM	0.00	107.61	3730.81	-0.01
				04/01/10	- -	107.52	NM	0.00	107.52	3730.90	0.09
				08/11/10	- -	108.10	129.57	0.00	108.10	3730.32	-0.58
				02/23/11	- -	108.13	129.52	0.00	108.13	3730.29	-0.03
				07/12/11	- -	109.01	129.50	0.00	109.01	3729.41	-0.88
				02/02/12	- -	109.71	129.26	0.00	109.71	3728.71	-0.70
				07/23/12	- -	109.88	129.30	0.00	109.88	3728.54	-0.17
				02/18/13	- -	110.52	129.55	0.00	110.52	3727.90	-0.64
				08/19/13	- -	111.57	129.17	0.00	111.57	3726.85	-1.05
				02/24/14	- -	112.50	129.90	0.00	112.50	3725.92	-0.93
				08/18/14	- -	113.40	129.58	0.00	113.40	3725.02	-0.90
				02/23/15	- -	113.86	129.62	0.00	113.86	3724.56	-0.46
				08/24/15	- -	114.47	129.64	0.00	114.47	3723.95	-0.61
				03/07/16	- -	114.84	129.64	0.00	114.84	3723.58	-0.37
				08/15/16	- -	115.43	129.64	0.00	115.43	3722.99	-0.59
				02/06/17	- -	115.80	129.64	0.00	115.80	3722.62	-0.37
				06/22/17	- -	115.89	129.64	0.00	115.89	3722.53	-0.09
				08/17/17	- -	116.32	129.64	0.00	116.32	3722.10	-0.43
				04/05/18	- -	116.71	129.64	0.00	116.71	3721.71	-0.39
				10/01/18	- -	117.67	129.64	0.00	117.67	3720.75	-0.96
				04/04/19	- -	118.14	129.64	0.00	118.14	3720.28	-0.47
				10/24/19	- -	119.37	129.64	0.00	119.37	3719.05	-1.23
				06/18/20	- -	120.04	129.64	0.00	120.04	3718.38	-0.67
				10/08/20	- -	120.92	129.64	0.00	120.92	3717.50	-0.88
				04/15/21	- -	120.94	129.64	0.00	120.94	3717.48	-0.02
				09/16/21	- -	121.48	129.64	0.00	121.48	3716.94	-0.54
				04/14/22	- -	121.26	129.64	0.00	121.26	3717.16	0.22
				10/13/22	- -	122.51	129.64	0.00	122.51	3715.91	-1.25
MW-8 [3,6]	3839.98	3836.44	3737.68 to 3707.68	06/18/09	- -	109.37	132.30	0.00	109.37	3730.61	NA
				01/13/10	- -	110.47	132.56	0.00	110.47	3729.51	-1.10
				08/11/10	- -	111.05	132.34	0.00	111.05	3728.93	-0.58
				02/23/11	- -	111.07	132.34	0.00	111.07	3728.91	-0.02
				07/12/11	- -	111.98	132.36	0.00	111.98	3728.00	-0.91
				02/01/12	- -	112.91	132.32	0.00	112.91	3727.07	-0.93
				07/23/12	- -	113.94	132.33	0.00	113.94	3726.04	-1.03
				02/18/13	- -	113.27	132.32	0.00	113.27	3726.71	0.67
				08/19/13	- -	114.69	132.39	0.00	114.69	3725.29	-1.42
				02/24/14	- -	115.44	132.60	0.00	115.44	3724.54	-0.75
				08/18/14	- -	116.56	132.16	0.00	116.56	3723.42	-1.12
				02/23/15	- -	116.91	132.10	0.00	116.91	3723.07	-0.35
				08/24/15	- -	117.61	132.20	0.00	117.61	3722.37	-0.70
				03/07/16	- -	118.05	132.04	0.00	118.05	3721.93	-0.44
				08/15/16	- -	118.73	132.15	0.00	118.73	3721.25	-0.68
				02/06/17	- -	119.02	132.15	0.00	119.02	3720.96	-0.29
				06/22/17	- -	119.05	132.15	0.00	119.05	3720.93	-0.03
				08/17/17	- -	119.40	132.15	0.00	119.40	3720.58	-0.35
				04/05/18	- -	119.81	132.15	0.00	119.81	3720.17	-0.41
				10/01/18	- -	120.82	132.15	0.00	120.82	3719.16	-1.01
				04/04/19	- -	121.05	132.15	0.00	121.05	3718.93	-0.23
				10/24/19	- -	122.17	132.15	0.00	122.17	3717.81	-1.12
				06/18/20	- -	122.93	132.15	0.00	122.93	3717.05	-0.76
				10/08/20	- -	123.87	132.15	0.00	123.87	3716.11	-0.94
				04/15/21	- -	123.90	132.15	0.00	123.90	3716.08	-0.03
				09/16/21	- -	124.51	132.15	0.00	124.51	3715.47	-0.61
				04/14/22	- -	124.26	132.15	0.00	124.26	3715.72	0.25
				10/13/22	- -	125.41	132.15	0.00	125.41	3714.57	-1.15

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[1] (feet)	Corrected Water Level Elev.[1] (feet)	Water Elevation Change
MW-9 [3,6]	3835.22	3835.13	3736.13 to 3706.13	06/16/09	- -	104.58	129.18	0.00	104.58	3730.64	NA
				01/13/10	- -	105.61	129.48	0.00	105.61	3729.61	-1.03
				08/11/10	- -	106.37	129.21	0.00	106.37	3728.85	-0.76
				02/23/11	- -	106.28	129.24	0.00	106.28	3728.94	0.09
				07/12/11	- -	107.17	129.26	0.00	107.17	3728.05	-0.89
				01/31/12	- -	107.38	129.30	0.00	107.38	3727.84	-0.21
				07/23/12	- -	109.20	128.90	0.00	109.20	3726.02	-1.82
				02/18/13	- -	108.47	129.41	0.00	108.47	3726.75	0.73
				08/19/13	- -	109.91	129.38	0.00	109.91	3725.31	-1.44
				02/24/14	- -	110.63	129.35	0.00	110.63	3724.59	-0.72
				08/18/14	- -	111.81	129.01	0.00	111.81	3723.41	-1.18
				02/23/15	- -	112.20	124.08	0.00	112.20	3723.02	-0.39
				08/24/15	- -	112.89	129.06	0.00	112.89	3722.33	-0.69
				03/07/16	- -	113.47	129.07	0.00	113.47	3721.75	-0.58
				08/15/16	- -	114.02	129.15	0.00	114.02	3721.20	-0.55
				02/06/17	- -	114.37	129.24	0.00	114.37	3720.85	-0.35
				06/22/17	- -	114.38	129.18	0.00	114.38	3720.84	-0.01
				08/16/17	- -	114.67	129.18	0.00	114.67	3720.55	-0.29
				04/05/18	- -	115.12	129.18	0.00	115.12	3720.10	-0.45
				10/01/18	- -	116.18	129.18	0.00	116.18	3719.04	-1.06
				04/04/19	- -	116.40	129.18	0.00	116.40	3718.82	-0.22
				10/24/19	- -	117.44	129.18	0.00	117.44	3717.78	-1.04
				06/18/20	- -	118.21	129.18	0.00	118.21	3717.01	-0.77
				10/08/20	- -	119.09	129.18	0.00	119.09	3716.13	-0.88
				04/15/21	- -	119.21	129.18	0.00	119.21	3716.01	-0.12
				09/16/21	- -	119.87	129.18	0.00	119.87	3715.35	-0.66
				04/14/22	- -	119.54	129.18	0.00	119.54	3715.68	0.33
				10/13/22	- -	120.65	129.18	0.00	120.65	3714.57	-1.11
MW-10 [3,6]	3833.66	3833.49	3734.52 to 3704.52	06/16/09	- -	102.57	129.14	0.00	102.57	3731.09	NA
				01/13/10	- -	103.51	127.42	0.00	103.51	3730.15	-0.94
				08/11/10	- -	104.31	128.47	0.00	104.31	3729.35	-0.80
				02/23/11	- -	104.26	128.54	0.00	104.26	3729.40	0.05
				07/12/11	- -	105.08	128.46	0.00	105.08	3728.58	-0.82
				01/31/12	- -	105.73	128.40	0.00	105.73	3727.93	-0.65
				07/23/12	- -	107.05	128.50	0.00	107.05	3726.61	-1.32
				02/18/13	- -	106.63	128.59	0.00	106.63	3727.03	0.42
				08/19/13	- -	107.78	128.56	0.00	107.78	3725.88	-1.15
				02/24/14	- -	108.53	128.40	0.00	108.53	3725.13	-0.75
				08/18/14	- -	109.62	128.15	0.00	109.62	3724.04	-1.09
				02/23/15	- -	110.08	128.35	0.00	110.08	3723.58	-0.46
				08/24/15	- -	110.73	128.42	0.00	110.73	3722.93	-0.65
				03/07/16	- -	111.32	128.20	0.00	111.32	3722.34	-0.59
				08/15/16	- -	111.87	128.20	0.00	111.87	3721.79	-0.55
				02/06/17	- -	112.22	128.26	0.00	112.22	3721.44	-0.35
				06/22/17	- -	112.27	128.45	0.00	112.27	3721.39	-0.05
				08/16/17	- -	112.53	128.45	0.00	112.53	3721.13	-0.26
				04/05/18	- -	113.03	128.45	0.00	113.03	3720.63	-0.50
				10/01/18	- -	114.06	128.45	0.00	114.06	3719.60	-1.03
				04/04/19	- -	114.39	128.45	0.00	114.39	3719.27	-0.33
				10/24/19	- -	115.35	128.45	0.00	115.35	3718.31	-0.96
				06/18/20	- -	116.09	128.45	0.00	116.09	3717.57	-0.74
				10/08/20	- -	116.94	128.45	0.00	116.94	3716.72	-0.85
				04/15/21	- -	117.11	128.45	0.00	117.11	3716.55	-0.17
				09/16/21	- -	117.76	128.45	0.00	117.76	3715.90	-0.65
				04/14/22	- -	117.51	128.45	0.00	117.51	3716.15	0.25
				10/13/22	- -	118.59	128.45	0.00	118.59	3715.07	-1.08

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Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-11 [(4,6,10)]	3839.56	3836.14	3741.13 to 3721.13	06/20/02	- -	99.93	NM	0.00	99.93	3739.63	NA
				09/17/02	- -	100.63	NM	0.00	100.63	3738.93	-0.70
				12/19/02	- -	100.50	NM	0.00	100.50	3739.06	0.13
				03/28/03	- -	99.74	NM	0.00	99.74	3739.82	0.76
				06/20/03	- -	100.76	NM	0.00	100.76	3738.80	-1.02
				09/15/03	- -	101.51	NM	0.00	101.51	3738.05	-0.75
				04/30/04	- -	102.31	116.21	0.00	102.31	3737.25	-0.80
				02/21/05	- -	103.80	NM	0.00	103.80	3735.76	-1.49
				06/28/05	- -	104.33	NM	0.00	104.33	3735.23	-0.53
				09/30/05	- -	104.60	NM	0.00	104.60	3734.96	-0.27
				12/29/05	- -	104.81	NM	0.00	104.81	3734.75	-0.21
				04/10/06	- -	105.12	NM	0.00	105.12	3734.44	-0.31
				07/06/06	- -	105.61	NM	0.00	105.61	3733.95	-0.49
				01/26/07	- -	106.63	NM	0.00	106.63	3732.93	-1.02
				03/27/07	- -	106.80	NM	0.00	106.80	3732.76	-0.17
				07/13/07	- -	106.94	NM	0.00	106.94	3732.62	-0.14
				09/12/07	- -	107.22	NM	0.00	107.22	3732.34	-0.28
				12/31/07	- -	106.74	NM	0.00	106.74	3732.82	0.48
				03/26/08	- -	106.81	117.51	0.00	106.81	3732.75	-0.07
				06/13/08	- -	107.40	NM	0.00	107.40	3732.16	-0.59
				09/24/08	- -	108.76	NM	0.00	108.76	3730.80	-1.36
				12/29/08	- -	108.57	NM	0.00	108.57	3730.99	0.19
				03/17/09	- -	107.91	NM	0.00	107.91	3731.65	0.66
				06/18/09	- -	108.65	117.49	0.00	108.65	3730.91	-0.74
				01/13/10	- -	109.81	117.77	0.00	109.81	3729.75	-1.16
				08/11/10	- -	110.16	117.50	0.00	110.16	3729.40	-0.35
				02/23/11	- -	110.32	117.70	0.00	110.32	3729.24	-0.16
				07/12/11	- -	110.31	117.41	0.00	110.31	3729.25	0.01
				02/01/12	- -	112.02	117.37	0.00	112.02	3727.54	-1.71
				07/23/12	- -	113.10	117.38	0.00	113.10	3726.46	-1.08
				02/18/13	- -	112.53	117.75	0.00	112.53	3727.03	0.57
				08/19/13	- -	113.89	117.64	0.00	113.89	3725.67	-1.36
				02/24/14	- -	114.75	117.90	0.00	114.75	3724.81	-0.86
				08/18/14	- -	115.71	117.60	0.00	115.71	3723.85	-0.96
				02/23/15	- -	116.10	117.81	0.00	116.10	3723.46	-0.39
				08/24/15	- -	116.75	117.86	0.00	116.75	3722.81	-0.65
				03/07/16	- -	117.07	118.00	0.00	117.07	3722.49	-0.32
				08/15/16	WELL DRY						
				12/07/16	WELL PLUGGED AND ABANDONED						
MW-11R [(10)]	3838.51	3835.78	3724.72 to 3704.72	02/06/17	- -	116.82	133.79	0.00	116.82	3721.69	NA
				06/22/17	- -	116.93	133.84	0.00	116.93	3721.58	-0.11
				08/17/17	- -	117.33	133.84	0.00	117.33	3721.18	-0.40
				04/05/18	- -	117.73	133.84	0.00	117.73	3720.78	-0.40
				10/01/18	- -	118.67	133.84	0.00	118.67	3719.84	-0.94
				04/04/19	- -	118.94	133.84	0.00	118.94	3719.57	-0.27
				10/24/19	- -	120.29	133.84	0.00	120.29	3718.22	-1.35
				06/18/20	- -	122.19	133.84	0.00	122.19	3716.32	-1.90
				10/08/20	- -	121.98	133.84	0.00	121.98	3716.53	0.21
				04/15/21	- -	121.91	133.84	0.00	121.91	3716.60	0.07
				09/16/21	- -	122.34	133.84	0.00	122.34	3716.17	-0.43
				04/14/22	- -	122.10	133.84	0.00	122.10	3716.41	0.24
				10/13/22	- -	123.42	133.84	0.00	123.42	3715.09	-1.32

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-12 [(4,6,9)]	3822.73	3820.29	3742.29 to 3722.29	06/20/02	- -	84.20	NM	0.00	84.20	3738.53	NA
				12/21/02	- -	85.21	NM	0.00	85.21	3737.52	-1.01
				03/28/03	- -	85.35	NM	0.00	85.35	3737.38	-0.14
				06/20/03	- -	85.51	NM	0.00	85.51	3737.22	-0.16
				09/15/03	- -	86.13	NM	0.00	86.13	3736.60	-0.62
				11/02/03	- -	86.57	NM	0.00	86.57	3736.16	-0.44
				04/30/04	- -	87.40	100.55	0.00	87.40	3735.33	-0.83
				02/21/05	- -	88.42	NM	0.00	88.42	3734.31	-1.02
				06/28/05	- -	88.76	NM	0.00	88.76	3733.97	-0.34
				09/30/05	- -	89.12	NM	0.00	89.12	3733.61	-0.36
				12/29/05	- -	89.31	NM	0.00	89.31	3733.42	-0.19
				04/10/06	- -	89.55	NM	0.00	89.55	3733.18	-0.24
				07/06/06	- -	90.03	NM	0.00	90.03	3732.70	-0.48
				01/26/07	- -	90.06	NM	0.00	90.06	3732.67	-0.03
				03/27/07	- -	90.10	NM	0.00	90.10	3732.63	-0.04
				07/13/07	- -	91.66	NM	0.00	91.66	3731.07	-1.56
				09/12/07	- -	92.01	NM	0.00	92.01	3730.72	-0.35
				12/31/07	- -	92.17	NM	0.00	92.17	3730.56	-0.16
				03/26/08	- -	92.39	100.57	0.00	92.39	3730.34	-0.22
				06/13/08	- -	92.59	NM	0.00	92.59	3730.14	-0.20
				09/24/08	- -	93.21	NM	0.00	93.21	3729.52	-0.62
				12/29/08	- -	93.59	NM	0.00	93.59	3729.14	-0.38
				03/17/09	- -	93.75	NM	0.00	93.75	3728.98	-0.16
				06/16/09	- -	93.83	100.51	0.00	93.83	3728.90	-0.08
				01/13/10	- -	94.78	100.71	0.00	94.78	3727.95	-0.95
				08/11/10	- -	95.67	100.56	0.00	95.67	3727.06	-0.89
				02/23/11	- -	95.85	100.56	0.00	95.85	3726.88	-0.18
				07/12/11	- -	96.58	100.55	0.00	96.58	3726.15	-0.73
				02/01/12	- -	97.57	100.57	0.00	97.57	3725.16	-0.99
				07/23/12	- -	98.10	100.50	0.00	98.10	3724.63	-0.53
				02/18/13	- -	98.95	100.50	0.00	98.95	3723.78	-0.85
				06/21/13	DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013						
MW-12R [(9,14)]	3823.29	3820.77	3734.95 to 3714.95	08/19/13	- -	100.25	108.34	0.00	100.25	3723.04	NA
				02/24/14	- -	100.92	108.50	0.00	100.92	3722.37	-0.67
				08/18/14	- -	101.33	108.22	0.00	101.33	3721.96	-0.41
				02/23/15	- -	101.73	107.50	0.00	101.73	3721.56	-0.40
				08/24/15	- -	102.25	107.72	0.00	102.25	3721.04	-0.52
				03/07/16	- -	102.52	107.61	0.00	102.52	3720.77	-0.27
				08/15/16	- -	103.28	107.52	0.00	103.28	3720.01	-0.76
				02/06/17	- -	103.79	107.50	0.00	103.79	3719.50	-0.51
				06/22/17	- -	103.95	107.39	0.00	103.95	3719.34	-0.16
				08/16/17	- -	104.31	107.39	0.00	104.31	3718.98	-0.36
				04/05/18	- -	>103.63	NA	NA	NA	NA	NA
				10/01/18	- -	>103.60	NA	NA	NA	NA	NA
				04/04/19	- -	>103.60	NA	NA	NA	NA	NA
				10/24/19	- -	107.26	107.39	0.00	107.26	3716.03	-2.95
				06/18/20	WELL DRY						
				08/13/20	DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-12R2 [(14)]	3824.00	3820.87	3716.64 to 3696.64	10/08/20	- -	108.93	126.45	0.00	108.93	3715.07	NA
				04/15/21	- -	109.46	126.45	0.00	109.46	3714.54	-0.53
				09/16/21	- -	110.13	126.45	0.00	110.13	3713.87	-0.67
				04/14/22	- -	110.37	126.45	0.00	110.37	3713.63	-0.24
				10/13/22	- -	111.06	126.45	0.00	111.06	3712.94	-0.69

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Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-13 [(5,6,12)]	3837.06	3834.75	3738.75 to 3718.75	04/30/04	- -	101.41	119.82	0.00	101.41	3735.65	NA
				02/21/05	- -	103.09	NM	0.00	103.09	3733.97	-1.68
				06/28/05	- -	103.48	NM	0.00	103.48	3733.58	-0.39
				09/30/05	- -	103.80	NM	0.00	103.80	3733.26	-0.32
				12/29/05	- -	104.41	NM	0.00	104.41	3732.65	-0.61
				04/10/06	- -	104.59	NM	0.00	104.59	3732.47	-0.18
				07/06/06	- -	104.94	NM	0.00	104.94	3732.12	-0.35
				01/26/07	- -	106.41	NM	0.00	106.41	3730.65	-1.47
				03/27/07	- -	106.47	NM	0.00	106.47	3730.59	-0.06
				07/13/07	- -	106.93	NM	0.00	106.93	3730.13	-0.46
				09/12/07	- -	107.19	NM	0.00	107.19	3729.87	-0.26
				12/31/07	- -	106.71	NM	0.00	106.71	3730.35	0.48
				03/26/08	- -	107.02	119.75	0.00	107.02	3730.04	-0.31
				06/13/08	- -	107.19	NM	0.00	107.19	3729.87	-0.17
				09/24/08	- -	108.56	NM	0.00	108.56	3728.50	-1.37
				12/29/08	- -	108.71	NM	0.00	108.71	3728.35	-0.15
				03/17/09	- -	108.36	NM	0.00	108.36	3728.70	0.35
				06/16/09	- -	108.58	108.58	0.00	108.58	3728.48	-0.22
				01/13/10	- -	109.68	119.95	0.00	109.68	3727.38	-1.10
				08/11/10	- -	109.72	119.68	0.00	109.72	3727.34	-0.04
				02/23/11	- -	110.14	119.69	0.00	110.14	3726.92	-0.42
				07/12/11	- -	111.17	119.71	0.00	111.17	3725.89	-1.03
				02/01/12	- -	111.81	119.66	0.00	111.81	3725.25	-0.64
				07/23/12	- -	113.11	119.66	0.00	113.11	3723.95	-1.30
				02/18/13	- -	111.84	119.87	0.00	111.84	3725.22	1.27
				08/19/13	- -	113.81	119.95	0.00	113.81	3723.25	-1.97
				02/24/14	- -	114.47	121.50	0.00	114.47	3722.59	-0.66
				08/18/14	- -	115.89	119.89	0.00	115.89	3721.17	-1.42
				02/23/15	- -	116.05	119.88	0.00	116.05	3721.01	-0.16
				08/24/15	- -	116.79	119.83	0.00	116.79	3720.27	-0.74
				03/07/16	- -	117.30	119.76	0.00	117.30	3719.76	-0.51
				08/15/16	- -	117.98	119.70	0.00	117.98	3719.08	-0.68
				02/06/17	- -	118.28	119.79	0.00	118.28	3718.78	-0.30
				06/22/17	- -	118.23	119.81	0.00	118.23	3718.83	0.05
				08/17/17	- -	118.72	119.81	0.00	118.72	3718.34	-0.49
				04/05/18	- -	119.02	119.81	0.00	119.02	3718.04	-0.30
				09/26/18	WELL PLUGGED AND ABANDONED SEPTEMBER 2018						
MW-13R [(12)]	3838.12	3835.02	3718.64 to 3698.64	10/01/18	- -	121.00	139.48	0.00	121.00	3717.12	NA
				04/04/19	- -	120.97	139.48	0.00	120.97	3717.15	0.03
				10/24/19	- -	122.25	139.48	0.00	122.25	3715.87	-1.28
				06/18/20	- -	123.02	139.48	0.00	123.02	3715.10	-0.77
				10/08/20	- -	124.05	139.48	0.00	124.05	3714.07	-1.03
				04/15/21	- -	124.05	139.48	0.00	124.05	3714.07	0.00
				09/16/21	- -	124.58	139.48	0.00	124.58	3713.54	-0.53
				04/14/22	- -	124.36	139.48	0.00	124.36	3713.76	0.22
				10/13/22	- -	125.36	139.48	0.00	125.36	3712.76	-1.00

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Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-14 [(5,6,12)]	3823.03	3820.38	3737.88 to 3717.88	04/30/04	- -	87.46	NM	0.00	87.46	3735.57	NA
				02/21/05	- -	88.48	NM	0.00	88.48	3734.55	-1.02
				06/28/05	- -	88.80	NM	0.00	88.80	3734.23	-0.32
				09/30/05	- -	89.14	NM	0.00	89.14	3733.89	-0.34
				12/29/05	- -	89.34	NM	0.00	89.34	3733.69	-0.20
				04/10/06	- -	89.63	NM	0.00	89.63	3733.40	-0.29
				07/06/06	- -	90.08	NM	0.00	90.08	3732.95	-0.45
				01/26/07	- -	91.02	NM	0.00	91.02	3732.01	-0.94
				03/27/07	- -	91.18	NM	0.00	91.18	3731.85	-0.16
				07/13/07	- -	91.68	NM	0.00	91.68	3731.35	-0.50
				09/12/07	- -	92.02	NM	0.00	92.02	3731.01	-0.34
				12/31/07	- -	92.25	NM	0.00	92.25	3730.78	-0.23
				03/26/08	- -	92.43	105.08	0.00	92.43	3730.60	-0.18
				06/13/08	- -	92.64	NM	0.00	92.64	3730.39	-0.21
				12/29/08	- -	93.60	NM	0.00	93.60	3729.43	-0.96
				03/17/09	- -	93.84	NM	0.00	93.84	3729.19	-0.24
				06/16/09	- -	93.92	105.04	0.00	93.92	3729.11	-0.08
				01/13/10	- -	94.80	105.30	0.00	94.80	3728.23	-0.88
				08/11/10	- -	95.67	105.04	0.00	95.67	3727.36	-0.87
				02/23/11	- -	95.99	105.05	0.00	95.99	3727.04	-0.32
				07/12/11	- -	96.59	105.06	0.00	96.59	3726.44	-0.60
				01/31/12	- -	97.54	105.05	0.00	97.54	3725.49	-0.95
				07/23/12	- -	98.20	105.05	0.00	98.20	3724.83	-0.66
				02/18/13	- -	99.07	105.38	0.00	99.07	3723.96	-0.87
				08/19/13	- -	99.82	105.30	0.00	99.82	3723.21	-0.75
				02/24/14	- -	100.55	105.60	0.00	100.55	3722.48	-0.73
				08/18/14	- -	100.94	105.35	0.00	100.94	3722.09	-0.39
				02/23/15	- -	101.42	105.35	0.00	101.42	3721.61	-0.48
				08/24/15	- -	101.86	105.37	0.00	101.86	3721.17	-0.44
				03/07/16	- -	102.21	105.27	0.00	102.21	3720.82	-0.35
				08/15/16	- -	102.84	105.30	0.00	102.84	3720.19	-0.63
				02/06/17	- -	103.44	105.29	0.00	103.44	3719.59	-0.60
				06/22/17	- -	103.59	105.25	0.00	103.59	3719.44	-0.15
				08/16/17	- -	103.97	105.25	0.00	103.97	3719.06	-0.38
				04/05/18	- -	104.47	105.25	0.00	104.47	3718.56	-0.50
				09/27/18	WELL PLUGGED AND ABANDONED SEPTEMBER 2018						
MW-14R [(12)]	3823.88	3821.05	3714.60 to 3694.60	10/01/18	- -	106.19	129.28	0.00	106.19	3717.69	NA
				04/04/19	- -	106.60	129.28	0.00	106.60	3717.28	-0.41
				10/24/19	- -	107.49	129.28	0.00	107.49	3716.39	-0.89
				06/18/20	- -	107.59	129.28	0.00	107.59	3716.29	-0.10
				10/08/20	- -	108.43	129.28	0.00	108.43	3715.45	-0.84
				04/15/21	- -	108.71	129.28	0.00	108.71	3715.17	-0.28
				09/16/21	- -	109.65	129.28	0.00	109.65	3714.23	-0.94
				04/14/22	- -	109.79	129.28	0.00	109.79	3714.09	-0.14
				10/13/22	- -	110.66	129.28	0.00	110.66	3713.22	-0.87

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MW-15 [(7,8,15)]	3840.19	3840.54	3738.54 to 3718.54	08/11/10	- -	106.94	121.68	0.00	106.94	3733.25	NA
				02/23/11	- -	107.01	121.67	0.00	107.01	3733.18	-0.07
				07/12/11	- -	108.32	121.62	0.00	108.32	3731.87	-1.31
				01/30/12	- -	108.54	121.62	0.00	108.54	3731.65	-0.22
				07/23/12	- -	109.77	121.58	0.00	109.77	3730.42	-1.23
				02/18/13	- -	109.22	121.82	0.00	109.22	3730.97	0.55
				08/19/13	- -	110.34	121.83	0.00	110.34	3729.85	-1.12
				02/24/14	- -	111.72	122.05	0.00	111.72	3728.47	-1.38
				08/18/14	- -	112.16	121.70	0.00	112.16	3728.03	-0.44
				02/23/15	- -	112.42	121.80	0.00	112.42	3727.77	-0.26
				08/24/15	- -	113.09	121.78	0.00	113.09	3727.10	-0.67
				03/07/16	- -	112.85	121.67	0.00	112.85	3727.34	0.24
				08/15/16	- -	113.92	121.70	0.00	113.92	3726.27	-1.07
				02/06/17	- -	113.84	121.68	0.00	113.84	3726.35	0.08
				06/22/17	- -	114.40	121.70	0.00	114.40	3725.79	-0.56
				08/16/17	- -	114.57	121.70	0.00	114.57	3725.62	-0.17
				04/05/18	- -	115.19	121.70	0.00	115.19	3725.00	-0.62
				10/01/18	- -	115.93	121.70	0.00	115.93	3724.26	-0.74
				04/04/19	- -	116.51	121.70	0.00	116.51	3723.68	-0.58
				10/24/19	- -	118.22	121.70	0.00	118.22	3721.97	-1.71
				06/18/20	- -	119.24	121.70	0.00	119.24	3720.95	-1.02
				10/08/20	- -	120.11	121.70	0.00	120.11	3720.08	-0.87
				04/15/21	- -	119.46	121.70	0.00	119.46	3720.73	0.65
				06/09/21	WELL PLUGGED AND ABANDONED JUNE 2021						
MW-15R [(15)]	3839.99	3839.82	3722.00 to 3702.00	09/16/21	- -	119.46	138.49	0.00	119.46	3720.53	NA
				04/14/22	- -	119.08	138.49	0.00	119.08	3720.91	0.38
				10/13/22	- -	121.20	138.49	0.00	121.20	3718.79	-2.12
MW-16 [(7,8,14)]	3838.20	3838.50	3738.59 to 3718.59	08/11/10	- -	106.18	119.61	0.00	106.18	3732.02	NA
				02/23/11	- -	106.34	119.67	0.00	106.34	3731.86	-0.16
				07/12/11	- -	107.21	119.61	0.00	107.21	3730.99	-0.87
				01/30/12	- -	107.93	119.47	0.00	107.93	3730.27	-0.72
				07/23/12	- -	108.98	119.14	0.00	108.98	3729.22	-1.05
				02/18/13	- -	108.69	119.63	0.00	108.69	3729.51	0.29
				08/19/13	- -	109.51	119.50	0.00	109.51	3728.69	-0.82
				02/24/14	- -	110.73	119.65	0.00	110.73	3727.47	-1.22
				08/18/14	- -	111.35	119.25	0.00	111.35	3726.85	-0.62
				02/23/15	- -	111.90	119.48	0.00	111.90	3726.30	-0.55
				08/24/15	- -	112.42	119.22	0.00	112.42	3725.78	-0.52
				03/07/16	- -	112.64	119.22	0.00	112.64	3725.56	-0.22
				08/15/16	- -	113.31	119.20	0.00	113.31	3724.89	-0.67
				02/06/17	- -	113.78	119.00	0.00	113.78	3724.42	-0.47
				06/22/17	- -	113.93	119.07	0.00	113.93	3724.27	-0.15
				08/17/17	- -	114.08	119.07	0.00	114.08	3724.12	-0.15
				04/05/18	- -	114.79	119.07	0.00	114.79	3723.41	-0.71
				10/01/18	- -	>115.87	NA	NA	NA	NA	NA
				04/04/19	- -	>115.05	NA	NA	NA	NA	NA
				10/24/19	- -	117.64	119.07	0.00	117.64	3720.56	-2.85
				06/18/20	- -	118.35	119.07	0.00	118.35	3719.85	-0.71
				08/13/20	DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-16R [(14)]	3837.87	3837.85	3720.47 to 3700.47	10/08/20	- -	118.89	137.00	0.00	118.89	3718.98	NA
				04/15/21	- -	118.79	137.00	0.00	118.79	3719.08	0.10
				09/16/21	- -	119.13	137.00	0.00	119.13	3718.74	-0.34
				04/14/22	- -	119.28	137.00	0.00	119.28	3718.59	-0.15
				10/13/22	- -	120.61	137.00	0.00	120.61	3717.26	-1.33

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[1] (feet)	Corrected Water Level Elev.[1] (feet)	Water Elevation Change
MW-17 [7,8,9]	3831.43	3831.79	3735.79 to 3715.79	08/11/10	- -	101.65	115.92	0.00	101.65	3729.78	NA
				02/23/11	- -	101.71	115.69	0.00	101.71	3729.72	-0.06
				07/12/11	- -	102.41	115.55	0.00	102.41	3729.02	-0.70
				06/21/13	DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013						
MW-17R [9]	3831.14	3831.48	3731.19 to 3711.19	08/19/13	- -	104.79	119.95	0.00	104.79	3726.35	NA
				02/24/14	- -	105.59	119.00	0.00	105.59	3725.55	-0.80
				08/18/14	- -	106.58	117.80	0.00	106.58	3724.56	-0.99
				02/23/15	- -	107.11	117.30	0.00	107.11	3724.03	-0.53
				08/24/15	- -	107.73	117.53	0.00	107.73	3723.41	-0.62
				03/07/16	- -	108.35	117.30	0.00	108.35	3722.79	-0.62
				08/15/16	- -	108.90	117.28	0.00	108.90	3722.24	-0.55
				02/06/17	- -	109.28	117.12	0.00	109.28	3721.86	-0.38
				06/22/17	- -	109.31	116.88	0.00	109.31	3721.83	-0.03
				08/16/17	- -	109.61	116.88	0.00	109.61	3721.53	-0.30
				04/05/18	- -	110.04	116.88	0.00	110.04	3721.10	-0.43
				10/01/18	- -	111.15	116.88	0.00	111.15	3719.99	-1.11
				04/04/19	- -	111.47	116.88	0.00	111.47	3719.67	-0.32
				10/24/19	- -	112.45	116.88	0.00	112.45	3718.69	-0.98
				06/18/20	- -	113.10	116.88	0.00	113.10	3718.04	-0.65
				10/08/20	- -	113.92	116.88	0.00	113.92	3717.22	-0.82
				04/15/21	- -	114.11	116.88	0.00	114.11	3717.03	-0.19
				09/16/21	- -	114.82	116.88	0.00	114.82	3716.32	-0.71
				04/14/22	- -	114.67	116.88	0.00	114.67	3716.47	0.15
				10/13/22	- -	115.67	116.88	0.00	115.67	3715.47	-1.00
MW-18 [7,8,15]	3825.05	3825.52	3725.52 to 3705.52	08/11/10	- -	108.54	119.36	0.00	108.54	3716.51	NA
				09/30/10	- -	104.47	NM	0.00	104.47	3720.58	4.07
				02/23/11	- -	100.02	119.38	0.00	100.02	3725.03	4.45
				07/12/11	- -	100.73	119.38	0.00	100.73	3724.32	-0.71
				01/31/12	- -	100.49	119.38	0.00	100.49	3724.56	0.24
				07/23/12	- -	110.18	119.37	0.00	110.18	3714.87	-9.69
				02/18/13	- -	102.51	119.59	0.00	102.51	3722.54	7.67
				08/19/13	- -	109.79	119.68	0.00	109.79	3715.26	-7.28
				02/24/14	- -	105.20	119.85	0.00	105.20	3719.85	4.59
				08/18/14	- -	115.51	119.67	0.00	115.51	3709.54	-10.31
				02/23/15	- -	109.82	119.60	0.00	109.82	3715.23	5.69
				08/24/15	- -	110.97	119.55	0.00	110.97	3714.08	-1.15
				03/07/16	- -	117.00	119.61	0.00	117.00	3708.05	-6.03
				08/15/16	- -	116.06	119.60	0.00	116.06	3708.99	0.94
				02/06/17	- -	114.27	120.90	0.00	114.27	3710.78	1.79
				06/22/17	- -	113.83	119.61	0.00	113.83	3711.22	0.44
				08/16/17	- -	114.69	119.61	0.00	114.69	3710.36	-0.86
				04/05/18	- -	114.58	119.61	0.00	114.58	3710.47	0.11
				10/01/18	- -	115.61	119.61	0.00	115.61	3709.44	-1.03
				04/04/19	- -	112.14	119.61	0.00	112.14	3712.91	3.47
				10/24/19	- -	111.20	119.61	0.00	111.20	3713.85	0.94
				06/18/20	- -	116.25	119.61	0.00	116.25	3708.80	-5.05
				10/08/20	- -	117.21	119.61	0.00	117.21	3707.84	-0.96
				04/15/21	DRY WELL						
				06/09/21	WELL PLUGGED AND ABANDONED JUNE 2021						
MW-18R [15]	3825.33	3825.32	3712.78 to 3692.78	09/16/21	- -	116.75	133.05	0.00	116.75	3708.58	NA
				04/14/22	- -	115.42	133.05	0.00	115.42	3709.91	1.33
				10/13/22	- -	116.29	133.05	0.00	116.29	3709.04	-0.87

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MW-19 [(7,8,15)]	3823.97	3824.48	3730.37 to 3710.37	08/11/10	- -	102.35	113.60	0.00	102.35	3721.62	NA
				09/30/10	- -	98.70	NM	0.00	98.70	3725.27	3.65
				02/23/11	- -	98.32	113.57	0.00	98.32	3725.65	0.38
				07/12/11	- -	101.87	113.56	0.00	101.87	3722.10	-3.55
				01/31/12	- -	100.92	113.54	0.00	100.92	3723.05	0.95
				07/23/12	- -	100.98	113.56	0.00	100.98	3722.99	-0.06
				02/18/13	- -	103.45	113.76	0.00	103.45	3720.52	-2.47
				08/19/13	- -	104.87	113.81	0.00	104.87	3719.10	-1.42
				02/24/14	- -	105.76	114.00	0.00	105.76	3718.21	-0.89
				08/18/14	- -	104.60	113.79	0.00	104.60	3719.37	1.16
				02/23/15	- -	105.22	113.72	0.00	105.22	3718.75	-0.62
				08/24/15	- -	105.94	113.71	0.00	105.94	3718.03	-0.72
				03/07/16	- -	106.75	113.64	0.00	106.75	3717.22	-0.81
				08/15/16	- -	108.23	133.77	0.00	108.23	3715.74	-1.48
				02/06/17	- -	108.27	113.72	0.00	108.27	3715.70	-0.04
				06/22/17	- -	108.31	113.60	0.00	108.31	3715.66	-0.04
				08/16/17	- -	107.88	113.60	0.00	107.88	3716.09	0.43
				04/05/18	- -	109.32	113.60	0.00	109.32	3714.65	-1.44
				10/01/18	- -	>111.40	NA	NA	NA	NA	NA
				04/04/19	- -	>111.40	NA	NA	NA	NA	NA
				10/24/19	- -	110.89	113.60	0.00	110.89	3713.08	-1.57
				06/18/20	- -	112.75	113.60	0.00	112.75	3711.22	-1.86
				10/08/20	WELL DRY						
				04/15/21	WELL DRY						
				06/09/21	WELL PLUGGED AND ABANDONED JUNE 2021						
MW-19R [(15)]	3824.24	3824.33	3712.61 to 3692.61	09/16/21	- -	114.00	132.13	0.00	114.00	3710.24	NA
				04/14/22	- -	113.57	132.13	0.00	113.57	3710.67	0.43
				10/13/22	- -	113.05	132.13	0.00	113.05	3711.19	0.52
MW-20 [(7,8,15)]	3824.58	3825.03	3733.03 to 3713.03	08/11/10	- -	97.75	111.82	0.00	97.75	3726.83	NA
				02/23/11	- -	97.42	111.82	0.00	97.42	3727.16	0.33
				07/12/11	- -	98.50	111.74	0.00	98.50	3726.08	-1.08
				01/31/12	- -	99.07	111.74	0.00	99.07	3725.51	-0.57
				07/23/12	- -	99.75	111.75	0.00	99.75	3724.83	-0.68
				02/18/13	- -	100.50	111.78	0.00	100.50	3724.08	-0.75
				08/19/13	- -	101.60	111.98	0.00	101.60	3722.98	-1.10
				02/24/14	- -	102.37	112.15	0.00	102.37	3722.21	-0.77
				08/18/14	- -	102.81	111.87	0.00	102.81	3721.77	-0.44
				02/23/15	- -	103.25	111.82	0.00	103.25	3721.33	-0.44
				08/24/15	- -	103.80	112.89	0.00	103.80	3720.78	-0.55
				03/07/16	- -	104.28	111.78	0.00	104.28	3720.30	-0.48
				08/15/16	- -	105.18	111.88	0.00	105.18	3719.40	-0.90
				02/06/17	- -	105.57	111.70	0.00	105.57	3719.01	-0.39
				06/22/17	- -	105.63	111.70	0.00	105.63	3718.95	-0.06
				08/17/17	- -	105.89	111.70	0.00	105.89	3718.69	-0.26
				04/05/18	- -	106.49	111.70	0.00	106.49	3718.09	-0.60
				10/01/18	- -	107.45	111.70	0.00	107.45	3717.13	-0.96
				04/04/19	- -	107.75	111.70	0.00	107.75	3716.83	-0.30
				10/24/19	- -	108.68	111.70	0.00	108.68	3715.90	-0.93
				06/18/20	- -	109.38	111.70	0.00	109.38	3715.20	-0.70
				10/08/20	- -	109.95	111.70	0.00	109.95	3714.63	-0.57
				04/15/21	- -	110.70	111.70	0.00	110.70	3713.88	-0.75
				06/09/21	WELL PLUGGED AND ABANDONED JUNE 2021						
MW-20R [(15)]	3824.63	3824.86	3719.04 to 3699.04	09/16/21	- -	111.19	126.09	0.00	111.19	3713.44	NA
				04/14/22	- -	111.14	126.09	0.00	111.14	3713.49	0.05
				10/13/22	- -	111.45	126.09	0.00	111.45	3713.18	-0.31

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MW-21 [(7,8)]	3820.26	3820.59	3731.59 to 3711.59	08/11/10	- -	94.06	108.31	0.00	94.06	3726.20	NA
				02/23/11	- -	93.84	108.27	0.00	93.84	3726.42	0.22
				07/12/11	- -	94.85	108.23	0.00	94.85	3725.41	-1.01
				01/31/12	- -	95.72	108.18	0.00	95.72	3724.54	-0.87
				07/23/12	- -	96.22	108.24	0.00	96.22	3724.04	-0.50
				02/18/13	- -	96.92	108.48	0.00	96.92	3723.34	-0.70
				08/19/13	- -	98.04	108.52	0.00	98.04	3722.22	-1.12
				02/24/14	- -	98.65	108.55	0.00	98.65	3721.61	-0.61
				08/18/14	- -	99.07	108.32	0.00	99.07	3721.19	-0.42
				02/23/15	- -	99.48	108.19	0.00	99.48	3720.78	-0.41
				08/24/15	- -	100.05	108.32	0.00	100.05	3720.21	-0.57
				03/07/16	- -	100.30	108.15	0.00	100.30	3719.96	-0.25
				08/15/16	- -	101.18	108.15	0.00	101.18	3719.08	-0.88
				02/06/17	- -	101.59	110.20	0.00	101.59	3718.67	-0.41
				06/22/17	- -	101.72	108.10	0.00	101.72	3718.54	-0.13
				08/17/17	- -	102.10	108.10	0.00	102.10	3718.16	-0.38
				04/05/18	- -	102.54	108.10	0.00	102.54	3717.72	-0.44
				10/01/18	- -	103.58	108.10	0.00	103.58	3716.68	-1.04
				04/04/19	- -	103.90	108.10	0.00	103.90	3716.36	-0.32
				10/24/19	- -	105.02	108.10	0.00	105.02	3715.24	-1.12
				06/18/20	- -	105.57	108.10	0.00	105.57	3714.69	-0.55
				10/08/20	- -	106.31	108.10	0.00	106.31	3713.95	-0.74
				04/15/21	- -	106.72	108.10	0.00	106.72	3713.54	-0.41
				09/16/21	- -	107.31	108.10	0.00	107.31	3712.95	-0.59
				04/14/22	- -	107.42	108.10	0.00	107.42	3712.84	-0.11
				10/13/22	- -	107.93	108.20	0.00	107.93	3712.33	-0.51
MW-22 [(7,8)]	3821.82	3819.27	3731.20 to 3711.27	08/11/10	- -	95.62	110.80	0.00	95.62	3726.20	NA
				02/23/11	- -	95.36	110.78	0.00	95.36	3726.46	0.26
				07/12/11	- -	96.26	110.74	0.00	96.26	3725.56	-0.90
				01/31/12	- -	97.56	110.72	0.00	97.56	3724.26	-1.30
				07/23/12	- -	97.90	110.70	0.00	97.90	3723.92	-0.34
				02/18/13	- -	98.45	110.92	0.00	98.45	3723.37	-0.55
				08/19/13	- -	99.54	110.85	0.00	99.54	3722.28	-1.09
				02/24/14	- -	99.97	111.00	0.00	99.97	3721.85	-0.43
				08/18/14	- -	100.52	110.26	0.00	100.52	3721.30	-0.55
				02/23/15	- -	100.85	109.10	0.00	100.85	3720.97	-0.33
				08/24/15	- -	101.42	109.05	0.00	101.42	3720.40	-0.57
				03/07/16	- -	101.56	109.19	0.00	101.56	3720.26	-0.14
				08/15/16	- -	102.45	109.50	0.00	102.45	3719.37	-0.89
				02/06/17	- -	102.99	109.58	0.00	102.99	3718.83	-0.54
				06/22/17	- -	103.04	109.60	0.00	103.04	3718.78	-0.05
				08/17/17	- -	103.51	109.60	0.00	103.51	3718.31	-0.47
				04/05/18	- -	103.85	109.60	0.00	103.85	3717.97	-0.34
				10/01/18	- -	104.96	109.60	0.00	104.96	3716.86	-1.11
				04/04/19	- -	105.12	109.60	0.00	105.12	3716.70	-0.16
				10/24/19	- -	106.45	109.60	0.00	106.45	3715.37	-1.33
				06/18/20	- -	106.97	109.60	0.00	106.97	3714.85	-0.52
				10/08/20	- -	107.70	109.60	0.00	107.70	3714.12	-0.73
				04/15/21	- -	107.97	109.60	0.00	107.97	3713.85	-0.27
				09/16/21	- -	109.18	110.30	0.00	109.18	3712.64	-1.21
				04/14/22	- -	109.29	110.30	0.00	109.29	3712.53	-0.11
				10/13/22	- -	109.51	110.30	0.00	109.51	3712.31	-0.22

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-23 [(7,8,14)]	3825.58	3822.91	3730.91 to 3710.91	08/11/10	- -	100.49	115.10	0.00	100.49	3725.09	NA
				02/23/11	- -	99.80	115.12	0.00	99.80	3725.78	0.69
				07/12/11	- -	101.29	115.10	0.00	101.29	3724.29	-1.49
				02/01/12	- -	102.04	115.07	0.00	102.04	3723.54	-0.75
				07/23/12	- -	102.39	114.98	0.00	102.39	3723.19	-0.35
				02/18/13	- -	102.69	115.25	0.00	102.69	3722.89	-0.30
				08/19/13	- -	104.23	115.00	0.00	104.23	3721.35	-1.54
				02/24/14	- -	104.93	115.35	0.00	104.93	3720.65	-0.70
				08/18/14	- -	105.36	119.14	0.00	105.36	3720.22	-0.43
				02/23/15	- -	105.74	114.85	0.00	105.74	3719.84	-0.38
				08/24/15	- -	106.33	114.84	0.00	106.33	3719.25	-0.59
				03/07/16	- -	106.72	114.66	0.00	106.72	3718.86	-0.39
				08/15/16	- -	107.69	114.80	0.00	107.69	3717.89	-0.97
				02/06/17	- -	108.05	114.70	0.00	108.05	3717.53	-0.36
				06/22/17	- -	108.04	114.60	0.00	108.04	3717.54	0.01
				08/17/17	- -	108.41	114.60	0.00	108.41	3717.17	-0.37
				04/05/18	- -	108.86	114.60	0.00	108.86	3716.72	-0.45
				10/01/18	- -	109.90	114.60	0.00	109.90	3715.68	-1.04
				04/04/19	- -	109.89	114.60	0.00	109.89	3715.69	0.01
				10/24/19	- -	112.87	114.60	0.00	112.87	3712.71	-2.98
				06/18/20	- -	112.11	114.60	0.00	112.11	3713.47	0.76
				08/13/20	DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-23R [(14)]	3825.64	3822.75	3715.96 to 3695.96	10/08/20	- -	112.81	129.63	0.00	112.81	3712.83	NA
				04/15/21	- -	113.17	129.63	0.00	113.17	3712.47	-0.36
				09/16/21	- -	113.53	129.63	0.00	113.53	3712.11	-0.36
				04/14/22	- -	113.46	129.63	0.00	113.46	3712.18	0.07
				10/13/22	- -	113.74	129.63	0.00	113.74	3711.90	-0.28
MW-24 [(7,8,15)]	3830.50	3830.81	3732.36 to 3712.36	08/11/10	- -	104.04	118.14	0.00	104.04	3726.46	NA
				02/23/11	- -	104.26	118.09	0.00	104.26	3726.24	-0.22
				07/12/11	- -	105.29	118.04	0.00	105.29	3725.21	-1.03
				02/01/12	- -	106.65	119.10	0.00	106.65	3723.85	-1.36
				07/23/12	- -	106.96	118.04	0.00	106.96	3723.54	-0.31
				02/18/13	- -	106.77	118.35	0.00	106.77	3723.73	0.19
				08/19/13	- -	108.30	118.21	0.00	108.30	3722.20	-1.53
				02/24/14	- -	108.66	118.45	0.00	108.66	3721.84	-0.36
				08/18/14	- -	109.61	118.91	0.00	109.61	3720.89	-0.95
				02/23/15	- -	109.92	118.12	0.00	109.92	3720.58	-0.31
				08/24/15	- -	110.47	118.11	0.00	110.47	3720.03	-0.55
				03/07/16	- -	110.59	118.15	0.00	110.59	3719.91	-0.12
				08/15/16	- -	111.52	118.05	0.00	111.52	3718.98	-0.93
				02/06/17	- -	112.01	118.08	0.00	112.01	3718.49	-0.49
				06/22/17	- -	111.96	117.90	0.00	111.96	3718.54	0.05
				08/17/17	- -	112.55	117.90	0.00	112.55	3717.95	-0.59
				04/05/18	- -	112.85	117.90	0.00	112.85	3717.65	-0.30
				10/01/18	- -	113.89	117.90	0.00	113.89	3716.61	-1.04
				04/04/19	- -	113.84	117.90	0.00	113.84	3716.66	0.05
				10/24/19	- -	115.72	117.90	0.00	115.72	3714.78	-1.88
				06/18/20	- -	116.14	117.90	0.00	116.14	3714.36	-0.42
				10/08/20	- -	116.91	117.90	0.00	116.91	3713.59	-0.77
				04/15/21	- -	117.02	117.90	0.00	117.02	3713.48	-0.11
				06/09/21	WELL PLUGGED AND ABANDONED JUNE 2021						
MW-24R [(15)]	3830.38	3830.82	3715.11 to 3695.11	09/16/21	- -	117.38	135.77	0.00	117.38	3713.00	NA
				04/14/22	- -	117.33	135.77	0.00	117.33	3713.05	0.05
				10/13/22	- -	118.12	135.77	0.00	118.12	3712.26	-0.79

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-25 [(7,8,15)]	3830.77	3831.00	3729.00 to 3709.00	08/11/10	- -	106.46	121.66	0.00	106.46	3724.31	NA
				02/23/11	- -	105.72	121.60	0.00	105.72	3725.05	0.74
				07/12/11	- -	107.24	121.49	0.00	107.24	3723.53	-1.52
				02/01/12	- -	108.53	121.42	0.00	108.53	3722.24	-1.29
				07/23/12	- -	109.13	121.47	0.00	109.13	3721.64	-0.60
				02/18/13	- -	107.65	121.45	0.00	107.65	3723.12	1.48
				08/19/13	- -	110.15	121.49	0.00	110.15	3720.62	-2.50
				02/24/14	- -	110.62	121.60	0.00	110.62	3720.15	-0.47
				08/18/14	- -	112.14	121.46	0.00	112.14	3718.63	-1.52
				02/23/15	- -	112.11	121.71	0.00	112.11	3718.66	0.03
				08/24/15	- -	112.89	121.23	0.00	112.89	3717.88	-0.78
				03/07/16	- -	113.76	121.10	0.00	113.76	3717.01	-0.87
				08/15/16	- -	114.52	121.10	0.00	114.52	3716.25	-0.76
				02/06/17	- -	114.68	121.03	0.00	114.68	3716.09	-0.16
				06/22/17	- -	114.64	120.99	0.00	114.64	3716.13	0.04
				08/16/17	- -	114.91	120.99	0.00	114.91	3715.86	-0.27
				04/05/18	- -	115.38	120.99	0.00	115.38	3715.39	-0.47
				10/01/18	- -	116.42	120.99	0.00	116.42	3714.35	-1.04
				04/04/19	- -	116.12	120.99	0.00	116.12	3714.65	0.30
				10/24/19	- -	117.22	120.99	0.00	117.22	3713.55	-1.10
				06/18/20	- -	118.44	120.99	0.00	118.44	3712.33	-1.22
				10/08/20	- -	119.59	120.99	0.00	119.59	3711.18	-1.15
				04/15/21	- -	119.65	120.99	0.00	119.65	3711.12	-0.06
				06/09/21	WELL PLUGGED AND ABANDONED JUNE 2021						
MW-26 [(7,8,14)]	3833.18	3833.39	3731.85 to 3711.85	08/11/10	- -	106.22	121.33	0.00	106.22	3726.96	NA
				02/23/11	- -	108.44	121.31	0.00	108.44	3724.74	-2.22
				07/12/11	- -	109.58	121.26	0.00	109.58	3723.60	-1.14
				02/01/12	- -	110.38	121.21	0.00	110.38	3722.80	-0.80
				07/23/12	- -	111.28	121.24	0.00	111.28	3721.90	-0.90
				02/18/13	- -	109.00	121.43	0.00	109.00	3724.18	2.28
				08/19/13	- -	111.46	121.43	0.00	111.46	3721.72	-2.46
				02/24/14	- -	112.28	122.30	0.00	112.28	3720.90	-0.82
				08/18/14	- -	113.98	121.31	0.00	113.98	3719.20	-1.70
				02/23/15	- -	114.20	121.20	0.00	114.20	3718.98	-0.22
				08/24/15	- -	114.86	121.15	0.00	114.86	3718.32	-0.66
				03/07/16	- -	115.22	121.12	0.00	115.22	3717.96	-0.36
				08/15/16	- -	115.98	121.18	0.00	115.98	3717.20	-0.76
				02/06/17	- -	116.38	121.07	0.00	116.38	3716.80	-0.40
				06/22/17	- -	116.24	121.21	0.00	116.24	3716.94	0.14
				08/17/17	- -	116.79	121.21	0.00	116.79	3716.39	-0.55
				04/05/18	- -	>118.00	NA	NA	NA	NA	NA
				10/01/18	- -	>118.86	NA	NA	NA	NA	NA
				04/04/19	- -	>117.09	NA	NA	NA	NA	NA
				10/24/19	- -	119.52	121.21	0.00	119.52	3713.66	-2.73
				06/18/20	- -	120.20	121.21	0.00	120.20	3712.98	-0.68
				08/13/20	DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-26R [(14)]	3833.65	3833.37	3716.15 to 3696.15	10/08/20	- -	121.48	137.08	0.00	121.48	3712.17	NA
				04/15/21	- -	121.24	137.08	0.00	121.24	3712.41	0.24
				09/16/21	- -	121.93	137.08	0.00	121.93	3711.72	-0.69
				04/14/22	- -	121.90	137.08	0.00	121.90	3711.75	0.03
				10/13/22	- -	122.83	137.08	0.00	122.83	3710.82	-0.93

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MW-27 [(7,8)]	3837.27	3834.53	3733.20 to 3713.20	08/11/10	- -	109.00	124.07	0.00	109.00	3728.27	NA
				02/23/11	- -	109.58	123.96	0.00	109.58	3727.69	-0.58
				07/12/11	- -	110.59	124.00	0.00	110.59	3726.68	-1.01
				02/01/12	- -	111.37	123.97	0.00	111.37	3725.90	-0.78
				07/23/12	- -	112.32	123.78	0.00	112.32	3724.95	-0.95
				02/18/13	- -	111.19	123.89	0.00	111.19	3726.08	1.13
				08/19/13	- -	113.06	123.60	0.00	113.06	3724.21	-1.87
				02/24/14	- -	113.81	122.60	0.00	113.81	3723.46	-0.75
				08/18/14	- -	114.96	123.68	0.00	114.96	3722.31	-1.15
				02/23/15	- -	115.32	120.95	0.00	115.32	3721.95	-0.36
				08/24/15	- -	115.99	122.37	0.00	115.99	3721.28	-0.67
				03/07/16	- -	116.26	122.87	0.00	116.26	3721.01	-0.27
				08/15/16	- -	116.94	123.78	0.00	116.94	3720.33	-0.68
				02/06/17	- -	117.32	123.25	0.00	117.32	3719.95	-0.38
				06/22/17	- -	117.30	123.56	0.00	117.30	3719.97	0.02
				08/17/17	- -	117.78	123.56	0.00	117.78	3719.49	-0.48
				04/05/18	- -	118.11	123.56	0.00	118.11	3719.16	-0.33
				10/01/18	- -	>119.15	NA	NA	NA	NA	NA
				04/04/19	- -	>119.15	NA	NA	NA	NA	NA
				10/24/19	- -	120.54	123.56	0.00	120.54	3716.73	-2.43
				06/18/20	- -	121.25	123.56	0.00	121.25	3716.02	-0.71
				10/08/20	- -	122.21	123.56	0.00	122.21	3715.06	-0.96
				04/15/21	- -	122.14	123.56	0.00	122.14	3715.13	0.07
				09/16/21	- -	122.72	123.56	0.00	122.72	3714.55	-0.58
				04/14/22	- -	122.53	123.56	0.00	122.53	3714.74	0.19
				10/13/22	WELL DRY						
MW-28 [(7,8)]	3833.44	3833.73	3735.02 to 3715.02	08/11/10	- -	103.72	118.42	0.00	103.72	3729.72	NA
				02/23/11	- -	104.03	118.42	0.00	104.03	3729.41	-0.31
				07/12/11	- -	105.07	118.35	0.00	105.07	3728.37	-1.04
				01/30/12	- -	105.84	118.38	0.00	105.84	3727.60	-0.77
				07/23/12	- -	106.65	118.31	0.00	106.65	3726.79	-0.81
				02/18/13	- -	106.17	118.47	0.00	106.17	3727.27	0.48
				08/19/13	- -	107.53	118.50	0.00	107.53	3725.91	-1.36
				02/24/14	- -	108.39	118.70	0.00	108.39	3725.05	-0.86
				08/18/14	- -	109.29	118.30	0.00	109.29	3724.15	-0.90
				02/23/15	- -	109.60	118.47	0.00	109.60	3723.84	-0.31
				08/24/15	- -	110.16	118.44	0.00	110.16	3723.28	-0.56
				03/07/16	- -	110.25	118.40	0.00	110.25	3723.19	-0.09
				08/15/16	- -	111.03	118.31	0.00	111.03	3722.41	-0.78
				02/06/17	- -	111.33	118.20	0.00	111.33	3722.11	-0.30
				06/22/17	- -	111.49	118.26	0.00	111.49	3721.95	-0.16
				08/17/17	- -	112.14	118.26	0.00	112.14	3721.30	-0.65
				04/05/18	- -	112.17	118.26	0.00	112.17	3721.27	-0.03
				10/01/18	- -	113.16	118.26	0.00	113.16	3720.28	-0.99
				04/04/19	- -	113.32	118.26	0.00	113.32	3720.12	-0.16
				10/24/19	- -	115.05	118.26	0.00	115.05	3718.39	-1.73
				06/18/20	- -	115.64	118.26	0.00	115.64	3717.80	-0.59
				10/08/20	- -	116.26	118.26	0.00	116.26	3717.18	-0.62
				04/15/21	- -	116.41	118.26	0.00	116.41	3717.03	-0.15
				09/16/21	- -	116.78	118.26	0.00	116.78	3716.66	-0.37
				04/14/22	- -	116.60	118.26	0.00	116.60	3716.84	0.18
				10/13/22	WELL DRY						

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Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-29 [(7,8)]	3835.55	3836.02	3734.52 to 3714.52	08/11/10	- -	105.80	120.42	0.00	105.80	3729.75	NA
				02/23/11	- -	105.97	120.35	0.00	105.97	3729.58	-0.17
				07/12/11	- -	107.08	120.33	0.00	107.08	3728.47	-1.11
				01/30/12	- -	107.69	120.33	0.00	107.69	3727.86	-0.61
				07/23/12	- -	108.74	120.27	0.00	108.74	3726.81	-1.05
				02/18/13	- -	108.12	120.47	0.00	108.12	3727.43	0.62
				08/19/13	- -	109.49	120.68	0.00	109.49	3726.06	-1.37
				02/24/14	- -	110.43	120.70	0.00	110.43	3725.12	-0.94
				08/18/14	- -	111.35	120.30	0.00	111.35	3724.20	-0.92
				02/23/15	- -	111.65	120.30	0.00	111.65	3723.90	-0.30
				08/24/15	- -	112.29	120.35	0.00	112.29	3723.26	-0.64
				03/07/16	- -	112.47	120.48	0.00	112.47	3723.08	-0.18
				08/15/16	- -	113.21	120.30	0.00	113.21	3722.34	-0.74
				02/06/17	- -	113.46	120.19	0.00	113.46	3722.09	-0.25
				06/22/17	- -	113.62	120.30	0.00	113.62	3721.93	-0.16
				08/17/17	- -	114.05	120.30	0.00	114.05	3721.50	-0.43
				04/05/18	- -	114.39	120.30	0.00	114.39	3721.16	-0.34
				10/01/18	- -	115.35	120.30	0.00	115.35	3720.20	-0.96
				04/04/19	- -	115.55	120.30	0.00	115.55	3720.00	-0.20
				10/24/19	- -	117.03	120.30	0.00	117.03	3718.52	-1.48
				06/18/20	- -	117.80	120.30	0.00	117.80	3717.75	-0.77
				10/08/20	- -	118.70	120.30	0.00	118.70	3716.85	-0.90
				04/15/21	- -	118.55	120.30	0.00	118.55	3717.00	0.15
				09/16/21	- -	118.99	120.30	0.00	118.99	3716.56	-0.44
				04/14/22	- -	118.72	120.30	0.00	118.72	3716.83	0.27
				10/13/22	WELL DRY						
MW-30 [(9)]	3839.25	3836.02	3732.28 to 3712.28	08/19/13	- -	110.94	126.97	0.00	110.94	3728.31	NA
				02/24/14	- -	112.14	126.60	0.00	112.14	3727.11	-1.20
				08/18/14	- -	112.79	126.36	0.00	112.79	3726.46	-0.65
				02/23/15	- -	113.18	126.68	0.00	113.18	3726.07	-0.39
				08/24/15	- -	113.75	125.03	0.00	113.75	3725.50	-0.57
				03/07/16	- -	113.90	124.75	0.00	113.90	3725.35	-0.15
				08/15/16	- -	114.65	124.40	0.00	114.65	3724.60	-0.75
				02/06/17	- -	114.91	123.95	0.00	114.91	3724.34	-0.26
				06/22/17	- -	115.12	123.64	0.00	115.12	3724.13	-0.21
				08/16/17	- -	115.37	123.64	0.00	115.37	3723.88	-0.25
				04/05/18	- -	115.94	123.64	0.00	115.94	3723.31	-0.57
				10/01/18	- -	116.93	123.64	0.00	116.93	3722.32	-0.99
				04/04/19	- -	117.36	123.64	0.00	117.36	3721.89	-0.43
				10/24/19	- -	118.81	123.64	0.00	118.81	3720.44	-1.45
				06/18/20	- -	119.59	123.64	0.00	119.59	3719.66	-0.78
				10/08/20	- -	120.45	123.64	0.00	120.45	3718.80	-0.86
				04/15/21	- -	120.39	123.64	0.00	120.39	3718.86	0.06
				09/16/21	- -	120.78	123.64	0.00	120.78	3718.47	-0.39
				04/14/22	- -	120.70	123.64	0.00	120.70	3718.55	0.08
				10/13/22	- -	122.04	123.64	0.00	122.04	3717.21	-1.34
MW-31 [(10,13)]	3819.17	3818.90	3718.90 to 3698.90	02/06/17	98.95	105.11	NM	6.16	99.75	3719.42	NA
				06/22/17	- -	99.84	NM	0.00	99.84	3719.33	-0.09
				08/17/17	100.24	101.22	NM	0.98	100.37	3718.80	-0.53
				04/05/18	100.05	105.55	NM	5.50	100.77	3718.40	-0.40
				10/01/18	101.07	106.82	NM	5.75	101.82	3717.35	-1.05
	3820.17			04/01/19	102.33	107.98	NM	5.65	103.06	3717.11	-0.24
				10/24/19	104.32	104.97	NM	0.65	104.40	3715.77	-1.34
				06/18/20	104.41	107.28	NM	2.87	104.78	3715.39	-0.38
				10/08/20	105.09	108.59	NM	3.50	105.55	3714.62	-0.77
				04/15/21	105.34	109.53	NM	4.19	105.89	3714.29	-0.33
				09/16/21	105.73	111.52	NM	5.79	106.48	3713.69	-0.60
				04/14/22	105.96	111.72	NM	5.76	106.71	3713.46	-0.23
				10/13/22	106.41	112.32	NM	5.91	107.18	3712.99	-0.47

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Ground Level Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet, btoc)	Product Thickness (feet)	Corrected Depth to Water[(1)] (feet)	Corrected Water Level Elev.[(1)] (feet)	Water Elevation Change
MW-32 [(11)]	3817.69	3818.07	3721.96 to 3701.96	06/22/17	- -	98.62	115.73	0.00	98.62	3719.07	NA
				08/17/17	- -	98.91	115.73	0.00	98.91	3718.78	-0.29
				04/05/18	- -	99.34	115.73	0.00	99.34	3718.35	-0.43
				10/01/18	- -	100.44	115.73	0.00	100.44	3717.25	-1.10
				04/04/19	- -	100.74	115.73	0.00	100.74	3716.95	-0.30
				10/24/19	- -	101.92	115.73	0.00	101.92	3715.77	-1.18
				06/18/20	- -	102.40	115.73	0.00	102.40	3715.29	-0.48
				10/08/20	- -	103.08	115.73	0.00	103.08	3714.61	-0.68
				04/15/21	- -	103.51	115.73	0.00	103.51	3714.18	-0.43
				09/16/21	- -	104.18	115.73	0.00	104.18	3713.51	-0.67
				04/14/22	- -	104.44	115.73	0.00	104.44	3713.25	-0.26
				10/13/22	- -	105.22	115.73	0.00	105.22	3712.47	-0.78
MW-33 [(11)]	3819.68	3817.09	3719.78 to 3699.78	06/22/17	- -	100.55	119.90	0.00	100.55	3719.13	NA
				08/17/17	- -	100.99	119.90	0.00	100.99	3718.69	-0.44
				04/05/18	- -	101.26	119.90	0.00	101.26	3718.42	-0.27
				10/01/18	- -	102.37	119.90	0.00	102.37	3717.31	-1.11
				04/04/19	- -	102.77	119.90	0.00	102.77	3716.91	-0.40
				10/24/19	- -	103.83	119.90	0.00	103.83	3715.85	-1.06
				06/18/20	- -	104.29	119.90	0.00	104.29	3715.39	-0.46
				10/08/20	- -	104.96	119.90	0.00	104.96	3714.72	-0.67
				04/15/21	- -	105.44	119.90	0.00	105.44	3714.24	-0.48
				09/16/21	- -	106.11	119.90	0.00	106.11	3713.57	-0.67
				04/14/22	- -	106.42	119.90	0.00	106.42	3713.26	-0.31
				10/13/22	- -	107.06	119.90	0.00	107.06	3712.62	-0.64
RW-1	3838.48	3838.19	3738.19 to 3708.19	04/30/09	- -	106.45	136.09	0.00	106.45	3732.03	NA
				06/10/09	- -	106.59	NM	0.00	106.59	3731.89	-0.14
				06/19/09	- -	106.61	129.62	0.00	106.61	3731.87	-0.02
				07/02/09	- -	106.82	129.25	0.00	106.82	3731.66	-0.21
				07/24/09	- -	106.92	129.31	0.00	106.92	3731.56	-0.10
				09/24/09	- -	107.42	129.73	0.00	107.42	3731.06	-0.50
				10/27/09	- -	107.53	129.25	0.00	107.53	3730.95	-0.11
				01/13/10	- -	107.67	129.29	0.00	107.67	3730.81	-0.14
				02/02/10	- -	107.69	NM	0.00	107.69	3730.79	-0.02
				04/01/10	- -	107.60	NM	0.00	107.60	3730.88	0.09
				08/11/10	- -	108.18	129.29	0.00	108.18	3730.30	-0.58
				02/23/11	- -	108.22	129.31	0.00	108.22	3730.26	-0.04
				07/12/11	- -	109.09	129.27	0.00	109.09	3729.39	-0.87
				02/02/12	- -	109.81	129.34	0.00	109.81	3728.67	-0.72
				07/23/12	- -	110.98	129.07	0.00	110.98	3727.50	-1.17
				02/18/13	- -	110.61	135.79	0.00	110.61	3727.87	0.37
				08/19/13	- -	111.67	129.64	0.00	111.67	3726.81	-1.06
				02/24/14	- -	112.59	129.60	0.00	112.59	3725.89	-0.92
				08/18/14	- -	113.50	129.28	0.00	113.50	3724.98	-0.91
				02/23/15	- -	113.95	129.26	0.00	113.95	3724.53	-0.45
				08/24/15	- -	114.56	129.25	0.00	114.56	3723.92	-0.61
				03/07/16	- -	114.92	129.25	0.00	114.92	3723.56	-0.36
				08/15/16	- -	115.52	129.25	0.00	115.52	3722.96	-0.60
				02/06/17	- -	115.92	129.25	0.00	115.92	3722.56	-0.40
				06/22/17	- -	116.00	129.42	0.00	116.00	3722.48	-0.08
				08/17/17	- -	116.44	129.42	0.00	116.44	3722.04	-0.44
				04/05/18	- -	116.82	129.42	0.00	116.82	3721.66	-0.38
				10/01/18	- -	117.77	129.42	0.00	117.77	3720.71	-0.95
				04/04/19	- -	118.23	129.42	0.00	118.23	3720.25	-0.46
				10/24/19	- -	119.43	129.42	0.00	119.43	3719.05	-1.20
				06/18/20	- -	120.13	129.42	0.00	120.13	3718.35	-0.70
				10/08/20	- -	121.01	129.42	0.00	121.01	3717.47	-0.88
				04/15/21	- -	121.01	129.42	0.00	121.01	3717.47	0.00
				09/16/21	- -	121.57	129.42	0.00	121.57	3716.91	-0.56
				04/14/22	- -	121.35	129.42	0.00	121.35	3717.13	0.22
				10/13/22	- -	122.60	129.42	0.00	122.60	3715.88	-1.25

Table 1. Water Elevation Measurements
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Notes:
1. Depth to water corrected for presence of product using a specific gravity of 0.87.
2. Monitoring wells MW-1 through MW-7 installed September 1995; plugged and redrilled April 2009.
3. Monitoring wells MW-8 through MW-10 installed March and April 1996; plugged and redrilled April 2009.
4. Monitoring wells MW-11 and MW-12 installed April and May 2002.
5. Monitoring wells MW-13 and MW-14 installed January 2004.
6. Elevation survey of new and existing wells August 7, 2009. Earlier water level information corrected to current survey.
7. Monitoring wells MW-15 through MW-29 installed May-June 2010.
8. Elevation survey of wells MW-15 through MW-29 July 13, 2010.
9. Monitoring wells MW-12R, MW-17R, and MW-30 installed and elevations surveyed June 2013; MW-12 and MW-17 plugged and abandoned June 2013.
10. Monitoring wells MW-11R and MW-31 installed December 2016 and elevations surveyed February 2017; MW-11 plugged and abaondoned June 2013
11. Monitoring wells MW-32 and MW-33 installed and elevations surveyed June 2017.
12. Monitoring wells MW-13R and MW-14R installed and elevations surveyed September 2018; MW-13 and MW-14 plugged and abandoned September 2018.
13. Top of casing elevation was calculated by adding 1 foot to the original surveyed top of casing elevation because a 1 foot additional piece of PVC was added due to the skimmer system.
14. Monitoring wells MW-12R2, MW-16R, MW-23R, and MW-26R installed and elevations surveyed August 2020; MW-12R, MW-16, MW-23, and MW-26 plugged and abandoned August 2020.
15. Monitoring well MW-20R installed in June 2021 and MW-15R, MW-18R, MW-19R, and MW-24R installed in September 2021 (all surveyed in September 2021); MW-15, MW-18, MW-19, MW-20, MW-24, and MW-25 plugged and abandoned June 2021.

btoc = below top of casing
-- = Not Detected
NM = Not Measured
NA = Not Applicable
>Value = Water level could not be measured due to interference from dedicated pump.

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-1	06/19/2009		<0.0050	0.012	<0.0050	0.031	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/19/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	- -	<0.00020	<0.00020	<0.00020	- -	- -
	08/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	03/01/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/02/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/27/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/09/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	02/07/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000293 J	- -	- -	- -	- -	- -	- -	- -
	06/18/2020	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000296 J	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000275 J	- -	- -	- -	- -	- -	- -	- -
	04/15/2021		<0.0000941	0.000266 J	<0.000278	<0.000174	<0.00100	0.000439 J	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		0.000102 JB	<0.000137	<0.000278	<0.000174	<0.00100	0.000560 J	- -	- -	- -	- -	- -	- -	- -
	04/14/2022		<0.0000941	0.000241 J	<0.000278	<0.000174	<0.00100	0.000522 J	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000455 J	- -	- -	- -	- -	- -	- -	- -
MW-2	06/22/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/19/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	03/03/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/14/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/19/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00022	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	0.00084 J	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/28/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.000696 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/07/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.000942 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/18/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00293 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/07/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00719	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00812	<0.000372	<0.000372	<0.000332	<0.000311	0.00403 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00385 J	0.00228	0.00228	<0.000332	<0.000311	0.00721 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00214 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000912 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00260 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00260 J	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000728 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000475 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000370 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000448 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000706 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000630 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000218 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-3	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/14/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/14/2010	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/19/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/24/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/15/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/26/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	02/26/2015	FD	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/26/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/08/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/18/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	02/07/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

			WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
Monitor Well	Sample Date	Duplicate	Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-4	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/13/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/19/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/15/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00044	0.00044	- -	<0.00020	<0.00020	- -	- -
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.005	<0.0050	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	- -	- -
	02/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/28/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/15/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00267 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00302 JB	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000574 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000493 J	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00140 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00664	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00906	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-5	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/20/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/19/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/24/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000382 J	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.366
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00154 JB	0.0899 JB	0.0397 J
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00240 JB	<0.0314	<0.0247
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000880 J	0.0494 JB	0.0620 J
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0586 J
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0918 J
MW-6	06/18/2009		<0.0050	<0.0050	<0.0050	<0.015	0.0075	- -	- -	- -	- -	- -	- -	- -	- -
	06/18/2009	FD	<0.0050	<0.0050	<0.0050	<0.015	0.0074	- -	- -	- -	- -	- -	- -	- -	- -
	02/02/2010		<0.0050	0.013	<0.0050	<0.015	0.0099	- -	- -	- -	- -	- -	- -	- -	- -
	08/19/2010		<0.0050	0.015	<0.0050	<0.015	<0.0050	- -	0.0034	0.0017	- -	0.0017	<0.0010	- -	- -
	03/01/2011		<0.0050	0.018	<0.0050	<0.015	0.013	- -	0.0094	0.0062	<0.00020	0.0032	0.0255	- -	- -
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.0008	0.0008	- -	<0.00020	<0.00020	- -	- -
	02/02/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2013	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00116	0.00052	0.00064	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00292	0.00092	0.0020	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/10/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/07/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00123 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000859 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	- -	- -	- -	- -	- -	- -	- -
	06/18/2020	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000149 J	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000274 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000268 J	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000248 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-7	06/19/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/02/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	03/01/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/02/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/27/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000507 J	- -	- -

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

			WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
Monitor Well	Sample Date	Duplicate	Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-8	06/18/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	01/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	08/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	02/25/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	07/19/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0020	<0.0020	--	<0.0020	<0.0020	--	--
	07/27/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	02/26/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	--	--
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000990 J	--	--
	03/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	08/18/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	02/08/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	--	--	--	--	--	--	--
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000307 J	--	--	--	--	--	--	--
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000573 J	--	--	--	--	--	--	--
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000183 J	--	--	--	--	--	--	--
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000352 J	--	--	--	--	--	--	--
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	--	--	--	--	--	--	--
MW-9	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	01/14/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	08/19/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	03/01/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	07/15/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	--	--
	08/26/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	08/17/2016		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/16/2017		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/08/2020		--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	01/13/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	08/19/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	--	--	<0.00020	<0.00020	--	--
	03/03/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	0.00028	0.00028	<0.00020	<0.00020	<0.00020	--	--
	07/15/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00032	--	--
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	02/26/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	--	--
	08/26/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	08/17/2016		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/16/2017		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/08/2020		--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	06/18/2009		0.10	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	01/18/2010		0.20 E	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	08/18/2010		0.078	0.021	<0.0050	<0.015	<0.0050	--	0.00036	0.00036	--	--	0.00122	--	--
	02/25/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	07/19/2011		1.2	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00036	0.00036	--	<0.00020	0.00089	--	--
	02/01/2012		7.8	0.051	<0.0050	0.20	0.096	<0.0050	0.0435	0.039	--	0.0045	0.0035	--	--
	07/27/2012		0.049	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00022	0.00022	<0.00020	<0.00020	0.00023	--	--
	02/27/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/27/2013	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2013	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/28/2014		0.96	0.25	<0.0050	0.20	0.0064	<0.0050	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
	08/20/2014		0.11	0.011	<0.0050	0.030	<0.0050	<0.0050	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
	02/27/2015		0.0026	0.00099 J	<0.00078	0.0036	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	0.0010 J	--	--
	08/28/2015		0.00856	0.00194	0.00283 J	0.0158	<0.00100	0.000420 J	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
	08/28/2015	FD	0.00922	0.00216	0.00305 J	0.0180	<0.00100	0.000467 J	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
	03/09/2016		0.000627 J	0.000778 J	<0.000780	<0.00106	<0.00100	<0.000324	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
	03/09/2016	FD	0.000772 J	0.000908 J	<0.000780	<0.00106	<0.00100	<0.000324	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
	08/15/2016		DRY WELL - PLUGGED AND ABANDONED DECEMBER 2016												

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-11R	02/08/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/08/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000392 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00167 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000350 J	<0.000413	<0.000413	<0.000368	<0.000345	0.000744 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000971 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00284 J	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000614 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000390 J	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000844 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000927 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		0.000660 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000900 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		0.000157 JB	<0.000137	<0.000278	<0.000174	<0.00100	0.000916 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00174 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00272 J	0.0000799	<0.000159	0.0000799 J	<0.000117	<0.00433	- -	- -
MW-12	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/20/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/19/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	--		DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013												
MW-12R	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000362 J	- -	- -
	03/09/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/18/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000439	<0.000439	<0.000392	<0.000367	<0.000394	- -	- -
	02/08/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00273 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00237 JB	- -	- -
	04/05/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00230 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00262 JB	- -	- -
	10/01/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00441 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00257 J	- -	- -
	04/04/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000708 J	- -	- -
	10/24/2019		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	06/18/2020		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020												
MW-12R2	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	0.00662 J	- -	- -
MW-13	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/18/2010		0.016	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/25/2011		0.0057	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	0.00091	- -	- -
	07/19/2011		0.0063	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/27/2015		0.00034 J	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/26/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000379 J	- -	- -
	03/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/08/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		0.000397 J	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00270 JB	- -	- -
	04/05/2018		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	09/26/2018		DRY WELL - PLUGGED AND ABANDONED SEPTEMBER 2018												
MW-13R	10/01/2018		<0.000331	<0.000384	0.000506 J	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00134 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00164 J	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	- -	- -	- -	- -	- -	- -	- -
	06/18/2020	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000113 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/08/2020	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000195 J	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000239 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000114 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000225 J	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		0.0000984 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-14	06/16/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/20/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/18/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	- -	- -	- -	- -	- -	- -	- -
	02/22/2013		- -	- -	- -	- -	- -	- -	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	- -	- -
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	02/28/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	08/20/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	02/27/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000530 J	- -	- -
	08/19/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000413	<0.000413	<0.000368	<0.000345	0.000642 J	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00318 JB	- -	- -
	09/27/2018		DRY WELL - PLUGGED AND ABANDONED SEPTEMBER 2018												

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-14R	10/01/2018		<0.000331	<0.000384	0.00186	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00278 JB	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-15	08/20/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/24/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/14/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.017	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0095	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.017	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/19/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.030	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0060	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0056	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/24/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.013	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/24/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.011	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	08/21/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	0.0081	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00447 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000997 J	- -	- -
	08/27/2015	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00574	<0.000372	<0.000372	<0.000332	<0.000311	0.000595 J	- -	- -
	03/07/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/15/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00570	<0.000372	<0.000372	<0.000332	<0.000311	0.000534 J	- -	- -
	08/15/2016	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00539	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/06/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00474 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00209 JB	- -	- -
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00217 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000915 JB	- -	- -
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00226 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000561 J	- -	- -
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000889 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021												
MW-15R	09/16/2021		0.000105 JB	<0.000137	<0.000278	<0.000174	<0.00100	0.0120	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0119	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-16	08/20/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/24/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/15/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00030	0.00030	- -	<0.00020	<0.00020	- -	- -
	07/15/2011	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000397 J	- -	- -
	08/15/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00429 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000817 JB	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000913 J	- -	- -
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020												
MW-16R	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000201 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-17	08/20/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/24/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/18/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	--		DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013												
MW-17R	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/26/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000465 J	- -	- -
	03/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/09/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00208 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	0.00133	0.00133	<0.000332	<0.000311	0.00488 JB	- -	- -
	04/05/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00290 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00259 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00242 J	- -	- -
	04/04/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000493 J	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000373 J	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-18	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/24/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/18/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00021	0.00021	- -	<0.00020	<0.00020	- -	- -
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00056	- -	- -
	08/20/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/26/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000507 J	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000439	<0.000439	<0.000392	<0.000367	0.000507 J	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00205 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00283 JB	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000389 J	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021												
MW-18R	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	0.000200 J	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-19	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/24/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/18/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2013	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00034	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	08/19/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/26/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	02/26/2015	FD	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/26/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000610 J	- -	- -
	03/08/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.00186	<0.00186	<0.00166	<0.00156	0.00818 J	- -	- -
	02/08/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00310 JB	- -	- -
	08/16/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00320 JB	- -	- -
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00216 JB	- -	- -
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021												
MW-19R	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-20	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/25/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/18/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/25/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000508 J	- -	- -
	08/16/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00262 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00309 JB	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00161 J	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021												
MW-20R	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-21	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/28/2011	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/19/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00131	0.0010	<0.00020	0.00031	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000497 J	- -	- -
	08/16/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.624
	08/17/2017		- -	- -	- -	- -	- -	- -	<0.000372	<0.000372	<0.000332	<0.000311	0.00375 JB	0.0889 JB	0.124
	10/01/2018		- -	- -	- -	- -	- -	- -	<0.000372	<0.000372	<0.000332	<0.000311	0.000383 JB	<0.0314	0.120
	10/24/2019		- -	- -	- -	- -	- -	- -	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.0524 JB	0.196
	10/08/2020		- -	- -	- -	- -	- -	- -	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.175
	09/16/2021		- -	- -	- -	- -	- -	- -	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.312
	10/13/2022		- -	- -	- -	- -	- -	- -	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.136

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-22	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/19/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/31/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/24/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.819
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00363 JB	0.0786 JB	0.113
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00119 JB	<0.0314	0.104 J
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000635 J	0.0606 JB	0.0674 J
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.122 J
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.179 J
	10/13/2022		<0.0000941	0.000152 J	<0.000278	0.000227 J	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.450
MW-23	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/19/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/25/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020												
MW-23R	10/08/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MW-24	08/24/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/14/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/30/2012	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000405 J	- -	- -
	08/16/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00301 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00178 JB	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021												
MW-24R	09/16/2021		0.000725 JB	<0.000137	0.000828 J	0.000194 J	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-25	08/23/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/18/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2013	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	08/19/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	02/25/2015	FD	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000728 J	- -	- -
	08/25/2015	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000581 J	- -	- -
	03/09/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2016	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/07/2017		0.000424 J	<0.000384	<0.000412	0.00207 J	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00347 JB	- -	- -
	08/16/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00233 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	0.00159	0.00159	<0.000349	<0.000326	0.000731 JB	- -	- -
	04/05/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00118 JB	- -	- -
	10/01/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00274 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00201 J	- -	- -
	04/04/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000526 J	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00240 J	- -	- -
	10/24/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000637 J	- -	- -
	06/18/2020		0.000201 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/08/2020		0.000137 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		0.000809 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021												

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-26	08/24/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	07/14/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/22/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00061	--	--
	02/26/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	--	--
	08/25/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	08/17/2016		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/17/2017		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020												
MW-26R	10/08/2020		--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--	--	--	--	--	--	--
MW-27	08/18/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	02/25/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	0.00099	--	--
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	0.00034	--	--
	02/01/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	07/26/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/21/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	02/27/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	--	--
	08/26/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	03/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	08/18/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	02/08/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00241 JB	--	--
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000380	<0.000380	<0.000339	<0.000317	0.00451 JB	--	--
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	--	--	--	--	--	--	--
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000917 J	--	--
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	--	--	--	--	--	--	--
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	--	--
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	--	--	--	--	--	--	--
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	--	--
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000199 J	--	--	--	--	--	--	--
	10/13/2022		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--	--
MW-28	08/24/2010		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	02/23/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	07/14/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	02/19/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00086	--	--
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00022	--	--
	02/24/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/19/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	02/23/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	0.00033 J	--	--
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000774 J	--	--
	03/07/2016		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/15/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000391	<0.000391	<0.000349	<0.000326	0.000459 J	--	--
	02/06/2017		--	--	--	--	--	--	--	--	--	--	--	--	--
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00236 JB	--	--
	04/05/2018		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00119 JB	--	--
	04/04/2019		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	06/18/2020		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	--	--
	04/15/2021		--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	--	--
	04/14/2022		--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--	--

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
MW-29	08/24/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/24/2010	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/14/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	01/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00050	0.00050	- -	<0.00020	<0.00020	- -	- -
	07/24/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/26/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	0.00039 J	- -	- -
	08/27/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.000329 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00224 J	- -	- -	- -	- -	- -	- -	- -
	08/17/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00197 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/09/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00246 J	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00175 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00419 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00142 J	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000903 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00164 JB	- -	- -
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00133 J	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000578 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	10/24/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000686 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000719 J	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00146 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00156 J	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.00276 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000558 J	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	- -	- -
MW-30	06/21/2013		<0.0050	<0.0050	<0.0050	<0.015	- -	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/20/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/27/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	02/25/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	0.00072 J	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	08/28/2015		<0.000331	<0.000384	<0.000780	0.00142 J	<0.00100	0.000887 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.000964 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/08/2016	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.000911 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00107 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2016	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00111 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	02/09/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00190 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/16/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00376 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00799 JB	0.0792 J	0.0551 J
	08/16/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00336 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00141 JB	- -	- -
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00468 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00900 JB	- -	- -
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00549	<0.000372	<0.000372	<0.000332	<0.000311	0.00181 JB	- -	- -
	10/01/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00846	<0.000372	<0.000372	<0.000332	<0.000311	0.00484 JB	<0.0314	0.0391 J
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.0148	<0.000372	<0.000372	<0.000332	<0.000311	0.00110 J	- -	<0.0247
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00916	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	10/24/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.0110	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0139	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0159	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0266	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0282	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0311	<0.000167	<0.000167	<0.0000829	<0.000123	<0.00455	- -	- -
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.0288	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	- -	- -
MW-32	06/15/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.507
	06/15/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.427
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00126 JB	0.0740 JB	0.167
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000662 JB	<0.0314	0.204
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00459 JB	<0.0314	0.360
	10/01/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00380 JB	<0.0314	0.350
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000633 J	0.0332 JB	0.209
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00114 J	0.0510 JB	0.272
	10/24/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000413	<0.000413	<0.000369	<0.000345	<0.000371	0.0316 JB	0.228
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.146
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0320 JB	0.507
	10/08/2020	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.438
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.366
	04/15/2021	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.380
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.178
	09/16/2021	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.182 J
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.385
	04/14/2022	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.364
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.382
	10/13/2022	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.353
MW-33	06/15/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.105 B	3.14
	08/17/2017		0.000884 J	0.000627 J	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00306 JB	0.335 B	0.250
	04/05/2018		0.000363 J	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	0.00107	0.00107	<0.000332	<0.000311	0.00596 JB	0.205	0.175
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00271 JB	0.215	0.133
	04/04/2019		0.000401 J	<0.000384	<0.000412	<0.00106	<0.00100	0.000545 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00221 J	0.144	0.0707 J
	10/24/2019		0.000352 J	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00315 J	0.244	0.167
	06/18/2020		0.000244 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.229	0.0490 J
	10/08/2020		0.000342 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.107 B	0.0941 J
	10/08/2020	FD	0.000342 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0989 J
	04/15/2021		0.000296 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0501 J	0.161 B
	04/15/2021	FD	0.000282 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0474 J	0.188 B
	09/16/2021		0.000313 JB	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0464 J	0.0765 J
	09/16/2021	FD	0.000284 JB	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0707 J	0.0786 J
	04/14/2022		0.000234 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.188	0.138
	04/14/2022	FD	0.000225 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.142
	10/13/2022		0.000217 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0398 J	0.173
	10/13/2022	FD	0.000216 J	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.177

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

			WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
Monitor Well	Sample Date	Duplicate	Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
North Well	06/18/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/14/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/24/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	03/03/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/02/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/19/2013		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	12/17/2014		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	- -	- -
	03/09/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	05/19/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033	- -	- -
	08/28/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	12/17/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/10/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	05/25/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/18/2016		0.000425 J	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	<0.0247
	12/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0621 J
	02/07/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0531 J
	05/31/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000543 J	0.0448 JB	0.0359 J
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00295 JB	0.0888 JB	0.189
	12/14/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.0375 J	0.0391 J
	02/23/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00187 JB	<0.0314	0.0821 JB
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	0.000455	0.000455 J	<0.000332	<0.000311	0.00110 JB	<0.0314	0.0385 J
	07/31/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00138 JB	<0.0314	0.0303 J
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00357 JB	<0.0314	0.0354 J
	01/23/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	<0.0247
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00136 J	<0.0314	<0.0247
	07/11/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	<0.0247
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.0381 JB	<0.0247
	01/15/2020		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00108 J	0.0611 JB	<0.0247
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	08/19/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0342 JB	0.0415 J
	01/28/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	0.0420 JB	0.0450 JB
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0644 J
	07/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	0.000169	0.000169 J	<0.0000790	<0.000117	<0.00433	<0.0314	0.0368 J
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	01/20/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0357 J
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0366 J
	07/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0417 JB
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0610 J

Table 2. Organic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
South Well	06/22/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	01/14/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	08/24/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	- -	- -	- -	- -	- -	- -	- -
	03/03/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	- -	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	02/02/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	- -	<0.00020	<0.00020	- -	- -
	07/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/19/2013		0.0052	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	02/28/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	- -	- -
	08/22/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	08/22/2014	FD	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	- -	- -
	12/17/2014		0.0023	<0.0010	<0.0010	<0.0015	<0.0020	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	- -	- -
	12/17/2014	FD	0.0023	<0.0010	<0.0010	<0.0015	<0.0020	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	- -	- -
	03/09/2015		0.0014	<0.00038	<0.00078	<0.0011	<0.0010	0.00039 J	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	03/09/2015	FD	0.0016	<0.00038	<0.00078	<0.0011	<0.0010	0.00037 J	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	- -	- -
	05/19/2015		0.0010 J	<0.00038	<0.00078	<0.0011	<0.0010	0.00052 J	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033	- -	- -
	05/19/2015	FD	0.00091 J	<0.00038	<0.00078	<0.0011	<0.0010	0.00054 J	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033	- -	- -
	08/28/2015		0.00113	<0.000384	<0.000780	<0.00106	<0.00100	0.000518 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/28/2015	FD	0.000921 J	<0.000384	<0.000780	<0.00106	<0.00100	0.000527 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	12/17/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.000815 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	12/17/2015	FD	0.00119	<0.000384	<0.000780	<0.00106	<0.00100	0.000861 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	03/10/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	05/25/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00114 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	05/25/2016	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00118 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	- -	- -
	08/18/2016		0.000451 J	<0.000384	<0.000780	<0.00106	<0.00100	0.00135 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.0343 J	0.0303 J
	08/18/2016	FD	0.000509 J	<0.000384	<0.000780	<0.00106	<0.00100	0.00138 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0482 J
	12/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00228 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0961 J
	12/08/2016	FD	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	0.00190 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.118
	02/07/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00199 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.101
	02/07/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00190 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.178 B
	05/31/2017		0.000503 J	<0.000384	<0.000412	<0.00106	<0.00100	0.00169 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.0600 JB	0.0554 J
	05/31/2017	FD	0.000557 J	<0.000384	<0.000412	<0.00106	<0.00100	0.00168 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00329 J	0.0591 JB	0.0509 J
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00102 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00301 JB	0.0968 JB	0.0568 J
	08/17/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00112 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00550 JB	0.0891 JB	0.0536 J
	12/14/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00105 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0641 J
	12/14/2017	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00105 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00153 J	<0.0314	0.0629 J
	02/23/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00113 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00267 J	<0.0314	0.107 B
	02/23/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00118 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000428 J	<0.0314	0.117 B
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000874 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00579 JB	<0.0314	0.0740 J
	07/31/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00124 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00269 J	<0.0314	0.0969 J
	07/31/2018	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00126 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00207 J	<0.0314	0.0662 J
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000929 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000598 JB	<0.0314	0.0534 J
	01/23/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000966 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	0.0485 J	<0.0247
	01/23/2019	FD	<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00110 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	<0.0247
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000943 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00188 J	<0.0314	0.0593 J
	07/11/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00104 J	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0258 JB
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.000903 J	<0.000372	<0.000372	<0.000332	<0.000311	0.000746 J	0.0381 JB	<0.0247
	01/15/2020		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	0.00111 J	<0.000372	<0.000372	<0.000332	<0.000311	0.00102 J	0.0405 JB	<0.0247
	06/18/2020		0.000210 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000757 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	08/19/2020		0.000168 J	<0.000137	<0.000278	<0.000174	<0.00100	0.00108 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	08/19/2020	FD	0.000187 J	<0.000137	<0.000278	<0.000174	<0.00100	0.00102 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	10/08/2020		0.000205 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000912 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0461 J
	10/08/2020	FD	0.000224 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000877 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0406 J
	01/28/2021		0.000323 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000936 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0582 JB
	01/28/2021	FD	0.000194 J	<0.000137	<0.000278	<0.000174	<0.00100	0.00127 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0575 JB
	04/15/2021		0.000397 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000898 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0865 J
	04/15/2021	FD	0.000447 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000949 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0812 J
	07/15/2021		0.000491 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000805 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0625 J
	07/15/2021	FD	0.000437 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000883 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0510 J
	09/16/2021		0.000345 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000827 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	09/16/2021	FD	0.000304 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000767 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	01/20/2022		0.000339 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000699 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0514 J
	01/20/2022	FD	0.000325 J	<0.000137	<0.000278	<0.000174	<0.00100	0.000715 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0558 J
	04/14/2022		0.000255 J	<0.000137	<0.000278	<0.000174	<0.00100	0.00106 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0647 J
	04/14/2022	FD	0.000260 J	<0.000137	<0.000278	<0.000174	<0.00100	0.00103 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0803 J
	07/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000939 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433 [R]	<0.0314	0.0675 JB
	07/14/2022	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000816 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0685 JB
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000828 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0932 J
	10/13/2022	FD	<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	0.000883 J	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0754 J

Table 2. Organic Constituent Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	WQCC Volatiles (Method 8260, mg/L)						WQCC Semi-Volatiles (Method 8270, mg/L)					TPH (Method 8015, mg/L)	
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Naphthalene	Chloroform	Total Naphthalene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Phenols	TPH GRO (Low Fraction)	TPH DRO (High Fraction)
New Mexico WQCC Groundwater Standards			0.005	0.7	1	0.62	0.03	0.1	0.03	N/A	N/A	N/A	0.005	N/A	N/A
East Well	06/18/2009		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	01/14/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	08/25/2010		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--	--	--	--
	03/03/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	07/20/2011		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	02/02/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020	--	--
	07/30/2012		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/27/2012		<0.0050	<0.0050	<0.0050	<0.015	--	<0.0050	<0.00020	<0.00020	<0.00020	--	<0.00020	--	--
	09/26/2012		<0.0050	<0.0050	<0.0050	<0.015	--	<0.0050	<0.00020	<0.00020	<0.00020	--	<0.00020	--	--
	10/22/2012		<0.0050	<0.0050	<0.0050	<0.015	--	<0.0050	<0.00020	<0.00020	<0.00020	--	<0.00020	--	--
	12/27/2012		<0.0050	<0.0050	<0.0050	<0.015	--	<0.0050	<0.00020	<0.00020	<0.00020	--	<0.00020	--	--
	02/28/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--
	08/22/2014		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	--	--
	12/17/2014		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	--	--
	03/09/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	--	--
	05/19/2015		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00032	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033	--	--
	08/28/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	12/17/2015		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	03/10/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	05/25/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	--	--
	08/18/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0357 J
	12/08/2016		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0673 J
	02/07/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	0.0552 J
	05/31/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000544 J	0.0590 JB	<0.0247
	08/17/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00403 JB	0.0847 JB	0.0335 J
	12/14/2017		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00192 J	0.0394 J	<0.0247
	02/23/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00330 J	<0.0314	0.0849 JB
	04/05/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00418 JB	<0.0314	<0.0282
	07/31/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00193 J	0.0327 JB	<0.0247
	10/01/2018		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00502 JB	<0.0314	<0.0247
	01/23/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00218 J	<0.0314	<0.0247
	04/04/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000431 J	<0.0314	<0.0247
	07/11/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	<0.0314	<0.0247
	10/24/2019		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.000657 J	0.0386 JB	<0.0247
	01/15/2020		<0.000331	<0.000384	<0.000412	<0.00106	<0.00100	<0.000324	<0.000372	<0.000372	<0.000332	<0.000311	0.00417 J	0.0353 JB	<0.0247
	06/18/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	08/19/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	10/08/2020		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0366 J
	01/28/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0943 JB
	04/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0703 J
	07/15/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	09/16/2021		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	0.000475	0.000187 J	0.000117 J	0.000171 J	<0.00433	<0.0314	<0.0247
	11/10/2021		--	--	--	--	--	--	<0.000159	<0.000159	<0.0000790	<0.000117	--	--	--
	11/10/2021	FD	--	--	--	--	--	--	<0.000159	<0.000159	<0.0000790	<0.000117	--	--	--
	01/20/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	<0.0247
	04/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0480 J
	07/14/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0267 JB
	10/13/2022		<0.0000941	<0.000137	<0.000278	<0.000174	<0.00100	<0.000111	<0.000159	<0.000159	<0.0000790	<0.000117	<0.00433	<0.0314	0.0496 J

Notes:
Shading indicates detected result exceeded the New Mexico Water Quality Control Commission (WQCC) Groundwater Standard
N/A = Not Applicable, no New Mexico WQCC Groundwater Standard established for constituent
mg/L = milligrams per liter
FD = Field Duplicate
< = Not reported above laboratory reporting limit
-- = Not Analyzed
(1) = Not analyzed due to insufficient water volume
J = analyte was detected below the laboratory reporting limit (June 2009 to December 2014) or method quantitation limit (February 2015 to April 2021) or reported detection limit (July 2021 to October 2022), reported value is estimated
B = same analyte was detected in the associated laboratory blank or equipment blank; sample concentration is within 5 times the blank concentration
[R] analyte not usable for project objectives according to the United States Environmental Protection Agency (USEPA) November 2020 *National Functional Guidelines for Inorganic Superfund Methods*
June 2009 to August 2014 analyses completed by ALS Laboratory Group, Houston, Texas
December 2014 analyses completed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico
February 2015 to present analyses completed by Pace Analytical National Center for Testing & Innovation (formerly ESC Lab Sciences) in Mount Juliet, Tennessee
Analytical data from 2009 to 2011 were provided by a previous consultant and could not be confirmed against the original data packages

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-1	06/19/2009		131	0.827	3.75	- -	- -	123	694
	01/19/2010		266	0.249	5.84	- -	- -	145	1,240
	08/18/2010		126	0.623	2.59	- -	- -	111	694
	03/01/2011		100	0.502	1.84	- -	- -	83.4	580
	07/20/2011		34.7	0.623	1.14	- -	- -	73.9	492
	02/02/2012		29.9	0.773	<1.00	- -	- -	65.4	392
	07/27/2012		27.3	0.944	<2.00	- -	- -	59.5	358
	02/27/2013		30.0	0.872	<2.00	- -	- -	67.2	400
	08/21/2013		33.2	1.03	<1.00	- -	- -	70.5	406
	02/27/2014		30.0	0.758	0.710	- -	- -	63.2	418
	08/21/2014		26.6	1.10	1.23	- -	- -	68.0	395
	02/25/2015		26	1.1	1.5	- -	- -	66	390
	08/27/2015		27.3	0.961	1.70	- -	- -	72.2	441
	03/09/2016		28.9	1.09	1.76	- -	- -	68.1	- -
	08/17/2016		38.4	1.04	1.93	- -	- -	69.3	436
	02/07/2017		54.6	0.978	2.91	- -	- -	78.9	- -
	08/17/2017		61.5	1.07	2.58	- -	- -	68.1	453
	04/05/2018		48.3	1.04	2.14	- -	- -	63.4	- -
	10/01/2018		42.0	1.03	2.59	- -	- -	65.7	402
	04/04/2019		42.0	1.06	2.80	- -	- -	59.8	- -
	10/24/2019		50.2	1.10	2.72	- -	- -	61.2	389
	06/18/2020		51.8	1.11	3.48	- -	- -	68.2	- -
	06/18/2020	FD	51.4	1.11	3.37	- -	- -	68.0	- -
	10/08/2020		49.9	1.04	3.48	- -	- -	64.4	403
	04/15/2021		50.6	0.926	4.04	- -	- -	68.6	- -
	09/16/2021		52.4	0.914	3.80	- -	- -	73.6	438
	04/14/2022		51.9	0.985	3.79	- -	- -	73.1	- -
	10/13/2022		61.2	0.937	- -	4.08	<0.0420	72.0	448
MW-2	06/22/2009		252	0.765	2.69	- -	- -	66.8	988
	01/19/2010		246	0.672	3.39	- -	- -	55.1	966
	08/16/2010		276	0.824	3.23	- -	- -	55.9	1,180
	03/03/2011		221	0.763	3.49	- -	- -	57.6	1,010
	07/14/2011		190	0.647	2.98	- -	- -	58.4	966
	01/30/2012		214	0.784	3.43	- -	- -	75.1	1,230
	07/24/2012		201	0.898	3.24	- -	- -	76.3	908
	02/19/2013		213	0.810	3.90	- -	- -	86.6	834
	08/20/2013		178	0.920	5.33	- -	- -	88.9	682
	02/25/2014		139	0.693	5.25	- -	- -	79.4	616
	08/21/2014		122	0.812	6.17	- -	- -	82.3	588
	02/24/2015		130	0.92	7.9	- -	- -	94	710
	08/28/2015		343	1.41	8.33	- -	- -	152	1,000
	03/07/2016		- -	- -	- -	- -	- -	- -	- -
	08/18/2016		123	0.864	6.84	- -	- -	71.8	640
	02/07/2017		- -	- -	- -	- -	- -	- -	- -
	08/16/2017		126	0.977	4.83	- -	- -	70.7	596
	04/05/2018		- -	- -	- -	- -	- -	- -	- -
	10/01/2018		142	0.839	4.46	- -	- -	83.4	693
	04/04/2019		- -	- -	- -	- -	- -	- -	- -
	10/24/2019		159	0.914	3.46	- -	- -	75.0	602
	06/18/2020		- -	- -	- -	- -	- -	- -	- -
	10/08/2020		151	0.915	3.66	- -	- -	96.0	713
	04/15/2021		- -	- -	- -	- -	- -	- -	- -
	09/16/2021		122	0.936	2.77	- -	- -	82.3	606
	04/14/2022		- -	- -	- -	- -	- -	- -	- -
	10/13/2022		133	0.993	- -	3.74	<0.0420	71.0	600

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-3	06/16/2009		29.1	3.38	2.19	- -	- -	64.6	504
	01/14/2010		49.9	3.18	2.11	- -	- -	76.5	540
	01/14/2010	FD	49.8	3.18	2.11	- -	- -	75.0	552
	08/19/2010		72.7	2.99	1.52	- -	- -	77.7	518
	02/24/2011		88.2	2.58	3.02	- -	- -	80.5	566
	07/15/2011		67.3	2.37	2.59	- -	- -	74.7	568
	01/30/2012		65.6	2.94	2.37	- -	- -	86.3	472
	07/25/2012		35.0	2.70	<2.00	- -	- -	81.3	436
	02/27/2013		54.2	2.47	2.30	- -	- -	89.5	478
	08/22/2013		46.1	2.40	2.06	- -	- -	81.9	456
	02/26/2014		36.9	1.84	2.08	- -	- -	79.1	430
	08/21/2014		30.0	1.84	1.53	- -	- -	78.0	420
	02/26/2015		31	1.5	1.9	- -	- -	74	420
	02/26/2015	FD	32	1.6	2.0	- -	- -	74	420
	08/26/2015		27.3	1.55	1.88	- -	- -	77.6	520
	03/08/2016		23.9	1.32	1.84	- -	- -	65.4	- -
	08/18/2016		24.4	1.16	1.81	- -	- -	66.3	- -
	02/07/2017		25.4	1.25	1.83	- -	- -	77.3	- -
	08/16/2017		29.9	1.15	1.88	- -	- -	71.6	- -
	04/05/2018		26.9	0.896	1.75	- -	- -	73.1	- -
	10/01/2018		30.9	0.783	1.79	- -	- -	74.5	- -
	04/04/2019		37.9	0.628	1.73	- -	- -	73.4	- -
	10/24/2019		29.8	0.648	1.49	- -	- -	75.4	- -
	06/18/2020		30.9	0.442	1.84	- -	- -	76.5	- -
	10/08/2020		28.8	0.369	1.75	- -	- -	72.5	- -
	04/15/2021		26.7	0.353	1.85	- -	- -	76.1	- -
	09/16/2021		29.1	0.326	1.81	- -	- -	80.1	- -
	04/14/2022		27.4	0.357	1.63	- -	- -	73.9	- -
	10/13/2022		29.4	0.289 B	- -	1.68	<0.0420	71.8	- -
MW-4	06/16/2009		28.9	0.841	1.84	- -	- -	61.5	422
	01/13/2010		29.3	1.10	1.67	- -	- -	66.7	416
	08/19/2010		26.1	1.10	1.10	- -	- -	65.8	324
	02/28/2011		27.1	1.02	1.91	- -	- -	64.4	378
	07/15/2011		25.8	1.12	1.57	- -	- -	63.6	422
	01/30/2012		30.0	1.08	1.71	- -	- -	73.4	388
	07/24/2012		28.9	1.18	<2.00	- -	- -	69.4	414
	02/21/2013		26.6	1.05	<2.00	- -	- -	75.5	360
	08/20/2013		26.4	1.20	1.72	- -	- -	71.6	382
	02/25/2014		26.9	0.877	2.02	- -	- -	75.5	390
	08/20/2014		24.1	1.15	1.64	- -	- -	70.2	372
	02/24/2015		24	1.1	2.1	- -	- -	66	390
	08/28/2015		28.8	1.26	2.32	- -	- -	63.8	479
	08/15/2016		25.1	1.02	2.24	- -	- -	60.3	411
	08/17/2017		34.0	1.17	2.39	- -	- -	57.5	384
	10/01/2018		62.6	1.04	2.60	- -	- -	53.6	574
	10/24/2019		75.6	1.10	2.62	- -	- -	55.0	403
	10/08/2020		98.7	1.04	3.34	- -	- -	53.2	507
	09/16/2021		138	0.857	3.84	- -	- -	55.8	629
	10/13/2022		114	0.947	- -	3.64	<0.0420	58.6	616

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-5	06/16/2009		186	1.39	3.31	- -	- -	131	952
	01/18/2010		26.4	0.781	4.91	- -	- -	80.6	508
	08/20/2010		18.5	1.13	3.43	- -	- -	77.7	440
	02/28/2011		29.8	1.03	2.91	- -	- -	70.5	570
	07/19/2011		20.9	0.858	2.72	- -	- -	59.0	524
	01/31/2012		26.9	1.04	2.49	- -	- -	61.2	504
	01/31/2012	FD	27.1	1.05	2.54	- -	- -	62.0	436
	07/25/2012		15.9	1.10	2.22	- -	- -	50.1	434
	02/21/2013		10.9	1.04	2.01	- -	- -	40.8	412
	08/20/2013		13.9	1.16	2.05	- -	- -	44.2	448
	02/25/2014		11.8	0.877	2.52	- -	- -	48.4	436
	08/19/2014		8.71	1.16	1.68	- -	- -	44.6	478
	02/24/2015		21	1.4	2.2	- -	- -	43	520
	08/24/2015		19.9	1.52	1.97	- -	- -	39.9	586
	08/17/2016		18.4	1.62	2.15	- -	- -	38.1	449
	08/16/2017		16.0	1.85	2.26	- -	- -	34.2	479
	10/01/2018		23.8	1.31	2.57	- -	- -	26.8	440
	10/24/2019		12.9	1.30	2.04	- -	- -	25.6	335
	10/08/2020		15.1	1.22	2.11	- -	- -	22.2	374
	09/16/2021		28.0	1.03	2.40	- -	- -	22.2	415
	10/13/2022		13.3	0.981	- -	3.03	<0.0420	24.5	393
MW-6	06/18/2009		188	0.113	0.678	- -	- -	101	844
	06/18/2009	FD	168	<0.100	0.682	- -	- -	90.4	812
	02/02/2010		334	<0.100	0.822	- -	- -	90.2	1,400
	08/19/2010		285	<0.100	<1.00	- -	- -	111	1,350
	03/01/2011		282	<0.100	0.750	- -	- -	80.7	1,340
	07/20/2011		174	<0.500	<0.500	- -	- -	114	970
	02/02/2012		58.4	0.313	<1.00	- -	- -	88.0	398
	07/24/2012		77.7	0.217	<2.00	- -	- -	80.1	690
	02/27/2013		65.4	0.368	<2.00	- -	- -	77.1	542
	02/27/2013	FD	65.7	0.370	<2.00	- -	- -	77.6	556
	08/21/2013		43.3	0.441	<0.200	- -	- -	76.6	502
	02/27/2014		124	0.309	<0.500	- -	- -	51.0	814
	08/21/2014		132	0.230	<1.00	- -	- -	34.4	832
	02/25/2015		42	0.58	0.17	- -	- -	67	500
	08/27/2015		32.4	0.505	0.835	- -	- -	66.5	473
	03/10/2016		34.5	0.621	0.688	- -	- -	71.8	- -
	08/17/2016		27.0	0.642	1.06	- -	- -	68.5	1,000
	02/07/2017		31.3	0.665	1.20	- -	- -	79.9	- -
	08/16/2017		46.8	0.761	1.52	- -	- -	73.8	463
	04/05/2018		55.8	0.719	2.04	- -	- -	76.7	- -
	10/01/2018		55.9	0.691	2.02	- -	- -	79.0	485
	04/04/2019		47.4	0.717	2.04	- -	- -	72.9	- -
	10/24/2019		50.0	0.982	2.48	- -	- -	73.1	438
	06/18/2020		55.4	1.03	3.00	- -	- -	75.2	- -
	06/18/2020	FD	55.3	1.03	2.97	- -	- -	74.9	- -
	10/08/2020		50.9	1.02	2.82	- -	- -	66.1	445
	04/15/2021		53.9	0.854	3.66	- -	- -	69.6	- -
	09/16/2021		59.3	0.840	4.05	- -	- -	78.3	517
	04/14/2022		91.2	0.807	5.60	- -	- -	78.6	- -
	10/13/2022		84.7	0.849	- -	5.26	<0.0420	72.3	512

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-7	06/19/2009		30.6	1.12	1.66	- -	- -	67.2	384
	02/02/2010		28.0	0.854	1.72	- -	- -	62.2	350
	08/18/2010		27.2	0.570	1.12	- -	- -	60.2	370
	03/01/2011		26.5	0.599	1.91	- -	- -	58.2	376
	07/20/2011		23.3	0.626	1.35	- -	- -	56.8	396
	02/02/2012		25.5	0.633	1.66	- -	- -	61.5	356
	07/27/2012		23.6	0.796	2.01	- -	- -	55.2	342
	02/27/2013		25.8	0.709	<2.00	- -	- -	67.3	286
	08/21/2013		26.9	0.748	1.62	- -	- -	60.8	290
	02/27/2014		31.0	0.501	1.50	- -	- -	62.1	408
	08/21/2014		30.8	0.642	1.72	- -	- -	62.2	380
	02/25/2015		35	0.71	2.0	- -	- -	60	420
	08/27/2015		38.4	0.866	2.28	- -	- -	66.9	471
MW-8	06/18/2009		219	0.730	3.46	- -	- -	73.3	798
	01/18/2010		151	0.493	3.80	- -	- -	67.6	742
	08/18/2010		279	0.560	7.08	- -	- -	65.3	1,260
	02/25/2011		144	0.820	<0.500	- -	- -	87.5	694
	07/19/2011		313	0.522	4.49	- -	- -	72.4	1,460
	02/01/2012		376	0.498	8.21	- -	- -	102	1,530
	07/27/2012		224	0.490	8.55	- -	- -	122	1,080
	02/26/2013		246	0.371	11.1	- -	- -	118	1,080
	08/21/2013		101	0.513	9.49	- -	- -	129	788
	02/27/2014		368	0.417	1.43	- -	- -	88.1	1,440
	08/21/2014		360	0.268	4.42	- -	- -	76.6	1,310
	02/26/2015		220	0.49	7.0	- -	- -	86	960
	08/27/2015		258	0.368 J	8.80	- -	- -	88.5	1,260
	03/08/2016		291	0.357	7.84	- -	- -	78.2	1,290
	08/18/2016		94.1	0.537	3.67	- -	- -	71.4	593
	02/08/2017		50.7	0.760	3.02	- -	- -	78.6	- -
	08/17/2017		29.4	0.798	4.02	- -	- -	76.1	699
	04/05/2018		170	0.599	5.61	- -	- -	77.1	877
	10/01/2018		159	0.653	6.49	- -	- -	85.8	807
	04/04/2019		148	0.552	6.29	- -	- -	76.0	819
	10/24/2019		169	0.669	5.98	- -	- -	87.2	765
	06/18/2020		293	0.610	7.50	- -	- -	78.6	1,180
	10/08/2020		139	0.726	5.15	- -	- -	79.5	707
	04/15/2021		126	0.710	5.80	- -	- -	78.2	648
	09/16/2021		168	0.620	7.95	- -	- -	76.1	863
	04/14/2022		193	0.618	8.40	- -	- -	81.6	881
	10/13/2022		279	0.570	- -	8.32	<0.0420	89.8	1,260
MW-9	06/16/2009		23.0	1.69	0.748	- -	- -	73.2	380
	01/14/2010		23.9	1.78	1.72	- -	- -	74.4	450
	08/19/2010		21.8	1.64	1.32	- -	- -	75.2	412
	03/01/2011		24.1	1.63	2.01	- -	- -	74.6	414
	07/15/2011		24.9	1.65	1.78	- -	- -	70.2	434
	01/31/2012		31.5	2.22	1.43	- -	- -	80.5	484
	07/25/2012		30.4	1.99	<2.00	- -	- -	77.8	420
	02/27/2013		31.3	1.11	2.82	- -	- -	79.1	440
	08/22/2013		35.7	1.80	3.01	- -	- -	74.0	466
	02/26/2014		54.0	1.48	3.17	- -	- -	71.5	452
	08/21/2014		197	0.655	2.35	- -	- -	111	932
	02/25/2015		49	0.69	3.5	- -	- -	69	440
	08/26/2015		46.6	0.527	4.17	- -	- -	67.5	495
	08/17/2016		81.8	0.544	3.11	- -	- -	73.8	- -
	08/16/2017		100	0.441	3.73	- -	- -	73.9	- -
	10/01/2018		232	0.489	9.00	- -	- -	110	- -
	10/24/2019		220	0.291	5.70	- -	- -	108	- -
	10/08/2020		126	0.300	3.60	- -	- -	93.3	- -
	09/16/2021		123	0.366	3.41	- -	- -	78.6	- -
	10/13/2022		278	0.289 B	- -	10.9	<0.0420	93.6	- -

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-10	06/16/2009		32.2	0.878	1.83	- -	- -	76.5	378
	01/13/2010		33.4	1.05	1.84	- -	- -	77.9	436
	08/19/2010		31.7	1.07	1.91	- -	- -	79.8	508
	03/03/2011		32.8	0.945	2.06	- -	- -	79.1	422
	07/15/2011		30.7	1.06	1.68	- -	- -	75.7	470
	01/31/2012		42.9	1.00	1.85	- -	- -	87.4	444
	07/25/2012		42.7	1.10	<2.00	- -	- -	82.6	382
	02/27/2013		48.0	0.960	<2.00	- -	- -	83.5	416
	08/22/2013		95.0	0.994	2.12	- -	- -	72.2	516
	02/26/2014		112	0.674	2.43	- -	- -	70.9	568
	08/21/2014		156	0.856	2.08	- -	- -	68.5	750
	02/26/2015		120	0.71	2.1	- -	- -	68	540
	08/26/2015		115	1.19	1.92	- -	- -	102	551
	08/17/2016		57.5	0.954	1.61	- -	- -	75.0	- -
	08/16/2017		94.0	0.966	2.15	- -	- -	74.5	- -
	10/01/2018		33.3	0.955	1.69	- -	- -	76.3	- -
	10/24/2019		27.4	1.07	1.55	- -	- -	67.6	- -
	10/08/2020		35.2	1.04	1.95	- -	- -	63.2	- -
	09/16/2021		30.3	0.902	2.20	- -	- -	65.8	- -
	10/13/2022		18.1	1.03	- -	1.99	<0.0420	60.9	- -
MW-11	06/18/2009		204	0.579	1.23	- -	- -	43.1	994
	01/18/2010		164	0.527	1.37	- -	- -	71.4	842
	08/18/2010		146	0.616	2.38	- -	- -	50.6	802
	02/25/2011		415	0.549	<0.500	- -	- -	82.3	1,510
	07/19/2011		134	0.575	0.778	- -	- -	57.0	894
	02/01/2012		175	0.749	<0.500	- -	- -	4.96	966
	07/27/2012		133	0.708	<2.00	- -	- -	59.7	784
	02/27/2013		140	0.576	3.11	- -	- -	32.6	908
	02/27/2013	FD	143	0.585	3.23	- -	- -	32.0	908
	08/21/2013		182	0.668	4.04	- -	- -	75.3	854
	08/21/2013	FD	172	0.673	4.19	- -	- -	76.2	868
	02/28/2014		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	08/20/2014		--[1]	--[1]	<1.00	--	--	--[1]	--[1]
	02/27/2015		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	08/28/2015		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	08/28/2015	FD	--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	03/09/2016		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	03/09/2016	FD	--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	08/15/2016		DRY WELL - PLUGGED AND ABANDONED DECEMBER 2016						
MW-11R	02/08/2017		- -	- -	- -	- -	- -	- -	972
	02/08/2017	FD	- -	- -	- -	- -	- -	- -	980
	08/17/2017		271	0.599	2.38	- -	- -	157	1,170
	04/05/2018		- -	- -	- -	- -	- -	- -	1,080
	10/01/2018		293	0.587	3.94	- -	- -	116	1,220
	04/04/2019		- -	- -	- -	- -	- -	- -	1,480
	10/24/2019		344	0.574	6.23	- -	- -	130	1,330
	06/18/2020		- -	- -	- -	- -	- -	- -	1,280
	10/08/2020		303	0.495	4.80	- -	- -	90.2	1,200
	04/15/2021		- -	- -	- -	- -	- -	- -	1,120
	09/16/2021		321	0.455	2.87	- -	- -	93.8	1,270
	04/14/2022		- -	- -	- -	- -	- -	- -	1,140
	10/13/2022		305	0.537	- -	3.09	<0.0420	83.6	1,150

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-12	06/16/2009		23.0	1.16	1.98	- -	- -	49.6	354
	01/18/2010		26.1	1.05	2.31	- -	- -	49.8	398
	08/20/2010		25.8	1.22	2.00	- -	- -	50.3	340
	02/25/2011		28.5	1.14	<0.500	- -	- -	50.8	402
	07/19/2011		26.8	0.856	2.91	- -	- -	51.2	410
	--		DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013						
MW-12R	08/21/2013		31.2	1.40	8.14	- -	- -	71.1	404
	02/27/2014		28.3	0.886	7.38	- -	- -	63.4	432
	08/20/2014		24.5	1.05	6.98	- -	- -	67.2	410
	02/24/2015		29	1.1	7.0	- -	- -	63	500
	08/25/2015		19.8	1.02	7.36	- -	- -	71.1	527
	03/09/2016		21.6	0.985	6.35	- -	- -	68.2	503
	08/18/2016		25.1	0.810	6.14	- -	- -	75.9	394
	02/08/2017		28.4	0.890	5.25	- -	- -	75.0	509
	08/16/2017		31.0	0.813	5.34	- -	- -	68.8	528
	04/05/2018		33.2	0.699	4.77	- -	- -	71.1	520
	04/05/2018	FD	31.3	0.730	4.78	- -	- -	71.7	535
	10/01/2018		32.9	0.685	4.88	- -	- -	82.9	503
	10/01/2018	FD	32.1	0.645	4.90	- -	- -	87.4	588
	04/04/2019		41.2	0.551	5.09	- -	- -	77.1	623
	04/04/2019	FD	41.8	0.534	5.61	- -	- -	76.1	624
	10/24/2019		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	06/18/2020		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-12R2	10/08/2020		80.0	0.809	3.50	- -	- -	55.5	430
	04/15/2021		86.7	0.924	4.32	- -	- -	59.1	456
	09/16/2021		92.3	0.881	4.11	- -	- -	62.6	496
	04/14/2022		92.1	0.912	4.98	- -	- -	65.0	508
	10/13/2022		95.0	0.920	- -	4.91	<0.0420	73.9	508
MW-13	06/16/2009		425	0.220	2.65	- -	- -	138	1,790
	01/18/2010		604	0.170	1.08	- -	- -	79.8	2,210
	08/18/2010		390	0.278	<1.00	- -	- -	144	1,720
	02/25/2011		340	0.281	<0.500	- -	- -	235	1,540
	07/19/2011		351	0.327	<0.500	- -	- -	244	1,960
	02/01/2012		418	0.322	<0.500	- -	- -	122	1,590
	07/26/2012		462	0.422	<2.00	- -	- -	123	2,150
	02/26/2013		430	0.366	<2.00	- -	- -	135	1,610
	08/21/2013		548	0.389	<1.00	- -	- -	108	2,000
	02/27/2014		588	0.282	<0.500	- -	- -	106	2,380
	08/19/2014		485	<1.00	<1.00	- -	- -	87.2	1,900
	02/27/2015		550	0.38	0.056 J	- -	- -	59	1,600
	08/26/2015		396	0.505	0.956	- -	- -	107	1,890
	03/08/2016		217	0.552	2.53	- -	- -	75.7	972
	08/17/2016		336	0.396	1.81	- -	- -	97.5	1,340
	02/08/2017		307	0.428	1.28	- -	- -	102	1,140
	08/17/2017		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	04/05/2018		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	09/26/2018		DRY WELL - PLUGGED AND ABANDONED SEPTEMBER 2018						
MW-13R	10/01/2018		407	0.629	3.50	- -	- -	90.2	1,410
	04/04/2019		464	0.326	3.66	- -	- -	94.8	1,980
	10/24/2019		354	0.410	4.02	- -	- -	74.5	1,360
	06/18/2020		294	0.421	5.15	- -	- -	153	1,380
	06/18/2020	FD	297	0.413	5.28	- -	- -	153	1,310
	10/08/2020		272	0.375	5.50	- -	- -	136	1,420
	10/08/2020	FD	276	0.337	5.40	- -	- -	156	1,250
	04/15/2021		291	0.370	6.15	- -	- -	123	1,200
	09/16/2021		285	0.368	5.72	- -	- -	160	1,320
	09/16/2021	FD	270	0.372	5.76	- -	- -	154	1,240
	04/14/2022		242	0.402	5.35	- -	- -	144	1,120
	10/13/2022		206	0.413	- -	3.08	<0.0420	110	1,020
	10/13/2022	FD	206	0.421	- -	3.11	0.0829 JB	111	993

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-14	06/16/2009		93.0	0.851	5.16	- -	- -	60.9	540
	01/18/2010		103	0.810	6.03	- -	- -	59.0	598
	08/20/2010		74.1	0.986	2.76	- -	- -	61.3	340
	02/25/2011		58.2	0.918	2.32	- -	- -	58.7	440
	07/18/2011		48.4	1.05	1.36	- -	- -	53.0	482
	01/31/2012		59.7	0.984	1.58	- -	- -	58.3	444
	07/25/2012		69.3	1.03	<2.00	- -	- -	54.8	446
	02/21/2013		- -	- -	<2.00	- -	- -	- -	- -
	02/22/2013		71.9	0.795	- -	- -	- -	52.9	428
	08/22/2013		- -	- -	- -	- -	- -	- -	- -
	02/28/2014		--(1)	--(1)	--(1)	--	--	--(1)	--(1)
	08/20/2014		--(1)	--(1)	1.10	--	--	--(1)	534
	02/27/2015		--(1)	--(1)	--(1)	--	--	--(1)	--(1)
	08/27/2015		104	0.940	1.96	- -	- -	44.6	611
	08/19/2016		118	0.796	4.13	- -	- -	39.3	674
	08/16/2017		--(1)	--(1)	--(1)	--	--	--(1)	--(1)
	09/27/2018		DRY WELL - PLUGGED AND ABANDONED SEPTEMBER 2018						
MW-14R	10/01/2018		216	1.15	2.81	- -	- -	54.3	867
	10/24/2019		518	0.873	4.96	- -	- -	61.1	1,840
	10/08/2020		394	0.864	4.81	- -	- -	49.8	1,440
	09/16/2021		394	0.723	5.20	- -	- -	50.6	1,440
	10/13/2022		304	0.744	- -	3.95	<0.0420	49.1	1,160
MW-15	08/20/2010		221	0.921	3.22	- -	- -	77.6	776
	02/24/2011		190	0.885	4.28	- -	- -	67.0	738
	07/14/2011		236	0.701	4.18	- -	- -	60.9	940
	01/30/2012		304	0.840	4.09	- -	- -	78.6	1,330
	07/24/2012		291	0.965	8.22	- -	- -	80.3	1,060
	02/19/2013		254	0.819	5.12	- -	- -	76.0	882
	08/20/2013		379	0.910	6.82	- -	- -	71.3	1,280
	08/20/2013	FD	381	0.931	6.83	- -	- -	72.7	1,230
	02/24/2014		256	0.715	7.86	- -	- -	83.0	858
	02/24/2014	FD	263	0.832	8.07	- -	- -	82.5	810
	08/21/2014		148	1.02	8.52	- -	- -	97.5	690
	08/21/2014	FD	150	1.01	8.53	- -	- -	95.6	706
	02/24/2015		150	0.90	8.4	- -	- -	94	650
	08/27/2015		181	1.13	8.48	- -	- -	123	728
	08/27/2015	FD	234	1.46	8.47	- -	- -	158	729
	03/07/2016		160	0.877	6.53	- -	- -	85.9	727
	08/15/2016		169	0.685	5.19	- -	- -	93.2	721
	08/15/2016	FD	165	0.738	5.09	- -	- -	93.3	723
	02/06/2017		177	0.781	5.80	- -	- -	105	800
	08/16/2017		219	0.772	5.02	- -	- -	90.2	808
	04/05/2018		222	0.644	4.28	- -	- -	111	808
	10/01/2018		348	0.549	4.26	- -	- -	105	2,230
	04/04/2019		537	0.478	3.85	- -	- -	100	1,880
	10/24/2019		437	0.592	3.29	- -	- -	111	1,370
	06/18/2020		288	0.720	3.88	- -	- -	117	988
	10/08/2020		327	0.583	3.85	- -	- -	99.4	1,150
	04/15/2021		173	0.610	4.00	- -	- -	98.3	679
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021						
MW-15R	09/16/2021		363	0.776	3.56	- -	- -	102	1,080
	04/14/2022		595	0.573	3.50	- -	- -	92.3	1,430
	10/13/2022		466	0.542	- -	3.41	<0.0420	103	1,440

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-16	08/20/2010		25.3	0.930	1.13	- -	- -	73.7	406
	02/24/2011		28.1	0.928	2.36	- -	- -	73.7	412
	07/15/2011		25.5	1.04	1.82	- -	- -	72.0	484
	07/15/2011	FD	21.0	0.733	1.98	- -	- -	54.1	476
	01/30/2012		27.9	0.994	1.79	- -	- -	77.6	398
	07/24/2012		26.6	1.14	<2.00	- -	- -	72.6	404
	02/20/2013		24.0	0.966	<2.00	- -	- -	68.1	316
	08/20/2013		24.7	1.02	1.75	- -	- -	64.0	392
	02/25/2014		23.9	0.766	1.83	- -	- -	62.3	362
	08/19/2014		21.7	0.975	1.41	- -	- -	64.9	362
	02/24/2015		20	1.0	1.9	- -	- -	61	360
	08/27/2015		21.3	1.07	2.34	- -	- -	66.0	408
	08/15/2016		22.3	0.859	1.69	- -	- -	63.5	418
	08/17/2017		25.5	0.940	1.94	- -	- -	66.4	392
	10/01/2018		28.1	0.900	2.16	- -	- -	67.8	386
	10/24/2019		32.0	1.01	2.10	- -	- -	69.8	432
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-16R	10/08/2020		28.8	1.19	2.11	- -	- -	61.5	372
	09/16/2021		41.9	0.805	2.95	- -	- -	68.2	443
	10/13/2022		30.0	0.913	- -	2.63	<0.0420	62.2	419
MW-17	08/20/2010		426	0.517	4.27	- -	- -	72.6	1,650
	02/24/2011		412	0.435	5.33	- -	- -	80.0	1,634
	07/18/2011		336	0.753	4.07	- -	- -	82.7	1,850
	--		DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013						
MW-17R	08/22/2013		246	0.602	3.44	- -	- -	81.7	1,190
	02/27/2014		184	0.425	0.629	- -	- -	92.5	904
	08/22/2014		170	0.602	2.70	- -	- -	94.8	860
	02/26/2015		150	0.65	2.6	- -	- -	75	670
	08/27/2015		110	0.859	2.86	- -	- -	87.4	658
	03/08/2016		65.3	0.722	2.55	- -	- -	76	465
	08/17/2016		219	0.578	4.37	- -	- -	79.8	526
	02/09/2017		150	0.654	3.01	- -	- -	86.3	715
	08/16/2017		60.0	0.770	2.21	- -	- -	85.9	502
	04/05/2018		124	0.664	2.46	- -	- -	68.2	587
	04/05/2018	FD	124	0.679	2.48	- -	- -	69.7	589
	10/01/2018		136	0.631	2.88	- -	- -	79.7	682
	04/04/2019		94.5	0.627	2.21	- -	- -	78.5	568
	04/04/2019	FD	94.3	0.629	2.53	- -	- -	78.5	562
	10/24/2019		67.7	0.771	1.94	- -	- -	89.9	467
	06/18/2020		80.6	0.786	2.13	- -	- -	85.9	503
	10/08/2020		57.6	0.805	2.11	- -	- -	84.7	465
	04/15/2021		80.5	0.641	2.64	- -	- -	82.0	505
	09/16/2021		--[(1)]	--[(1)]	--[(1)]	--	--	--[(1)]	--[(1)]
	04/14/2022		126	0.634	3.06	- -	- -	72.5	586
	10/13/2022		138	0.640	- -	3.43	<0.0420	67.8	663

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-18	08/23/2010		176	0.456	0.733	- -	- -	287	1,080
	02/24/2011		286	0.514	4.14	- -	- -	298	1,240
	07/18/2011		218	0.800	5.74	- -	- -	234	1,290
	01/31/2012		106	0.722	3.89	- -	- -	94.3	584
	07/25/2012		103	0.753	2.01	- -	- -	63.4	562
	02/22/2013		181	0.564	4.02	- -	- -	116	782
	08/22/2013		197	0.531	5.59	- -	- -	130	1,100
	02/26/2014		145	0.514	4.36	- -	- -	89.1	680
	08/20/2014		143	0.590	1.97	- -	- -	123	678
	02/26/2015		130	0.68	3.5	- -	- -	97	670
	08/25/2015		136	0.703	2.73	- -	- -	65.8	844
	08/17/2016		162	0.557	3.71	- -	- -	53.4	799
	08/16/2017		234	0.648	6.10	- -	- -	93.5	1,030
	10/01/2018		99.6	0.599	2.48	- -	- -	73.8	659
	10/24/2019		120	0.634	3.82	- -	- -	113	653
	10/08/2020		214	0.491	4.72	- -	- -	171	1,090
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021						
MW-18R	09/16/2021		138	0.677	3.32	- -	- -	96.5	653
	10/13/2022		95.0	0.801	- -	1.89	<0.0420	33.0	443
MW-19	08/23/2010		469	0.536	2.94	- -	- -	178	1,650
	02/24/2011		235	0.713	2.87	- -	- -	90.7	828
	07/18/2011		688	0.734	3.66	- -	- -	142	2,880
	01/31/2012		610	0.568	4.12	- -	- -	121	1,770
	07/25/2012		1,130	0.450	5.11	- -	- -	117	3,570
	02/26/2013		540	0.519	4.21	- -	- -	115	1,650
	08/22/2013		487	0.645	3.43	- -	- -	92.6	1,430
	08/22/2013	FD	475	0.672	3.38	- -	- -	95.7	1,670
	02/26/2014		264	0.576	2.34	- -	- -	72.3	850
	02/26/2014	FD	288	0.555	2.51	- -	- -	76.0	950
	08/19/2014		233	0.592	2.48	- -	- -	84.5	774
	08/19/2014	FD	241	0.627	2.59	- -	- -	84.7	820
	02/26/2015		140	0.87	2.3	- -	- -	82	630
	02/26/2015	FD	130	0.86	2.4	- -	- -	85	660
	08/26/2015		236	0.789	2.86	- -	- -	70.9	888
	03/08/2016		297	0.749	2.81	- -	- -	63.2	1,170
	08/17/2016		470	0.749	2.93	- -	- -	90.3	1,660
	02/08/2017		302	0.735	2.39	- -	- -	57.6	864
	08/16/2017		236	0.832	2.02	- -	- -	57.8	907
	08/16/2017	FD	257	0.626	2.08	- -	- -	61.8	944
	04/05/2018		176	0.797	1.48	- -	- -	61.3	722
	10/01/2018		292	0.706	2.96	- -	- -	85.6	1,270
	04/04/2019		276	0.647	2.32	- -	- -	81.8	1,090
	10/24/2019		323	0.671	3.76	- -	- -	126	1,220
	06/18/2020		299	0.657	2.88	- -	- -	168	1,290
	10/08/2020		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	04/15/2021		--[1]	--[1]	--[1]	--	--	--[1]	--[1]
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021						
MW-19R	09/16/2021		297	0.643	2.37	- -	- -	65.2	1,060
	04/14/2022		273	0.643	1.97	- -	- -	55.4	780
	10/13/2022		464	0.537	- -	2.54	<0.0420	103	1,420

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-20	08/23/2010		169	0.570	1.74	- -	- -	65.1	868
	02/25/2011		187	0.603	2.58	- -	- -	66.3	840
	07/18/2011		148	0.765	2.06	- -	- -	51.3	1,020
	01/31/2012		174	0.641	2.51	- -	- -	61.4	726
	07/25/2012		189	0.742	2.24	- -	- -	56.0	848
	02/22/2013		155	0.570	2.26	- -	- -	55.8	600
	08/20/2013		180	0.755	2.40	- -	- -	60.4	736
	02/26/2014		159	0.664	2.70	- -	- -	53.4	696
	08/19/2014		138	0.574	2.09	- -	- -	58.5	672
	02/24/2015		120	0.65	2.6	- -	- -	56	690
	08/25/2015		130	0.822	2.61	- -	- -	65.7	750
	08/16/2016		137	0.663	2.50	- -	- -	59.9	652
	08/17/2017		164	0.802	3.12	- -	- -	53.8	757
	10/01/2018		180	0.713	3.86	- -	- -	49.3	785
	10/24/2019		202	0.766	3.97	- -	- -	42.4	825
	10/08/2020		167	0.786	4.47	- -	- -	54.5	762
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021						
MW-20R	09/16/2021		114	0.724	11.7	- -	- -	73.7	688
	10/13/2022		115	0.791	- -	12.0	<0.0420	72.6	629
MW-21	08/23/2010		115	0.250	2.12	- -	- -	52.7	966
	02/28/2011		182	0.257	3.02	- -	- -	56.7	1,050
	02/28/2011	FD	183	0.249	2.99	- -	- -	56.3	1,000
	07/19/2011		191	0.163	2.62	- -	- -	57.0	1,250
	01/31/2012		200	0.229	2.84	- -	- -	64.7	1,040
	07/26/2012		186	0.306	2.64	- -	- -	60.4	1,130
	02/22/2013		160	0.246	2.86	- -	- -	78.3	968
	08/20/2013		156	0.268	3.96	- -	- -	82.5	972
	02/25/2014		134	0.213	3.78	- -	- -	75.9	918
	08/19/2014		156	0.250	3.35	- -	- -	72.7	938
	02/24/2015		160	0.32	3.7	- -	- -	70	1,100
	08/25/2015		197	0.341	3.06	- -	- -	77.0	1,430
	08/16/2016		131	0.253	4.05	- -	- -	71.7	- -
	08/17/2017		- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -
	10/08/2020		- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -
MW-22	08/23/2010		115	0.552	1.76	- -	- -	62.3	726
	02/28/2011		117	0.587	2.36	- -	- -	68.6	678
	07/19/2011		107	0.568	2.06	- -	- -	64.1	740
	01/31/2012		141	0.570	2.26	- -	- -	74.3	766
	07/26/2012		149	0.628	2.09	- -	- -	68.3	830
	02/21/2013		178	0.500	2.30	- -	- -	80.4	798
	08/21/2013		176	0.606	2.94	- -	- -	83.0	890
	02/25/2014		172	0.416	3.53	- -	- -	85.2	842
	08/20/2014		120	1.00	2.36	- -	- -	127	738
	02/24/2015		110	0.57	3.3	- -	- -	81	820
	08/25/2015		118	0.618	4.85	- -	- -	81.1	928
	08/16/2016		128	0.577	5.86	- -	- -	57.6	827
	08/17/2017		87.4	0.644	48.6	- -	- -	53.6	700
	10/01/2018		34.3	0.652	12.9	- -	- -	46.7	883
	10/24/2019		61.9	0.775	6.54	- -	- -	42.7	637
	10/08/2020		49.2	0.800	5.85	- -	- -	41.1	651
	09/16/2021		53.8	0.742	3.58	- -	- -	58.4	659
	10/13/2022		121	0.744	--	4.98	<0.0420	83.8	--(1)

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-23	08/23/2010		645	0.782	2.92	- -	- -	121	2,260
	02/28/2011		511	0.676	3.47	- -	- -	81.9	1,540
	07/19/2011		712	0.670	3.79	- -	- -	108	3,090
	02/01/2012		887	0.697	4.07	- -	- -	85.4	2,720
	07/26/2012		774	0.750	3.45	- -	- -	100	3,060
	02/26/2013		662	0.690	3.46	- -	- -	93.9	2,040
	08/21/2013		530	0.808	3.29	- -	- -	115	1,910
	02/25/2014		574	0.605	3.41	- -	- -	89.0	1,860
	08/21/2014		443	0.792	2.89	- -	- -	98.1	1,680
	02/25/2015		57	0.63	3.1	- -	- -	92	1,000
	08/25/2015		431	0.874	4.39	- -	- -	91.9	2,190
	08/17/2016		411	0.792	3.02	- -	- -	88.5	1,400
	08/17/2017		237	0.917	2.45	- -	- -	97.4	1,050
	10/01/2018		27.0	0.825	1.93	- -	- -	47.0	720
	10/24/2019		--[1]	--[1]	4.67	--	--	--[1]	--[1]
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-23R	10/08/2020		191	1.26	3.37	- -	- -	89.2	754
	09/16/2021		176	1.01	3.85	- -	- -	100	793
	10/13/2022		145	1.26	- -	3.27	<0.0420	89.2	696
MW-24	08/24/2010		34.6	2.31	2.40	- -	- -	53.9	422
	02/28/2011		39.6	2.16	2.94	- -	- -	55.3	414
	07/14/2011		43.1	1.55	2.38	- -	- -	48.1	504
	02/01/2012		50.6	2.42	2.32	- -	- -	62.3	418
	07/30/2012		51.8	2.42	2.39	- -	- -	55.1	420
	07/30/2012	FD	55.5	2.34	2.34	- -	- -	58.8	446
	02/26/2013		46.6	2.39	2.05	- -	- -	68.6	442
	08/21/2013		56.5	2.77	2.04	- -	- -	55.6	426
	02/27/2014		37.3	2.28	2.11	- -	- -	51.3	396
	08/21/2014		29.2	2.76	2.39	- -	- -	44.0	368
	02/25/2015		24	2.7	2.8	- -	- -	42	360
	08/25/2015		25.5	2.75	2.95	- -	- -	43.2	494
	08/16/2016		26.0	2.78	2.83	- -	- -	42.9	407
	08/17/2017		40.5	2.96	2.86	- -	- -	45.2	388
	10/01/2018		35.8	2.65	3.80	- -	- -	35.3	397
	10/24/2019		34.8	2.93	3.69	- -	- -	41.7	344
	10/08/2020		21.4	2.68	4.94	- -	- -	36.9	417
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021						
MW-24R	09/16/2021		80.8	2.79	2.51	- -	- -	72.8	455
	10/13/2022		71.0	2.35	- -	2.60	<0.0420	75.5	457

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-25	08/23/2010		178	0.871	2.42	- -	- -	182	946
	02/28/2011		256	0.729	2.83	- -	- -	93.9	998
	07/18/2011		77.8	1.12	3.64	- -	- -	96.2	634
	02/01/2012		175	0.813	4.56	- -	- -	84.4	820
	07/26/2012		133	0.892	37.1	- -	- -	144	1,110
	02/26/2013		109	0.710	19.4	- -	- -	113	788
	08/22/2013		314	0.696	3.36	- -	- -	74.7	1,350
	08/22/2013	FD	310	0.684	3.42	- -	- -	74.3	1,350
	02/26/2014		293	0.476	2.98	- -	- -	69.3	1,100
	02/26/2014	FD	289	0.546	2.98	- -	- -	68.6	1,090
	08/19/2014		302	<0.500	3.06	- -	- -	79.5	1,230
	08/19/2014	FD	319	<0.500	2.76	- -	- -	83.5	1,200
	02/25/2015		38	0.73	3.1	- -	- -	69	870
	02/25/2015	FD	180	0.71	3.1	- -	- -	69	840
	08/25/2015		211	0.693	2.96	- -	- -	72.6	1,110
	08/25/2015	FD	207	0.631	2.9	- -	- -	71.1	1,140
	03/09/2016		345	0.618	2.65	- -	- -	68.5	1,140
	08/16/2016		292	0.637	1.44	- -	- -	73.9	976
	08/16/2016	FD	287	0.638	1.50	- -	- -	73.5	1,010
	02/07/2017		298	0.567	1.64	- -	- -	93.4	1,000
	08/16/2017		280	0.791	1.52	- -	- -	68.4	996
	08/16/2017	FD	287	0.600	1.57	- -	- -	71.2	1,050
	04/05/2018		82.6	0.568	2.16	- -	- -	76.4	1,380
	04/05/2018	FD	401	0.605	2.17	- -	- -	79.5	1,360
	10/01/2018		284	0.518	3.89	- -	- -	105	1,090
	10/01/2018	FD	288	0.508	3.86	- -	- -	110	1,180
	04/04/2019		224	0.509	3.84	- -	- -	103	1,040
	04/04/2019	FD	224	0.500	4.57	- -	- -	104	1,030
	10/24/2019		232	0.586	3.89	- -	- -	112	986
	10/24/2019	FD	223	0.572	3.91	- -	- -	107	1,010
	06/18/2020		368	0.467	3.96	- -	- -	188	1,460
	10/08/2020		390	0.383	2.83	- -	- -	129	1,440
	04/15/2021		361	0.405	3.80	- -	- -	119	1,320
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021						
MW-26	08/24/2010		217	0.484	2.88	- -	- -	98.5	958
	02/28/2011		202	0.517	3.86	- -	- -	125	940
	07/14/2011		184	<0.500	3.95	- -	- -	128	1,030
	02/01/2012		196	0.568	3.68	- -	- -	131	952
	07/26/2012		179	0.647	3.11	- -	- -	121	940
	02/26/2013		144	0.640	4.78	- -	- -	138	760
	08/22/2013		222	0.611	5.55	- -	- -	133	1,170
	02/26/2014		187	0.470	3.11	- -	- -	146	944
	08/21/2014		67.8	0.511	3.18	- -	- -	78.9	644
	02/25/2015		190	0.71	2.3	- -	- -	110	790
	08/25/2015		220	0.670	2.93	- -	- -	143	1,160
	08/17/2016		223	0.645	2.28	- -	- -	122	- -
	08/17/2017		301	0.162	4.06	- -	- -	92.1	- -
	10/01/2018		235	0.466	- -	- -	- -	126	1,020
	10/24/2019		244	0.722	4.11	- -	- -	132	- -
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020						
MW-26R	10/08/2020		238	0.530	10.0	- -	- -	131	- -
	09/16/2021		329	0.429	11.6	- -	- -	161	- -
	10/13/2022		255	0.543	- -	6.60	<0.0420	130	- -

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
	New Mexico WQCC Groundwater Standards		250	1.6	10.0	10.0	1.0	600.0	1,000
MW-27	08/18/2010		115	0.644	5.10	--	--	118	752
	02/25/2011		144	0.595	<0.500	--	--	78.5	746
	07/20/2011		150	0.510	1.69	--	--	73.2	812
	02/01/2012		164	0.691	2.43	--	--	99.8	676
	07/26/2012		164	0.680	2.95	--	--	65.3	754
	02/26/2013		199	0.647	2.77	--	--	70.7	756
	08/20/2013		315	0.562	7.12	--	--	75.5	1,180
	02/27/2014		298	0.415	8.00	--	--	89.3	1,150
	08/21/2014		256	0.540	4.99	--	--	85.1	1,100
	02/27/2015		170	1.0	3.8	--	--	96	790
	08/26/2015		139	2.27	2.94	--	--	95.2	690
	03/08/2016		--	--	--	--	--	--	--
	08/18/2016		--	--	--	--	--	--	--
	02/08/2017		--	--	--	--	--	--	--
	08/17/2017		--	--	--	--	--	--	--
	04/05/2018		--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--
	04/04/2019		--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--
	06/18/2020		--	--	--	--	--	--	--
	10/08/2020		--	--	--	--	--	--	--
	04/15/2021		--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--
	04/14/2022		--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--
MW-28	08/24/2010		71.2	1.66	1.70	--	--	60.3	440
	08/28/2010		--	--	--	--	--	--	--
	02/23/2011		106	1.57	<0.500	--	--	67.4	540
	07/14/2011		106	1.28	2.40	--	--	67.8	732
	01/30/2012		80.6	1.68	2.53	--	--	81.1	572
	07/24/2012		74.9	1.79	2.33	--	--	81.6	500
	02/19/2013		65.5	1.61	2.57	--	--	88.4	468
	08/20/2013		70.4	1.77	2.42	--	--	77.4	480
	02/24/2014		71.7	1.30	2.60	--	--	74.2	480
	08/19/2014		70.0	1.65	2.31	--	--	78.2	512
	02/23/2015		70	1.6	2.8	--	--	72	500
	08/27/2015		142	3.07	3.08	--	--	143	549
	03/07/2016		73.1	1.62	3.31	--	--	70.8	--
	08/15/2016		73.2	1.37	3.08	--	--	70.6	612
	02/06/2017		79.1	1.63	3.92	--	--	98.4	--
	08/17/2017		66.3	1.82	4.02	--	--	97.5	524
	04/05/2018		63.1	1.74	4.11	--	--	99.7	--
	10/01/2018		63.6	1.76	3.91	--	--	92.2	490
	04/04/2019		75.3	1.76	3.69	--	--	80.1	--
	10/24/2019		87.8	2.04	3.40	--	--	79.9	519
	06/18/2020		103	2.11	3.45	--	--	76.8	--
	10/08/2020		152	1.81	3.41	--	--	98.8	664
	04/15/2021		119	1.91	4.06	--	--	84.5	--
	09/16/2021		141	1.86	4.12	--	--	79.2	639
	04/14/2022		133	1.94	3.66	--	--	85.4	--
	10/13/2022		--[1]	--[1]	--	--[1]	--[1]	--[1]	--[1]

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
	New Mexico WQCC Groundwater Standards		250	1.6	10.0	10.0	1.0	600.0	1,000
MW-29	08/24/2010		456	0.753	2.18	- -	- -	167	726
	08/24/2010	FD	132	0.741	2.15	- -	- -	100	742
	02/28/2011		119	0.819	3.05	- -	- -	101	670
	07/14/2011		135	0.707	2.61	- -	- -	71.6	798
	01/30/2012		152	0.769	3.22	- -	- -	96.3	898
	07/24/2012		250	0.828	4.08	- -	- -	90.1	1,120
	02/26/2013		159	0.788	2.90	- -	- -	82.4	722
	08/20/2013		152	0.934	2.95	- -	- -	96.2	654
	02/27/2014		141	0.811	3.22	- -	- -	74.4	660
	02/27/2014	FD	141	0.819	3.37	- -	- -	74.3	690
	08/20/2014		177	0.809	3.44	- -	- -	72.9	826
	02/25/2015		250	0.95	5.6	- -	- -	90	1,000
	08/27/2015		247	0.573	6.77	- -	- -	81.8	1,220
	03/08/2016		- -	- -	- -	- -	- -	- -	- -
	08/17/2016		171	0.693	4.61	- -	- -	81.5	349
	02/09/2017		- -	- -	- -	- -	- -	- -	- -
	08/17/2017		201	0.723	4.76	- -	- -	86.4	920
	04/05/2018		- -	- -	- -	- -	- -	- -	- -
	10/01/2018		175	0.490	5.62	- -	- -	113	1,010
	04/04/2019		- -	- -	- -	- -	- -	- -	- -
	10/24/2019		264	0.674	5.33	- -	- -	87.7	1,000
	10/24/2019	FD	258	0.649	5.32	- -	- -	87.9	1,060
	06/18/2020		- -	- -	- -	- -	- -	- -	- -
	10/08/2020		150	0.748	6.90	- -	- -	96.1	705
	04/15/2021		- -	- -	- -	- -	- -	- -	- -
	09/16/2021		187	0.672	6.40	- -	- -	76.8	827
	04/14/2022		- -	- -	- -	- -	- -	- -	- -
	10/13/2022		--[1]	--[1]	--	--[1]	--[1]	--[1]	--[1]
MW-30	06/21/2013		51.2	1.87	3.51	- -	- -	96.7	426
	08/20/2013		63.7	1.59	2.85	- -	- -	87.0	438
	02/27/2014		64.0	1.07	2.96	- -	- -	90.0	476
	08/22/2014		61.1	1.45	2.75	- -	- -	84.5	444
	02/25/2015		75	1.4	3.1	- -	- -	81	460
	08/28/2015		83.6	1.61	3.97	- -	- -	86.2	525
	03/08/2016		70.6	1.3	3.53	- -	- -	83	450
	03/08/2016	FD	70.4	1.3	3.54	- -	- -	83	464
	08/16/2016		71.6	1.29	3.24	- -	- -	87.5	534
	08/16/2016	FD	75.5	1.29	3.22	- -	- -	87.7	491
	02/09/2017		71.7	1.26	3.52	- -	- -	87.3	497
	08/16/2017		68.3	1.31	3.38	- -	- -	78.9	468
	08/16/2017	FD	68.4	1.05	3.50	- -	- -	82.2	479
	04/05/2018		70.8	1.19	3.35	- -	- -	77.2	474
	10/01/2018		76.7	1.11	3.52	- -	- -	81.2	517
	10/01/2018	FD	76.3	1.09	3.70	- -	- -	80.6	509
	04/04/2019		78.5	1.06	3.61	- -	- -	69.4	513
	10/24/2019		85.0	1.24	3.29	- -	- -	71.7	479
	10/24/2019	FD	86.0	1.23	3.18	- -	- -	72.6	501
	06/18/2020		91.7	1.20	3.31	- -	- -	71.2	520
	10/08/2020		94.3	1.05	3.29	- -	- -	77.3	496
	04/15/2021		93.2	0.960	3.68	- -	- -	62.9	501
	09/16/2021		95.4	0.990	3.57	- -	- -	62.7	539
	04/14/2022		110	0.951	4.03	- -	- -	60.8	536
	10/13/2022		107	0.981	- -	4.85	<0.0420	56.5	548

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
MW-32	06/15/2017		- -	- -	- -	- -	- -	- -	- -
	06/15/2017	FD	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		109	2.77	<0.0197	- -	- -	99.4	683
	04/05/2018		165	1.12	1.74	- -	- -	143	939
	10/01/2018		34.7	0.357 B	<0.0197	- -	- -	47.4	383
	10/01/2018	FD	34.9	0.360 B	<0.0197	- -	- -	47.7	451
	04/04/2019		159	0.478	1.10	- -	- -	146	940
	10/24/2019		90.5	0.453	7.15	- -	- -	173	745
	10/24/2019	FD	89.1	0.422	7.08	- -	- -	172	827
	06/18/2020		92.7	0.355	6.25	- -	- -	183	872
	10/08/2020		54.1	0.286	3.36	- -	- -	182	741
	10/08/2020	FD	50.6	0.278	3.13	- -	- -	190	760
	04/15/2021		61.8	0.292	1.71	- -	- -	132	692
	04/15/2021	FD	60.4	0.292	1.70	- -	- -	128	677
	09/16/2021		57.0	0.247	3.56	- -	- -	142	728
	09/16/2021	FD	57.4	0.245	3.57	- -	- -	150	740
	04/14/2022		42.5	0.274	12.5	- -	- -	170	813
	04/14/2022	FD	42.9	0.272	12.7	- -	- -	167	788
	10/13/2022		34.2	0.412	- -	12.1	0.0486 J	172	828
	10/13/2022	FD	34.5	0.395	- -	12.9	0.0901 JB	179	822
MW-33	06/15/2017		- -	- -	- -	- -	- -	- -	- -
	08/17/2017		74.7	2.26	<0.0197	- -	- -	57.1	792
	04/05/2018		84.1	1.15	<0.0197	- -	- -	15.4	902
	10/01/2018		118	0.859	<0.0197	- -	- -	13.8	1,170
	04/04/2019		137	0.729	<0.0197	- -	- -	12.4	1,230
	10/24/2019		160	0.748	<0.0197	- -	- -	7.98	1,160
	06/18/2020		145	0.770	<0.0500	- -	- -	12.8	1,220
	10/08/2020		95.3	0.647	<0.0500	- -	- -	21.6	1,090
	10/08/2020	FD	96.3	0.644	<0.0500	- -	- -	21.3	1,060
	04/15/2021		78.7	0.635	<0.0500 [R]	- -	- -	9.75	1,090
	04/15/2021	FD	79.3	0.620	<0.0500 [R]	- -	- -	9.74	1,100
	09/16/2021		56.3	0.640	<0.0500	- -	- -	11.5	1,130
	09/16/2021	FD	56.3	0.639	<0.0500	- -	- -	11.7	1,130
	04/14/2022		91.8	0.715	<0.0500	- -	- -	8.21	1,220
	04/14/2022	FD	90.5	0.713	<0.0500	- -	- -	8.57	1,210
	10/13/2022		86.9	0.786	- -	0.0606 JB	0.0525 JB	7.78	1,220
	10/13/2022	FD	88.0	0.791	- -	0.0602 JB	0.0498 JB	8.10	1,160

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
North Well	06/18/2009		140	0.933	2.72	- -	- -	80.6	664
	01/14/2010		143	0.793	2.90	- -	- -	74.2	638
	08/24/2010		127	0.932	1.81	- -	- -	80.4	594
	03/03/2011		137	0.932	2.76	- -	- -	75.2	804
	07/20/2011		124	0.803	2.07	- -	- -	76.5	628
	02/02/2012		149	0.977	2.54	- -	- -	82.1	656
	07/30/2012		121	0.986	2.63	- -	- -	72.7	528
	02/19/2013		105	1.02	2.54	- -	- -	83.3	496
	08/22/2014		57.3	0.462	2.73	- -	- -	37.6	532
	12/17/2014		110	0.91	- -	3.0	<0.10	69	- -
	03/09/2015		11	0.098 J	2.7	- -	- -	7.3	520
	05/19/2015		110	0.88	3.2	- -	- -	73	550
	08/28/2015		193	1.55	4.34	- -	- -	127	593
	12/17/2015		121	0.982	3.46	- -	- -	76.7	588
	03/10/2016		136	0.939	3.34	- -	- -	74.1	575
	05/25/2016		128	0.941	3.03	- -	- -	75.1	634
	08/18/2016		129	0.872	5.76	- -	- -	70.9	626
	12/08/2016		156	0.942	3.23	- -	- -	74.3	676
	02/07/2017		148	0.893	3.55	- -	- -	82.9	613
	05/31/2017		150	0.836	3.27	- -	- -	75.9	597
	08/17/2017		135	0.740	3.19	- -	- -	76.5	662
	12/14/2017		133	0.816	3.13	- -	- -	77.3	616
	02/23/2018		133	0.948	3.46	- -	- -	76.5	603
	04/05/2018		131	0.878	3.09	- -	- -	75.6	584
	07/31/2018		121	0.881	3.03	- -	- -	74.7	584
	10/01/2018		121	0.797	3.11	- -	- -	79.9	573
	01/23/2019		120	0.775	2.86	- -	- -	75.6	550
	04/04/2019		120	0.776	3.17	- -	- -	74.9	590
	07/11/2019		121	0.931	3.29	- -	- -	77.5	571
	10/24/2019		122	0.930	2.57	- -	- -	76.8	484
	01/15/2020		117	0.860	2.94	- -	- -	77.5	549
	06/18/2020		118	0.953	2.92	- -	- -	78.6	548
	08/19/2020		111	0.837	2.82	- -	- -	78.3	568
	10/08/2020		116	0.824	2.74	- -	- -	83.4	519
	01/28/2021		120	0.798	2.86	- -	- -	80.1	520
	04/15/2021		113	0.796	3.20	- -	- -	78.1	530
	07/15/2021		114	0.802	3.15	- -	- -	77.8	541
	09/16/2021		128	0.771	2.90	- -	- -	78.0	580
	01/20/2022		124	0.938	2.97	- -	- -	78.1	544
	04/14/2022		128	0.836	2.93	- -	- -	79.8	586
	07/14/2022		122	0.845	- -	2.82	0.0786 J	79.1	528
	10/13/2022		128	0.868	- -	2.87	0.0930 JB	76.3	573

Table 3. Inorganic Constituent Concentrations in Groundwater

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Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
South Well	06/22/2009		497	0.665	3.02	- -	- -	106	1,450
	01/14/2010		498	0.686	3.27	- -	- -	113	1,520
	08/24/2010		477	0.651	2.18	- -	- -	101	1,760
	03/03/2011		549	0.647	3.24	- -	- -	122	1,840
	07/20/2011		420	0.687	2.48	- -	- -	103	1,600
	02/02/2012		368	0.756	3.02	- -	- -	89.0	1,210
	07/30/2012		135	1.01	2.53	- -	- -	73.3	582
	02/19/2013		359	0.743	2.88	- -	- -	99.2	1,170
	02/28/2014		352	0.575	0.660	- -	- -	99.2	1,210
	08/22/2014		435	0.720	3.00	- -	- -	100	1,480
	08/22/2014	FD	437	0.724	3.00	- -	- -	107	1,480
	12/17/2014		390	0.63	- -	3.2	<0.10	91	- -
	12/17/2014	FD	390	0.63	- -	3.2	<0.10	90	- -
	03/09/2015		340	0.82	2.7	- -	- -	99	1,100
	03/09/2015	FD	340	0.82	650	- -	- -	98	1,100
	05/19/2015		330	0.76	3.2	- -	- -	92	1,100
	05/19/2015	FD	340	0.76	3.1	- -	- -	95	1,000
	08/28/2015		426	0.810	3.48	- -	- -	107	1,440
	08/28/2015	FD	382	0.734	3.50	- -	- -	95.9	1,320
	12/17/2015		400	0.751	3.35	- -	- -	115	1,400
	12/17/2015	FD	402	0.752	3.47	- -	- -	114	1,360
	03/10/2016		354	0.76	3.53	- -	- -	103	1,100
	05/25/2016		361	0.743	3.11	- -	- -	101	1,620
	05/25/2016	FD	377	0.741	3.11	- -	- -	102	1,440
	08/18/2016		381	0.692	3.18	- -	- -	98.2	1,420
	08/18/2016	FD	385	0.695	3.18	- -	- -	97.6	1,390
	12/08/2016		419	0.772	3.27	- -	- -	105	1,300
	12/08/2016	FD	425	0.777	3.27	- -	- -	106	1,310
	02/07/2017		379	0.712	3.41	- -	- -	115	1,110
	02/07/2017	FD	375	0.723	3.77	- -	- -	114	1,170
	05/31/2017		433	0.636	3.20	- -	- -	101	1,350
	05/31/2017	FD	426	0.619	3.16	- -	- -	101	1,330
	08/17/2017		406	0.579	2.96	- -	- -	97.7	1,260
	08/17/2017	FD	400	0.577	2.94	- -	- -	92.4	1,460
	12/14/2017		383	0.625	2.97	- -	- -	92.4	1,290
	12/14/2017	FD	405	0.625	3.03	- -	- -	94.4	1,410
	02/23/2018		429	0.746	3.28	- -	- -	103	1,410
	02/23/2018	FD	432	0.735	3.27	- -	- -	104	1,270
	04/05/2018		406	0.676	2.98	- -	- -	99.9	1,300
	07/31/2018		409	0.752	3.14	- -	- -	103	1,420
	07/31/2018	FD	396	0.685	3.20	- -	- -	97.5	1,230
	10/01/2018		368	0.625	3.00	- -	- -	97.0	1,360
	01/23/2019		396	0.601	2.67	- -	- -	90.1	1,100
	01/23/2019	FD	382	0.606	2.64	- -	- -	88.3	1,100
	04/04/2019		344	0.619	3.18	- -	- -	97.3	1,280
	07/11/2019		360	0.741	3.48	- -	- -	97.3	1,190
	10/24/2019		335	0.798	2.80	- -	- -	86.8	992
	01/15/2020		328	0.692	3.12	- -	- -	94.7	1,010
	06/18/2020		330	0.784	3.10	- -	- -	95.7	1,090
	08/19/2020		333	0.690	2.99	- -	- -	96.1	1,040
	08/19/2020	FD	341	0.684	2.99	- -	- -	95.8	1,070
	10/08/2020		309	0.711	2.93	- -	- -	92.5	1,010
	10/08/2020	FD	312	0.637	2.97	- -	- -	96.5	1,010
	01/28/2021		334	0.646	3.06	- -	- -	96.2	986
	01/28/2021	FD	349	0.650	3.05	- -	- -	96.7	1,040
	04/15/2021		302	0.659	3.36	- -	- -	91.6	948
	04/15/2021	FD	304	0.658	3.36	- -	- -	91.7	960
	07/15/2021		267	0.700	3.11	- -	- -	99.1	1,010
	07/15/2021	FD	266	0.677	3.04	- -	- -	95.3	1,020
	09/16/2021		315	0.637	3.32	- -	- -	94.8	1,050
	09/16/2021	FD	301	0.628	3.35	- -	- -	90.9	990
	01/20/2022		264	0.744	3.16	- -	- -	85.8	867
	01/20/2022	FD	277	0.724	2.63	- -	- -	86.3	860
	04/14/2022		318	0.695	3.05	- -	- -	91.2	960
	04/14/2022	FD	317	0.693	2.91	- -	- -	91.2	924
	07/14/2022		287	0.709	- -	3.01	0.167	90.6	964
	07/14/2022	FD	301	0.698	- -	2.94	0.178	87.6	924
	10/13/2022		291	0.682	- -	2.96	0.0443 JB	89.4	974
	10/13/2022	FD	287	0.680	- -	2.96	0.0610 JB	89.7	926

Table 3. Inorganic Constituent Concentrations in Groundwater

HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
New Mexico WQCC Groundwater Standards			250	1.6	10.0	10.0	1.0	600.0	1,000
East Well	06/18/2009		107	0.980	2.59	--	--	84.0	554
	01/14/2010		138	0.991	2.70	--	--	72.7	676
	08/25/2010		106	1.00	0.523	--	--	74.5	522
	03/03/2011		135	0.905	2.68	--	--	75.6	644
	07/20/2011		124	0.810	1.83	--	--	73.8	596
	02/02/2012		150	0.967	2.56	--	--	81.4	664
	07/30/2012		144	0.962	2.40	--	--	80.9	636
	08/27/2012		--	--	--	--	--	--	--
	09/26/2012		--	--	--	--	--	--	--
	10/22/2012		--	--	--	--	--	--	--
	12/27/2012		--	--	--	--	--	--	--
	02/28/2014		138	0.899	0.564	--	--	80.6	658
	08/22/2014		124	0.914	2.71	--	--	78.5	614
	12/17/2014		120	0.90	--	2.7	<0.10	73	--
	03/09/2015		120	1.1	2.6	--	--	81	570
	05/19/2015		120	0.90	2.8	--	--	78	560
	08/28/2015		206	1.75	3.00	--	--	145	603
	12/17/2015		114	1.03	3.01	--	--	80.9	621
	03/10/2016		112	1.01	3.01	--	--	78.9	562
	05/25/2016		114	1.01	2.70	--	--	80.0	608
	08/18/2016		104	0.915	3.12	--	--	74.4	555
	12/08/2016		104	1.02	2.88	--	--	79.9	582
	02/07/2017		112	0.975	3.26	--	--	88.7	498
	05/31/2017		110	0.926	2.91	--	--	81.5	532
	08/17/2017		109	0.812	3.02	--	--	83.0	547
	12/14/2017		108	0.883	2.88	--	--	83.3	560
	02/23/2018		110	1.04	3.06	--	--	82.7	564
	04/05/2018		110	0.968	2.81	--	--	81.3	543
	07/31/2018		110	1.03	2.93	--	--	84.8	578
	10/01/2018		109	0.871	2.92	--	--	88.2	583
	01/23/2019		103	0.861	2.66	--	--	80.8	525
	04/04/2019		110	0.877	2.93	--	--	81.8	560
	07/11/2019		112	1.02	3.09	--	--	84.7	557
	10/24/2019		111	1.04	2.71	--	--	79.2	547
	01/15/2020		114	0.967	2.84	--	--	83.5	549
	06/18/2020		124	1.04	2.84	--	--	85.3	568
	08/19/2020		119	0.928	2.79	--	--	86.1	592
	10/08/2020		123	0.864	2.75	--	--	91.1	570
	01/28/2021		130	0.866	2.82	--	--	89.0	565
	04/15/2021		115	0.869	3.12	--	--	86.2	551
	07/15/2021		112	0.906	3.08	--	--	86.7	563
	09/16/2021		116	0.880	2.90	--	--	86.9	558
	11/10/2021		--	--	--	--	--	--	--
	11/10/2021	FD	--	--	--	--	--	--	--
	01/20/2022		114	0.977	2.93	--	--	82.5	515
	04/14/2022		112	0.949	2.87	--	--	85.4	540
	07/14/2022		106	0.943	--	2.74	0.0722 J	82.2	493
	10/13/2022		107	1.04	--	2.89	0.0803 JB	84.9	477

Notes:

Shading indicates detected result exceeded the New Mexico Water Quality Control Commission (WQCC) Groundwater Standard

mg/L = milligrams per liter

FD = Field Duplicate

< = Not reported above laboratory reporting limit

-- = Not Analyzed

(1)= Not analyzed due to insufficient water volume

J = analyte detected below the laboratory reporting limit (June 2009 to December 2014) or method quantitation limit (February 2015 to April 2021) or reported detection limit (July 2021 to October 2022), reported value is estimated

B = same analyte detected in the associated laboratory blank or equipment blank; sample concentration is within 5 times the blank concentration

[R] analyte not usable for project objectives according to the United States Environmental Protection Agency (USEPA) November 2020 *National Functional Guidelines for Inorganic Superfund Methods*

June 2009 to August 2014 analyses completed by ALS Laboratory Group, Houston, Texas

December 2014 analyses completed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico

February 2015 to present analyses completed by Pace Analytical National Center for Testing & Innovation in Mount Juliet, Tennessee

Analytical data from 2009 to 2011 were provided by a previous consultant and could not be confirmed against the original data packages

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-1	06/19/2009		<0.0100	0.00914	0.147	0.175	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.974	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0124
	01/19/2010		0.0202	0.00634	0.164	0.236	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	2.72	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00615	0.00989
	08/18/2010		<0.0100	0.00841	0.117	0.182	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	1.62	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00538
	03/01/2011		<0.0100	0.00821	0.0984	0.189	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	1.62	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00689
	07/20/2011		<0.0100	0.00808	0.0903	0.168	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.485	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00832
	02/02/2012		<0.0100	0.00782	0.0843	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.780	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00766
	07/27/2012		0.0249	0.00870	0.0917	0.193	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	1.05	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00759
	02/27/2013		<0.0100	0.00857	0.0974	0.184	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.662	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0107
	08/21/2013		0.0158	0.00589	0.102	0.187	<0.00200	0.0160	<0.00500	<0.00500	<0.200	<0.00500	1.32	<0.000200	<0.00500	0.0164	<0.00500	<0.00500	<0.00500	0.00641
	02/27/2014		<0.0100	0.00775	0.111	0.169	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.690	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00874
	08/21/2014		0.0135	0.0102	0.138	0.109	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0172	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0242
	02/25/2015		<0.035	0.012	0.13	0.18 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	0.00048 J	<0.0012	<0.000049	0.0025 J	<0.0049	<0.0074	<0.0028	0.0022 J	0.0067 J
	08/27/2015		<0.0350	0.0120	0.122	0.170	<0.000160	<0.000540	<0.000260	<0.000520	<0.0141	<0.000240	0.00191 J	<0.0000490	0.00236 J	<0.000350	0.00268	<0.000310	0.00187 J	<0.00256
	03/09/2016		0.00841 JB	0.00292	0.121	0.155	<0.000160	0.0276	<0.000260	0.00141 JB	<0.0150	<0.000240	0.00102 JB	<0.0000490	0.00170 JB	0.000910 JB	0.00150 J	<0.000310	0.00246 J	0.00436 JB
	08/17/2016		0.00284 JB	0.0117	0.138	0.189	<0.000160	0.00112 JB	<0.000260	0.000802 JB	0.0529 JB	<0.000240	0.00295 JB	<0.0000490	0.00260 J	<0.000350	0.00278	<0.000310	0.00261 J	0.00377 J
	02/07/2017		<0.0258	0.00618 J	0.163	0.190	<0.000800	<0.00270	<0.00130	<0.00260	<0.0750	<0.00120	0.0124 J	<0.0000490	0.00549 J	0.0137	0.00237	<0.00155	0.00276 J	0.0160 J
	08/17/2017		0.0110 JB	0.00809	0.146	0.157	<0.000160	<0.000540	<0.000260	<0.000520	<0.0150	<0.000240	0.00371 J	0.000258	0.00229 J	0.0237	0.00228	<0.000310	0.00230 J	0.00494 J
	04/05/2018		<0.00515	0.00762	0.152	0.176 J	<0.000160	<0.000540	<0.000260	0.000883 JB	<0.0150	<0.000240	0.00128 JB	<0.0000490	0.00252 JB	<0.000350	0.00250 B	<0.000310	0.00179 JB	0.0110 J
	10/01/2018		0.0143 JB	0.00687	0.141	0.143 J	<0.000160	<0.000540	<0.000260	<0.000520	<0.0150	<0.000240	0.000642 JB	<0.0000490	0.00242 J	<0.000350	0.00255	<0.000310	0.00163 J	0.00331 JB
	04/04/2019		<0.00515	0.00585	0.155	0.160 J	<0.000160	<0.000540	<0.000260	0.000902 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00282 J	<0.000350	0.00246	<0.000310	0.00159 J	0.00554 J
	10/24/2019		<0.00515	0.00605	0.137	0.152 J	<0.000160	<0.000540	<0.000260	<0.000520	<0.0150	<0.000240	<0.000250	0.0000684 JB	0.00331 J	<0.000350	0.00291	<0.000310	0.00163 J	0.00451 J
	06/18/2020		<0.0554	0.00564	0.152	0.168 J	<0.000478	<0.00149	<0.000477	0.00362 J	<0.0489	<0.00249	<0.00132	<0.000100	0.00285 J	<0.000952	0.00255	<0.000513	<0.00754	<0.00996
	06/18/2020	FD	<0.0554	0.00543	0.153	0.156 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00262 J	<0.000952	0.00204	<0.000513	<0.00754	<0.00996
	10/08/2020		<0.0554	0.00570	0.165	0.161 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.00241 J	<0.000100	0.00322 J	0.00120 J	0.00232	<0.000513	<0.00754	<0.00996
	04/15/2021		<0.0185	0.00542	0.151	0.166 J	<0.000150	0.00157 J	<0.0000596	0.00216 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00318 J	<0.000816	0.00213	<0.0000700	0.00173 J	0.00613 JB
	09/16/2021		<0.0185	0.00520	0.151	0.168 J	<0.000150	<0.00124	0.0000677 J	<0.00151	<0.0281	<0.000849	0.00101 J	<0.000100	0.00272 J	<0.000816	0.00210	<0.0000700	0.00175 J	0.00603 J
	04/14/2022		<0.0185	0.00543	0.145	0.166 J	<0.000150	<0.00124	0.0000640 J	0.00187 J	<0.0281	<0.000849	0.00117 J	<0.000100	0.00312 J	<0.000816	0.00220	<0.0000700	0.00167 J	0.0122 J
	10/13/2022		0.0273 JB	0.00629	0.141	0.181 J	<0.000150	<0.00124	<0.0000596	<0.00151	<0.0281	<0.000849	0.000902 J	<0.000100	0.00245 J	<0.000816	0.00180 J	<0.0000700	0.00173 J	0.0135 J
MW-2	06/22/2009		0.0657	0.0386	0.0803	0.190	<0.00200	<0.00500	<0.00500	0.00621	<0.200	<0.00500	0.00583	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.110
	01/19/2010		<0.0100	<0.00500	0.00500	0.191	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00538	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0166
	08/16/2010		0.1367	<0.00500	0.193	0.155	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0204
	03/03/2011		<0.0100	<0.00500	0.176	0.171	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0117
	07/14/2011		<0.0100	<0.00500	0.160	0.192	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0230
	01/30/2012		<0.0100	<0.00500	0.130	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0255
	07/24/2012		<0.0100	<0.00500	0.140	0.233	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0191
	02/19/2013		0.0102	<0.00500	0.141	0.197	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0436
	08/20/2013		0.0346	<0.00500	0.118	0.216	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00721
	02/25/2014		0.0133	<0.00500	0.125	0.203	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0130
	08/21/2014		0.0143	<0.00500	0.112	0.147	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0214
	02/24/2015		<0.035	0.0037	0.090	0.21	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0034 J	<0.0049	<0.0074	<0.0028	0.0026 J	<0.0059
	08/28/2015		<0.0350	0.00355	0.111	0.213	<0.000160	0.000625 J	<0.000260	0.000548 J	<0.0141	<0.000240	0.000533 J	<0.0000490	0.00254 J	0.00115 J	0.00147 J	<0.000310	0.00340 J	0.00382 J
	03/07/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/18/2016		0.00451 JB	0.00304	0.105	0.235	<0.000160	0.000981 JB	<0.000260	0.000952 JB	<0.0150	<0.000240	0.000769 JB	0.0000534 JB	0.00282 J	0.00129 JB	0.00166 J	<0.000310	0.00297 J	0.00316 JB
	02/07/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		0.0175 JB	0.00351	0.100	0.180	<0.000160	0.00333	<0.000260	0.00159 J	<0.0150	<0.000240	0.000347 J	0.0000703 J	0.00288 J	0.00713	0.00161 J	<0.000310	0.00268 J	0.0179 J
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		0.0168 JB	0.00357	0.100	0.183 J	<0.000160	0.00201 B	<0.000260	0.00136 JB	<0.0150	<0.000240	0.000750 JB	<0.0000490	0.00278 J	0.00641	0.00116 J	<0.000310	0.00317 J	0.0316 B
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.00515	0.00361	0.108	0.189 J	<0.000160	0.000871 JB	<0.000260	0.00277 JB	<0.0150	0.000263 J	<0.000250	0.0000719 JB	0.00268 J	0.00412	0.00172 JB	<0.000310	0.00346 J	0.0420
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0554	0.00362	0.0734	0.196 J	<0.000478	<0.00149	<0.000477	0.00407 J	<0.0489	<0.00249	<0.00132	<0.000100	0.00288 J	0.00433	0.00173 J	<0.000513	<0.00754	0.0439
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		<0.0185	0.00410	0.0717	0.190 J	<0.000150	0.00131 J	0.0000770 J	0.00496 JB	<0.0281	<0.000849	<0.000704	<0.000100	0.00342 J	0.000979 J	0.00166 J	<0.0000700	0.00298 J	0.0391
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		<0.0185	0.00423	0.0894	0.203	<0.000150	0.00177 J	0.0000687 J	0.00522	<0.0281	<0.000849	<0.000704	<0.000100	0.00323 J	0.00173 J	0.00162 J	<0.0000700	0.00271 J	0.0464

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-3	06/16/2009		0.308	0.00815	0.115	0.160	<0.00200	0.00709	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.0151	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/14/2010		0.144	0.00703	0.119	0.148	<0.00200	0.00977	<0.00500	0.121	<0.200	<0.00500	0.00597	<0.000200	0.0200	0.00842	<0.00500	<0.00500	0.000625	0.0195
	01/14/2010	FD	0.142	0.00798	0.125	0.167	<0.00200	0.0105	<0.00500	0.148	<0.200	<0.00500	0.00699	<0.000200	0.0216	0.00960	<0.00500	<0.00500	0.000721	0.0230
	08/19/2010		0.0767	0.00935	0.127	0.151	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00790	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/24/2011		<0.0100	0.00892	0.124	0.178	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0524
	07/15/2011		<0.0100	0.0125	0.113	0.202	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00510	<0.00500	<0.00500	<0.00500	<0.00500	0.0156
	01/30/2012		<0.0100	0.0117	0.0831	0.168	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00621	<0.00500	<0.00500	<0.00500	<0.00500	0.00886
	07/25/2012		<0.0100	0.0152	0.0773	0.209	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00673
	02/27/2013		<0.0100	0.0156	0.101	0.186	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00546	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/22/2013		0.0185	0.0169	0.0782	0.178	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/26/2014		<0.0100	0.0179	0.0655	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00560	<0.00500	<0.00500	<0.00500	0.00527
	08/21/2014		0.0128	0.0183	0.0545	0.104	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/26/2015		<0.035	0.019	0.061	0.16 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.00094 J	<0.0049	<0.0074	<0.0028	0.00057 J	<0.0059
	02/26/2015	FD	<0.035	0.020	0.062	0.16 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0011 J	<0.0049	0.0085 J	<0.0028	0.00056 J	0.0088 J
	08/26/2015		<0.0350	0.0195	0.0529	0.166 J	<0.000160	0.000912 J	<0.000260	0.00101 J	<0.0141	<0.000240	0.000572 J	<0.0000490	<0.00160	0.000483 J	0.00269	<0.000310	0.000567 J	0.00296 J
	03/08/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/18/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	02/07/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MW-4	06/16/2009		0.180	<0.00500	0.174	0.160	<0.00200	0.00534	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0120
	01/13/2010		0.0345	<0.00500	0.0932	0.177	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00102	<0.00500
	08/19/2010		0.0607	<0.00500	0.0862	0.136	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/28/2011		0.0131	<0.00500	0.0951	0.163	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00533
	07/15/2011		0.144	<0.00500	0.141	0.172	<0.00200	0.00619	<0.00500	<0.00500	<0.200	<0.00500	0.0114	<0.000200	<0.00500	0.0103	<0.00500	<0.00500	<0.00500	0.0211
	01/30/2012		0.0119	<0.00500	0.0796	0.150	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0147
	07/24/2012		<0.0100	<0.00500	0.0883	0.199	<0.00200	<0.00500	<0.00500	<0.00500	<0.20	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.0050	0.0102
	02/21/2013		<0.0100	0.00525	0.0841	0.157	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0116
	08/20/2013		<0.0100	0.00500	0.0902	0.156	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00506
	02/25/2014		<0.0100	<0.00500	0.0897	0.148	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00801
	08/20/2014		0.603	0.00501	0.213	0.111	<0.00200	<0.00500	<0.00500	<0.00500	0.241	<0.00500	0.00595	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0221
	02/24/2015		<0.035	0.0046	0.090	0.15 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	0.00025 J	<0.0012	0.00011 J	0.0034 J	<0.0049	<0.0074	<0.0028	0.0016 J	<0.0059
	08/28/2015		<0.0350	0.00526	0.0930	0.157	<0.000160	<0.000540	<0.000260	<0.000520	<0.0141	<0.000240	0.00114 J	<0.0000490	0.00319 J	0.000482 J	0.00228	<0.000310	0.00168 J	0.00269 J
	08/15/2016		0.00568 JB	0.00564	0.0894	0.155	<0.000160	0.00117 JB	<0.000260	0.000614 JB	0.0640 JB	<0.000240	0.000588 JB	<0.0000490	0.00358 J	0.000488 JB	0.00272	<0.000310	0.00170 J	0.00298 J
	08/17/2017		0.0196 JB	0.00480	0.0871	0.139	<0.000160	0.000569 J	<0.000260	0.000818 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00313 J	0.00317 B	0.00220	<0.000310	0.00141 J	0.00637 J
	10/01/2018		0.0149 JB	0.00482	0.0965	0.135 J	<0.000160	<0.000540	<0.000260	<0.000520	<0.0150	<0.000240	0.000539 J	<0.0000490	0.00271 J	0.00139 J	0.00231	<0.000310	0.00139 J	0.00473 J
	10/24/2019		<0.00515	0.00478	0.107	0.145 J	<0.000160	0.00301	<0.000260	0.00323 JB	<0.0150	0.000333 J	<0.000250	0.0000637 JB	0.00302 J	0.00172 J	0.00272	<0.000310	0.00167 J	0.00736 J
	10/08/2020		<0.0554	0.00456	0.111	0.155 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100 [R]	0.00296 J	0.00226	0.00201	<0.000513	<0.00754	0.0309
	09/16/2021		0.163	0.00427	0.118	0.170 J	<0.000150	0.00167 J	<0.0000596	0.00195 JB	<0.0281	<0.000849	<0.000704	<0.000100	0.00255 J	<0.000816	0.00171 J	<0.0000700	0.00177 J	0.0334
	10/13/2022		<0.0185	0.00456	0.110	0.173 J	<0.000150	0.00523	<0.0000596	0.00191 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00283 J	0.00111 J	0.00198 J	<0.0000700	0.00173 J	0.0352
MW-5	06/16/2009		0.796	0.0233	0.0639	0.116	<0.00200	<0.00500	<0.00500	<0.00500	0.399	<0.00500	0.00670	<0.000200	0.0103	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/18/2010		<0.0100	<0.00500	0.0966	0.135	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/20/2010		0.0814	<0.00500	0.0967	0.0986	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/28/2011		0.123	<0.00500	0.100	0.0854	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0142	<0.000200	<0.00500	0.0112	<0.00500	<0.00500	<0.00500	0.0368
	07/19/2011		<0.0100	<0.00500	0.0968	0.0871	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0309
	01/31/2012		<0.0100	<0.00500	0.0972	0.0557	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00948
	01/31/2012	FD	<0.0100	<0.00500	0.0947	0.0728	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0119
	07/25/2012		0.0205	<0.00500	0.0931	0.134	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0562
	02/21/2013		0.0487	<0.00500	0.104	0.0997	<0.00200	<0.00500	<0.00500	0.0434	<0.200	<0.00500	0.0158	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00582	0.0289
	08/20/2013		<0.0100	<0.00500	0.105	0.100	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00507	0.0208
	02/25/2014		<0.0100	<0.00500	0.116	0.0893	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0114
	08/19/2014		0.148	<0.00500	0.123	<0.0200	<0.00200	0.00744	<0.00500	<0.00500	<0.200	<0.00500	0.00532	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00535	0.00626
	02/24/2015		0.038 J	0.0029	0.12	0.091 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0045 J	<0.0049	<0.0074	<0.0028	0.0040 J	0.0089 J
	08/24/2015		<0.0350	0.00410	0.121	0.0899 J	<0.000160	0.00111 J	<0.000260	0.00102 J	<0.0141	<0.000240	<0.000250	<0.0000490	0.00476 J	0.000814 J	<0.000380	<0.000310	0.00410 J	0.00539 J
	08/17/2016		0.0155 JB	0.00425	0.119	0.108	<0.000160	0.00217 B	<0.000260	0.00122 JB	0.0974 JB	<0.000240	0.000764 JB	<0.0000490	0.00876	0.000540 JB	0.000502 J	<0.000310	0.00553 J	0.00590 J
	08/16/2017		0.0209 JB	0.00382	0.118	0.0893	<0.000160	0.00128 J	<0.000260	0.00261 J	<0.0150	<0.000240	0.000398 J	<0.0000490	0.00616	0.000700 JB	0.000574 J	<0.000310	0.00432 J	0.00391 J
	10/01/2018		<0.00515	0.00412	0.125	0.0529 J	<0.000160	<0.000540	<0.000260	0.00128 JB	<0.0150	<0.000240	<0.000250	<0.0000490	0.00259 J	0.000937 J	0.000695 J	<0.000310	0.00262 J	<0.00256
	10/24/2019		<0.00515	0.00370	0.110	0.0517 J	<0.000160	<0.000540	<0.000260	0.00242 JB	<0.0150	<0.000240	<0.000250	0.0000584 JB	0.00260 J	0.00131 J	0.000554 JB	<0.000310	0.00152 J	0.00812 J
	10/08/2020		<0.0554	0.00325	0.118	0.0725 J	<0.000478	<0.00149	<0.000477	0.00460 J	<0.0489	<0.00249	<0.00132	0.000103 J	0.00254 J	0.00147 J	<0.000657	<0.000513	<0.00754	0.0166 J
	09/16/2021		<0.0185	0.00120 J	0.118	0.0740 J	<0.000150	<0.00124	0.000325 J	0.00311 JB	<0.0281	<0.000849	0.00886	<0.000100	0.00201 J	0.00154 J	0.000738 J	<0.0000700	0.00234 J	0.559
	10/13/2022		0.0271 J	0.00251	0.111	0.0743 J	<0.000150	<0.00124	<0.0000596	0.00655	0.0627 J	0.00171 J	0.00149 J	<0.000100	0.00179 J	0.00230	0.000426 J	<0.0000700	0.00239 J	0.0448

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-6	06/18/2009		<0.0100	0.0201	0.186	0.175	<0.00200	<0.00500	<0.00500	<0.00500	0.418	<0.00500	2.86	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.00996
	06/18/2009	FD	<0.0100	0.0221	0.200	0.192	<0.00200	<0.00500	<0.00500	<0.00500	0.219	<0.00500	2.76	<0.000200	<0.00500	0.00653	<0.00500	<0.00500	- -	0.0141
	02/02/2010		<0.0200	0.0250	0.499	0.234	<0.00200	<0.00500	<0.00500	<0.00500	2.08	<0.00500	4.51	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	0.0113	<0.00500
	08/19/2010		0.0152	0.0456	0.376	0.244	<0.00200	<0.00500	<0.00500	<0.00500	1.86	<0.00500	6.61	<0.000200	<0.00500	0.00766	<0.00500	<0.00500	0.00785	<0.00500
	03/01/2011		<0.0100	0.0390	0.404	0.271	<0.00200	<0.00500	<0.00500	<0.00500	0.711	<0.00500	5.58	<0.000200	<0.00500	0.00896	<0.00500	<0.00500	0.00659	<0.00500
	07/20/2011		<0.0100	0.0336	0.220	0.223	<0.00200	0.00972	<0.00500	<0.00500	1.57	<0.00500	4.51	<0.000200	<0.00500	0.00576	<0.00500	<0.00500	<0.00500	0.0176
	02/02/2012		<0.0100	<0.00500	0.0827	0.190	<0.00200	<0.00500	<0.00500	<0.00500	0.488	<0.00500	1.25	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00599	0.00858
	07/24/2012		<0.0100	0.0128	0.143	0.265	<0.00200	<0.00500	<0.00500	<0.00500	1.28	<0.00500	2.53	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0102	0.0194
	02/27/2013		<0.0100	0.0126	0.154	0.214	<0.00200	<0.00500	<0.00500	<0.00500	1.31	<0.00500	1.97	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00789	0.0123
	02/27/2013	FD	<0.0100	0.0124	0.158	0.216	<0.00200	<0.00500	<0.00500	<0.00500	1.33	<0.00500	2.02	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00833	0.0106
	08/21/2013		0.0244	<0.00500	0.129	0.198	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	1.68	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00606	<0.00500
	02/27/2014		<0.0100	0.0458	0.263	0.220	<0.00200	<0.00500	<0.00500	<0.00500	3.42	<0.00500	2.71	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00882	0.00622
	08/21/2014		0.0330	0.0185	0.363	0.167	<0.00200	<0.00500	<0.00500	<0.00500	0.268	<0.00500	3.06	<0.000200	<0.00500	0.00651	<0.00500	<0.00500	0.00744	0.0151
	02/25/2015		0.092 J	0.0061	0.19	0.19 J	<0.00070	<0.0014	<0.0023	<0.0053	0.015 J	0.00072 J	1.0	<0.000049	0.0026 J	<0.0049	<0.0074	<0.0028	0.0066 J	0.020 J
	08/27/2015		<0.0350	0.00539	0.152	0.181	<0.000160	<0.000540	<0.000260	0.000540 J	<0.0141	<0.000240	0.411	<0.0000490	0.00192 J	0.00134 J	0.00242	<0.000310	0.00463 J	0.00347 J
	03/10/2016		0.00858 JB	0.00529	0.149	0.174	<0.000160	<0.000540	<0.000260	0.000554 J	<0.0150	<0.000240	0.138 B	<0.0000490	0.00202 JB	0.000974 JB	0.00298	<0.000310	0.00573 J	0.00327 JB
	08/17/2016		0.00297 JB	0.00654	0.131	0.196	<0.000160	0.000782 JB	<0.000260	0.00132 JB	<0.0150	<0.000240	0.0144	<0.0000490	0.00215 J	0.00121 JB	0.00316	<0.000310	0.00726 J	0.00362 JB
	02/07/2017		<0.0258	0.00762 J	0.168	0.181	<0.000800	<0.00270	<0.00130	<0.00260	<0.0750	<0.00120	0.0323	<0.0000490	0.00260 J	0.00285 J	0.00409	<0.00155	0.00537 J	<0.0128
	08/16/2017		0.0121 JB	0.00653	0.179	0.156	<0.000160	<0.000540	<0.000260	0.00294 J	<0.0150	<0.000240	0.737	<0.0000490	0.00380 J	0.0163	0.00417	<0.000310	0.00406 J	0.0262
	04/05/2018		<0.00515	0.00668	0.161	0.173 J	<0.000160	<0.000540	<0.000260	0.00153 JB	<0.0150	<0.000240	0.0304	<0.0000490	0.00224 JB	0.00197 JB	0.00426	<0.000310	0.00345 J	0.0111 J
	10/01/2018		<0.00515	0.00716	0.148	0.154 J	<0.000160	0.000718 JB	<0.000260	0.000629 JB	<0.0150	<0.000240	0.0763	<0.0000490	0.00198 J	0.00116 J	0.00343	<0.000310	0.00340 J	0.0126 JB
	04/04/2019		<0.00515	0.00793	0.150	0.173 J	<0.000160	0.000797 J	<0.000260	0.00112 J	<0.0150	<0.000240	0.106	<0.0000490	0.00266 J	0.000612 JB	0.00395	<0.000310	0.00358 J	0.0123 J
	10/24/2019		<0.00515	0.00739	0.143	0.156 J	<0.000160	<0.000540	<0.000260	<0.000520	<0.0150	<0.000240	0.00807	0.0000653 JB	0.00276 J	0.000391 J	0.00394	<0.000310	0.00335 J	0.00752 J
	06/18/2020		<0.0554	0.00798	0.147	0.174 J	<0.000478	<0.00149	<0.000477	0.00258 J	<0.0489	<0.00249	0.0294	<0.000100	0.00272 J	0.00194 J	0.00310	<0.000513	<0.00754	0.0360
	06/18/2020	FD	<0.0554	0.00819	0.156	0.168 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.0289	<0.000100	0.00274 J	0.00231	0.00364	<0.000513	<0.00754	0.0336
	10/08/2020		<0.0554	0.00792	0.140	0.163 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.0276	0.000139 J	0.00295 J	0.00221	0.00315	<0.000513	<0.00754	0.0498
	04/15/2021		<0.0185	0.00780	0.151	0.173 J	<0.000150	<0.00124	<0.0000596	0.00261 J	<0.0281	<0.000849	0.00292 JB	<0.000100	0.00260 J	0.00101 J	0.00302	<0.0000700	0.00283 J	0.0402
	09/16/2021		<0.0185	0.00679	0.158	0.170 J	<0.000150	<0.00124	<0.0000596	0.00312 JB	<0.0281	<0.000849	0.00171 J	<0.000100	0.00240 J	0.00875	0.00295	<0.0000700	0.00425 J	0.0732
	04/14/2022		0.0331 JB	0.00682	0.178	0.180 J	<0.000150	<0.00124	0.0000813 J	0.00613	<0.0281	<0.000849	0.00132 J	<0.000100	0.00201 JB	0.00234 B	0.00328	<0.0000700	0.00435 J	0.0601
	10/13/2022		<0.0185	0.00628	0.150	0.178 J	<0.000150	<0.00124	<0.0000596	0.00326 J	<0.0281	<0.000849	0.00273 J	<0.000100	0.00210 J	0.00249	0.00281	<0.0000700	0.00307 J	0.105
MW-7	06/19/2009		<0.0100	0.00923	0.169	0.161	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.127	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0137
	02/02/2010		<0.0200	0.00869	0.199	0.169	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.125	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/18/2010		0.0223	0.00532	0.252	0.161	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.343	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	03/01/2011		<0.0100	0.00525	0.237	0.161	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.441	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00593
	07/20/2011		<0.0100	0.00669	0.246	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.617	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/02/2012		<0.0100	<0.00500	0.229	0.166	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.550	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00746
	07/27/2012		0.0727	<0.00500	0.234	0.196	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.642	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0114
	02/27/2013		<0.0100	<0.00500	0.227	0.178	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.300	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00844
	08/21/2013		<0.0100	<0.00500	0.220	0.178	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.365	<0.000200	<0.00500	<0.00500	0.00600	<0.00500	<0.00500	<0.00500
	02/27/2014		0.0159	<0.00500	0.208	0.168	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.781	<0.000200	<0.00500	<0.00500	0.00540	<0.00500	<0.00500	0.00818
	08/21/2014		<0.0100	<0.00500	0.207	0.110	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.470	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00566
	02/25/2015		<0.035	0.0055	0.24	0.18 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	0.00041 J	0.011	<0.000049	0.0011 J	<0.0049	<0.0074	<0.0028	0.0033 J	0.0083 J
	08/27/2015		<0.0350	0.00650	0.215	0.180	<0.000160	<0.000540	<0.000260	<0.000520	<0.0141	<0.000240	0.0184	<0.0000490	0.00175 J	<0.000350	0.00334	<0.000310	0.00236 J	<0.00256
MW-8	06/18/2009		<0.0100	0.00501	0.181	0.228	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00919	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0458
	01/18/2010		<0.0100	0.00726	0.157	0.215	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00545
	08/18/2010		0.0377	0.00676	0.204	0.170	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00501	0.00760
	02/25/2011		<0.0100	<0.00500	0.106	0.175	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.281	<0.000200	<0.00500	0.00620	<0.00500	<0.00500	<0.00500	0.0316
	07/19/2011		<0.0100	<0.00500	0.229	0.278	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00928	0.0213
	02/01/2012		<0.0100	<0.00500	0.221	0.210	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00636	<0.000200	<0.00500	0.0119	<0.00500	<0.00500	0.00745	0.0339
	07/27/2012		<0.0100	<0.00500	0.160	0.294	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00523	<0.00500	<0.00500	0.00714	0.00888
	02/26/2013		<0.0100	0.00627	0.170	0.380	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00592	<0.000200	<0.00500	0.00999	<0.00500	<0.00500	0.00690	0.0188
	08/21/2013		<0.0100	<0.00500	0.119	0.266	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0208	<0.000200	<0.00500	0.0135	<0.00500	<0.00500	<0.00500	0.0107
	02/27/2014		0.747	<0.00500	0.233	0.284	<0.00200	0.0417	<0.00500	<0.00500	0.541	<0.00500	0.0240	<0.000200	<0.00500	0.0339	<0.00500	<0.00500	0.00916	0.0102
	08/21/2014		0.314	<0.00500	0.212	0.230	<0.00200	0.0404	<0.00500	<0.00500	0.274	<0.00500	0.0128	<0.000200	<0.00500	0.0258	<0.00500	<0.00500	0.00639	0.0181
	02/26/2015		0.11	0.0055	0.20	0.23	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.00083 J	<0.0049	<0.0074	<0.0028	0.0073 J	0.0059 J
	08/27/2015		<0.0350	0.00537	0.232	0.245	<0.000160	0.000562 J	0.000346 J	0.000544 J	<0.0141	<0.000240	0.00141 J	<0.0000490	0.000854 J	0.00204	0.00224	<0.000310	0.00891 J	0.00316 J
	03/08/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/18/2016		0.0111 JB	0.00686	0.121	0.187	<0.000160	0.000982 JB	<0.000260	0.00175 JB	0.0152 J	0.000247 J	0.00123 JB	0.0000537 JB	0.00137 J	0.00243 B	0.00254	<0.000310	0.00245 J	0.00318 JB
	02/08/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		0.0129 JB	0.00790	0.126	0.151	<0.000160	<0.000540	<0.000260	0.00265 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00207 J	0.00679	0.00278	<0.000310	0.00347 J	0.0133 J
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		0.00771 JB	0.00744	0.182	0.175 J	<0.000160	0.000757 JB	<0.000260	0.00160 JB	<0.0150	0.000279 JB	0.000389 JB	<0.0000490	0.00169 J	0.00867	0.00248	<0.000310	0.00486 J	0.0157 JB
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.00515	0.00700	0.190	0.204	<0.000160	<0.000540	<0.000260	0.00143 JB	<0.0150	<0.000240	<0.000250	0.0000632 JB	0.00108 J	0.00560	0.00214 B	<0.000310	0.00473 J	0.0210 J
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		<0.0554	0.00715	0.167	0.228	<0.000478	0.00162 J	<0.000477	0.00397 J	<0.0489	<0.00249	0.00181 J	0.000110 J	0.00132 J	0.00400	0.00264	<0.000513	<0.00754	0.0383
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		<0.0185	0.00722	0.203	0.217	<0.000150	0.00130 J	0.000116 J	0.00588 B	<0.0281	<0.000849	<0.000704	<0.000100	0.00137 J	0.00366	0.00185 J	<0.0000700	0.00680 J	0.0235 J
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		0.0298 J	0.00698	0.298	0.232	<0.000150	0.00344	0.000135 J	0.00298 J	0.0377 J	<0.000849	0.00351 J	<0.000100	0.000965 J	0.0184	0.00126 J	<0.0000700	0.0147 J	0.0348

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-9	06/16/2009		0.0468	0.0373	0.0911	0.122	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/14/2010		0.0164	0.0351	0.0676	0.139	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000656	<0.00500
	08/19/2010		0.115	0.0358	0.0649	0.121	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00961	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	03/01/2011		0.0112	0.0382	0.0586	0.131	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00662
	07/15/2011		0.0371	0.0374	0.0647	0.166	<0.00200	0.00741	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00511	<0.00500	<0.00500	<0.00500	0.00932
	01/31/2012		<0.0100	0.0341	0.0653	0.108	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00529
	07/25/2012		0.0306	0.0292	0.0721	0.182	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00708	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00716
	02/27/2013		<0.0100	0.0171	0.0766	0.154	<0.00200	<0.00500	<0.00500	<0.00500	0.702	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0167
	08/22/2013		0.0467	0.0246	0.0736	0.153	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/26/2014		0.0161	0.0224	0.0737	0.152	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00588	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/21/2014		2.47	<0.00500	0.174	0.124	<0.00200	0.205	<0.00500	0.00644	2.22	<0.00500	0.0903	<0.000200	0.00662	0.111	<0.00500	<0.00500	<0.00500	0.0334
	02/25/2015		<0.035	0.0087	0.10	0.18 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0014 J	<0.0049	<0.0074	<0.0028	0.0031 J	<0.0059
	08/26/2015		<0.0350	0.00744	0.108	0.163 J	<0.000160	<0.000540	<0.000260	0.000626 J	<0.0141	<0.000240	<0.000250	<0.0000490	<0.00160	0.000566 J	0.00297	<0.000310	0.00285 J	0.00258 J
	08/17/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MW-10	06/16/2009		<0.0200	<0.00500	0.113	0.138	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0127
	01/13/2010		<0.0100	<0.00500	0.0815	0.162	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000911	0.0133
	08/19/2010		0.0556	<0.00500	0.0798	0.129	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00569
	03/03/2011		<0.0100	<0.00500	0.0772	0.159	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0133
	07/15/2011		0.0318	<0.00500	0.0855	0.177	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	01/31/2012		<0.0100	<0.00500	0.0865	0.109	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0252
	07/25/2012		<0.0100	0.00516	0.0882	0.186	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00861
	02/27/2013		<0.0100	0.00546	0.0972	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00633
	08/22/2013		<0.0100	<0.00500	0.104	0.168	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00671
	02/26/2014		<0.0100	<0.00500	0.106	0.147	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00979
	08/21/2014		<0.0100	<0.00500	0.134	0.0998	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00939	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0114
	02/26/2015		<0.035	0.0043	0.12	0.17 J	<0.00070	0.0016 J	<0.0023	<0.0053	<0.014	0.00030 J	<0.0012	<0.000049	0.0026 J	<0.0049	<0.0074	<0.0028	0.0019 J	0.0060 J
	08/26/2015		<0.0350	0.00466	0.0982	0.154	<0.000160	0.000709 J	<0.000260	0.000803 J	<0.0141	<0.000240	<0.000250	<0.0000490	0.00258 J	<0.000350	0.00283	<0.000310	0.00158 J	<0.00256
	08/17/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MW-11	06/18/2009		<0.0100	<0.00500	0.194	0.199	<0.00200	<0.00500	<0.00500	<0.00500	0.571	<0.00500	0.387	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0212
	01/18/2010		<0.0100	<0.00500	0.147	0.238	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0559	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	0.00635	<0.00500
	08/18/2010		0.0125	<0.00500	0.471	0.255	<0.00200	<0.00500	<0.00500	<0.00500	0.347	<0.00500	0.571	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00718	<0.00500
	02/25/2011		<0.0100	<0.00500	0.241	0.244	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0101	<0.000200	<0.00500	0.00856	<0.00500	<0.00500	0.00878	0.0982
	07/19/2011		<0.0100	<0.00500	0.150	0.232	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0301	<0.000200	<0.00500	0.00846	<0.00500	<0.00500	0.00616	0.0265
	02/01/2012		<0.0100	0.0176	1.40	0.288	<0.00200	<0.00500	<0.00500	<0.00500	1.77	<0.00500	1.05	<0.000200	<0.00500	0.0169	<0.00500	<0.00500	0.0138	0.0189
	07/27/2012		<0.0100	0.0128	0.827	0.374	<0.00200	<0.00500	<0.00500	<0.00500	2.02	<0.00500	2.54	<0.000200	<0.00500	0.0351	<0.00500	<0.00500	0.0330	<0.00500
	02/27/2013		<0.0100	0.00802	0.561	0.349	<0.00200	<0.00500	0.00604	<0.00500	<0.200	<0.00500	5.24	<0.000200	0.00631	0.0861	<0.00500	<0.00500	0.0127	0.0226
	02/27/2013	FD	<0.0100	0.00787	0.574	0.349	<0.00200	<0.00500	0.00574	<0.00500	<0.200	<0.00500	5.47	<0.000200	0.00619	0.0811	<0.00500	<0.00500	0.0125	0.0199
	08/21/2013		<0.0100	<0.00500	0.195	0.283	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	2.62	<0.000200	<0.00500	0.00869	<0.00500	<0.00500	0.00723	0.00547
	08/21/2013	FD	<0.0100	<0.00500	0.198	0.290	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	2.92	<0.000200	<0.00500	0.00906	<0.00500	<0.00500	0.00714	0.00592
	02/28/2014		--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	08/20/2014		0.0129	<0.00500	0.820	0.361	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	1.10	<0.000200	<0.00500	0.0217	<0.00500	<0.00500	0.0269	0.0104
	02/27/2015		--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	08/28/2015		--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	08/28/2015	FD	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	03/09/2016		--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	03/09/2016	FD	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	08/15/2016		DRY WELL - PLUGGED AND ABANDONED DECEMBER 2016																	
MW-11R	02/08/2017		<0.0258	0.00165 J	0.208	0.194	<0.000800	<0.00270	0.00157 J	0.0118 J	<0.0750	<0.00120	0.141	<0.0000490	0.00372 J	0.0115	0.00115 J	<0.00155	0.00580 J	<0.0128
	02/08/2017	FD	<0.0258	0.00181 J	0.198	0.186	<0.000800	<0.00270	0.00147 J	0.0105 J	<0.0750	<0.00120	0.133	<0.0000490	0.00316 J	0.00979 J	0.00135 J	<0.00155	0.00551 J	<0.0128
	08/17/2017		0.00988 JB	0.00225	0.156	0.162	<0.000160	<0.000540	<0.000260	0.00242 J	<0.0150	<0.000240	0.00888	<0.0000490	0.00115 J	0.0275	0.00123 J	<0.000310	0.00349 J	0.0152 J
	04/05/2018		<0.00515	0.00250	0.153	0.192 J	<0.000160	<0.000540	<0.000260	0.0151	0.0561 J	0.000668 JB	0.00304 J	<0.0000490	0.00146 JB	0.0849	0.00219 B	<0.000310	0.00298 J	0.168
	10/01/2018		0.00726 JB	0.00258	0.162	0.160 J	<0.000160	<0.000540	<0.000260	0.0248	<0.0150	0.000797 JB	0.00123 JB	<0.0000490	0.00119 J	0.00546	0.00206	<0.000310	0.00299 J	0.111
	04/04/2019		<0.00515	0.00284	0.180	0.203	<0.000160	<0.000540	<0.000260	0.0386	<0.0150	0.000793 J	0.000546 J	<0.0000490	0.00143 J	0.00305	0.00182 J	<0.000310	0.00396 J	0.132
	10/24/2019		<0.00515	0.00249	0.187	0.218	<0.000160	0.00179 JB	<0.000260	0.0435	<0.0150	0.00131 J	<0.000250	0.0000675 JB	0.000953 J	0.00148 J	0.00289	<0.000310	0.00537 J	0.126
	06/18/2020		<0.0554	0.00239	0.187	0.294	<0.000478	<0.00149	<0.000477	0.0351	<0.0489	<0.00249	<0.00132	<0.000100	<0.000953	0.00455	0.00181 J	<0.000513	<0.00754	0.108
	10/08/2020		<0.0554	0.00250	0.186	0.286	<0.000478	<0.00149	<0.000477	0.0309	<0.0489	<0.00249	<0.00132	0.000104 J	<0.000953	0.00143 J	0.00205	<0.000513	<0.00754	0.0912
	04/15/2021		<0.0185	0.00247	0.201	0.303	<0.000150	<0.00124	0.000102 J	0.00452 J	<0.0281	<0.000849	0.00409 JB	<0.000100	0.00106 J	0.00193 J	0.000975 J	<0.0000700	0.00623 J	0.00533 JB
	09/16/2021		<0.0185	0.00254	0.198	0.296	<0.000150	<0.00124	0.000246 J	0.0326	<0.0281	0.00151 J	0.0343	<0.000100	0.00138 J	0.00174 J	0.00141 J	<0.0000700	0.00720 J	0.0562
	04/14/2022		<0.0185	0.00256	0.181	0.267	<0.000150	<0.00124	0.000135 J	0.0441	<0.0281	0.000957 J	0.0166	<0.000100	0.00114 JB	0.00303 B	0.00153 J	<0.0000700	0.00455 J	0.0660
	10/13/2022		<0.0185	0.00260	0.187	0.259	<0.000150	0.00153 J	0.000116 J	0.0380	<0.0281	0.00143 J	0.0265	<0.000100	0.00109 J	0.00276	0.00115 J	<0.0000700	0.00581 J	0.0893

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-12	06/16/2009		<0.0200	0.00516	0.0775	0.200	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/18/2010		<0.0100	<0.00500	0.0755	0.235	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0219	<0.000200	<0.00500	0.0182	<0.00500	<0.00500	<0.00500	<0.00500
	08/20/2010		0.115	0.00550	0.0756	0.176	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/25/2011		<0.0100	0.00504	0.0760	0.198	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0185
	07/19/2011		<0.0100	<0.00500	0.0828	0.215	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00976	<0.000200	0.00575	0.00684	<0.00500	<0.00500	<0.00500	<0.00500
	--		DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013																	
MW-12R	08/21/2013		<0.0100	<0.00500	0.0937	0.194	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0129	<0.000200	0.00647	0.0103	<0.00500	<0.00500	<0.00500	0.00956
	02/27/2014		<0.0100	<0.00500	0.0767	0.193	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00992	<0.00500	<0.00500	<0.00500	<0.00500
	08/20/2014		1.31	<0.00500	0.145	0.223	<0.00200	0.0516	<0.00500	<0.00500	0.867	<0.00500	0.0483	<0.000200	0.00554	0.0350	<0.00500	<0.00500	<0.00500	0.00962
	02/24/2015		0.037 J	0.0038	0.095	0.20	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0042 J	<0.0049	<0.0074	<0.0028	0.0019 J	0.0081 J
	08/25/2015		<0.0350	0.00413	0.102	0.233	<0.000160	<0.000540	<0.000260	<0.000520	<0.0141	<0.000240	0.00203 J	<0.0000490	0.00294 J	0.00191 J	0.000707 J	<0.000310	0.00270 J	0.00291 J
	03/09/2016		0.00398 J	0.0034	0.0972	0.214	<0.000160	0.000653 J	<0.000260	0.00331 J	<0.0150	<0.000240	0.00314 JB	<0.0000490	0.00348 J	0.00349 B	0.00121 J	<0.000310	0.00291 J	<0.00256
	08/18/2016		0.00468 JB	0.00294	0.111	0.274	<0.000160	0.00128 JB	<0.000260	0.00176 JB	<0.0150	0.000332 J	0.00250 J	0.0000689 JB	0.00267 J	0.00238 B	0.00151 J	<0.000310	0.00400 J	<0.00256
	02/08/2017		<0.0258	0.00348 J	0.133	0.273	<0.000800	<0.00270	<0.00130	<0.00260	<0.0750	<0.00120	0.0377	<0.0000490	0.00446 J	0.00769 J	0.00185 J	<0.00155	0.00430 J	0.0192 J
	08/16/2017		0.0102 JB	0.00270	0.118	0.229	<0.000160	0.000749 J	<0.000260	0.000969 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00285 J	0.00185 JB	0.00147 J	<0.000310	0.00422 J	0.00320 J
	04/05/2018		<0.00515	0.00275	0.128	0.281	<0.000160	<0.000540	<0.000260	0.00164 JB	<0.0150	<0.000240	0.000316 JB	<0.0000490	0.00206 JB	0.00187 JB	0.00169 JB	<0.000310	0.00464 J	0.00477 J
	04/05/2018	FD	<0.00515	0.00291	0.130	0.279	<0.000160	0.000595 JB	<0.000260	0.00170 JB	<0.0150	<0.000240	0.000435 JB	<0.0000490	0.00217 JB	0.00167 JB	0.00150 JB	<0.000310	0.00476 J	0.00779 J
	10/01/2018		<0.00515	0.00251	0.141	0.262	<0.000160	<0.000540	<0.000260	0.000867 JB	<0.0150	<0.000240	0.000932 JB	<0.0000490	0.00195 J	0.00181 J	0.00175 J	<0.000310	0.00458 J	0.00781 JB
	10/01/2018	FD	<0.00515	0.00292	0.154	0.249	<0.000160	0.000720 J	<0.000260	0.00150 J	<0.0150	0.000318 JB	0.000610 J	<0.0000490	0.00218 J	0.00205	0.00185 J	<0.000310	0.00502 J	0.00956 J
	04/04/2019		<0.00515	0.00250	0.167	0.295	<0.000160	0.000768 J	<0.000260	0.00330 J	<0.0150	<0.000240	0.000558 J	<0.0000490	0.00190 J	0.00530	0.00163 J	<0.000310	0.00582 J	0.0172 J
	04/04/2019	FD	<0.00515	0.00232	0.168	0.153 J	<0.000160	0.000775 JB	<0.000260	0.0100	<0.0150	<0.000240	0.000717 JB	<0.0000490	0.00168 J	0.00407	0.00206	<0.000310	0.00555 J	0.0148 J
	10/24/2019		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]
	06/18/2020		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020																	
MW-12R2	10/08/2020		<0.0554	0.00455	0.101	0.187 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.0112	0.000103 J	0.00701	0.00393	0.00223	<0.000513	<0.00754	0.0128 J
	04/15/2021		<0.0185	0.00425	0.118	0.197 J	<0.000150	<0.00124	<0.0000596	0.00196 J	<0.0281	<0.000849	0.00109 JB	<0.000100	0.00454 J	0.00430	0.00202	<0.0000700	0.00169 J	0.00906 JB
	09/16/2021		<0.0185	0.00406	0.110	0.193 J	<0.000150	<0.00124	<0.0000596	<0.00151	<0.0281	<0.000849	<0.000704	<0.000100	0.00408 J	0.00409	0.00212	<0.0000700	0.00181 J	0.0171 J
	04/14/2022		0.0222 JB	0.00406	0.118	0.189 J	<0.000150	0.00170 JB	0.0000920 J	0.00254 J	<0.0281	<0.000849	0.00106 J	<0.000100	0.00380 J	0.00614 B	0.00265	<0.0000700	0.00152 J	0.0314
	10/13/2022		<0.0185	0.00401	0.120	0.189 J	<0.000150	<0.00124	<0.0000596	0.00356 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00370 J	0.00355	0.00249	<0.0000700	0.00171 J	0.109
MW-13	06/16/2009		<0.0200	<0.00500	0.0692	0.253	<0.00200	<0.00500	0.0285	<0.00500	<0.200	<0.00500	0.0176	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	- -	0.0269
	01/18/2010		<0.0100	<0.00500	0.111	0.231	<0.00200	0.00728	0.00624	<0.00500	<0.200	<0.00500	0.0591	<0.000200	<0.00500	0.0110	<0.00500	<0.00500	0.0119	0.00769
	08/18/2010		0.0196	<0.00500	0.106	0.221	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.256	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0128	0.00618
	02/25/2011		<0.0100	<0.00500	0.0692	0.242	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.225	<0.000200	<0.00500	0.0144	<0.00500	<0.00500	0.0170	0.0744
	07/19/2011		<0.0100	<0.00500	0.0800	0.249	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.302	<0.000200	<0.00500	0.0121	<0.00500	<0.00500	0.0188	0.00785
	02/01/2012		<0.0100	<0.00500	0.0752	0.228	<0.00200	<0.00500	0.00663	<0.00500	<0.200	<0.00500	0.341	<0.000200	<0.00500	0.0136	<0.00500	<0.00500	0.0128	0.0553
	07/26/2012		<0.0100	<0.00500	0.112	0.284	<0.00200	<0.00500	0.00644	<0.00500	<0.200	<0.00500	0.459	<0.000200	<0.00500	0.0108	<0.00500	<0.00500	0.0158	0.0361
	02/26/2013		0.0139	<0.00500	0.129	0.270	<0.00200	<0.00500	0.00657	<0.00500	<0.200	<0.00500	0.571	<0.000200	0.00568	0.0820	<0.00500	<0.00500	0.0123	0.0359
	08/21/2013		<0.0100	0.00590	0.159	0.265	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.705	<0.000200	<0.00500	0.0209	<0.00500	<0.00500	0.0153	0.00931
	02/27/2014		0.0110	<0.00500	0.191	0.258	<0.00200	0.0140	0.00541	<0.00500	0.321	<0.00500	1.01	<0.000200	<0.00500	0.0300	<0.00500	<0.00500	0.0173	0.0291
	08/19/2014		0.0737	<0.00500	0.207	0.287	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.940	<0.000200	<0.00500	0.00650	<0.00500	<0.00500	0.0151	0.0115
	02/27/2015		<0.035	0.0034	0.23	0.24	<0.00070	<0.0014	0.0047 J	<0.0053	<0.014	<0.00024	0.82	<0.000049	0.0010 J	<0.0049	<0.0074	<0.0028	0.014	0.019 J
	08/26/2015		<0.0350	0.00301	0.197	0.231	<0.000160	<0.000540	0.00163 J	0.00208 J	<0.0141	<0.000240	0.383	- -	0.00143 J	0.00276	0.000710 J	<0.000310	0.0112	0.00592 J
	03/08/2016		0.00530 JB	0.00365	0.0976	0.196	<0.000160	<0.000540	<0.000260	0.00100 JB	0.0238 JB	0.000241 JB	0.00062 J	<0.0000490	0.00288 J	0.000721 JB	0.00144 J	<0.000310	0.00303 J	0.00418 JB
	08/17/2016		0.00748 JB	0.00398	0.149	0.223	<0.000160	0.00130 JB	0.00218	0.00287 JB	0.0220 JB	<0.000240	0.241	<0.0000490	0.00111 J	0.00409 B	0.000998 J	<0.000310	0.0119	0.0159 J
	02/08/2017		<0.0258	0.00409 J	0.150	0.217	<0.000800	<0.00270	0.00296 J	<0.00260	<0.0750	<0.00120	0.157	<0.0000490	0.00132 J	0.00726 J	0.000432 J	<0.00155	0.0123 J	0.0382 J
	08/17/2017		0.00785 JB	0.00687	0.142	0.187	<0.000160	0.00128 J	<0.000260	0.00517	<0.0150	<0.000240	0.0258	<0.0000490	0.00193 J	0.0231	0.000828 J	<0.000310	0.0141	0.240
	04/05/2018		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]
	09/26/2018		DRY WELL - PLUGGED AND ABANDONED SEPTEMBER 2018																	
MW-13R	10/01/2018		0.00533 JB	0.00260	0.194	0.169 J	<0.000160	0.00234 B	0.00460	0.0243	<0.0150	<0.000240	0.223	<0.0000490	0.0360	0.162	0.00161 J	<0.000310	0.00743 J	0.0775
	04/04/2019		<0.00515	0.00188 J	0.199	0.239	<0.000160	0.00802	0.00148 J	0.0162	<0.0150	<0.000240	0.0520	0.0000564 J	0.000861 J	0.0234	0.000961 J	<0.000310	0.0106	0.0335
	10/24/2019		<0.00515	0.00205	0.225	0.262	<0.000160	0.00255 B	0.000874 J	0.0104 B	<0.0150	<0.000240	0.0508	0.000152 JB	0.000608 J	0.0127	0.000645 JB	<0.000310	0.0102	0.0184 J
	06/18/2020		<0.0554	0.00238	0.127	0.274	<0.000478	<0.00149	0.000767 J	0.0110	<0.0489	<0.00249	0.0392	<0.000100	<0.000953	0.0103	0.00122 J	<0.000513	0.00887 J	0.0131 J
	06/18/2020	FD	<0.0554	0.00229	0.122	0.277	<0.000478	<0.00149	0.000716 J	0.00941	<0.0489	<0.00249	0.0374	<0.000100	<0.000953	0.00920	0.00104 J	<0.000513	0.00865 J	0.0128 J
	10/08/2020		<0.0554	0.00276	0.123	0.263	<0.000478	<0.00149	0.000901 J	0.0105	<0.0489	<0.00249	0.0349	0.000132 J	<0.000953	0.0101	0.00122 J	<0.000513	0.0106 J	0.0158 J
	10/08/2020	FD	<0.0554	0.00270	0.116	0.270	<0.000478	<0.00149	0.000872 J	0.00964	<0.0489	<0.00249	0.0327	0.000107 J	<0.000953	0.00888	0.000881 J	<0.000513	0.0101 J	0.0143 J
	04/15/2021		<0.0185	0.00258	0.121	0.253	<0.000150	<0.00124	0.000640 J	0.00821	<0.0281	<0.000849	0.0255	<0.000100	0.000796 J	0.00629	0.00102 J	<0.0000700	0.00962 J	0.0126 JB
	09/16/2021		<0.0185	0.00265	0.104	0.240	<0.000150	<0.00124	0.000438 J	0.00757 B	<0.0281	<0.000849	0.0155	<0.000100	0.000681 J	0.00401	0.000929 J	<0.0000700	0.0119 J	0.00987 J
	09/16/2021	FD	<0.0185	0.00271	0.109	0.244	<0.000150	<0.00124	0.000408 J	0.00795	<0.0281	<0.000849	0.0153	<0.000100	0.000737 JB	0.00429	0.00104 J	<0.0000700	0.0101 J	0.00984 J
	04/14/2022		0.0557 J	0.00275	0.125	0.230	<0.000150	0.00661	0.000277 J	0.00775	<0.0281	<0.000849	0.0145	<0.000100	0.000995 J	0.00528	0.00132 J	<0.0000700	0.0117 J	0.0232 J
	10/13/2022		<0.0185	0.00293	0.140	0.263	<0.000150	0.00183 J	0.000369 J	0.00854	<0.0281	<0.000849	0.0169	<0.000100	0.000618 J	0.00780	0.000660 J	<0.0000700	0.0120 J	0.0164 J
	10/13/2022	FD	<0.0185	0.00286	0.144	0.239	<0.000150	0.00175 J	0.000369 J	0.00847	<0.0281	<0.000849	0.0167	<0.000100	0.000653 J	0.00729	0.000656 J	<0.0000700	0.0115 J	0.0179 J

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-14	06/16/2009		<0.0200	<0.00500	0.0770	0.132	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0199	<0.000200	0.0215	<0.00501	<0.00500	<0.00500	- -	0.0255
	01/18/2010		<0.0100	<0.00500	<0.00500	<0.020	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/20/2010		0.103	<0.00500	0.0774	0.131	<0.00200	0.0119	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00964	0.0480	<0.00500	<0.00500	0.00527	<0.00500
	02/25/2011		0.0101	<0.00500	0.0778	0.151	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0234	<0.000200	0.00903	0.0138	<0.00500	<0.00500	0.00541	0.0532
	07/18/2011		0.176	0.00615	0.110	0.156	<0.00200	12.5	0.122	0.218	54.9	<0.00500	1.45	<0.000200	0.0860	6.81	<0.00500	<0.00500	0.00544	0.0446
	01/31/2012		<0.0100	<0.00500	0.0802	0.129	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0276	<0.000200	0.00608	0.0186	<0.00500	<0.00500	<0.00500	0.0287
	07/25/2012		0.0116	<0.00500	0.0905	0.216	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0321	<0.000200	<0.00500	0.0240	<0.00500	<0.00500	<0.00500	0.0448
	02/21/2013		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	02/22/2013		<0.0100	<0.00500	0.0900	0.174	<0.00200	<0.00500	<0.00500	0.0705	<0.200	<0.00500	0.0349	<0.000200	0.0121	0.0106	<0.00500	<0.00500	0.00591	0.148
	08/22/2013		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	02/28/2014		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]
	08/20/2014		0.573	<0.00500	0.125	0.203	<0.00200	0.0247	<0.00500	<0.00500	0.314	<0.00500	0.00919	<0.000200	0.00533	0.0178	<0.00500	<0.00500	0.00502	0.0134
	02/27/2015		<0.035	0.0023	0.10	0.20 J	<0.00070	0.0026 J	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	--[1]	0.0040 J	<0.0049	<0.0074	<0.0028	0.0047 J	0.0070 J
	08/27/2015		<0.0350	0.00271	0.0998	0.188	<0.000160	0.00261	0.000326 J	0.00122 J	<0.0141	<0.000240	<0.000250	--[1]	0.00429 J	0.00190 J	0.00123 J	<0.000310	0.00485 J	0.00334 J
	08/19/2016		0.00385 JB	0.00244	0.124	0.216	<0.000160	0.00335 B	0.000476 J	0.00230 JB	<0.0150	<0.000240	0.00431 J	<0.0000490	0.00412 J	0.00253 B	0.00165 J	<0.000310	0.00554 J	0.00497 JB
	08/16/2017		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	<0.0000490	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]
	09/27/2018		DRY WELL - PLUGGED AND ABANDONED SEPTEMBER 2018																	
MW-14R	10/01/2018		0.0120 JB	0.00317	0.159	0.160 J	<0.000160	<0.000540	<0.000260	0.00200 JB	<0.0150	<0.000240	0.0107	<0.0000490	0.00700	0.00515	0.00178 J	<0.000310	0.00339 J	0.00479 JB
	10/24/2019		<0.00515	0.00248	0.332	0.181 J	<0.000160	<0.000540	<0.000260	<0.000520	<0.0150	<0.000240	<0.000250	0.0000617 JB	0.00242 J	<0.000350	0.00219 B	<0.000310	0.00509 J	<0.00256
	10/08/2020		<0.0554	0.00257	0.275	0.202	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	0.000115 J	0.00241 J	<0.000952	0.00226	<0.000513	<0.00754	<0.00996
	09/16/2021		<0.0185	0.00250	0.250	0.208	<0.000150	<0.00124	<0.0000596	<0.00151	<0.0281	<0.000849	<0.000704	<0.000100	0.00221 J	<0.000816	0.00178 J	<0.0000700	0.00653 J	0.00738 J
	10/13/2022		<0.0185	0.00260	0.232	0.209	<0.000150	<0.00124	<0.0000596	0.00161 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00227 J	<0.000816	0.00184 J	<0.0000700	0.00598 J	0.0119 J
MW-15	08/20/2010		0.0790	<0.00500	0.145	0.175	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0198
	02/24/2011		<0.0100	<0.00500	0.127	0.165	<0.00200	0.0102	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0385
	07/14/2011		<0.0100	<0.00500	0.173	0.201	<0.00200	0.0132	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00657	<0.00500	<0.00500	<0.00500	0.0122
	01/30/2012		<0.0100	<0.00500	0.180	0.178	<0.00200	0.00644	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00967
	07/24/2012		<0.0100	<0.00500	0.178	0.227	<0.00200	0.0110	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00636
	02/19/2013		0.0682	<0.00500	0.178	0.191	<0.00200	0.129	<0.00500	<0.00500	0.610	<0.00500	0.0198	<0.000200	<0.00500	0.0704	<0.00500	<0.00500	<0.00500	0.0160
	08/20/2013		<0.0100	<0.00500	0.232	0.194	<0.00200	0.00594	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00854
	08/20/2013	FD	<0.0100	<0.00500	0.232	0.188	<0.00200	0.00582	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00619
	02/24/2014		<0.0100	<0.00500	0.178	0.175	<0.00200	0.00910	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/24/2014	FD	<0.0100	<0.00500	0.178	0.174	<0.00200	0.00961	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/21/2014		0.0102	<0.00500	0.146	0.117	<0.00200	0.00513	<0.00500	<0.00500	<0.200	<0.00500	0.00509	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0149
	08/21/2014	FD	0.0136	<0.00500	0.153	0.119	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0213
	02/24/2015		0.052 J	0.0040	0.15	0.17 J	<0.00070	0.0034 J	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0024 J	<0.0049	<0.0074	<0.0028	0.0021 J	0.012 J
	08/27/2015		<0.0350	0.00424	0.146	0.167	<0.000160	0.00285	<0.000260	0.00109 J	<0.0141	0.000373 J	0.000492 J	<0.0000490	0.00249 J	0.000825 J	0.00232	<0.000310	0.00220 J	<0.00256
	08/27/2015	FD	<0.0350	0.00443	0.146	0.174	<0.000160	0.00272	<0.000260	<0.000520	0.0144 J	<0.000240	0.000276 J	<0.0000490	0.00254 J	0.000688 J	0.00253	<0.000310	0.00200 J	<0.00256
	03/07/2016		0.00537 JB	0.0042	0.14	0.156	<0.000160	0.00281	<0.000260	0.000956 J	<0.0150	0.000309 JB	0.000837 JB	<0.0000490	0.00240 J	0.00173 JB	0.00234	<0.000310	0.00248 J	0.00275 JB
	08/15/2016		0.00418 JB	0.00353	0.140	0.176	<0.000160	0.00128 JB	0.000281 J	0.00193 JB	<0.0150	<0.000240	0.00394 J	<0.0000490	0.00326 J	0.00597 B	0.00245	<0.000310	0.00275 J	0.00409 J
	08/15/2016	FD	0.00531 JB	0.00353	0.145	0.183	<0.000160	0.00130 JB	0.000293 J	0.000569 JB	0.0441 JB	<0.000240	0.00413 J	<0.0000490	0.00340 J	0.00598 B	0.00259	<0.000310	0.00281 J	0.00403 J
	02/06/2017		<0.0258	0.00342 J	0.160	0.198	<0.000800	<0.00270	<0.00130	<0.00260	<0.0750	<0.00120	0.00764 J	<0.0000490	0.00419 J	0.0145	0.00213	<0.00155	0.00275 J	0.0140 J
	08/16/2017		0.00788 JB	0.00362	0.161	0.161	<0.000160	0.00242	<0.000260	0.00189 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00183 J	0.00373 B	0.00191 J	<0.000310	0.00257 J	0.0104 J
	04/05/2018		<0.00515	0.00339	0.148	0.189 J	<0.000160	0.00201 B	<0.000260	0.00420 J	0.0281 J	0.000269 JB	0.00172 JB	<0.0000490	0.00433 J	0.00561	0.00170 JB	<0.000310	0.00290 J	0.0250 J
	10/01/2018		<0.00515	0.00329	0.162	0.157 J	<0.000160	0.00118 JB	<0.000260	0.00144 JB	<0.0150	<0.000240	0.00189 JB	<0.0000490	0.00136 J	0.00277	0.00215	<0.000310	0.00288 J	0.0199 JB
	04/04/2019		0.00581 JB	0.00294	0.189	0.180 J	<0.000160	0.00181 J	<0.000260	0.00800	<0.0150	0.000487 J	0.000601 J	<0.0000490	0.00170 J	0.00656	0.00134 J	<0.000310	0.00265 J	0.0714
	10/24/2019		<0.00515	0.00246	0.160	0.172 J	<0.000160	0.00321	<0.000260	0.00177 JB	<0.0150	<0.000240	0.00280 J	0.0000657 JB	0.00567	0.0322	0.00252	<0.000310	0.00273 J	0.128
	06/18/2020		<0.0554	0.00285	0.137	0.183 J	<0.000478	0.00504	<0.000477	0.00313 J	<0.0489	<0.00249	0.00176 J	<0.000100	0.00697	0.0396	0.00184 J	<0.000513	<0.00754	0.168
	10/08/2020		<0.0554	0.00315	0.132	0.183 J	<0.000478	0.00433	<0.000477	0.00340 J	<0.0489	<0.00249	0.00368 J	0.000103 J	0.00521	0.0259	0.00165 J	<0.000513	<0.00754	0.175
	04/15/2021		<0.0185	0.00217	0.120	0.180 J	<0.000150	0.00670	0.000593 J	0.0219	<0.0281	<0.000849	0.00472 JB	<0.000100	0.0102	1.29	0.00206	<0.0000700	0.00251 J	3.68
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021																	
MW-15R	09/16/2021		<0.0185	0.00391	0.154	0.190 J	<0.000150	0.00864	0.000137 J	0.00425 JB	<0.0281	<0.000849	0.00653	<0.000100	0.00864	0.00497	0.00244	<0.0000700	0.00252 J	0.0312
	04/14/2022		<0.0185	0.00258	0.178	0.197 J	<0.000150	0.0102	<0.0000596	0.00866	<0.0281	<0.000849	0.00210 JB	<0.000100	0.00175 J	0.00312	0.00233	<0.0000700	0.00237 J	0.0687
	10/13/2022		<0.0185	0.00269	0.148	0.170 J	<0.000150	0.0147	<0.0000596	0.00456 J	<0.0281	<0.000849	0.000723 J	<0.000100	0.00127 J	0.00184 J	0.00194 J	<0.0000700	0.00260 J	0.0469

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-16	08/20/2010		0.0746	<0.00500	0.109	0.156	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00554	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0145
	02/24/2011		<0.0100	<0.00500	0.107	0.162	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00671	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0248
	07/15/2011		0.188	<0.00500	0.129	0.181	<0.00200	0.115	<0.00500	<0.00500	0.613	<0.00500	0.0164	<0.000200	<0.00500	0.0591	<0.00500	<0.00500	<0.00500	0.0176
	07/15/2011	FD	0.0374	<0.00500	0.118	0.185	<0.00200	0.0251	<0.00500	<0.00500	0.241	<0.00500	0.00820	<0.000200	<0.00500	0.0234	<0.00500	<0.00500	<0.00500	0.0166
	01/30/2012		<0.0100	<0.00500	0.0964	0.166	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00899
	07/24/2012		0.0102	<0.00500	0.0966	0.202	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0162	<0.000200	<0.00500	0.0112	<0.00500	<0.00500	<0.00500	0.0167
	02/20/2013		<0.0100	0.00547	0.0968	0.172	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00693
	08/20/2013		0.0260	<0.00500	0.105	0.192	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0219	<0.000200	<0.00500	0.0177	<0.00500	<0.00500	<0.00500	<0.00500
	02/25/2014		<0.0100	<0.00500	0.0938	0.172	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0225	<0.000200	0.00516	0.0295	<0.00500	<0.00500	<0.00500	0.00786
	08/19/2014		0.335	<0.00500	0.104	0.209	<0.00200	0.00751	<0.00500	<0.00500	<0.200	<0.00500	0.00544	<0.000200	<0.00500	0.00667	<0.00500	<0.00500	<0.00500	0.00897
	02/24/2015		0.042 J	0.0051	0.098	0.17 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	0.0042 J	<0.000049	0.0035 J	<0.0049	<0.0074	<0.0028	0.0016 J	0.014 J
	08/27/2015		<0.0350	0.00528	0.0936	0.176	<0.000160	<0.000540	<0.000260	0.000638 J	<0.0141	<0.000240	0.000312 J	<0.0000490	0.00293 J	<0.000350	0.00228	<0.000310	0.00156 J	0.00343 J
	08/15/2016		0.00512 JB	0.00434	0.0973	0.181	<0.000160	0.00122 JB	<0.000260	0.000659 JB	0.0571 JB	<0.000240	0.00916	<0.0000490	0.00631	0.0117	0.00246	<0.000310	0.00206 J	0.00454 J
	08/17/2017		0.0178 JB	0.00488	0.106	0.162	<0.000160	0.000796 J	<0.000260	0.00279 J	<0.0150	<0.000240	0.000295 J	<0.0000490	0.00256 J	0.00343 B	0.00257	<0.000310	0.00198 J	0.0285
	10/01/2018		<0.00515	0.00492	0.114	0.155 J	<0.000160	<0.000540	<0.000260	0.00200 JB	<0.0150	<0.000240	0.000783 JB	<0.0000490	0.00243 J	0.000934 J	0.00322	<0.000310	0.00228 J	0.00805 JB
	10/24/2019		<0.00515	0.00557	0.109	0.157 J	<0.000160	0.00107 JB	<0.000260	0.00290 JB	<0.0150	0.000400 J	0.00116 J	0.0000606 JB	0.00251 J	0.00120 J	0.00358	<0.000310	0.00226 J	0.0369
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020																	
MW-16R	10/08/2020		<0.0554	0.00601	0.0895	0.162 J	<0.000478	<0.00149	<0.000477	0.00410 J	<0.0489	<0.00249	0.00805	<0.000100 [R]	0.00398 J	<0.000952	0.00252	<0.000513	<0.00754	<0.00996
	09/16/2021		<0.0185	0.00459	0.105	0.167 J	<0.000150	<0.00124	<0.0000596	0.00299 JB	<0.0281	<0.000849	0.000862 J	<0.000100	0.00290 J	0.00190 J	0.00257	<0.0000700	0.00301 J	0.0297
	10/13/2022		0.0192 J	0.00478	0.0980	0.154 J	<0.000150	<0.00124	<0.0000596	0.00241 J	<0.0281	<0.000849	0.000881 J	<0.000100	0.00243 J	<0.000816	0.00256	<0.0000700	0.00247 J	0.00935 J
MW-17	08/20/2010		0.146	<0.00500	0.180	0.157	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0142
	02/24/2011		<0.0100	<0.00500	0.152	0.162	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0478
	07/18/2011		<0.0100	<0.00500	0.141	0.165	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0126
	--		DAMAGED WELL - PLUGGED AND ABANDONED JUNE 2013																	
MW-17R	08/22/2013		0.0302	<0.00500	0.154	0.188	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0819	<0.000200	0.00531	0.0189	<0.00500	<0.00500	<0.00500	<0.00500
	02/27/2014		0.254	<0.00500	0.121	0.193	<0.00200	0.0121	<0.00500	<0.00500	<0.200	<0.00500	0.0342	<0.000200	<0.00500	0.0273	<0.00500	<0.00500	<0.00500	<0.00500
	08/22/2014		0.0459	<0.00500	0.153	0.120	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0989	<0.000200	<0.00500	0.0378	<0.00500	<0.00500	<0.00500	0.0243
	02/26/2015		0.046 J	0.0028	0.12	- -	<0.00070	0.0022 J	<0.0023	<0.0053	<0.014	0.00030 J	<0.0012	<0.000049	0.0013 J	<0.0049	<0.0074	<0.0028	0.0030 J	0.023 J
	08/27/2015		<0.0350	0.00320	0.0972	0.171	<0.000160	0.000967 J	<0.000260	0.000632 J	0.0218 J	<0.000240	0.00123 J	<0.0000490	0.00163 J	0.000779 J	0.00203	<0.000310	0.00267 J	<0.00256
	03/08/2016		0.0150 JB	0.00259	0.0739	0.161	<0.000160	<0.000540	0.000315 J	0.000717 J	<0.0150	<0.000240	0.0544	<0.0000490	0.000749 J	0.00103 JB	0.00185 J	<0.000310	0.00666 J	0.00412 JB
	08/17/2016		0.00299 JB	0.00251	0.143	0.199	<0.000160	0.00110 JB	<0.000260	0.00145 JB	<0.0150	<0.000240	0.00281 J	<0.0000490	0.00140 J	0.00147 JB	0.00143 J	<0.000310	0.00285 J	<0.00256
	02/09/2017		<0.0258	0.00292 J	0.0993	0.183	<0.000800	<0.00270	<0.00130	0.00839 J	<0.0750	<0.00120	0.0450	<0.0000490	0.00415 J	0.0112	0.00227	<0.00155	0.00227 J	<0.0128
	08/16/2017		0.00847 JB	0.00367	0.0723	0.154	<0.000160	0.00244	<0.000260	0.00105 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00161 J	0.00196 JB	0.00274	<0.000310	0.00179 J	0.00448 J
	04/05/2018		<0.00515	0.00353	0.107	0.166 J	<0.000160	0.00143 JB	<0.000260	0.00180 JB	<0.0150	<0.000240	<0.000250	<0.0000490	0.00161 JB	0.00233 B	0.00261 B	<0.000310	0.00165 JB	0.00823 J
	04/05/2018	FD	<0.00515	0.00350	0.109	0.172 J	<0.000160	0.00118 JB	<0.000260	0.00166 JB	<0.0150	<0.000240	0.000388 JB	<0.0000490	0.00161 JB	0.00229 B	0.00227 B	<0.000310	0.00163 JB	0.0116 J
	10/01/2018		0.00927 JB	0.00327	0.120	0.145 J	<0.000160	0.000817 JB	<0.000260	0.00143 JB	<0.0150	<0.000240	0.000555 JB	<0.0000490	0.00157 J	0.00309	0.00290	<0.000310	0.00189 J	0.0203 JB
	04/04/2019		<0.00515	0.00384	0.0984	0.150 J	<0.000160	0.00167 J	<0.000260	0.00167 J	<0.0150	<0.000240	0.000643 J	<0.0000490	0.00180 J	0.0335	0.00294	<0.000310	0.00168 J	0.0260
	04/04/2019	FD	<0.00515	0.00346	0.0972	0.185 J	<0.000160	0.00138 JB	<0.000260	0.00105 J	<0.0150	<0.000240	0.000563 JB	<0.0000490	0.00147 J	0.00314	0.00305	<0.000310	0.00162 J	0.0192 J
	10/24/2019		<0.00515	0.00378	0.0915	0.116 J	<0.000160	0.00223 B	<0.000260	0.000686 JB	<0.0150	0.000244 J	<0.000250	0.0000572 JB	0.00167 J	0.00478	0.00218 B	<0.000310	0.00166 J	0.0365
	06/18/2020		<0.0554	0.00386	0.0956	0.148 J	<0.000478	0.00178 J	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00174 J	0.00270	0.00256	<0.000513	<0.00754	0.0203 J
	10/08/2020		<0.0554	0.00355	0.0888	0.151 J	<0.000478	0.00166 J	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100 [R]	0.00189 J	<0.000952	0.00272	<0.000513	<0.00754	0.0302
	04/15/2021		<0.0185	0.00406	0.101	0.145 J	<0.000150	0.00244	<0.0000596	0.00308 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00195 J	0.00163 J	0.00233	<0.0000700	0.00163 J	0.0107 JB
	09/16/2021		<0.0185	0.00347	0.115	0.147 J	<0.000150	0.00165 J	<0.0000596	0.00159 JB	<0.0281	<0.000849	<0.000704	<0.000100	0.00169 J	0.000903 J	0.00185 J	<0.0000700	0.00217 J	0.00895 J
	04/14/2022		0.0872 J	0.00385	0.117	0.153 J	<0.000150	0.00214	<0.0000596	0.00286 J	<0.0281	<0.000849	0.00193 JB	<0.000100	0.00167 J	0.00218	0.00156 J	<0.0000700	0.00209 J	0.00729 J
	10/13/2022		0.0857 J	0.00372	0.134	0.133 J	<0.000150	0.00158 J	0.000117 J	0.00255 J	0.0723 J	<0.000849	0.00436 J	<0.000100	0.00170 J	0.00158 J	0.00154 J	<0.0000700	0.00230 J	0.0155 J
MW-18	08/23/2010		0.0787	<0.00500	0.0575	0.334	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.314	<0.000200	0.00561	0.0298	0.00548	<0.00500	0.0123	0.0772
	02/24/2011		0.0157	<0.00500	0.0766	0.330	<0.00200	0.0186	<0.00500	<0.00500	<0.200	<0.00500	0.00536	<0.000200	<0.00500	0.0144	0.00501	<0.00500	0.00883	0.0439
	07/18/2011		0.0244	<0.00500	0.05636	0.396	<0.00200	0.0111	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.0129	<0.00500	<0.00500	0.00666	0.0661
	01/31/2012		0.0113	<0.00500	0.0645	0.133	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0191
	07/25/2012		0.0110	<0.00500	0.0780	0.230	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00684
	02/22/2013		0.0742	<0.00500	0.105	0.249	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0129	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0138	0.0187
	08/22/2013		<0.0100	<0.00500	0.110	0.243	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00509	<0.00500	<0.00500	<0.00500	<0.00500
	02/26/2014		0.0213	<0.00500	0.0766	0.244	<0.00200	<0.00500	<0.00500	0.0215	<0.200	<0.00500	0.0117	<0.000200	<0.00500	0.00681	<0.00500	<0.00500	0.00701	0.0465
	08/20/2014		1.31	<0.00500	0.145	0.242	<0.00200	0.00506	<0.00500	<0.00500	0.637	<0.00500	0.0378	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	<0.00500	0.0363
	02/26/2015		0.069 J	0.0026	0.10	0.26	<0.00070	<0.0014	<0.0023	0.0061 J	0.022 J	0.00026 J	<0.0012	<0.000049	0.0020 J	<0.0049	<0.0074	<0.0028	0.0039 J	0.017 J
	08/25/2015		<0.0350	0.00288	0.116	0.188 J	<0.000160	0.00118 J	<0.000260	0.000646 J	<0.0141	<0.000240	0.00120 J	<0.0000490	0.00612	0.00151 J	0.00178 J	<0.000310	0.00434 J	0.00669 J
	08/17/2016		<0.00200	0.00194 J	0.108	0.223	<0.000160	0.00195 JB	<0.000260	0.00214 JB	0.0201 J	<0.000240	0.00261 J	0.0000593 JB	0.00217 J	0.00139 JB	0.00173 J	<0.000310	0.00423 J	0.00992 JB
	08/16/2017		<0.00515	0.00174 J	0.135	0.169	<0.000160	0.00176 J	<0.000260	0.000766 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00174 J	0.00106 JB	0.00299	<0.000310	0.00434 J	0.00897 J
	10/01/2018		<0.00515	0.00225	0.0916	0.240	<0.000160	0.00185 JB	<0.000260	0.00231 JB	<0.0150	0.000351 JB	0.000538 JB	<0.0000490	0.00166 J	0.0101	0.00252	<0.000310	0.00428 J	0.0334 B
	10/24/2019		<0.00515	0.00232	0.0826	0.168 J	<0.000160	0.00258 B	<0.000260	0.00302 JB	<0.0150	<0.000240	<0.000250	0.0000660 JB	0.00193 J	0.00878	0.00190 JB	<0.000310	0.00354 J	0.0682
	10/08/2020		<0.0554	0.00209	0.102	0.183 J	<0.000478	0.00337	<0.000477	0.00637	<0.0489	<0.00249	0.00412 J	--[1]	0.00166 J	0.0117	0.00196 J	<0.000513	<0.00754	0.124
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021																	
MW-18R	09/16/2021		<0.0185	0.00409	0.105	0.122 J	<0.000150	0.00139 J	<0.0000596	0.00238 JB	<0.0281	<0.000849	0.00166 J	<0.000100	0.00448 J	<0.000816	0.00455	<0.0000700	0.00269 J	0.00553 J
	10/13/2022		0.0268 J	0.00534	0.114	0.141 J	<0.000150	<0.00124	<0.0000596	0.00317 J	<0.0281	<0.000849	0.00171 J	<0.000100	0.00339 J	<0.000816	0.00143 J	<0.0000700	0.00141 J	0.0841

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-19	08/23/2010		0.101	0.0476	0.229	<0.020	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00666	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0227
	02/24/2011		<0.0100	<0.00500	0.0764	0.180	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0318
	07/18/2011		<0.0100	<0.00500	0.0920	0.266	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00781	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0553
	01/31/2012		<0.0100	<0.00500	0.0688	0.350	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00553	<0.000200	<0.00500	0.00525	<0.00500	<0.00500	<0.00500	0.0345
	07/25/2012		0.0114	<0.00500	0.106	0.535	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00593	<0.000200	<0.00500	0.00664	<0.00500	<0.00500	<0.00500	0.0714
	02/26/2013		<0.0100	<0.00500	0.0870	0.300	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00566	<0.00500	<0.00500	<0.00500	0.0629
	08/22/2013		<0.0100	<0.00500	0.0857	0.241	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00512
	08/22/2013	FD	0.0182	<0.00500	0.0864	0.237	<0.00200	0.0143	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00900	<0.00500	<0.00500	<0.00500	<0.00500
	02/26/2014		0.0120	<0.00500	0.0793	0.227	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0157	<0.000200	<0.00500	0.0122	<0.00500	<0.00500	<0.00500	0.0333
	02/26/2014	FD	0.0435	<0.00500	0.0753	0.204	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0165	<0.000200	<0.00500	0.0123	<0.00500	<0.00500	<0.00500	0.0350
	08/19/2014		0.0461	<0.00500	0.269	0.279	<0.00200	0.0352	<0.00500	<0.00500	0.263	<0.00500	0.0204	<0.000200	<0.00500	0.0261	<0.00500	<0.00500	<0.00500	0.00854
	08/19/2014	FD	0.0208	<0.00500	0.0846	0.236	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0106	<0.000200	<0.00500	0.00943	<0.00500	<0.00500	<0.00500	0.00640
	02/26/2015		<0.035	0.0046	0.070	0.22	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0032 J	<0.0049	<0.0074	<0.0028	0.0025 J	0.014 J
	02/26/2015	FD	0.089 J	0.0046	0.069	0.21	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0030 J	<0.0049	<0.0074	<0.0028	0.0025 J	0.013 J
	08/26/2015		<0.0350	0.00422	0.0875	0.185 J	<0.000160	0.00105 J	<0.000260	0.000732 J	<0.0141	<0.000240	<0.000250	<0.0000490	0.0107	0.00168 J	0.00138 J	<0.000310	0.00179 J	0.00486 J
	03/08/2016		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/17/2016		0.00479 JB	0.00383	0.0919	0.191	<0.000160	0.00129 JB	<0.000260	0.000646 JB	0.0268 JB	<0.000240	0.00104 JB	<0.0000490	0.00287 J	0.000547 JB	0.00148 J	<0.000310	0.00312 J	0.00397 J
	02/08/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/16/2017		0.00686 JB	0.00365	0.104	0.148	<0.000160	0.000704 J	<0.000260	0.00395 J	<0.0150	<0.000240	0.000510 J	<0.0000490	0.00328 J	0.0123	0.00143 J	<0.000310	0.00208 J	0.0241 J
	08/16/2017	FD	<0.00515	0.00351	0.103	0.151	<0.000160	0.000627 J	<0.000260	0.00304 J	<0.0150	<0.000240	0.000995 JB	<0.0000490	0.00317 J	0.00919	0.00138 J	<0.000310	0.00220 J	0.0207 J
	04/05/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		0.00731 JB	0.00196 J	0.0939	0.145 J	<0.000160	0.000756 JB	0.00133 J	0.00446 JB	<0.0150	<0.000240	0.0179	<0.0000490	0.00480 J	0.0726	0.00109 J	<0.000310	0.00250 J	0.0926
	04/04/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		<0.00515	0.00135 J	0.0639	0.162 J	<0.000160	<0.000540	0.00261	0.00138 JB	<0.0150	<0.000240	0.0406	<0.0000490	0.00358 J	0.181	0.00146 JB	<0.000310	0.00274 J	0.0196 J
	06/18/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
	04/15/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021																	
MW-19R	09/16/2021		0.0302 J	0.00316	0.112	0.166 J	<0.000150	<0.00124	0.000518 J	0.00355 JB	<0.0281	<0.000849	0.0160	<0.000100	0.00424 J	0.0142	0.00150 J	<0.0000700	0.00244 J	0.0329
	04/14/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		0.0443 J	0.00332	0.186	0.179 J	<0.000150	<0.00124	0.0000855 J	0.00166 J	0.0357 J	<0.000849	0.00245 J	<0.000100	0.00175 J	0.000997 J	0.00129 J	<0.0000700	0.00323 J	0.0192 J
MW-20	08/23/2010		0.0891	<0.00500	0.122	0.143	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00970
	02/25/2011		<0.0100	<0.00500	0.120	0.150	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0643
	07/18/2011		<0.0100	<0.00500	0.134	0.159	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0278
	01/31/2012		<0.0100	<0.00500	0.114	0.149	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0171
	07/25/2012		<0.0100	<0.00500	0.107	0.217	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0187
	02/22/2013		0.0294	<0.00500	0.102	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0165
	08/20/2013		0.0104	<0.00500	0.102	0.172	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00966	<0.000200	<0.00500	0.0112	<0.00500	<0.00500	<0.00500	0.0242
	02/26/2014		<0.0100	<0.00500	0.112	0.173	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0107	<0.000200	<0.00500	0.00800	<0.00500	<0.00500	<0.00500	0.00954
	08/19/2014		0.290	<0.00500	0.108	0.194	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0116
	02/24/2015		0.038 J	0.0031	0.11	0.17 J	<0.00070	0.0020 J	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0024 J	<0.0049	<0.0074	<0.0028	0.0026 J	0.023 J
	08/25/2015		<0.0350	0.00396	0.108	0.180 J	<0.000160	0.000955 J	<0.000260	0.00109 J	<0.0141	<0.000240	<0.000250	<0.0000490	0.00167 J	0.000669 J	0.00141 J	<0.000310	0.00254 J	0.00578 J
	08/16/2016		0.00470 JB	0.00389	0.108	0.177	<0.000160	0.00177 JB	<0.000260	0.00552	0.0167 JB	0.000352 JB	0.000461 JB	<0.0000490	0.00236 J	0.000656 JB	0.00145 J	<0.000310	0.00275 J	0.00757 J
	08/17/2017		0.00779 JB	0.00353	0.112	0.152	<0.000160	0.000878 J	<0.000260	0.00200 J	<0.0150	<0.000240	0.000300 J	<0.0000490	0.00241 J	0.00383	0.00130 J	<0.000310	0.00222 J	0.0218 J
	10/01/2018		0.0130 JB	0.00195 J	0.119	0.156 J	<0.000160	0.00145 JB	0.00462	0.000825 JB	<0.0150	<0.000240	0.0259	<0.0000490	0.0270	0.142	0.00114 J	<0.000310	0.00196 J	0.0702
	10/24/2019		<0.00515	0.00342	0.139	0.164 J	<0.000160	0.00133 JB	<0.000260	<0.000520	<0.0150	<0.000240	0.000407 J	<0.0000490	0.0144	0.0135	0.00136 JB	<0.000310	0.00208 J	0.0260
	10/08/2020		<0.0554	0.00367	0.122	0.182 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100 [R]	0.00276 J	0.00103 J	0.00117 J	<0.000513	<0.00754	0.0150 J
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021																	
MW-20R	09/16/2021		<0.0185	0.00322	0.114	0.195 J	<0.000150	<0.00124	0.000467 J	0.00401 JB	<0.0281	<0.000849	0.0109	<0.000100	0.0242	0.00560	0.00167 J	<0.0000700	0.00303 J	0.0399
	10/13/2022		0.139	0.00376	0.120	0.169 J	<0.000150	0.00963	0.000277 J	0.00462 J	0.117	<0.000849	0.00715	<0.000100	0.0147	0.00779	0.00181 J	<0.0000700	0.00275 J	0.0931
MW-21	08/23/2010		0.195	<0.00500	0.232	0.208	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0567	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00898	0.0307
	02/28/2011		<0.0100	<0.00500	0.258	0.257	<0.00200	0.00620	<0.00500	<0.00500	<0.200	<0.00500	0.102	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0101	0.0184
	02/28/2011	FD	<0.0100	<0.00500	0.256	0.252	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.101	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00975	0.0213
	07/19/2011		<0.0100	<0.00500	0.242	0.225	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0346	<0.000200	<0.00500	0.00836	<0.00500	<0.00500	0.00873	0.0286
	01/31/2012		<0.0100	<0.00500	0.245	0.216	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0375	<0.000200	<0.00500	0.00746	<0.00500	<0.00500	0.00704	0.0170
	07/26/2012		<0.0100	<0.00500	0.244	0.261	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0380	<0.000200	<0.00500	0.00827	<0.00500	<0.00500	0.00862	0.0163
	02/22/2013		0.0818	<0.00500	0.224	0.286	<0.00200	0.0364	<0.00500	<0.00500	0.403	<0.00500	0.0467	<0.000200	<0.00500	0.0409	<0.00500	<0.00500	0.00962	0.0319
	08/20/2013		<0.0100	<0.00500	0.179	0.308	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0668	<0.000200	<0.00500	0.0219	<0.00500	<0.00500	0.00936	0.0195
	02/25/2014		<0.0100	<0.00500	0.187	0.335	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0709	<0.000200	<0.00500	0.0171	<0.00500	<0.00500	0.00939	0.0531
	08/19/2014		0.0299	<0.00500	0.180	0.350	<0.00200	<0.00500	<0.00500	<0.00500	0.344	<0.00500	0.0439	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00844	0.0208
	02/24/2015		<0.035	0.0017 J	0.21	0.36	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	0.00032 J	0.028	<0.000049	0.00074 J	<0.0049	<0.0074	<0.0028	0.0089 J	0.025 J
	08/25/2015		<0.0350	0.00221	0.224	0.369	<0.000160	0.000810 J	<0.000260	0.000702 J	<0.0141	0.000854 J	0.0110	<0.0000490	<0.00160	0.00180 J	0.000525 J	<0.000310	0.00837 J	0.00615 J
	08/16/2016		0.00210 JB	0.00147 J	0.171	0.460	<0.000160	0.00115 JB	<0.000260	0.000881 JB	<0.0150	<0.000240	0.00793	- -	0.000639 J	0.00167 JB	0.000702 J	<0.000310	0.00920 J	0.00432 J
	08/17/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/01/2018		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/24/2019		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/08/2020		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	09/16/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	10/13/2022		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-22	08/23/2010		0.121	<0.00500	0.165	0.174	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0306	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00604	0.0916
	02/28/2011		<0.0100	<0.00500	0.146	0.173	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0108	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00616	0.0487
	07/19/2011		<0.0100	<0.00500	0.150	0.178	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00721	<0.000200	<0.00500	0.00546	<0.00500	<0.00500	0.00638	0.0203
	01/31/2012		<0.0100	<0.00500	0.151	0.141	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0103	<0.000200	<0.00500	0.00762	<0.00500	<0.00500	0.00501	0.0183
	07/26/2012		<0.0100	<0.00500	0.143	0.196	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00949	<0.000200	<0.00500	0.00839	<0.00500	<0.00500	0.00564	0.00680
	02/21/2013		0.0231	<0.00500	0.145	0.180	<0.00200	0.0305	<0.00500	<0.00500	0.269	<0.00500	0.0386	<0.000200	<0.00500	0.0520	<0.00500	<0.00500	0.00590	0.0208
	08/21/2013		<0.0100	<0.00500	0.137	0.210	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0233	<0.000200	<0.00500	0.0209	<0.00500	<0.00500	0.00658	0.00566
	02/25/2014		<0.0100	<0.00500	0.143	0.204	<0.00200	0.0133	<0.00500	<0.00500	<0.200	<0.00500	0.0238	<0.000200	<0.00500	0.0266	<0.00500	<0.00500	0.00632	0.0150
	08/20/2014		40.3	0.00642	0.141	0.239	<0.00200	0.184	<0.00500	0.00983	4.32	0.00743	0.0715	<0.000200	0.00881	0.0999	<0.00500	<0.00500	0.0336	0.0370
	02/24/2015		0.037 J	0.0025	0.18	0.21	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	0.00077 J	0.0026 J	<0.000049	0.0014 J	<0.0049	<0.0074	<0.0028	0.012	0.019 J
	08/25/2015		0.0452 J	0.00279	0.167	0.208	<0.000160	0.00139 J	0.000337 J	0.000760 J	<0.0141	<0.000240	0.00253 J	<0.0000490	<0.00160	0.00240	<0.000380	<0.000310	0.00934 J	0.00438 J
	08/16/2016		0.00281 JB	0.00241	0.150	0.190	<0.000160	0.00199 JB	<0.000260	0.000854 JB	<0.0150	<0.000240	0.00134 JB	<0.0000490	0.00142 J	0.00143 JB	0.000387 J	<0.000310	0.00865 J	0.00380 J
	08/17/2017		0.00751 JB	0.00196 J	0.130	0.159	<0.000160	0.00103 J	<0.000260	0.000730 J	<0.0150	<0.000240	0.000893 J	<0.0000490	0.00161 J	0.0670	0.000652 J	<0.000310	0.00690 J	0.00439 J
	10/01/2018		0.00765 JB	0.00219	0.121	0.190 J	<0.000160	0.00267 B	<0.000260	0.00812	<0.0150	0.000354 JB	0.000828 JB	<0.0000490	0.00183 J	0.0219	0.000795 J	<0.000310	0.00585 J	0.0566
	10/24/2019		<0.00515	0.00238	0.122	0.184 J	<0.000160	0.00289	<0.000260	0.0144	<0.0150	0.000482 J	0.000636 J	<0.0000490	0.00214 J	0.0150	0.000956 JB	<0.000310	0.00609 J	0.130
	10/08/2020		<0.0554	0.00225	0.106	0.216	<0.000478	0.00593	<0.000477	0.0113	<0.0489	<0.00249	<0.00132	0.000100 J	0.00280 J	0.0109	<0.000657	<0.000513	<0.00754	0.105
	09/16/2021		0.0236 J	0.00209	0.103	0.205	<0.000150	0.00865	<0.0000596	0.00392 JB	<0.0281	<0.000849	<0.000704	<0.000100	0.00330 J	0.00983	<0.000300	<0.0000700	0.00889 J	0.0140 J
	10/13/2022		<0.0185	0.00203	0.126	0.172 J	<0.000150	0.00366	0.0000707 J	<0.00151	<0.0281	<0.000849	<0.000704	--[1]	0.00187 J	0.00439	0.000647 J	<0.0000700	0.00757 J	0.0164 J
MW-23	08/23/2010		0.237	<0.00500	0.245	0.157	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00669	<0.000200	<0.00500	0.00859	<0.00500	<0.00500	<0.00500	0.0570
	02/28/2011		<0.0100	<0.00500	0.164	0.151	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00831	<0.000200	<0.00500	0.00930	<0.00500	<0.00500	<0.00500	0.0463
	07/19/2011		<0.0100	<0.00500	0.272	0.181	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00647	<0.000200	<0.00500	0.00912	<0.00500	<0.00500	<0.00500	0.0213
	02/01/2012		0.0108	<0.00500	0.268	0.159	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00658	<0.000200	<0.00500	0.00714	<0.00500	<0.00500	<0.00500	0.0207
	07/26/2012		<0.0100	<0.00500	0.252	0.198	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0101
	02/26/2013		<0.0100	<0.00500	0.170	0.196	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00944	<0.000200	<0.00500	0.0155	<0.00500	<0.00500	<0.00500	0.0179
	08/21/2013		<0.0100	<0.00500	0.141	0.207	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0315	<0.000200	<0.00500	0.0286	<0.00500	<0.00500	0.00533	0.00919
	02/25/2014		<0.0100	<0.00500	0.162	0.198	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0486	<0.000200	<0.00500	0.0410	<0.00500	<0.00500	<0.00500	0.0224
	08/21/2014		0.0606	<0.00500	0.147	0.138	<0.00200	0.0129	<0.00500	<0.00500	<0.200	<0.00500	0.157	<0.000200	0.00522	0.0719	<0.00500	<0.00500	<0.00500	0.0104
	02/25/2015		0.042 J	0.0024	0.11	0.21	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	0.00031 J	<0.0012	<0.000049	0.0017 J	<0.0049	<0.0074	<0.0028	0.0052 J	0.046 J
	08/25/2015		<0.0350	0.00255	0.152	0.195 J	<0.000160	0.00188 J	<0.000260	0.00198 J	<0.0141	0.000316 J	0.00167 J	<0.0000490	<0.00160	0.00187 J	0.00147 J	<0.000310	0.00508 J	0.00494 J
	08/17/2016		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/17/2017		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020																	
MW-23R	10/08/2020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-24	08/24/2010		0.187	<0.00500	0.0867	0.140	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00922
	02/28/2011		<0.0100	<0.00500	0.0878	0.154	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	<0.00500	0.0245
	07/14/2011		<0.0100	<0.00500	0.0932	0.173	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00543	<0.00500	<0.00500	<0.00500	0.0249
	02/01/2012		<0.0100	<0.00500	0.0946	0.127	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00760	<0.000200	<0.00500	0.00725	<0.00500	<0.00500	<0.00500	0.0101
	07/30/2012		<0.0100	<0.00500	0.0889	0.179	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00508	<0.000200	<0.00500	0.00758	<0.00500	<0.00500	<0.00500	0.0127
	07/30/2012	FD	<0.0100	<0.00500	0.0851	0.160	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00731	<0.00500	<0.00500	<0.00500	0.0155
	02/26/2013		<0.0100	<0.00500	0.0913	0.187	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0106	<0.000200	<0.00500	0.0165	<0.00500	<0.00500	<0.00500	0.0151
	08/21/2013		<0.0100	<0.00500	0.0856	0.183	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0146	<0.000200	<0.00500	0.0157	<0.00500	<0.00500	<0.00500	0.00684
	02/27/2014		0.0247	<0.00500	0.0803	0.197	<0.00200	0.0128	<0.00500	<0.00500	<0.200	<0.00500	0.0139	<0.000200	<0.00500	0.0213	<0.00500	<0.00500	<0.00500	0.0207
	08/21/2014		0.270	<0.00500	0.0901	0.117	<0.00200	0.258	<0.00500	0.00634	1.28	<0.00500	0.0383	<0.000200	0.00911	0.135	<0.00500	<0.00500	<0.00500	0.0114
	02/25/2015		0.040 J	0.0055	0.078	0.19 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0025 J	<0.0049	<0.0074	<0.0028	0.0026 J	0.013 J
	08/25/2015		<0.0350	0.00600	0.0765	0.177 J	<0.000160	<0.000540	<0.000260	0.000742 J	<0.0141	<0.000240	0.000287 J	<0.0000490	0.00185 J	0.000580 J	0.00102 J	<0.000310	0.00239 J	0.00575 J
	08/16/2016		0.00364 JB	0.00606	0.0725	0.168	<0.000160	0.00155 JB	<0.000260	0.00302 JB	0.0247 JB	<0.000240	0.000485 JB	<0.0000490	0.00290 J	0.000402 JB	0.00140 J	<0.000310	0.00237 J	0.00752 J
	08/17/2017		0.0133 JB	0.00539	0.0724	0.137	<0.000160	0.00205	<0.000260	0.00136 J	<0.0150	<0.000240	0.000648 J	<0.0000490	0.00245 J	0.00205 B	0.00140 J	<0.000310	0.00209 J	0.00720 J
	10/01/2018		0.0128 JB	0.00565	0.0801	0.136 J	<0.000160	0.00110 JB	<0.000260	0.00636 B	<0.0150	0.000379 JB	0.00140 JB	<0.0000490	0.00228 J	0.0114	0.000648 J	<0.000310	0.00283 J	0.150
	10/24/2019		<0.00515	0.00556	0.0794	0.152 J	<0.000160	0.00101 JB	<0.000260	0.00158 JB	<0.0150	0.000342 J	0.00107 J	0.0000560 JB	0.00279 J	0.00167 J	0.000408 JB	<0.000310	0.00298 J	0.0285
	10/08/2020		<0.0554	0.00547	0.0854	0.166 J	<0.000478	0.00362	<0.000477	<0.00250	<0.0489	<0.00249	0.00401 J	0.000100 J	0.00244 J	0.00104 J	<0.000657	<0.000513	<0.00754	0.0192 J
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021																	
MW-24R	09/16/2021		0.0434 J	0.00479	0.0812	0.132 J	<0.000150	0.0224	<0.0000596	0.00269 JB	<0.0281	<0.000849	<0.000704	<0.000100	0.00939	0.00426	0.00235	<0.0000700	0.00226 J	0.0110 J
	10/13/2022		<0.0185	0.00576	0.0838	0.126 J	<0.000150	0.0148	<0.0000596	0.00281 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00237 J	0.00167 J	0.00251	<0.0000700	0.00221 J	0.0321

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-25	08/23/2010		0.244	<0.00500	0.246	0.174	<0.00200	0.0476	<0.00500	<0.00500	<0.200	<0.00500	0.0109	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0194
	02/28/2011		<0.0100	<0.00500	0.205	0.198	<0.00200	0.0537	<0.00500	<0.00500	<0.200	<0.00500	0.00715	<0.000200	<0.00500	0.00516	<0.00500	<0.00500	0.00535	0.0424
	07/18/2011		0.0444	<0.00500	0.186	0.173	<0.00200	0.00732	<0.00500	<0.00500	<0.200	<0.00500	0.00608	<0.000200	<0.00500	0.00832	<0.00500	<0.00500	<0.00500	0.00556
	02/01/2012		<0.0100	<0.00500	0.228	0.175	<0.00200	0.00744	<0.00500	<0.00500	<0.200	<0.00500	0.00804	<0.000200	<0.00500	0.00708	<0.00500	<0.00500	0.00602	0.00582
	07/26/2012		<0.0100	<0.00500	0.178	0.220	<0.00200	0.00961	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0102
	02/26/2013		<0.0100	<0.00500	0.149	0.241	<0.00200	0.00822	<0.00500	<0.00500	<0.200	<0.00500	0.0104	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00807	0.0148
	08/22/2013		<0.0100	<0.00500	0.224	0.262	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0122	<0.000200	<0.00500	0.0210	<0.00500	<0.00500	0.00862	<0.00500
	08/22/2013	FD	<0.0100	<0.00500	0.226	0.263	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0127	<0.000200	<0.00500	0.0210	<0.00500	<0.00500	0.00860	0.00607
	02/26/2014		<0.0100	<0.00500	0.220	0.231	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00881	<0.000200	<0.00500	0.00775	<0.00500	<0.00500	0.00724	0.0210
	02/26/2014	FD	<0.0100	<0.00500	0.213	0.218	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00882	<0.000200	<0.00500	0.00701	<0.00500	<0.00500	0.00645	0.0205
	08/19/2014		0.285	<0.00500	0.198	0.265	<0.00200	0.154	<0.00500	<0.00500	0.814	<0.00500	0.0456	<0.000200	0.00573	0.100	<0.00500	<0.00500	0.00749	0.0106
	08/19/2014	FD	0.291	<0.00500	0.201	0.263	<0.00200	0.185	<0.00500	0.00504	0.968	<0.00500	0.0511	<0.000200	0.00638	0.113	<0.00500	<0.00500	0.00764	0.0120
	02/25/2015		0.13	0.0023	0.20	0.23	<0.00070	0.0016 J	<0.0023	<0.0053	<0.014	0.00050 J	<0.0012	<0.000049	0.0029 J	0.0056 J	<0.0074	<0.0028	0.0078 J	0.0086 J
	02/25/2015	FD	<0.035	0.0023	0.20	0.22	<0.00070	0.0017 J	<0.0023	<0.0053	<0.014	0.00026 J	<0.0012	<0.000049	0.0011 J	0.0054 J	<0.0074	<0.0028	0.0080 J	0.014 J
	08/25/2015		<0.0350	0.00287	0.227	0.216	<0.000160	0.00160 J	0.00119 J	<0.000520	<0.0141	<0.000240	0.00279 J	<0.0000490	<0.00160	0.00514	0.00109 J	<0.000310	0.00732 J	0.00472 J
	08/25/2015	FD	<0.0350	0.00296	0.231	0.214	<0.000160	0.00170 J	0.00113 J	0.00103 J	<0.0141	<0.000240	0.00287 J	<0.0000490	<0.00160	0.00528	0.00102 J	<0.000310	0.00748 J	0.00497 J
	03/09/2016		0.00206 JB	0.00229	0.301	0.214	<0.000160	0.000609 J	0.00141 J	0.000781 J	0.0403 J	<0.000240	0.0386	<0.0000490	0.00171 JB	0.00572 B	0.00054 J	<0.000310	0.00852 J	0.00590 JB
	08/16/2016		0.00850 JB	0.00248	0.285	0.228	<0.000160	0.00166 JB	0.00171 J	0.00107 JB	0.0293 JB	<0.000240	0.0314	<0.0000490	0.00139 J	0.00617	0.000689 J	<0.000310	0.00928 J	0.00584 J
	08/16/2016	FD	0.00458 JB	0.00262	0.284	0.223	<0.000160	0.00155 JB	0.00179 J	0.000790 JB	0.0474 JB	<0.000240	0.0326	<0.0000490	0.00131 J	0.00570	0.000791 J	<0.000310	0.00939 J	0.00627 J
	02/07/2017		<0.0258	0.00261 J	0.322	0.227	<0.000800	<0.00270	0.00382 J	0.00406 J	<0.0750	<0.00120	0.0478	<0.0000490	0.00306 J	0.0165	0.000505 J	<0.00155	0.0104 J	<0.0128
	08/16/2017		0.00773 JB	0.00227	0.206	0.171	<0.000160	0.00158 J	0.00522	0.00310 J	<0.0150	<0.000240	<0.000250	0.0000544 J	0.00113 J	0.0556	0.00162 J	<0.000310	0.00588 J	0.0276
	08/16/2017	FD	0.00864 JB	0.00242	0.210	0.181	<0.000160	0.00153 J	0.00520	0.00289 J	<0.0150	<0.000240	<0.000250	<0.0000490	0.00124 J	0.0551	0.00128 J	<0.000310	0.00606 J	0.0262
	04/05/2018		<0.00515	0.00232 B	0.293	0.234	<0.000160	0.00101 JB	0.0114	0.00712	<0.0150	<0.000240	0.00523	<0.0000490	0.00158 JB	0.0125	0.00112 JB	<0.000310	0.00814 J	0.0133 J
	04/05/2018	FD	0.102	0.00226 B	0.299	0.229	<0.000160	0.000990 JB	0.0117	0.00671	0.0304 J	0.000307 JB	0.00709	<0.0000490	0.00121 JB	0.0120	0.00107 JB	<0.000310	0.00828 J	0.0153 J
	10/01/2018		0.0144 JB	0.00260	0.177	0.210	<0.000160	0.00110 JB	0.00874	0.00398 JB	<0.0150	0.000733 JB	0.0225	<0.0000490	0.00111 J	0.0123	0.000987 J	<0.000310	0.00919 J	0.00965 JB
	10/01/2018	FD	<0.00515	0.00246	0.192	0.209	<0.000160	0.000896 J	0.00925	0.00468 J	<0.0150	0.000421 J	0.0221	<0.0000490	0.00111 J	0.0122	0.000917 J	<0.000310	0.0101	0.00804 J
	04/04/2019		0.00661 JB	0.00262	0.195	0.225	<0.000160	<0.000540	0.00634	0.00495 J	<0.0150	0.000358 J	0.0317	<0.0000490	0.00163 J	0.0120	0.000430 J	<0.000310	0.00984 J	0.00846 J
	04/04/2019	FD	<0.00515	0.00243	0.184	0.139 J	<0.000160	<0.000540	0.00605	0.00384 J	<0.0150	0.000480 J	0.0377	<0.0000490	0.00118 J	0.0106	0.000395 J	<0.000310	0.00927 J	0.00656 J
	10/24/2019		<0.00515	0.00264	0.223	0.230	<0.000160	0.000564 JB	0.0124	0.0791	<0.0150	0.00292	0.0597	0.0000625 JB	0.00130 J	0.0149	0.00122 JB	<0.000310	0.0102	0.234
	10/24/2019	FD	<0.00515	0.00261	0.235	0.242	<0.000160	0.000541 J	0.0121	0.0867	<0.0150	0.00509	0.0758	0.0000660 JB	0.00137 J	0.0162	0.000627 J	<0.000310	0.00970 J	0.212
	06/18/2020		<0.0554	0.00274	0.127	0.297	<0.000478	<0.00149	0.0158	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00121 J	0.0104	<0.000657	<0.000513	0.0115 J	<0.00996
	10/08/2020		<0.0554	0.00233	0.126	0.275	<0.000478	<0.00149	0.00930	0.00324 J	<0.0489	<0.00249	0.0112	0.000108 J	0.00101 J	0.0189	<0.000657	<0.000513	0.00881 J	0.0261
	04/15/2021		<0.0185	0.00209	0.142	0.258	<0.000150	<0.00124	0.00562	0.00281 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00123 J	0.00763	<0.000300	<0.0000700	0.0102 J	0.00447 JB
	06/09/2021		PLUGGED AND ABANDONED JUNE 2021																	
MW-26	08/24/2010		0.115	<0.00500	0.131	0.169	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0156	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0254
	02/28/2011		<0.0100	<0.00500	0.110	0.187	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00890	<0.000200	<0.00500	0.00734	<0.00500	<0.00500	0.00602	0.0328
	07/14/2011		<0.0100	<0.00500	0.0994	0.192	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00679	<0.000200	<0.00500	0.00792	<0.00500	<0.00500	0.00546	0.00949
	02/01/2012		<0.0100	<0.00500	0.0854	0.163	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0122	<0.000200	<0.00500	0.0133	<0.00500	<0.00500	<0.00500	0.00949
	07/26/2012		0.0121	<0.00500	0.0966	0.214	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00694	<0.000200	<0.00500	0.00568	<0.00500	<0.00500	0.00559	0.0117
	02/26/2013		0.0134	<0.00500	0.103	0.189	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0635	<0.000200	<0.00500	0.0558	<0.00500	<0.00500	<0.00500	0.0233
	08/22/2013		0.0319	<0.00500	0.0910	0.209	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0174	<0.000200	<0.00500	0.00539	<0.00500	<0.00500	0.00577	0.00877
	02/26/2014		0.0236	<0.00500	0.0739	0.198	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00979	<0.000200	<0.00500	0.0128	<0.00500	<0.00500	0.00583	<0.00500
	08/21/2014		0.132	0.00816	0.138	0.167	<0.00200	0.0152	<0.00500	<0.00500	<0.200	<0.00500	0.00938	<0.000200	<0.00500	0.00900	<0.00500	<0.00500	0.00548	0.00770
	02/25/2015		0.051 J	0.0024	0.099	0.18 J	<0.00070	<0.0014	<0.0023	<0.0053	0.058 J	<0.00024	0.0022 J	<0.000049	0.0011 J	<0.0049	<0.0074	<0.0028	0.0041 J	0.015 J
	08/25/2015		<0.0350	0.00263	0.0990	0.181 J	<0.000160	0.000822 J	0.000366 J	0.000593 J	<0.0141	<0.000240	0.00175 J	<0.0000490	<0.00160	0.00104 J	<0.000380	<0.000310	0.00440 J	0.00418 J
	08/17/2016		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/17/2017		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/13/2020		DRY WELL - PLUGGED AND ABANDONED AUGUST 2020																	
MW-26R	10/08/2020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-27	08/18/2010		0.218	<0.00500	0.100	0.152	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0534	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00544	0.0453
	02/25/2011		<0.0100	<0.00500	0.0985	0.139	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0336	<0.000200	<0.00500	0.00769	<0.00500	<0.00500	0.00625	0.0294
	07/20/2011		0.0378	<0.00500	0.112	0.165	<0.00200	0.0353	<0.00500	<0.00500	0.393	<0.00500	0.0179	<0.000200	<0.00500	0.0415	<0.00500	<0.00500	0.00571	0.0121
	02/01/2012		<0.0100	<0.00500	0.0902	0.126	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00556	<0.00800	<0.00500	0.00533	<0.00500	<0.00500	<0.00500	0.0121
	07/26/2012		0.0155	<0.00500	0.118	0.172	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00587	<0.000200	<0.00500	0.00737	<0.00500	<0.00500	<0.00500	0.0117
	02/26/2013		<0.0100	<0.00500	0.120	0.184	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0586	<0.000200	0.00513	0.0593	<0.00500	<0.00500	<0.00500	0.0104
	08/20/2013		0.0440	<0.00500	0.162	0.222	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0239	<0.000200	<0.00500	0.0189	<0.00500	<0.00500	0.00899	<0.00500
	02/27/2014		<0.0100	<0.00500	0.139	0.232	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0134	<0.000200	<0.00500	0.0286	<0.00500	<0.00500	0.00680	0.00624
	08/21/2014		0.210	<0.00500	0.126	0.160	<0.00200	0.0447	<0.00500	<0.00500	0.278	<0.00500	0.0636	<0.000200	<0.00500	0.0592	<0.00500	<0.00500	0.00648	0.0182
	02/27/2015		<0.035	0.0033	0.084	0.30	<0.00070	0.0038 J	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0029 J	<0.0049	0.0080 J	<0.0028	0.0098 J	<0.0059
	08/26/2015		<0.0350	0.00353	0.0571	0.264	<0.000160	0.00256	<0.000260	0.000627 J	<0.0141	<0.000240	0.00206 J	<0.0000490	0.0139	0.00405	0.00318	<0.000310	0.00550 J	<0.00256
	03/08/2016		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/2016		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/08/2017		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/17/2017		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/05/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/04/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/18/2020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/08/2020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/15/2021		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/14/2022		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-28	08/24/2010		0.129	<0.00500	0.0846	0.153	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	08/28/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/23/2011		<0.0100	<0.00500	0.0923	0.147	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0190
	07/14/2011		<0.0100	<0.00500	0.103	0.172	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00658	<0.000200	<0.00500	0.00696	<0.00500	<0.00500	<0.00500	0.0113
	01/30/2012		<0.0100	<0.00500	0.0746	0.152	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0113
	07/24/2012		<0.0100	<0.00500	0.0830	0.204	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00812
	02/19/2013		<0.0100	<0.00500	0.0883	0.174	<0.00200	<0.00500	<0.00500	0.203	<0.200	<0.00500	0.0275	<0.000200	0.0100	<0.00500	<0.00500	<0.00500	<0.00500	0.0466
	08/20/2013		<0.0100	<0.00500	0.0790	0.168	<0.00200	<0.00500	<0.00500	0.0101	<0.200	<0.00500	0.00874	<0.000200	<0.00500	0.00561	<0.00500	<0.00500	<0.00500	0.0168
	02/24/2014		<0.0100	<0.00500	0.0836	0.180	<0.00200	<0.00500	<0.00500	0.00514	<0.200	<0.00500	0.00509	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00674
	08/19/2014		0.947	<0.00500	0.106	0.205	<0.00200	0.0238	<0.00500	0.0396	0.760	<0.00500	0.0128	<0.000200	<0.00500	0.0129	<0.00500	<0.00500	<0.00500	0.0335
	02/23/2015		<0.035	0.0040	0.090	0.17 J	<0.00070	<0.0014	<0.0023	0.0055 J	<0.014	<0.00024	<0.0012	<0.000049	0.0018 J	<0.0049	<0.0074	<0.0028	0.0025 J	0.017 J
	08/27/2015		<0.0350	0.00433	0.0849	0.171	<0.000160	<0.000540	<0.000260	0.00598	0.0385 J	<0.000240	0.000680 J	<0.0000490	0.00186 J	<0.000350	0.00220	<0.000310	0.00238 J	0.00393 J
	03/07/2016		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/15/2016		0.00413 JB	0.00448	0.0819	0.167	<0.000160	0.00104 JB	<0.000260	0.00860	0.0226 JB	<0.000240	0.000376 JB	<0.0000490	0.00221 J	0.000525 JB	0.00268	<0.000310	0.00266 J	0.00540 J
	02/06/2017		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/17/2017		0.0112 JB	0.00383	0.0715	0.136	<0.000160	<0.000540	<0.000260	0.00523	<0.0150	<0.000240	<0.000250	<0.0000490	0.00227 J	0.00178 JB	0.00158 J	<0.000310	0.00252 J	0.00955 J
	04/05/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/01/2018		0.0229 JB	0.00430	0.0754	0.135 J	<0.000160	0.000809 JB	<0.000260	0.00409 JB	<0.0150	<0.000240	0.000260 JB	<0.0000490	0.00187 J	0.00286	0.00237	<0.000310	0.00250 J	0.0226 JB
	04/04/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/24/2019		<0.00515	0.00394	0.0920	0.144 J	<0.000160	0.000804 J	<0.000260	0.00468 J	<0.0150	0.000284 J	0.00166 J	0.0000569 JB	0.00182 J	0.00149 J	0.00177 J	<0.000310	0.00242 J	0.0290
	06/18/2020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/08/2020		<0.0554	0.00389	0.111	0.167 J	<0.000478	<0.00149	<0.000477	0.00502	<0.0489	<0.00249	0.00169 J	<0.000100 [R]	0.00292 J	0.00132 J	0.00216	<0.000513	<0.00754	0.0305
	04/15/2021		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/16/2021		0.0243 J	0.00393	0.105	0.166 J	<0.000150	<0.00124	<0.0000596	0.00567 B	0.0285 JB	<0.000849	<0.000704	<0.000100	0.00195 J	<0.000816	0.00243	<0.0000700	0.00254 J	0.00556 J
	04/14/2022		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/13/2022		--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-29	08/24/2010		0.0261	<0.00500	0.0644	0.189	<0.00200	0.0317	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0375
	08/24/2010	FD	<0.0100	<0.00500	0.0652	0.186	<0.00200	0.0321	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0301
	02/28/2011		<0.0100	<0.00500	0.0630	0.195	<0.00200	0.0694	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0267
	07/14/2011		<0.0100	<0.00500	0.0652	0.189	<0.00200	0.162	<0.00500	<0.00500	<0.200	<0.00500	0.00532	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0240
	01/30/2012		<0.0100	<0.00500	0.0580	0.181	<0.00200	0.106	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0240
	07/24/2012		<0.0100	<0.00500	0.0978	0.249	<0.00200	0.261	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0162
	02/26/2013		<0.0100	<0.00500	0.0857	0.182	<0.00200	0.0690	<0.00500	<0.00500	<0.200	<0.00500	0.0471	<0.000200	<0.00500	0.0334	<0.00500	<0.00500	<0.00500	0.0132
	08/20/2013		<0.0100	<0.00500	0.0738	0.187	<0.00200	0.117	<0.00500	<0.00500	<0.200	<0.00500	0.0159	<0.000200	<0.00500	0.00667	<0.00500	<0.00500	<0.00500	<0.00500
	02/27/2014		<0.0100	<0.00500	0.0725	0.171	<0.00200	0.250	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0115
	02/27/2014	FD	<0.0100	<0.00500	0.0764	0.183	<0.00200	0.261	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00739
	08/20/2014		0.188	<0.00500	0.106	0.134	<0.00200	0.331	<0.00500	<0.00500	0.697	<0.00500	0.0754	<0.000200	0.00594	0.0777	<0.00500	<0.00500	<0.00500	0.00902
	02/25/2015		<0.035	0.0020	0.13	0.26	<0.00070	0.24	<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0012 J	<0.0049	<0.0074	<0.0028	0.0062 J	0.013 J
	08/27/2015		<0.0350	0.00246	0.0884	0.238	<0.000160	0.130	<0.000260	0.000784 J	<0.0141	<0.000240	0.00153 J	<0.0000490	0.00111 J	0.000629 J	0.00169 J	<0.000310	0.00641 J	0.00333 J
	03/08/2016		0.00829 JB	0.00465	0.0757	0.165	<0.000160	0.00111 J	<0.000260	0.000558 J	<0.0150	<0.000240	0.000652 JB	<0.0000490	0.00482 J	0.00069 JB	0.00190 J	<0.000310	0.00213 J	<0.00256
	08/17/2016		<0.00200	0.00253	0.0851	0.204	<0.000160	0.00897	<0.000260	0.000863 JB	<0.0150	<0.000240	0.00135 JB	<0.0000490	0.00204 J	0.00119 JB	0.00140 J	<0.000310	0.00380 J	0.00330 JB
	02/09/2017		<0.0258	0.00263 J	0.0932	0.203	<0.000800	0.00552 J	<0.00130	0.00328 J	<0.0750	<0.00120	0.0150 J	<0.0000490	0.00291 J	0.00524 J	0.00148 J	<0.00155	0.00391 J	<0.0128
	08/17/2017		0.00798 JB	0.00242	0.0870	0.172	<0.000160	0.0178	<0.000260	0.00489 J	<0.0150	<0.000240	0.000305 J	<0.0000490	0.00200 J	0.00567	0.00181 J	<0.000310	0.00451 J	0.0308
	04/05/2018		<0.00515	0.00299	0.174	0.215	<0.000160	0.0268	<0.000260	0.00876	<0.0150	0.000398 JB	0.000735 JB	<0.0000490	0.00174 JB	0.0427	0.00163 JB	<0.000310	0.00571 J	0.162
	10/01/2018		<0.00515	0.00307	0.256	0.193 J	<0.000160	0.0293	<0.000260	0.00362 J	<0.0150	<0.000240	0.00110 J	<0.0000490	0.00122 J	0.00607	0.00193 J	<0.000310	0.00618 J	0.0644
	04/04/2019		0.0106 JB	0.00252	0.109	0.203	<0.000160	0.0171	<0.000260	0.00635	<0.0150	<0.000240	0.000417 J	<0.0000490	0.00157 J	0.00320	0.00116 J	<0.000310	0.00448 J	0.0829
	10/24/2019		<0.00515	0.00227	0.117	0.193 J	<0.000160	0.0528	<0.000260	0.00457 J	<0.0150	<0.000240	0.00139 J	0.0000693 JB	0.00144 J	0.00230	0.00168 J	<0.000310	0.00539 J	0.0628
	10/24/2019	FD	<0.00515	0.00230	0.113	0.207	<0.000160	0.0560	<0.000260	0.00949	<0.0150	0.000462 J	0.00170 J	0.0000681 JB	0.00145 J	0.00382	0.00161 J	<0.000310	0.00535 J	0.0811
	06/18/2020		<0.0554	0.00259	0.0880	0.194 J	<0.000478	0.0163	<0.000477	0.00330 J	<0.0489	<0.00249	<0.00132	<0.000100	0.00169 J	0.00189 J	0.00136 J	<0.000513	<0.00754	0.0215 J
	10/08/2020		<0.0554	0.00296	0.0672	0.177 J	<0.000478	0.00364	<0.000477	0.00283 J	<0.0489	<0.00249	<0.00132	<0.000100 [R]	0.00217 J	<0.000952	0.00178 J	<0.000513	<0.00754	0.0271
	04/15/2021		<0.0185	0.00241	0.0834	0.191 J	<0.000150	0.00334	<0.0000596	0.00235 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00185 J	0.00125 J	0.00137 J	<0.0000700	0.00355 J	0.0101 JB
	09/16/2021		<0.0185	0.00464	0.133	0.188 J	0.000543 J	0.00141 J	0.0000838 J	0.00757 B	<0.0281	<0.000849	0.00807	<0.000100	0.00263 J	0.00309	0.00137 J	<0.0000700	0.00361 J	0.0788
	04/14/2022		<0.0185	0.00265	0.182	0.210	<0.000150	0.0425	<0.0000596	0.00253 J	<0.0281	<0.000849	0.000863 JB	<0.000100	0.00190 J	0.00171 J	0.00159 J	<0.0000700	0.00689 J	0.0241 J
	10/13/2022		--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]
MW-30	06/21/2013		0.0436	0.00588	0.0424	0.164	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00913	<0.00500	0.00554	<0.00500	<0.00500	<0.00500
	08/20/2013		<0.0100	<0.00500	0.0761	0.159	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0589	<0.000200	<0.00500	0.0263	<0.00500	<0.00500	<0.00500	<0.00500
	02/27/2014		0.0201	<0.00500	0.0672	0.180	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0644	<0.000200	0.00588	0.0516	<0.00500	<0.00500	<0.00500	<0.00500
	08/22/2014		0.132	<0.00500	0.0736	<0.0200	<0.00200	0.0137	<0.00500	<0.00500	<0.200	<0.00500	0.148	<0.000200	0.00597	0.0485	<0.00500	<0.00500	<0.00500	<0.00500
	02/25/2015		0.077 J	0.0043	0.073	0.16 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	0.0066 J	<0.000049	0.0027 J	<0.0049	<0.0074	<0.0028	0.0018 J	<0.0059
	08/28/2015		<0.0350	0.00478	0.0757	0.163	<0.000160	<0.000540	<0.000260	0.000922 J	<0.0141	<0.000240	0.00315 J	<0.0000490	0.00248 J	0.00109 J	0.00177 J	<0.000310	0.00203 J	<0.00256
	03/08/2016		0.00402 JB	0.00375	0.0711	0.152	<0.000160	0.0032	<0.000260	0.000933 J	<0.0150	<0.000240	0.000911 JB	<0.0000490	0.00219 J	0.000955 JB	0.00253	<0.000310	0.00187 J	<0.00256
	03/08/2016	FD	0.00986 JB	0.00457	0.071	0.154	<0.000160	0.00148 J	<0.000260	0.00123 JB	<0.0150	0.000299 JB	0.000664 JB	<0.0000490	0.00479 J	0.000797 JB	0.00175 J	0.000842 J	0.00197 J	0.00268 JB
	08/16/2016		0.00299 JB	0.00476	0.0734	0.175	<0.000160	0.00110 JB	<0.000260	<0.000520	<0.0150	<0.000240	0.00222 JB	<0.0000490	0.00263 J	0.000470 JB	0.00198 J	<0.000310	0.00223 J	<0.00256
	08/16/2016	FD	0.0189 JB	0.00479	0.0733	0.175	<0.000160	0.00110 JB	<0.000260	0.00371 JB	<0.0150	<0.000240	0.00228 JB	<0.0000490	0.00252 J	0.000495 JB	0.00210	<0.000310	0.00224 J	<0.00256
	02/09/2017		<0.0258	0.00428 J	0.0852	0.182	<0.000800	<0.00270	<0.00130	0.00675 J	<0.0750	<0.00120	0.0332	<0.0000490	0.00302 J	0.00266 J	0.00191 J	<0.00155	0.00227 J	<0.0128
	08/16/2017		0.0259 JB	0.00436	0.0735	0.159	<0.000160	0.00104 J	<0.000260	0.000947 J	<0.0150	<0.000240	0.000987 J	<0.0000490	0.00229 J	0.00289	0.00205	<0.000310	0.00216 J	0.00591 J
	08/16/2017	FD	0.0132 JB	0.00431	0.0727	0.158	<0.000160	0.00103 J	<0.000260	0.000862 J	<0.0150	<0.000240	0.000551 JB	<0.0000490	0.00218 J	0.00280	0.00196 J	<0.000310	0.00213 J	0.00628 J
	04/05/2018		<0.00515	0.00457	0.0723	0.184 J	<0.000160	0.000946 JB	<0.000260	0.00170 JB	<0.0150	<0.000240	0.000941 JB	<0.0000490	0.00218 JB	0.00870	0.00199 JB	<0.000310	0.00217 JB	0.0335
	10/01/2018		0.00689 J	0.00486	0.0819	0.154 J	<0.000160	0.000984 J	<0.000260	0.00169 J	<0.0150	<0.000240	0.000769 J	<0.0000490	0.00231 J	0.00755	0.00205	<0.000310	0.00223 J	0.0432
	10/01/2018	FD	0.00560 J	0.00421	0.0843	0.145 J	<0.000160	0.00111 J	<0.000260	0.00121 J	<0.0150	<0.000240	0.000398 J	<0.0000490	0.00243 J	0.00804	0.00218	<0.000310	0.00234 J	0.0449
	04/04/2019		<0.00515	0.00424	0.0850	0.181 J	<0.000160	0.00225	<0.000260	0.00232 J	<0.0150	<0.000240	0.000363 J	<0.0000490	0.00240 J	0.00473	0.00215	<0.000310	0.00223 J	0.0511
	10/24/2019		0.00831 J	0.00381	0.0903	0.171 J	<0.000160	0.00162 J	<0.000260	0.00273 J	<0.0150	<0.000240	0.00286 J	0.0000605 JB	0.00199 J	0.00417	0.00174 J	<0.000310	0.00208 J	0.0682
	10/24/2019	FD	<0.00515	0.00414	0.0871	0.174 J	<0.000160	0.00245	<0.000260	0.00275 J	<0.0150	<0.000240	0.000416 J	0.0000596 JB	0.00198 J	0.00409	0.00179 J	<0.000310	0.00206 J	0.0528
	06/18/2020		<0.0554	0.00408	0.0896	0.182 J	<0.000478	0.00542	<0.000477	0.00274 J	<0.0489	<0.00249	<0.00132	<0.000100	0.00208 J	0.00435	0.00207	<0.000513	<0.00754	0.0437
	10/08/2020		<0.0554	0.00417	0.0863	0.187 J	<0.000478	0.00718	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	0.000101 J	0.00223 J	0.00157 J	0.00186 J	<0.000513	<0.00754	0.0314
	04/15/2021		0.0293 JB	0.00423	0.0928	0.185 J	<0.000150	0.0145	<0.0000596	0.00327 J	<0.0281	<0.000849	0.000326 JB	<0.000100	0.00226 J	0.00207	0.00191 J	<0.0000700	0.00220 J	0.00496 JB
	09/16/2021		<0.0185	0.00428	0.0914	0.177 J	<0.000150	0.0166	<0.0000596	<0.00151	<0.0281	<0.000849	<0.000704	<0.000100	0.00228 J	0.00194 J	0.00199 J	<0.0000700	0.00203 J	0.0118 J
	04/14/2022		0.0333 J	0.00423	0.108	0.176 J	<0.000150	0.0229	<0.0000596	0.00178 J	<0.0281	<0.000849	0.00112 JB	<0.000100	0.00213 J	0.00325	0.00191 J	<0.0000700	0.00223 J	0.00903 J
	10/13/2022		<0.0185	0.00427	0.106	0.166 J	<0.000150	0.0279	<0.0000596	0.00244 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00208 J	0.00358	0.00175 J	<0.0000700	0.00216 J	0.0258

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
MW-32	06/15/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	06/15/2017	FD	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		0.0212 JB	0.00332	0.188	0.564	<0.000160	<0.000540	0.00108 J	0.000684 J	<0.0150	<0.000240	0.536	<0.0000490	0.0141	0.00430	<0.000380	<0.000310	0.00888 J	0.00320 J
	04/05/2018		0.00732 JB	0.00281	0.244	0.253	<0.000160	0.000888 JB	0.000847 JB	0.00193 JB	<0.0150	<0.000240	0.772	<0.0000490	0.00489 J	0.0195	0.000443 JB	<0.000310	0.0166	0.0122 J
	10/01/2018		0.00589 J	0.00652	0.176	0.0321 J	<0.000160	<0.000540	<0.000260	0.000794 J	<0.0150	0.000283 J	0.0499	<0.0000490	0.00348 J	0.00357	<0.000380	<0.000310	0.00146 J	<0.00256
	10/01/2018	FD	0.0111 J	0.00619	0.179	0.0332 J	<0.000160	<0.000540	0.000302 J	0.00105 J	<0.0150	0.000273 J	0.0561	<0.0000490	0.00350 J	0.00382	<0.000380	<0.000310	0.00148 J	<0.00256
	04/04/2019		0.00526 JB	0.00198 J	0.384	0.184 J	<0.000160	<0.000540	0.00109 J	0.00918	<0.0150	<0.000240	0.349	<0.0000490	0.00259 J	0.00792	<0.000380	<0.000310	0.00751 J	0.0128 J
	10/24/2019		<0.00515	0.00353	0.341	0.188 J	<0.000160	<0.000540	0.000415 J	0.00397 J	<0.0150	<0.000240	0.278	0.0000640 JB	0.00197 J	0.0150	0.000492 J	<0.000310	0.00884 J	0.0379
	10/24/2019	FD	<0.00515	0.00342	0.345	0.213	<0.000160	<0.000540	0.000372 J	0.00418 J	<0.0150	<0.000240	0.262	0.0000644 JB	0.00209 J	0.0130	<0.000380	<0.000310	0.00883 J	0.0405
	06/18/2020		<0.0554	0.00323	0.454	0.207	<0.000478	<0.00149	<0.000477	0.00255 J	<0.0489	<0.00249	0.0616	<0.000100	0.00132 J	0.00557	<0.000657	<0.000513	0.00769 J	0.0147 J
	10/08/2020		<0.0554	0.00317	0.372	0.168 J	<0.000478	<0.00149	0.000936 J	<0.00250	<0.0489	<0.00249	0.207	<0.000100 [R]	0.00263 J	0.00427	<0.000657	<0.000513	<0.00754	0.0141 J
	10/08/2020	FD	<0.0554	0.00329	0.370	0.162 J	<0.000478	<0.00149	0.000654 J	0.00316 J	<0.0489	<0.00249	0.160	0.000106 J	0.00260 J	0.00408	<0.000657	<0.000513	<0.00754	0.103
	04/15/2021		0.284	0.00395	0.440	0.142 J	<0.000150	<0.00124	<0.0000596	0.00584	<0.0281	<0.000849	0.00436 JB	<0.000100	0.00131 J	0.00425	0.000466 J	<0.0000700	0.00609 J	0.0241 J
	04/15/2021	FD	<0.0185	0.00421	0.426	0.141 J	<0.000150	<0.00124	0.0000794 J	0.00591 B	<0.0281	<0.000849	0.0111	<0.000100	0.00119 J	0.00435	0.000932 J	<0.0000700	0.00589 J	0.0228 J
	09/16/2021		<0.0185	0.00416	0.380	0.170 J	<0.000150	<0.00124	0.000141 J	0.00386 J	<0.0281	<0.000849	0.0402	<0.000100	0.00714	0.00418	0.000943 J	<0.0000700	0.00547 J	0.0196 J
	09/16/2021	FD	<0.0185	0.00404	0.405	0.160 J	<0.000150	<0.00124	0.000155 J	0.00411 J	<0.0281	<0.000849	0.0433	<0.000100	0.00725	0.00415	0.000731 J	<0.0000700	0.00576 J	0.0188 J
	04/14/2022		<0.0185	0.00266	0.337	0.226	<0.000150	<0.00124	0.00102 J	0.00446 J	<0.0281	<0.000849	0.198	<0.000100	0.00159 JB	0.00345 B	0.000501 J	<0.0000700	0.00889 J	0.0278
	04/14/2022	FD	<0.0185	0.00291	0.316	0.230	<0.000150	<0.00124	0.000849 J	0.00388 J	<0.0281	<0.000849	0.177	<0.000100	0.00146 J	0.00320	0.00148 J	<0.0000700	0.00823 J	0.0281
	10/13/2022		<0.0185	0.00277	0.310	0.220	<0.000150	<0.00124	0.000459 J	0.00687	<0.0281	<0.000849	0.105	<0.000100	0.00140 J	0.00248	0.000444 J	<0.0000700	0.00895 J	0.0461
	10/13/2022	FD	<0.0185	0.00284	0.312	0.220	<0.000150	<0.00124	0.000476 J	0.00710	<0.0281	<0.000849	0.108	<0.000100	0.00136 J	0.00240	0.000632 J	<0.0000700	0.00910 J	0.0483
MW-33	06/15/2017		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	08/17/2017		0.0123 JB	0.00377	0.218	0.447	<0.000160	<0.000540	0.000834 J	0.00129 J	0.0373 J	<0.000240	0.985	<0.0000490	0.00531	0.000613 J	<0.000380	<0.000310	0.00325 J	0.00358 J
	04/05/2018		<0.00515	0.0104	0.380	0.304	<0.000160	0.00155 JB	<0.000260	0.00292 JB	0.0351 J	<0.000240	1.77	<0.0000490	0.000146 JB	0.00170 JB	<0.000380	<0.000310	0.00269 J	0.00546 J
	10/01/2018		0.00613 J	0.00411	0.481	0.194 J	<0.000160	<0.000540	<0.000260	<0.000520	0.0186 J	<0.000240	1.79	<0.0000490	0.000602 J	0.00312	<0.000380	<0.000310	0.00829 J	<0.00256
	04/04/2019		0.00865 JB	0.00179 J	0.476	0.150 J	<0.000160	<0.000540	<0.000260	0.00411 J	0.0299 J	<0.000240	1.39	<0.0000490	0.00158 J	0.00157 JB	<0.000380	<0.000310	0.0131	0.00566 J
	10/24/2019		<0.00515	0.00228	0.496	0.158 J	<0.000160	<0.000540	<0.000260	<0.000520	0.0209 J	<0.000240	1.02	<0.0000490	0.00183 J	0.00323	<0.000380	<0.000310	0.0167	0.00581 J
	06/18/2020		<0.0554	0.00202	0.500	0.163 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.816	<0.000100	0.00268 J	0.00409	<0.000657	<0.000513	0.0241	<0.00996
	10/08/2020		<0.0554	0.00322	0.423	0.167 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.699	<0.000100 [R]	0.00280 J	0.00164 J	<0.000657	<0.000513	0.0236	<0.00996
	10/08/2020	FD	<0.0554	0.00316	0.411	0.167 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.691	0.000121 J	0.00277 J	0.00111 J	<0.000657	<0.000513	0.0233	0.0171 J
	04/15/2021		<0.0185	0.00297	0.471	0.159 J	<0.000150	<0.00124	0.000108 J	<0.00151	0.526	<0.000849	0.701	<0.000100	0.00330 J	0.00198 J	<0.000300	<0.0000700	0.0322	0.00441 JB
	04/15/2021	FD	<0.0185	0.00187 J	0.441	0.159 J	<0.000150	<0.00124	0.0000890 J	0.00175 JB	<0.0281	<0.000849	0.685	<0.000100	0.00289 J	0.00178 J	<0.000300	<0.0000700	0.0308	<0.00302
	09/16/2021		<0.0185	0.00293	0.409	0.168 J	<0.000150	<0.00124	0.0000660 J	<0.00151	<0.0281	<0.000849	0.621	<0.000100	0.00267 J	0.00157 J	0.000473 J	<0.0000700	0.0314	<0.00302
	09/16/2021	FD	0.389	0.00297	0.436	0.165 J	<0.000150	<0.00124	0.000123 J	<0.00151	0.263 B	<0.000849	0.645	<0.000100	0.00266 JB	0.00234	<0.000300	<0.0000700	0.0328	<0.00302
	04/14/2022		<0.0185	0.00654	0.470	0.161 J	0.000220 J	<0.00124	0.000265 J	<0.00151	1.99	<0.000849	0.897	<0.000100	0.00278 J	0.00186 J	0.000394 J	<0.0000700	0.0353	<0.00302
	04/14/2022	FD	0.0312 J	0.00602	0.477	0.156 J	<0.000150	<0.00124	0.0000782 J	<0.00151	1.99	<0.000849	0.884	<0.000100	0.00259 J	0.00168 J	0.000665 J	<0.0000700	0.0355	0.00327 J
	10/13/2022		<0.0185	0.00677	0.557	0.143 J	<0.000150	<0.00124	0.0000730 J	<0.00151	2.01	<0.000849	0.973	<0.000100	0.00243 J	0.00209	<0.000300	<0.0000700	0.0424	0.00914 J
	10/13/2022	FD	<0.0185	0.00675	0.547	0.151 J	<0.000150	<0.00124	0.0000802 J	<0.00151	2.02	<0.000849	0.973	<0.000100	0.00237 J	0.00219	<0.000300	<0.0000700	0.0438	0.0133 J

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
North Well	06/18/2009		<0.0100	0.00536	0.0997	0.151	<0.00200	0.0104	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.00500
	01/14/2010		<0.0100	<0.00500	0.107	0.172	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00134	0.00920
	08/24/2010		<0.0100	0.00552	0.100	0.147	<0.00200	<0.00500	<0.00500	0.00856	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.0161	<0.00500	<0.00500	<0.00500	<0.00500
	03/03/2011		<0.0100	0.00503	0.0968	0.159	<0.00200	0.0199	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0695
	07/20/2011		<0.0100	<0.00500	0.106	0.142	<0.00200	0.0140	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	02/02/2012		0.0126	<0.00500	0.0944	0.132	<0.00200	0.0145	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	07/30/2012		<0.0100	0.00523	0.106	0.159	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0178
	02/19/2013		<0.0100	0.00693	0.0998	0.162	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00537	<0.00500	<0.00500	<0.00500	0.00873
	08/22/2014		0.0170	0.00530	0.106	<0.0200	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0119
	12/17/2014		<0.0100	0.00579	0.0985	0.121	<0.00100	0.00101	<0.00100	0.00108	0.0180	<0.00100	<0.00100	<0.00020	0.00346	<0.00100	0.00359	<0.00100	0.00179	0.00315
	03/09/2015		<0.035	0.0055	0.11	0.15	<0.00070	<0.0014	<0.0023	0.012 J	<0.014	0.00062 J	<0.0012	<0.000049	0.0032 J	<0.0049	0.0097 J	<0.0028	0.0016 J	0.015 J
	05/19/2015		<0.035	0.0060	0.11	0.14 J	<0.00070	0.0018 J	<0.0023	0.015 J	<0.014	0.00074 J	<0.0012	<0.000049	0.0042 J	<0.0049	0.0033	<0.0028	0.0018 J	0.017 J
	08/28/2015		<0.0350	0.00551	0.103	0.155	<0.000160	0.000676 J	<0.000260	0.00121 J	<0.0141	<0.000240	0.000878 J	<0.0000490	0.00306 J	<0.000350	0.00332	<0.000310	0.00156 J	<0.00256
	12/17/2015		<0.0350	0.00572	0.104	0.155 J	<0.000160	0.00103 J	<0.000260	0.00216 J	0.0158 J	<0.000240	0.000476 J	<0.0000490	<0.00160	0.000388 J	0.00342	<0.000310	0.00160 J	0.00427 J
	03/10/2016		0.00383 J	0.00557	0.108	0.138	<0.000160	0.00106 J	<0.000260	0.00183 JB	0.0200 J	<0.000240	0.000748 J	<0.0000490	0.00307 JB	0.000364 JB	0.00342	<0.000310	0.00161 J	0.00420 JB
	05/25/2016		<0.00200	0.00451	0.104	0.166	<0.000160	<0.000540	<0.000260	0.0141	<0.0150	0.000323 J	0.00281 J	<0.0000490	0.00272 J	0.000909 J	0.00365	<0.000310	0.00159 J	0.0101 J
	08/18/2016		0.00295 JB	0.00548	0.111	0.157	<0.000160	0.00139 JB	<0.000260	0.00146 JB	<0.0150	<0.000240	0.00101 JB	0.0000503 JB	0.00293 J	0.00103 JB	0.00367	<0.000310	0.00176 J	0.00285 JB
	12/08/2016		0.00412 JB	0.00544	0.122	0.127	<0.000160	0.00108 J	<0.000260	0.00236 J	<0.0150	<0.000240	0.000506 JB	<0.0000490	0.00281 J	<0.000350	0.00333	<0.000310	0.00177 J	0.00374 J
	02/07/2017		<0.0258	0.00615 J	0.143	0.163	<0.000800	<0.00270	<0.00130	0.00320 J	<0.0750	<0.00120	<0.00125	<0.0000490	0.00293 J	<0.00175	0.00336	<0.00155	0.00188 J	<0.0128
	05/31/2017		<0.00515	0.00559	0.127	0.149	<0.000160	0.00101 J	<0.000260	0.00435 J	<0.0150	<0.000240	0.000388 JB	<0.0000490	0.00280 J	0.000572 J	0.00322	<0.000310	0.00183 J	0.00513 JB
	08/17/2017		0.0185 JB	0.00569	0.113	0.142	<0.000160	0.00110 J	<0.000260	0.00355 J	<0.0150	0.000261 J	0.00121 JB	<0.0000490	0.00282 J	0.000633 J	0.00347	<0.000310	0.00177 J	0.00834 J
	12/14/2017		0.00620 JB	0.00598	0.109	0.135	<0.000160	0.00142 J	<0.000260	0.00253 JB	0.0491 J	0.000679 J	0.00115 J	<0.0000490	0.00282 J	0.000606 J	0.00355	<0.000310	0.00183 J	0.00679 J
	02/23/2018		0.00601 JB	0.00621	0.109	0.189 J	<0.000160	0.00134 JB	<0.000260	0.00292 J	<0.0150	<0.000240	0.000796 JB	<0.0000490	0.00304 J	0.000612 JB	0.00371	<0.000310	0.00176 J	0.00383 J
	04/05/2018		0.0183 JB	0.00657	0.118	0.156 J	0.000910 JB	0.000849 JB	0.000894 JB	0.0135	0.0237 J	0.00120 JB	0.00467 J	<0.0000490	0.00380 J	0.00244 B	0.00397	<0.000310	0.00270 J	0.0298
	07/31/2018		0.00795 JB	0.00596	0.104	0.169 J	0.000172 JB	0.00117 J	<0.000260	0.00470 J	<0.0150	0.000793 J	0.000983 J	<0.0000490	0.00283 J	0.000634 J	0.00362	<0.000310	0.00173 J	0.00798 J
	10/01/2018		0.00570 J	0.00632	0.112	0.128 J	<0.000160	0.00116 J	<0.000260	0.00233 J	<0.0150	0.000674 J	0.00161 J	<0.0000490	0.00302 J	0.000651 J	0.00409	<0.000310	0.00177 J	0.00386 J
	01/23/2019		0.0108 J	0.00621	0.110	0.152	<0.000160	0.00139 J	<0.000260	0.00259 JB	<0.0150	0.000378 J	0.00193 J	<0.0000490	0.00293 J	0.00114 JB	0.00393	<0.000310	0.00184 J	0.00809 J
	04/04/2019		0.00882 JB	0.00599	0.118	0.169 J	<0.000160	0.00137 J	<0.000260	0.0129	0.0185 J	0.000607 J	0.00509	<0.0000490	0.00295 J	0.00101 JB	0.00375	<0.000310	0.00194 J	0.0199 J
	07/11/2019		<0.00515	0.00582	0.111	0.146 J	<0.000160	0.00162 JB	<0.000260	0.00322 JB	<0.0150	0.000313 JB	0.00042 J	<0.0000490	0.00303 J	0.000416 J	0.00414	<0.000310	0.00173 J	0.006 J
	10/24/2019		<0.00515	0.00483	0.106	0.149 J	<0.000160	0.00115 J	<0.000260	0.00265 J	<0.0150	<0.000240	0.0172	0.0000637 JB	0.00279 J	0.000441 J	0.00306	<0.000310	0.00148 J	0.0105 J
	01/15/2020		0.0222 JB	0.00611	0.105	0.152 J	<0.000160	0.00159 JB	<0.000260	0.0459	<0.0150	0.00257	0.00113 JB	<0.0000490	0.00298 J	0.00184 JB	0.00381	<0.000310	0.00195 J	0.0282
	06/18/2020		<0.0554	0.00601	0.106	0.150 J	<0.000478	0.00178 J	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00297 J	0.000965 J	0.00412	<0.000513	<0.00754	<0.00996
	08/19/2020		<0.0554	0.00592	0.0976	0.150 J	<0.000478	0.00178 J	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00284 J	<0.000952	0.00352	<0.000513	<0.00754	<0.00996
	10/08/2020		<0.0554	0.00637	0.102	0.153 J	<0.000478	0.00233	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00286 J	<0.000952	0.00316	<0.000513	<0.00754	<0.00996
	01/28/2021		<0.0185	0.00505	0.106	0.143 J	<0.000150	0.00141 J	0.000118 J	0.00209 J	<0.0281	<0.000849	0.00175 J	<0.000100	0.00309 J	0.00121 J	0.00361	<0.0000700	0.00171 J	0.0109 JB
	04/15/2021		<0.0185	0.00634	0.106	0.143 J	<0.000150	0.00227 B	0.000115 J	0.0723	<0.0281	0.00354 B	0.000746 J	<0.000100	0.00314 J	0.00231	0.00462	<0.0000700	0.00161 J	0.0519
	07/15/2021		<0.0185	0.00518	0.102	0.137 J	<0.000150	0.00219	0.0000724 J	0.00672 B	<0.0281	<0.000849	0.00522 B	<0.000100	0.00282 J	0.00227 B	0.00332	<0.0000700	0.00151 J	0.0140 JB
	09/16/2021		<0.0185	0.00522	0.110	0.142 J	<0.000150	0.00205	0.000107 J	0.0439	<0.0281	0.00141 J	0.000928 J	<0.000100	0.00277 JB	0.00186 J	0.00373	<0.0000700	0.00162 J	0.0295
	01/20/2022		<0.0185	0.00319	0.107	0.150 J	<0.000150	0.00164 J	0.000177 J	0.00482 J	0.105	<0.000849	0.00420 J	<0.000100	0.00298 J	0.00103 J	0.00369	<0.0000700	0.00199 J	0.0148 J
	04/14/2022		<0.0185	0.00555	0.118	0.143 J	<0.000150	0.00284	<0.0000596	0.00334 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00281 J	0.000873 J	0.00392	<0.0000700	0.00183 J	0.00638 J
	07/14/2022		<0.0185	0.00557	0.108	0.148 J	<0.000150	0.00217	0.0000720 J	0.00467 J	<0.0281	<0.000849	0.00179 J	<0.000100	0.00281 J	0.00152 J	0.00401	<0.0000700	0.00186 J	0.0128 J
	10/13/2022		<0.0185	0.00579	0.111	0.133 J	<0.000150	0.00182 J	0.000101 J	0.00300 J	<0.0281	<0.000849	<0.000704	<0.000100	0.00282 J	0.000828 J	0.00390	<0.0000700	0.00164 J	0.0203 J

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
South Well	06/22/2009		<0.0100	<0.00500	0.154	0.189	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.00500
	01/14/2010		0.0176	<0.00500	0.138	0.229	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0224	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00236	0.0207
	08/24/2010		<0.0100	<0.00500	0.172	0.186	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00576	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0329
	03/03/2011		<0.0100	<0.00500	0.147	0.261	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0226	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	07/20/2011		<0.0100	<0.00500	0.157	0.195	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00777
	02/02/2012		<0.0100	<0.00500	0.117	0.165	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00777
	07/30/2012		<0.0100	<0.00500	0.103	0.160	<0.00200	0.0111	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0401
	02/19/2013		<0.0100	0.00576	0.149	0.197	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0172
	02/28/2014		<0.0100	<0.00500	0.131	0.195	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00571	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0155
	08/22/2014		<0.0100	<0.00500	0.136	0.144	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.00670	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0159
	08/22/2014	FD	0.0689	<0.00500	0.145	<0.0200	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	0.0103	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0214
	12/17/2014		<0.0100	0.00431	0.125	0.159	<0.00100	0.00178	<0.00100	0.00128	0.0277	<0.00100	0.00422	<0.00020	0.00242	<0.00100	0.00387	<0.00100	0.00227	0.0163
	12/17/2014	FD	<0.0100	0.00422	0.126	0.162	<0.00100	0.00179	<0.00100	0.00136	0.0226	<0.00100	0.00409	<0.00020	0.00203	<0.00100	0.00359	<0.00100	0.00217	0.0151
	03/09/2015		<0.035	0.0040	0.14	0.20	<0.00070	0.0015 J	<0.0023	0.032	<0.014	0.0031	0.0046 J	<0.000049	0.0020 J	<0.0049	0.012 J	<0.0028	0.0021 J	0.049 J
	03/09/2015	FD	0.037 J	0.0042	0.14	0.20	<0.00070	<0.0014	<0.0023	0.019 J	<0.014	0.0026	0.0030 J	<0.000049	0.0021 J	<0.0049	0.015 J	<0.0028	0.0021 J	0.025 J
	05/19/2015		<0.035	0.0023	0.14	0.18 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	0.0088 J	<0.000049	0.0022 J	<0.0049	0.0034	<0.0028	0.0021 J	<0.0059
	05/19/2015	FD	<0.035	0.0024	0.14	0.18 J	<0.00070	<0.0014	<0.0023	<0.0053	<0.014	<0.00024	0.0081 J	<0.000049	0.0023 J	<0.0049	0.0032	<0.0028	0.0021 J	<0.0059
	08/28/2015		<0.0350	0.00436	0.137	0.194	<0.000700	0.00156 J	<0.00230	<0.00530	0.0168 J	0.000477 J	0.00776 J	<0.0000490	0.00204 J	<0.00490	0.00360	<0.00280	0.00214 J	0.00662 J
	08/28/2015	FD	<0.0350	0.00430	0.133	0.197	<0.000160	0.00127 J	<0.000260	0.00376 J	<0.0141	<0.000240	0.00654	0.0000599 J	0.00199 J	<0.000350	0.00328	<0.000310	0.00205 J	0.00638 J
	12/17/2015		<0.0350	0.00426	0.138	0.235	<0.000160	0.00205	<0.000260	0.00257 J	<0.0141	<0.000240	0.00564	<0.0000490	<0.00160	0.000645 J	0.00334	<0.000310	0.00238 J	0.00388 J
	12/17/2015	FD	<0.0350	0.00425	0.136	0.193 J	<0.000160	0.00160 J	<0.000260	0.00250 J	<0.0141	<0.000240	0.00546	<0.0000490	<0.00160	0.000442 J	0.00343	<0.000310	0.00238 J	0.00430 J
	03/10/2016		0.00624 J	0.00425	0.118	0.211	<0.000160	0.00135 J	<0.000260	0.00864	<0.0150	0.000256 J	0.00332 JB	<0.0000490	0.00204 JB	0.000524 JB	0.00354	<0.000310	0.00230 J	0.0119 JB
	05/25/2016		<0.00200	0.00433	0.124	0.214	<0.000160	0.00139 J	<0.000260	0.00384 J	<0.0150	<0.000240	0.00551	<0.0000490	0.00196 J	<0.000350	0.00374	<0.000310	0.00249 J	0.00351 J
	05/25/2016	FD	<0.00200	0.00459	0.125	0.224	<0.000160	0.00196 J	<0.000260	0.00445 J	<0.0150	<0.000240	0.00535	<0.0000490	0.00194 J	<0.000350	0.00343	<0.000310	0.00247 J	0.00394 J
	08/18/2016		<0.00200	0.00419	0.134	0.224	<0.000160	0.00138 J	<0.000260	0.00444 JB	<0.0150	<0.000240	0.00250 J	0.0000764 JB	0.00188 J	0.00106 JB	0.00326	<0.000310	0.00257 J	0.00833 JB
	08/18/2016	FD	0.00377 JB	0.00370	0.137	0.233	<0.000160	0.00165 J	<0.000260	0.00485 JB	<0.0150	<0.000240	0.00270 J	0.0000788 JB	0.00201 J	0.00128 JB	0.00318	<0.000310	0.00262 J	0.00936 JB
	12/08/2016		0.00439 JB	0.00310	0.120	0.188	<0.000160	0.000590 J	<0.000260	0.00192 J	<0.0150	<0.000240	0.00796	<0.0000490	0.00181 J	<0.000350	0.00373	<0.000310	0.00257 J	0.00418 J
	12/08/2016	FD	0.00364 JB	0.00313	0.120	0.194	<0.000160	0.000601 J	<0.000260	0.00215 J	<0.0150	0.000317 J	0.00673	<0.0000490	0.00184 J	<0.000350	0.00307	<0.000310	0.00253 J	0.00420 J
	02/07/2017		0.00532 J	0.00343	0.117	0.223	<0.000160	0.000753 J	<0.000260	0.00340 J	<0.0150	0.000385 JB	0.00227 J	<0.0000490	0.00190 J	<0.000350	0.00337	<0.000310	0.00229 J	0.00405 J
	02/07/2017	FD	<0.0258	0.00424 J	0.140	0.228	<0.000800	<0.00270	<0.00130	0.00352 J	<0.0750	<0.00120	0.00308 J	<0.0000490	0.00217 J	<0.00175	0.00338	<0.00155	0.00266 J	<0.0128
	05/31/2017		<0.00515	0.00327	0.144	0.209	<0.000160	0.000988 J	<0.000260	0.00419 J	<0.0150	<0.000240	0.00311 J	0.0000506 J	0.00174 J	<0.000350	0.00303	<0.000310	0.00235 J	0.00458 JB
	05/31/2017	FD	0.00778 JB	0.00326	0.139	0.197	<0.000160	0.00106 J	<0.000260	0.00419 J	<0.0150	<0.000240	0.00315 J	0.0000515 J	0.00163 J	0.000376 J	0.00338	<0.000310	0.00236 J	0.00426 JB
	08/17/2017		0.00883 JB	0.00392	0.125	0.191	<0.000160	0.00187 J	<0.000260	0.00229 J	<0.0150	<0.000240	0.00253 JB	<0.0000490	0.00183 J	<0.000350	0.00353	<0.000310	0.00230 J	0.00365 J
	08/17/2017	FD	0.00607 JB	0.00413	0.127	0.191	<0.000160	0.00204	<0.000260	0.00364 J	<0.0150	<0.000240	0.00182 JB	<0.0000490	0.00185 J	<0.000350	0.00338	<0.000310	0.00232 J	0.00339 J
	12/14/2017		<0.00515	0.00417	0.125	0.176	<0.000160	0.00221	<0.000260	0.00500 B	<0.0150	<0.000240	0.00223 J	<0.0000490	0.00180 J	0.000406 J	0.00357	<0.000310	0.00237 J	0.00659 J
	12/14/2017	FD	<0.00515	0.00417	0.129	0.184	<0.000160	0.00223	<0.000260	0.00526 B	<0.0150	0.000263 J	0.00259 J	<0.0000490	0.00185 J	0.000357 J	0.00356	<0.000310	0.00244 J	0.00474 J
	02/23/2018		0.00900 JB	0.00419	0.143	0.258	<0.000160	0.00265 B	<0.000260	0.00656	<0.0150	0.000278 JB	0.00225 J	<0.0000490	0.00191 J	0.000488 JB	0.00453	<0.000310	0.00245 J	0.00958 J
	02/23/2018	FD	0.0243 JB	0.00603	0.145	0.222	0.00194	0.00432 B	0.00187 J	0.00829	0.0231 J	0.00195 J	0.00373 J	0.0000945 J	0.00411 J	0.00243	0.00571	0.000372 J	0.00424 J	0.0115 J
	04/05/2018		0.0142 JB	0.00434	0.140	0.202	<0.000160	0.00311 B	<0.000260	0.00598	<0.0150	<0.000240	0.00245 JB	<0.0000490	0.00184 JB	<0.000350	0.00335 B	<0.000310	0.00252 J	0.00408 J
	07/31/2018		0.0109 JB	0.00377	0.130	0.239	0.000179 JB	0.00186 J	<0.000260	0.00235 JB	<0.0150	0.000264 J	0.00101 J	<0.0000490	0.00208 J	0.000389 J	0.00413	<0.000310	0.00220 J	0.0461
	07/31/2018	FD	<0.00515	0.00401	0.133	0.203	0.000172 JB	0.00180 J	<0.000260	0.00179 JB	<0.0150	<0.000240	0.00143 J	<0.0000490	0.00197 J	0.000463 J	0.00326	<0.000310	0.00219 J	0.0262
	10/01/2018		<0.00515	0.00431	0.138	0.177 J	<0.000160	0.00169 J	<0.000260	0.00177 J	<0.0150	<0.000240	0.00219 J	0.0000509 J	0.00219 J	0.00308	0.00386	<0.000310	0.00238 J	0.148
	01/23/2019		0.0343 J	0.00407	0.140	0.204	<0.000160	0.00230	<0.000260	0.00274 JB	<0.0150	<0.000240	0.00228 J	<0.0000490	0.00209 J	0.00157 JB	0.00348	<0.000310	0.00241 J	0.230
	01/23/2019	FD	0.00963 J	0.00424	0.136	0.197	<0.000160	0.00199 J	<0.000260	0.00225 JB	<0.0150	<0.000240	0.00187 J	<0.0000490	0.00202 J	0.00131 JB	0.00396	<0.000310	0.00234 J	0.0889
	04/04/2019		<0.00515	0.00421	0.140	0.612	<0.000160	0.00110 J	<0.000260	0.00172 J	<0.0150	<0.000240	0.00382 J	<0.0000490	0.00226 J	0.000640 JB	0.00325	<0.000310	0.00238 J	0.0510
	07/11/2019		<0.00515	0.00375	0.126	0.198 J	<0.000160	0.00178 JB	<0.000260	0.00191 JB	<0.0150	0.00054 JB	0.00269 J	<0.0000490	0.00229 J	0.000881 J	0.00384	<0.000310	0.00223 J	0.101
	10/24/2019		<0.00515	0.00405	0.119	0.190 J	<0.000160	0.000880 J	<0.000260	0.000922 J	<0.0150	<0.000240	0.00155 J	0.0000822 JB	0.00212 J	0.00157 J	0.00343	<0.000310	0.00188 J	0.0189 J
	01/15/2020		0.00859 JB	0.00287	0.122	0.184 J	<0.000160	0.000722 JB	<0.000260	0.00316 J	<0.0150	0.000365 JB	0.0101	<0.0000490	0.00215 J	0.0106	0.00482	<0.000310	0.00245 J	0.0942
	06/18/2020		<0.0554	0.00430	0.116	0.183 J	<0.000478	0.00168 J	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00210 J	<0.000952	0.00360	<0.000513	<0.00754	0.0142 J
	08/19/2020		<0.0554	0.00419	0.105	0.190 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.00168 J	<0.000100	0.00206 J	<0.000952	0.00417	<0.000513	<0.00754	0.0193 J
	08/19/2020	FD	<0.0554	0.00419	0.105	0.192 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.00145 J	<0.000100	0.00200 J	<0.000952	0.00394	<0.000513	<0.00754	0.0194 J
	10/08/2020		<0.0554	0.00324	0.108	0.188 J	<0.000478	<0.00149	<0.000477	<0.00250	<0.0489	<0.00249	0.00949	<0.000100	0.00225 J	0.00472	0.00400	<0.000513	<0.00754	0.0494
	10/08/2020	FD	<0.0554	0.00254	0.107	0.192 J	<0.000478	<0.00149	<0.000477	0.00292 J	<0.0489	<0.00249	0.0173	0.000114 J	0.00221 J	0.0201	0.00387	<0.000513	<0.00754	0.0868
	01/28/2021		<0.0185	0.00420	0.116	0.178 J	<0.000150	0.00173 J	<0.0000596	<0.00151	<0.0281	0.00152 J	0.00208 J	<0.000100	0.00218 J	0.000963 J	0.00367	<0.0000700	0.00241 J	0.0278 B
	01/28/2021	FD	<0.0185	0.00397	0.116	0.180 J	<0.000150	0.00125 J	<0.0000596	0.00189 J	<0.0281	<0.000849	0.00184 J	<0.000100	0.00219 J	<0.000816	0.00372	<0.0000700	0.00222 J	0.0183 JB
	04/15/2021		<0.0185	0.00233	0.112	0.177 J	<0.000150	0.00184 JB	0.000201 J	0.00881 B	0.0389 J	<0.000849	0.0174	<0.000100	0.00211 J	0.0334	0.00409	<0.0000700	0.00217 J	0.0951
	04/15/2021	FD	<0.0185	0.00391	0.109	0.183 J	<0.000150	<0.00124	<0.0000596	0.00264 JB	<0.0281	<0.000849	0.00545	<0.000100	0.00192 J	0.00192 J	0.00350	<0.0000700	0.00205 J	0.0379
	07/15/2021		<0.0185	0.00407	0.106	0.173 J	<0.000150	0.00151 J	<0.0000596	0.00206 JB	<0.0281	<0.000849	0.00275 JB	0.000102 J	0.00227 J	0.00113 JB	0.00313	<0.0000700	0.00212 J	0.0163 JB
	07/15/2021	FD	<0.0185	0.00394	0.107	0.179 J	<0.000150	0.00161 J	0.0000875 J	0.00186 JB	<0.0281	0.00118 J	0.00411 JB	<0.000100	0.00213 J	0.00117 JB	0.00316	<0.0000700	0.00202 J	0.0175 JB
	09/16/2021		<0.0185	0.00407	0.110	0.188 J	<0.000150	0.00136 J	<0.0000596	0.00241 J	<0.0281	<0.000849	0.00199 J	<0.000100	0.00202 JB	0.00133 J	0.00370	<0.0000700	0.00222 J	0.0155 J
	09/16/2021	FD	<0.0185	0.00387	0.113	0.184 J	<0.000150	0.00177 J	0.0000678 J	0.00294 J	<0.0281	<0.000849	0.00630	<0.000100	0.00207 JB	0.00101 J	0.00372	<0.0000700	0.00217 J	0.0246 J
	01/20/2022		<0.0185	0.00293	0.122	0.187 J	<0.000150	<0.00124	0.000122 J	0.00233 J	<0.0281	<0.000849	0.00337 J	<0.000100	0.00227 J	<0.000816	0.00412	<0.0000700	0.00230 J	0.0118 J
	01/20/2022	FD	<0.0185	0.00285	0.123	0.174 J	<0.000150	<0.00124	0.0000993 J	0.00206 J	<0.0281	<0.000849	0.00299 J	<0.000100	0.00232 J	<0.000816	0.00371	<0.0000700	0.00243 J	0.0120 J
	04/14/2022		0.0370 J	0.00471	0.119	0.179 J	<0.000150	0.00217	<0.0000596	0.00206 J	0.0526 J	<0.000849	0.00182 JB	<0.000100	0.00223 J	<0.000816	0.00359	<0.0000700	0.00226 J	0.0226 J
	04/14/2022	FD	0.0244 J	0.00539	0.118	0.178 J	0.000322 J	0.00172 J	0.000109 J	0.00262 J	0.0819 J	<0.000849	0.00262 J	<0.000100	0.00232 J	0.00118 J	0.00496	<0.0000700	0.00206 J	0.0254
	07/14/2022		<0.0185	0.00365	0.116	0.176 J	<0.000150	<0.00124	<0.0000596	0.0342	<0.0281	<0.000849	0.00389 J	<0.000100	0.00209 J	0.00143 J	0.00399	<0.0000700	0.00200 J	0.232
	07/14/2022	FD	<0.0185	0.00278	0.113	0.174 J	<0.000150	<0.00124	0.0000817 J	0.00281 J	<0.0281	<0.000849	0.00923	<0.000100	0.00218 J	0.00302	0.00351	<0.0000700	0.00209 J	0.123
	10/13/2022		<0.0185	0.00455	0.122	0.285	<0.000150	0.00236	0.0000730 J	0.00353 J	0.0742 J	<0.000849	0.00636	<0.000100	0.00206 J	0.000924 J	0.00354	<0.0000700	0.00240 J	0.0239 J
	10/13/2022	FD	<0.0185	0.00447	0.119	0.274	<0.000150	0.00126 J	0.0000609 J	<0.00151	0.0501 J	<0.000849	0.00459 J	<0.000100	0.00200 J	<0.000816	0.00371	<0.0000700	0.00228 J	0.0216 J

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Table 4. Dissolved Metals Concentrations in Groundwater
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Monitor Well	Sample Date	Duplicate	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium 238 (mg/L)	Zinc (mg/L)
New Mexico WQCC Groundwater Standards			5.0	0.01	2	0.75	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.002	1.0	0.2	0.05	0.05	0.03	10.0
East Well	06/18/2009		0.0131	<0.00500	0.0820	0.143	<0.00200	<0.00500	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0291
	01/14/2010		<0.0100	<0.00500	0.0941	0.154	<0.00200	0.0119	<0.00500	0.00953	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00111	0.0146
	08/25/2010		<0.0100	<0.00500	0.0873	0.136	<0.00200	0.0145	<0.00500	0.00745	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0347
	03/03/2011		<0.0100	<0.00500	0.0970	0.152	<0.00200	0.0189	<0.00500	<0.00500	<0.200	0.00662	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00936
	07/20/2011		<0.0100	<0.00500	0.104	0.142	<0.00200	0.0200	<0.00500	<0.00500	<0.200	0.0116	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0937
	02/02/2012		0.0150	<0.00500	0.0993	0.145	<0.00200	0.0166	<0.00500	<0.00500	<0.200	0.00988	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0937
	07/30/2012		<0.0100	<0.00500	0.0922	0.136	<0.00200	0.0157	<0.00500	0.00774	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0166
	08/27/2012		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.000200	- -	- -	- -	- -	- -	- -
	09/26/2012		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.000200	- -	- -	- -	- -	- -	- -
	10/22/2012		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.000200	- -	- -	- -	- -	- -	- -
	12/27/2012		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	<0.000200	- -	- -	- -	- -	- -	- -
	02/28/2014		0.0104	<0.00500	0.116	0.158	<0.00200	0.0139	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0317
	08/22/2014		<0.0100	<0.00500	0.103	<0.0200	<0.00200	0.0119	<0.00500	<0.00500	<0.200	<0.00500	0.00812	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0156
	12/17/2014		<0.0100	0.00436	0.0905	0.120	<0.00100	0.0112	<0.00100	<0.00100	0.143	<0.00100	0.00430	<0.00020	0.00241	<0.00100	0.00395	<0.00100	0.00181	0.0147
	03/09/2015		<0.035	0.0046	0.10	0.15	<0.00070	0.012	<0.0023	0.068	<0.014	0.0012 J	0.0021 J	<0.000049	0.0023 J	<0.0049	0.010 J	<0.0028	0.0018 J	0.086
	05/19/2015		<0.035	0.0050	0.10	0.14 J	<0.00070	0.012	<0.0023	<0.0053	<0.014	<0.00024	0.0016 J	<0.000049	0.0028 J	<0.0049	0.0037	<0.0028	0.0019 J	0.013 J
	08/28/2015		<0.0350	0.00445	0.0981	0.149	<0.000700	0.00866 J	<0.00230	<0.00530	0.0248 J	0.000241 J	0.0129	<0.0000490	0.00236 J	<0.00490	0.00388	<0.00280	0.00174 J	0.0284 J
	12/17/2015		0.0668 J	0.00507	0.0997	0.167 J	<0.000160	0.00866	<0.000260	0.00143 J	<0.0141	<0.000240	0.00217 J	<0.0000490	<0.00160	0.000365 J	0.00387	<0.000310	0.00188 J	0.0101 J
	03/10/2016		0.00534 J	0.00454	0.0926	0.143	<0.000160	0.00835	<0.000260	0.000987 J	<0.0150	<0.000240	0.00274 JB	<0.0000490	0.00246 JB	0.000662 JB	0.00384	<0.000310	0.00166 J	0.0260 B
	05/25/2016		<0.00200	0.00483	0.0906	0.154	<0.000160	0.00902	<0.000260	0.0315	<0.0150	0.00141 J	0.00181 JB	<0.0000490	0.00217 J	<0.000350	0.00376	<0.000310	0.00181 J	0.0399
	08/18/2016		0.00258 JB	0.00454	0.0939	0.162	<0.000160	0.00451 B	<0.000260	0.00196 JB	0.0337 J	<0.000240	0.00346 J	<0.0000490	0.00288 J	0.00121 JB	0.00386	<0.000310	0.00194 J	0.0291 B
	12/08/2016		0.00471 JB	0.00464	0.0858	0.122	<0.000160	0.00702	<0.000260	0.00390 J	<0.0150	<0.000240	0.00178 J	<0.0000490	0.00254 J	<0.000350	0.00384	<0.000310	0.00172 J	0.0269
	02/07/2017		<0.0258	0.00523 J	0.105	0.158	<0.000800	0.00749 J	<0.00130	<0.00260	<0.0750	<0.00120	0.00214 J	<0.0000490	0.00260 J	<0.00175	0.00358	<0.00155	0.00201 J	0.0141 J
	05/31/2017		<0.00515	0.00462	0.0928	0.144	<0.000160	0.00662	<0.000260	0.0259	<0.0150	0.00115 J	0.00132 J	<0.0000490	0.00228 J	0.000529 J	0.00351	<0.000310	0.00184 J	0.0297
	08/17/2017		0.0583 J	0.00476	0.0903	0.134	<0.000160	0.00699	<0.000260	0.000968 J	<0.0150	<0.000240	0.000802 JB	<0.0000490	0.00237 J	<0.000350	0.00396	<0.000310	0.00181 J	0.00556 J
	12/14/2017		0.0284 JB	0.00527	0.0881	0.128	0.000195 J	0.00619	0.000334 J	0.00244 JB	0.0331 J	0.000575 J	0.00129 J	<0.0000490	0.00286 J	0.000638 J	0.00386	<0.000310	0.00221 J	0.00987 J
	02/23/2018		0.0326 JB	0.00531	0.0893	0.150 J	0.000266 J	0.00730	0.000381 J	0.00559	0.0313 J	0.00188 J	0.000591 JB	<0.0000490	0.00303 J	0.000904 JB	0.00491	<0.000310	0.00212 J	0.0340
	04/05/2018		0.00660 JB	0.00515	0.0947	0.148 J	<0.000160	0.00555	<0.000260	0.00183 JB	<0.0150	0.000365 JB	0.000358 JB	<0.0000490	0.00243 JB	0.000394 JB	0.00402	<0.000310	0.00195 JB	0.0666
	07/31/2018		0.0113 JB	0.00384	0.0902	0.132 J	0.000193 JB	0.00369	<0.000260	0.00911	<0.0150	0.000287 J	0.00145 J	<0.0000490	0.00244 J	0.000789 J	0.00374	<0.000310	0.00182 J	0.210
	10/01/2018		0.00755 J	0.00534	0.0961	0.114 J	<0.000160	0.00537	<0.000260	0.00189 J	<0.0150	0.000589 J	0.000543 J	<0.0000490	0.00277 J	<0.000350	0.00472	<0.000310	0.00189 J	0.0536
	01/23/2019		0.0301 J	0.00520	0.0908	0.137	0.000279 J	0.00585	0.000346 J	0.00249 JB	0.0297 J	0.000666 J	0.000402 J	<0.0000490	0.00287 J	0.00104 JB	0.00382	<0.000310	0.00231 J	0.0208 J
	04/04/2019		<0.00515	0.00472	0.0919	0.195 J	<0.000160	0.00504	<0.000260	0.0109	<0.0150	0.000844 J	0.000373 JB	<0.0000490	0.00243 J	<0.000350	0.00341	<0.000310	0.00193 J	0.0476
	07/11/2019		<0.00515	0.00495	0.0952	0.142 J	<0.000160	0.00647	<0.000260	0.00995 B	<0.0150	0.000637 JB	<0.000250	<0.0000490	0.00266 J	0.000563 J	0.00341	<0.000310	0.00186 J	0.0128 J
	10/24/2019		<0.00515	0.00454	0.0937	0.138 J	<0.000160	0.00320	<0.000260	<0.000520	<0.0150	<0.000240	0.000903 J	0.0000613 JB	0.00260 J	0.000377 J	0.00393	<0.000310	0.00168 J	0.00418 J
	01/15/2020		<0.00515	0.00436	0.0986	0.143 J	<0.000160	0.000797 JB	<0.000260	0.000843 J	<0.0150	<0.000240	0.00221 JB	<0.0000490	0.00269 J	0.000845 JB	0.00564	<0.000310	0.00209 J	0.00523 J
	06/18/2020		<0.0554	0.00489	0.0965	0.140 J	<0.000478	0.00504	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00258 J	<0.000952	0.00420	<0.000513	<0.00754	0.0300
	08/19/2020		<0.0554	0.00516	0.0909	0.148 J	<0.000478	0.00348	<0.000477	<0.00250	<0.0489	<0.00249	0.00242 J	<0.000100	0.00254 J	<0.000952	0.00419	<0.000513	<0.00754	<0.00996
	10/08/2020		<0.0554	0.00495	0.0927	0.146 J	<0.000478	0.00482	<0.000477	<0.00250	<0.0489	<0.00249	<0.00132	<0.000100	0.00262 J	<0.000952	0.00404	<0.000513	<0.00754	0.0112 J
	01/28/2021		<0.0185	0.00516	0.0975	0.142 J	<0.000150	0.00541	0.0000716 J	0.00497 J	<0.0281	0.00224	0.000778 J	<0.000100	0.00269 J	0.000993 J	0.00419	<0.0000700	0.00192 J	0.0338
	04/15/2021		0.0274 J	0.00504	0.0943	0.139 J	<0.000150	0.00473 B	0.0000755 J	<0.00151	<0.0281	<0.000849	<0.000704	<0.000100	0.00239 J	0.000944 J	0.00448	<0.0000700	0.00182 J	0.0102 J
	07/15/2021		<0.0185	0.00481	0.0870	0.129 J	<0.000150	0.00511	0.0000821 J	0.00159 JB	<0.0281	<0.000849	0.00152 JB	<0.000100	0.00263 J	0.000916 JB	0.00404	<0.0000700	0.00170 J	0.0101 JB
	09/16/2021		<0.0185	0.00452	0.0920	0.150 J	<0.000150	0.00342	0.0000724 J	0.00303 J	<0.0281	<0.000849	0.00522	<0.000100	0.00257 JB	<0.000816	0.00403	<0.0000700	0.00191 J	0.0321
	11/10/2021		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	11/10/2021	FD	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	01/20/2022		<0.0185	0.00396	0.0975	0.149 J	<0.000150	<0.00124	0.000260 J	<0.00151	<0.0281	<0.000849	0.00328 J	<0.000100	0.00285 J	<0.000816	0.00454	<0.0000700	0.00201 J	<0.00302
	04/14/2022		<0.0185	0.00578	0.0938	0.142 J	0.000301 J	0.00394	0.000137 J	0.00253 J	0.0601 J	0.00281	0.00553	<0.000100	0.00295 J	0.00126 J	0.0197	<0.0000700	0.00186 J	0.0149 J
	07/14/2022		<0.0185	0.00450	0.0851	0.146 J	<0.000150	0.00279	0.0000825 J	0.00232 J	<0.0281	<0.000849	0.00278 J	<0.000100	0.00272 J	0.00164 J	0.00414	<0.0000700	0.00182 J	0.00870 J
	10/13/2022		<0.0185	0.00529	0.0883	0.136 J	<0.000150	0.00364	0.000135 J	<0.00151	0.0510 J	<0.000849	0.00114 J	<0.000100	0.00267 J	0.00196 J	0.00418	<0.0000700	0.00184 J	0.0167 J

Notes:
Shading indicates detected result exceeded the New Mexico Water Quality Control Commission (WQCC) Groundwater Standard
N/A = Not Applicable, no New Mexico WQCC Groundwater Standard established for constituent
mg/L = milligrams per liter
FD = Field Duplicate
< = Not reported above laboratory reporting limit
-- = Not Analyzed
(1)= Not analyzed due to insufficient water volume
J = analyte was detected below the laboratory reporting limit (June 2009 to December 2014) or method quantitation limit (February 2015 to April 2021) or reported detection limit (July 2021 to October 2022), reported value is estimated
B = same analyte was detected in the associated laboratory blank or equipment blank; sample concentration is within 5 times the blank concentration
[R] analyte not usable for project objectives according to the United States Environmental Protection Agency (USEPA) November 2020 *National Functional Guidelines for Inorganic Superfund Methods*
Samples collected for metals analysis (except for Total Mercury) were field- or lab-filtered with 0.45 micron filter
June 2009 to August 2014 analyses completed by ALS Laboratory Group, Houston, Texas
December 2014 analyses completed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico
February 2015 to present analyses completed by Pace Analytical National Center for Testing & Innovation (formerly ESC Lab Sciences) in Mount Juliet, Tennessee
Analytical data from 2009 to 2011 were provided by a previous consultant and could not be confirmed against the original data packages

APPENDIX A

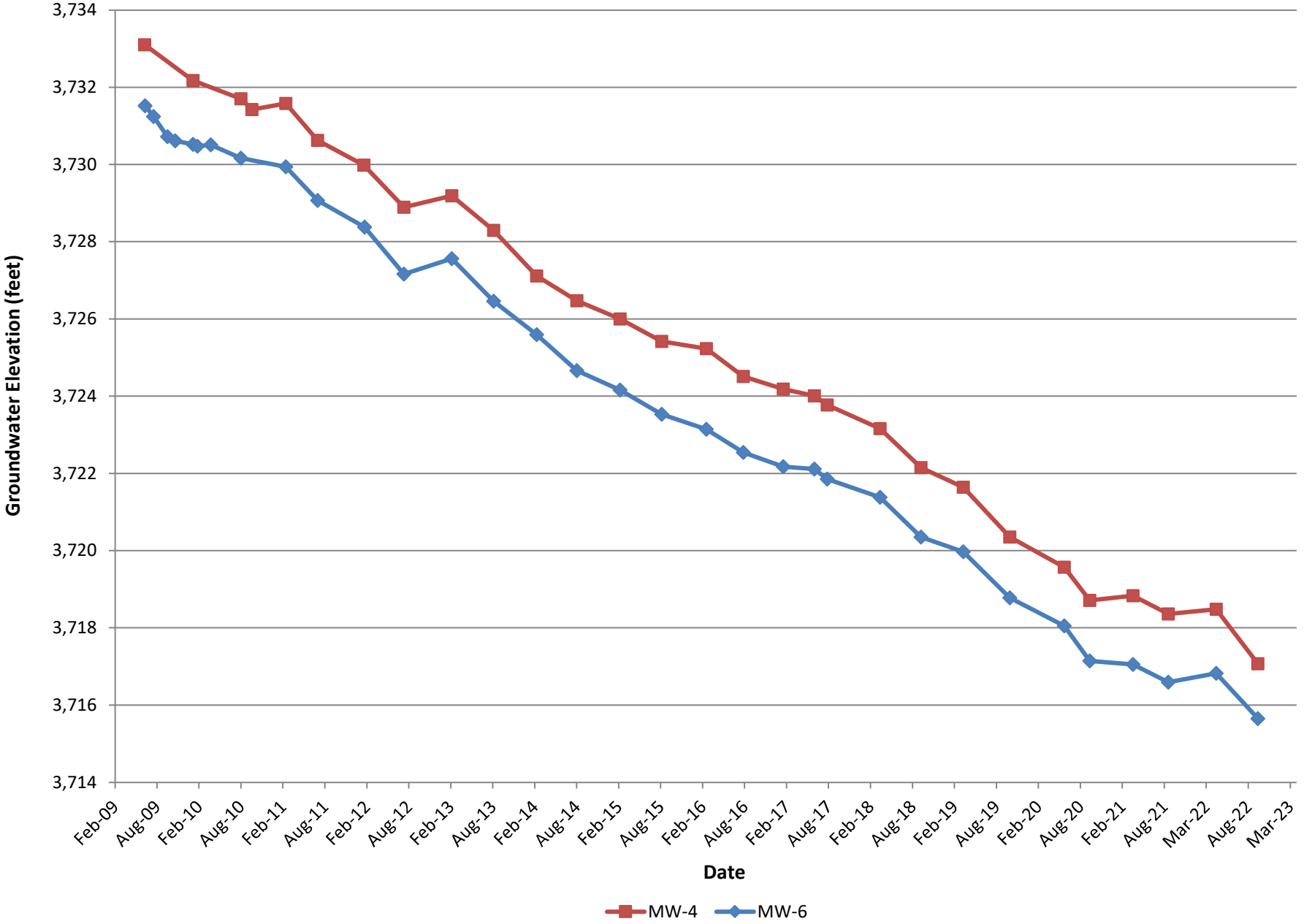
PLOT OF GROUNDWATER ELEVATIONS OVER TIME

Released to Imaging: 4/14/2023 4:34:58 PM

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

APPENDIX A - GROUNDWATER ELEVATIONS OVER TIME
HF Sinclair Navajo Refining LLC
GW-014, Lovington, New Mexico



APPENDIX B

LABORATORY ANALYTICAL REPORTS

Released to Imaging: 4/14/2023 4:34:58 PM

Pace Analytical®

ANALYTICAL REPORT

February 09, 2022

TRC Solutions - Austin, TX

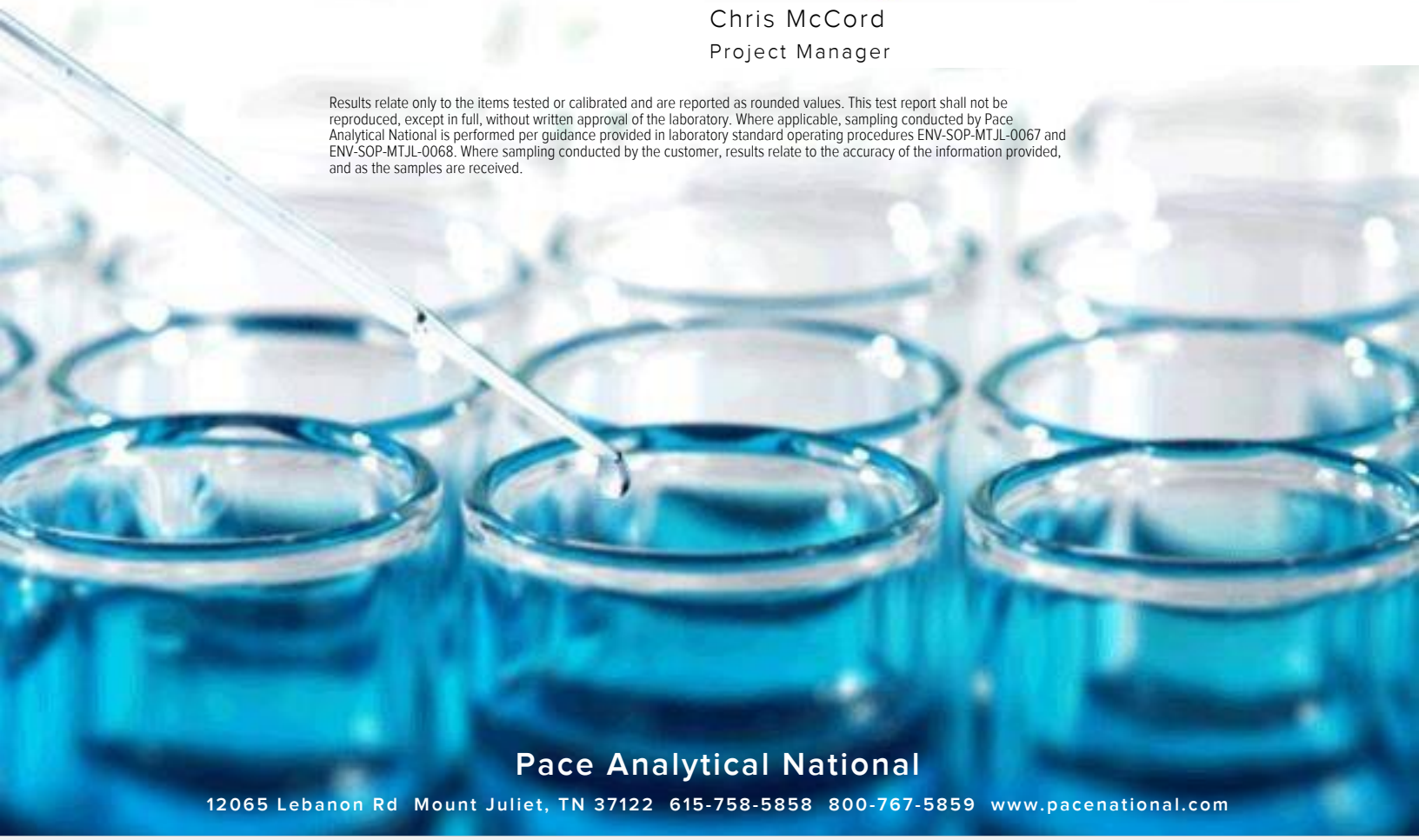
Sample Delivery Group:	L1453625
Samples Received:	01/21/2022
Project Number:	475791.0000.0000.
Description:	Lovington Lea Refinery

Report To: Julie Speer
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

WW-NORTH L1453625-01 6

WW-SOUTH L1453625-02 10

WW-EAST L1453625-03 14

DUP-01 L1453625-04 18

Qc: Quality Control Summary 22

Gravimetric Analysis by Method 2540 C-2011 22

Wet Chemistry by Method 2320 B-2011 24

Wet Chemistry by Method 353.2 25

Wet Chemistry by Method 9056A 26

Mercury by Method 7470A 30

Metals (ICP) by Method 6010B 32

Metals (ICPMS) by Method 6020 33

Volatile Organic Compounds (GC) by Method 8015D/GRO 35

Volatile Organic Compounds (GC/MS) by Method 8260B 36

Semi-Volatile Organic Compounds (GC) by Method 3511/8015 39

Semi Volatile Organic Compounds (GC/MS) by Method 8270C 40

Gl: Glossary of Terms 50

Al: Accreditations & Locations 51

Sc: Sample Chain of Custody 52

WW-NORTH L1453625-01 GW

Collected by	Collected date/time	Received date/time
	01/20/22 09:50	01/21/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808300	1	01/26/22 13:23	01/26/22 14:30	BRG	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1806609	1	01/23/22 07:50	01/23/22 07:50	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1811582	1	02/07/22 00:03	02/07/22 00:03	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805893	1	01/21/22 22:14	01/21/22 22:14	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805893	10	01/21/22 22:27	01/21/22 22:27	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1806647	1	01/23/22 10:20	01/24/22 11:06	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1809337	1	01/27/22 18:23	01/28/22 13:55	KMG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1808758	1	01/29/22 07:59	02/05/22 15:22	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1806502	1	01/22/22 21:16	01/22/22 21:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806323	1	01/22/22 05:33	01/22/22 05:33	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1809199	1	01/28/22 09:02	01/28/22 18:52	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1806698	1	01/24/22 01:03	01/24/22 14:05	BJP	Mt. Juliet, TN

WW-SOUTH L1453625-02 GW

Collected by	Collected date/time	Received date/time
	01/20/22 08:50	01/21/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808300	1	01/26/22 13:23	01/26/22 14:30	BRG	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1806609	1	01/23/22 07:54	01/23/22 07:54	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1811582	1	02/07/22 00:04	02/07/22 00:04	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805893	1	01/21/22 22:40	01/21/22 22:40	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805893	10	01/21/22 23:19	01/21/22 23:19	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1806647	1	01/23/22 10:20	01/24/22 11:08	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1809337	1	01/27/22 18:23	01/28/22 13:57	KMG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1808758	1	01/29/22 07:59	02/05/22 15:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1806502	1	01/22/22 21:39	01/22/22 21:39	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806323	1	01/22/22 05:55	01/22/22 05:55	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1809199	1	01/28/22 09:02	01/28/22 19:18	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1806698	1	01/24/22 01:03	01/24/22 14:27	BJP	Mt. Juliet, TN

WW-EAST L1453625-03 GW

Collected by	Collected date/time	Received date/time
	01/20/22 10:45	01/21/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808517	1	01/26/22 17:39	01/26/22 19:00	BRG	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1806609	1	01/23/22 07:58	01/23/22 07:58	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1811582	1	02/07/22 00:09	02/07/22 00:09	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1806319	1	01/21/22 21:00	01/21/22 21:00	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1806319	5	01/21/22 21:13	01/21/22 21:13	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1806647	1	01/23/22 10:20	01/24/22 11:11	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1809337	1	01/27/22 18:23	01/28/22 14:00	KMG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1808758	1	01/29/22 07:59	02/05/22 15:29	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1806502	1	01/22/22 22:03	01/22/22 22:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806323	1	01/22/22 06:17	01/22/22 06:17	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1809199	1	01/28/22 09:02	01/28/22 19:43	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1807330	1	01/25/22 03:22	01/25/22 12:58	BJP	Mt. Juliet, TN

SAMPLE SUMMARY

DUP-01 L1453625-04 GW

	Collected by	Collected date/time	Received date/time
		01/20/22 09:00	01/21/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808300	1	01/26/22 13:23	01/26/22 14:30	BRG	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1806609	1	01/23/22 08:02	01/23/22 08:02	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1811582	1	02/07/22 00:10	02/07/22 00:10	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1806319	1	01/21/22 21:26	01/21/22 21:26	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1806319	5	01/21/22 21:39	01/21/22 21:39	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1806866	1	01/24/22 09:07	01/24/22 15:50	MRW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1809337	1	01/27/22 18:23	01/28/22 14:03	KMG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1808758	1	01/29/22 07:59	02/05/22 15:32	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1806502	1	01/22/22 22:27	01/22/22 22:27	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806323	1	01/22/22 06:39	01/22/22 06:39	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1809199	1	01/28/22 09:02	01/28/22 20:09	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1807330	1	01/25/22 03:22	01/25/22 14:55	JNJ	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	544		10.0	1	01/26/2022 14:30	WG1808300

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	172		8.45	20.0	1	01/23/2022 07:50	WG1806609

Sample Narrative:

L1453625-01 WG1806609: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.97		0.0500	0.100	1	02/07/2022 00:03	WG1811582

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	124		3.79	10.0	10	01/21/2022 22:27	WG1805893
Fluoride	0.938		0.0640	0.150	1	01/21/2022 22:14	WG1805893
Sulfate	78.1		0.594	5.00	1	01/21/2022 22:14	WG1805893

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	01/24/2022 11:06	WG1806647

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.150	J	0.0200	0.200	1	01/28/2022 13:55	WG1809337

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	02/05/2022 15:22	WG1808758
Arsenic,Dissolved	0.00319		0.000180	0.00200	1	02/05/2022 15:22	WG1808758
Barium,Dissolved	0.107		0.000381	0.00200	1	02/05/2022 15:22	WG1808758
Cadmium,Dissolved	U		0.000150	0.00100	1	02/05/2022 15:22	WG1808758
Chromium,Dissolved	0.00164	J	0.00124	0.00200	1	02/05/2022 15:22	WG1808758
Copper,Dissolved	0.00482	J	0.00151	0.00500	1	02/05/2022 15:22	WG1808758
Cobalt,Dissolved	0.000177	J	0.0000596	0.00200	1	02/05/2022 15:22	WG1808758
Iron,Dissolved	0.105		0.0281	0.100	1	02/05/2022 15:22	WG1808758
Lead,Dissolved	U		0.000849	0.00200	1	02/05/2022 15:22	WG1808758
Manganese,Dissolved	0.00420	J	0.000704	0.00500	1	02/05/2022 15:22	WG1808758
Molybdenum,Dissolved	0.00298	J	0.000348	0.00500	1	02/05/2022 15:22	WG1808758
Nickel,Dissolved	0.00103	J	0.000816	0.00200	1	02/05/2022 15:22	WG1808758
Selenium,Dissolved	0.00369		0.000300	0.00200	1	02/05/2022 15:22	WG1808758
Silver,Dissolved	U		0.0000700	0.00200	1	02/05/2022 15:22	WG1808758
Uranium,Dissolved	0.00199	J	0.0000700	0.0200	1	02/05/2022 15:22	WG1808758
Zinc,Dissolved	0.0148	J	0.00302	0.0250	1	02/05/2022 15:22	WG1808758

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/22/2022 21:16	WG1806502
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*78.0-120*		*01/22/2022 21:16*	WG1806502

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	01/22/2022 05:33	WG1806323
Benzene	U		0.0000941	0.00100	1	01/22/2022 05:33	WG1806323
Bromodichloromethane	U		0.000136	0.00100	1	01/22/2022 05:33	WG1806323
Bromoform	U		0.000129	0.00100	1	01/22/2022 05:33	WG1806323
Bromomethane	U		0.000605	0.00500	1	01/22/2022 05:33	WG1806323
n-Butylbenzene	U		0.000157	0.00100	1	01/22/2022 05:33	WG1806323
sec-Butylbenzene	U		0.000125	0.00100	1	01/22/2022 05:33	WG1806323
tert-Butylbenzene	U		0.000127	0.00100	1	01/22/2022 05:33	WG1806323
Carbon disulfide	U		0.0000962	0.00100	1	01/22/2022 05:33	WG1806323
Carbon tetrachloride	U		0.000128	0.00100	1	01/22/2022 05:33	WG1806323
Chlorobenzene	U		0.000116	0.00100	1	01/22/2022 05:33	WG1806323
Chlorodibromomethane	U		0.000140	0.00100	1	01/22/2022 05:33	WG1806323
Chloroethane	U		0.000192	0.00500	1	01/22/2022 05:33	WG1806323
Chloroform	U		0.000111	0.00500	1	01/22/2022 05:33	WG1806323
Chloromethane	U		0.000960	0.00250	1	01/22/2022 05:33	WG1806323
1,2-Dibromoethane	U		0.000126	0.00100	1	01/22/2022 05:33	WG1806323
1,1-Dichloroethane	U		0.000100	0.00100	1	01/22/2022 05:33	WG1806323
1,2-Dichloroethane	U		0.0000819	0.00100	1	01/22/2022 05:33	WG1806323
1,1-Dichloroethene	U		0.000188	0.00100	1	01/22/2022 05:33	WG1806323
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	01/22/2022 05:33	WG1806323
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	01/22/2022 05:33	WG1806323
1,2-Dichloropropane	U		0.000149	0.00100	1	01/22/2022 05:33	WG1806323
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	01/22/2022 05:33	WG1806323
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	01/22/2022 05:33	WG1806323
Ethylbenzene	U		0.000137	0.00100	1	01/22/2022 05:33	WG1806323
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	01/22/2022 05:33	WG1806323
2-Hexanone	U		0.000787	0.0100	1	01/22/2022 05:33	WG1806323
Isopropylbenzene	U		0.000105	0.00100	1	01/22/2022 05:33	WG1806323
p-Isopropyltoluene	U		0.000120	0.00100	1	01/22/2022 05:33	WG1806323
2-Butanone (MEK)	U		0.00119	0.0100	1	01/22/2022 05:33	WG1806323
Methylene Chloride	U		0.000430	0.00500	1	01/22/2022 05:33	WG1806323
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	01/22/2022 05:33	WG1806323
Methyl tert-butyl ether	U		0.000101	0.00100	1	01/22/2022 05:33	WG1806323
Naphthalene	U		0.00100	0.00500	1	01/22/2022 05:33	WG1806323
n-Propylbenzene	U		0.0000993	0.00100	1	01/22/2022 05:33	WG1806323
Styrene	U		0.000118	0.00100	1	01/22/2022 05:33	WG1806323
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	01/22/2022 05:33	WG1806323
Tetrachloroethene	U		0.000300	0.00100	1	01/22/2022 05:33	WG1806323
Toluene	U		0.000278	0.00100	1	01/22/2022 05:33	WG1806323
1,1,1-Trichloroethane	U		0.000149	0.00100	1	01/22/2022 05:33	WG1806323
1,1,2-Trichloroethane	U		0.000158	0.00100	1	01/22/2022 05:33	WG1806323
Trichloroethene	U	J4	0.000190	0.00100	1	01/22/2022 05:33	WG1806323
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	01/22/2022 05:33	WG1806323
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	01/22/2022 05:33	WG1806323
Vinyl chloride	U		0.000234	0.00100	1	01/22/2022 05:33	WG1806323
Xylenes, Total	U		0.000174	0.00300	1	01/22/2022 05:33	WG1806323
(S) Toluene-d8	*100*			*80.0-120*		*01/22/2022 05:33*	WG1806323
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*		*01/22/2022 05:33*	WG1806323
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*		*01/22/2022 05:33*	WG1806323

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0357	J	0.0247	0.100	1	01/28/2022 18:52	WG1809199
(S) o-Terphenyl	*82.6*			*31.0-160*		*01/28/2022 18:52*	WG1809199

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	01/24/2022 14:05	WG1806698
Acenaphthylene	U		0.0000921	0.00100	1	01/24/2022 14:05	WG1806698
Acetophenone	U		0.000208	0.0100	1	01/24/2022 14:05	WG1806698
Anthracene	U		0.0000804	0.00100	1	01/24/2022 14:05	WG1806698
Atrazine	U		0.000255	0.0100	1	01/24/2022 14:05	WG1806698
Benzo(a)anthracene	U		0.000199	0.00100	1	01/24/2022 14:05	WG1806698
Benzaldehyde	U	J4	0.00169	0.0100	1	01/24/2022 14:05	WG1806698
Benzo(b)fluoranthene	U		0.000130	0.00100	1	01/24/2022 14:05	WG1806698
Benzo(k)fluoranthene	U		0.000120	0.00100	1	01/24/2022 14:05	WG1806698
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	01/24/2022 14:05	WG1806698
Benzo(a)pyrene	U		0.0000381	0.000200	1	01/24/2022 14:05	WG1806698
Biphenyl	U		0.000790	0.0100	1	01/24/2022 14:05	WG1806698
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	01/24/2022 14:05	WG1806698
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	01/24/2022 14:05	WG1806698
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	01/24/2022 14:05	WG1806698
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	01/24/2022 14:05	WG1806698
2-Chloronaphthalene	U		0.0000648	0.00100	1	01/24/2022 14:05	WG1806698
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	01/24/2022 14:05	WG1806698
Caprolactam	U		0.000309	0.0100	1	01/24/2022 14:05	WG1806698
Carbazole	U		0.000111	0.0100	1	01/24/2022 14:05	WG1806698
Chrysene	U		0.000130	0.00100	1	01/24/2022 14:05	WG1806698
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	01/24/2022 14:05	WG1806698
Dibenzofuran	U		0.0000970	0.0100	1	01/24/2022 14:05	WG1806698
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	01/24/2022 14:05	WG1806698
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	01/24/2022 14:05	WG1806698
2,6-Dinitrotoluene	U		0.000250	0.0100	1	01/24/2022 14:05	WG1806698
Fluoranthene	U		0.000102	0.00100	1	01/24/2022 14:05	WG1806698
Fluorene	U		0.0000844	0.00100	1	01/24/2022 14:05	WG1806698
Hexachlorobenzene	U		0.0000755	0.00100	1	01/24/2022 14:05	WG1806698
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	01/24/2022 14:05	WG1806698
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	01/24/2022 14:05	WG1806698
Hexachloroethane	U		0.000127	0.0100	1	01/24/2022 14:05	WG1806698
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	01/24/2022 14:05	WG1806698
Isophorone	U		0.000143	0.0100	1	01/24/2022 14:05	WG1806698
1-Methylnaphthalene	U		0.0000790	0.00100	1	01/24/2022 14:05	WG1806698
2-Methylnaphthalene	U		0.000117	0.00100	1	01/24/2022 14:05	WG1806698
Naphthalene	U		0.000159	0.00100	1	01/24/2022 14:05	WG1806698
Nitrobenzene	U		0.000297	0.0100	1	01/24/2022 14:05	WG1806698
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	01/24/2022 14:05	WG1806698
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	01/24/2022 14:05	WG1806698
Phenanthrene	U		0.000112	0.00100	1	01/24/2022 14:05	WG1806698
Benzylbutyl phthalate	U		0.000765	0.00300	1	01/24/2022 14:05	WG1806698
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	01/24/2022 14:05	WG1806698
Di-n-butyl phthalate	U		0.000453	0.00300	1	01/24/2022 14:05	WG1806698
Diethyl phthalate	U		0.000287	0.00300	1	01/24/2022 14:05	WG1806698
Dimethyl phthalate	U		0.000260	0.00300	1	01/24/2022 14:05	WG1806698
Di-n-octyl phthalate	U		0.000932	0.00300	1	01/24/2022 14:05	WG1806698
Pyrene	U		0.000107	0.00100	1	01/24/2022 14:05	WG1806698
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	01/24/2022 14:05	WG1806698
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	01/24/2022 14:05	WG1806698

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	01/24/2022 14:05	WG1806698
2,4-Dichlorophenol	U		0.000102	0.0100	1	01/24/2022 14:05	WG1806698
2,4-Dimethylphenol	U		0.0000636	0.0100	1	01/24/2022 14:05	WG1806698
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	01/24/2022 14:05	WG1806698
2,4-Dinitrophenol	U		0.00593	0.0100	1	01/24/2022 14:05	WG1806698
2-Nitrophenol	U		0.000117	0.0100	1	01/24/2022 14:05	WG1806698
2-Nitroaniline	U		0.000102	0.0100	1	01/24/2022 14:05	WG1806698
2-Methylphenol	U		0.0000929	0.0100	1	01/24/2022 14:05	WG1806698
3&4-Methyl Phenol	U		0.000168	0.0100	1	01/24/2022 14:05	WG1806698
3-Nitroaniline	U		0.0000869	0.0100	1	01/24/2022 14:05	WG1806698
4-Chloroaniline	U		0.000234	0.0100	1	01/24/2022 14:05	WG1806698
4-Nitroaniline	U		0.0000910	0.0100	1	01/24/2022 14:05	WG1806698
4-Nitrophenol	U		0.000143	0.0100	1	01/24/2022 14:05	WG1806698
Pentachlorophenol	U		0.000313	0.0100	1	01/24/2022 14:05	WG1806698
Phenol	U		0.00433	0.0100	1	01/24/2022 14:05	WG1806698
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	01/24/2022 14:05	WG1806698
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	01/24/2022 14:05	WG1806698
(S) 2-Fluorophenol	*26.9*			*10.0-120*		*01/24/2022 14:05*	WG1806698
(S) Phenol-d5	*16.4*			*10.0-120*		*01/24/2022 14:05*	WG1806698
(S) Nitrobenzene-d5	*68.8*			*10.0-127*		*01/24/2022 14:05*	WG1806698
(S) 2-Fluorobiphenyl	*75.9*			*10.0-130*		*01/24/2022 14:05*	WG1806698
(S) 2,4,6-Tribromophenol	*63.2*			*10.0-155*		*01/24/2022 14:05*	WG1806698
(S) p-Terphenyl-d14	*82.2*			*10.0-128*		*01/24/2022 14:05*	WG1806698

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	867		13.3	1	01/26/2022 14:30	WG1808300

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	181		8.45	20.0	1	01/23/2022 07:54	WG1806609

Sample Narrative:

L1453625-02 WG1806609: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	3.16		0.0500	0.100	1	02/07/2022 00:04	WG1811582

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	264		3.79	10.0	10	01/21/2022 23:19	WG1805893
Fluoride	0.744		0.0640	0.150	1	01/21/2022 22:40	WG1805893
Sulfate	85.8		0.594	5.00	1	01/21/2022 22:40	WG1805893

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	01/24/2022 11:08	WG1806647

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.187	J	0.0200	0.200	1	01/28/2022 13:57	WG1809337

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	02/05/2022 15:25	WG1808758
Arsenic,Dissolved	0.00293		0.000180	0.00200	1	02/05/2022 15:25	WG1808758
Barium,Dissolved	0.122		0.000381	0.00200	1	02/05/2022 15:25	WG1808758
Cadmium,Dissolved	U		0.000150	0.00100	1	02/05/2022 15:25	WG1808758
Chromium,Dissolved	U		0.00124	0.00200	1	02/05/2022 15:25	WG1808758
Copper,Dissolved	0.00233	J	0.00151	0.00500	1	02/05/2022 15:25	WG1808758
Cobalt,Dissolved	0.000122	J	0.0000596	0.00200	1	02/05/2022 15:25	WG1808758
Iron,Dissolved	U		0.0281	0.100	1	02/05/2022 15:25	WG1808758
Lead,Dissolved	U		0.000849	0.00200	1	02/05/2022 15:25	WG1808758
Manganese,Dissolved	0.00337	J	0.000704	0.00500	1	02/05/2022 15:25	WG1808758
Molybdenum,Dissolved	0.00227	J	0.000348	0.00500	1	02/05/2022 15:25	WG1808758
Nickel,Dissolved	U		0.000816	0.00200	1	02/05/2022 15:25	WG1808758
Selenium,Dissolved	0.00412		0.000300	0.00200	1	02/05/2022 15:25	WG1808758
Silver,Dissolved	U		0.0000700	0.00200	1	02/05/2022 15:25	WG1808758
Uranium,Dissolved	0.00230	J	0.0000700	0.0200	1	02/05/2022 15:25	WG1808758
Zinc,Dissolved	0.0118	J	0.00302	0.0250	1	02/05/2022 15:25	WG1808758

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/22/2022 21:39	WG1806502
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*78.0-120*		*01/22/2022 21:39*	WG1806502

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	01/22/2022 05:55	WG1806323
Benzene	0.000339	J	0.0000941	0.00100	1	01/22/2022 05:55	WG1806323
Bromodichloromethane	U		0.000136	0.00100	1	01/22/2022 05:55	WG1806323
Bromoform	U		0.000129	0.00100	1	01/22/2022 05:55	WG1806323
Bromomethane	U		0.000605	0.00500	1	01/22/2022 05:55	WG1806323
n-Butylbenzene	U		0.000157	0.00100	1	01/22/2022 05:55	WG1806323
sec-Butylbenzene	U		0.000125	0.00100	1	01/22/2022 05:55	WG1806323
tert-Butylbenzene	U		0.000127	0.00100	1	01/22/2022 05:55	WG1806323
Carbon disulfide	U		0.0000962	0.00100	1	01/22/2022 05:55	WG1806323
Carbon tetrachloride	0.000197	J	0.000128	0.00100	1	01/22/2022 05:55	WG1806323
Chlorobenzene	U		0.000116	0.00100	1	01/22/2022 05:55	WG1806323
Chlorodibromomethane	U		0.000140	0.00100	1	01/22/2022 05:55	WG1806323
Chloroethane	U		0.000192	0.00500	1	01/22/2022 05:55	WG1806323
Chloroform	0.000699	J	0.000111	0.00500	1	01/22/2022 05:55	WG1806323
Chloromethane	U		0.000960	0.00250	1	01/22/2022 05:55	WG1806323
1,2-Dibromoethane	U		0.000126	0.00100	1	01/22/2022 05:55	WG1806323
1,1-Dichloroethane	U		0.000100	0.00100	1	01/22/2022 05:55	WG1806323
1,2-Dichloroethane	U		0.0000819	0.00100	1	01/22/2022 05:55	WG1806323
1,1-Dichloroethene	U		0.000188	0.00100	1	01/22/2022 05:55	WG1806323
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	01/22/2022 05:55	WG1806323
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	01/22/2022 05:55	WG1806323
1,2-Dichloropropane	U		0.000149	0.00100	1	01/22/2022 05:55	WG1806323
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	01/22/2022 05:55	WG1806323
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	01/22/2022 05:55	WG1806323
Ethylbenzene	U		0.000137	0.00100	1	01/22/2022 05:55	WG1806323
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	01/22/2022 05:55	WG1806323
2-Hexanone	U		0.000787	0.0100	1	01/22/2022 05:55	WG1806323
Isopropylbenzene	U		0.000105	0.00100	1	01/22/2022 05:55	WG1806323
p-Isopropyltoluene	U		0.000120	0.00100	1	01/22/2022 05:55	WG1806323
2-Butanone (MEK)	U		0.00119	0.0100	1	01/22/2022 05:55	WG1806323
Methylene Chloride	U		0.000430	0.00500	1	01/22/2022 05:55	WG1806323
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	01/22/2022 05:55	WG1806323
Methyl tert-butyl ether	U		0.000101	0.00100	1	01/22/2022 05:55	WG1806323
Naphthalene	U		0.00100	0.00500	1	01/22/2022 05:55	WG1806323
n-Propylbenzene	U		0.0000993	0.00100	1	01/22/2022 05:55	WG1806323
Styrene	U		0.000118	0.00100	1	01/22/2022 05:55	WG1806323
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	01/22/2022 05:55	WG1806323
Tetrachloroethene	U		0.000300	0.00100	1	01/22/2022 05:55	WG1806323
Toluene	U		0.000278	0.00100	1	01/22/2022 05:55	WG1806323
1,1,1-Trichloroethane	U		0.000149	0.00100	1	01/22/2022 05:55	WG1806323
1,1,2-Trichloroethane	U		0.000158	0.00100	1	01/22/2022 05:55	WG1806323
Trichloroethene	U	J4	0.000190	0.00100	1	01/22/2022 05:55	WG1806323
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	01/22/2022 05:55	WG1806323
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	01/22/2022 05:55	WG1806323
Vinyl chloride	U		0.000234	0.00100	1	01/22/2022 05:55	WG1806323
Xylenes, Total	U		0.000174	0.00300	1	01/22/2022 05:55	WG1806323
(S) Toluene-d8	*103*			*80.0-120*		*01/22/2022 05:55*	WG1806323
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*01/22/2022 05:55*	WG1806323
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*01/22/2022 05:55*	WG1806323

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0514	J	0.0247	0.100	1	01/28/2022 19:18	WG1809199
(S) o-Terphenyl	*77.4*			*31.0-160*		*01/28/2022 19:18*	WG1809199

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	01/24/2022 14:27	WG1806698
Acenaphthylene	U		0.0000921	0.00100	1	01/24/2022 14:27	WG1806698
Acetophenone	U		0.000208	0.0100	1	01/24/2022 14:27	WG1806698
Anthracene	U		0.0000804	0.00100	1	01/24/2022 14:27	WG1806698
Atrazine	U		0.000255	0.0100	1	01/24/2022 14:27	WG1806698
Benzo(a)anthracene	U		0.000199	0.00100	1	01/24/2022 14:27	WG1806698
Benzaldehyde	U	J4	0.00169	0.0100	1	01/24/2022 14:27	WG1806698
Benzo(b)fluoranthene	U		0.000130	0.00100	1	01/24/2022 14:27	WG1806698
Benzo(k)fluoranthene	U		0.000120	0.00100	1	01/24/2022 14:27	WG1806698
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	01/24/2022 14:27	WG1806698
Benzo(a)pyrene	U		0.0000381	0.000200	1	01/24/2022 14:27	WG1806698
Biphenyl	U		0.000790	0.0100	1	01/24/2022 14:27	WG1806698
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	01/24/2022 14:27	WG1806698
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	01/24/2022 14:27	WG1806698
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	01/24/2022 14:27	WG1806698
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	01/24/2022 14:27	WG1806698
2-Chloronaphthalene	U		0.0000648	0.00100	1	01/24/2022 14:27	WG1806698
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	01/24/2022 14:27	WG1806698
Caprolactam	U		0.000309	0.0100	1	01/24/2022 14:27	WG1806698
Carbazole	U		0.000111	0.0100	1	01/24/2022 14:27	WG1806698
Chrysene	U		0.000130	0.00100	1	01/24/2022 14:27	WG1806698
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	01/24/2022 14:27	WG1806698
Dibenzofuran	U		0.0000970	0.0100	1	01/24/2022 14:27	WG1806698
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	01/24/2022 14:27	WG1806698
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	01/24/2022 14:27	WG1806698
2,6-Dinitrotoluene	U		0.000250	0.0100	1	01/24/2022 14:27	WG1806698
Fluoranthene	U		0.000102	0.00100	1	01/24/2022 14:27	WG1806698
Fluorene	U		0.0000844	0.00100	1	01/24/2022 14:27	WG1806698
Hexachlorobenzene	U		0.0000755	0.00100	1	01/24/2022 14:27	WG1806698
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	01/24/2022 14:27	WG1806698
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	01/24/2022 14:27	WG1806698
Hexachloroethane	U		0.000127	0.0100	1	01/24/2022 14:27	WG1806698
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	01/24/2022 14:27	WG1806698
Isophorone	U		0.000143	0.0100	1	01/24/2022 14:27	WG1806698
1-Methylnaphthalene	U		0.0000790	0.00100	1	01/24/2022 14:27	WG1806698
2-Methylnaphthalene	U		0.000117	0.00100	1	01/24/2022 14:27	WG1806698
Naphthalene	U		0.000159	0.00100	1	01/24/2022 14:27	WG1806698
Nitrobenzene	U		0.000297	0.0100	1	01/24/2022 14:27	WG1806698
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	01/24/2022 14:27	WG1806698
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	01/24/2022 14:27	WG1806698
Phenanthrene	U		0.000112	0.00100	1	01/24/2022 14:27	WG1806698
Benzylbutyl phthalate	U		0.000765	0.00300	1	01/24/2022 14:27	WG1806698
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	01/24/2022 14:27	WG1806698
Di-n-butyl phthalate	U		0.000453	0.00300	1	01/24/2022 14:27	WG1806698
Diethyl phthalate	U		0.000287	0.00300	1	01/24/2022 14:27	WG1806698
Dimethyl phthalate	U		0.000260	0.00300	1	01/24/2022 14:27	WG1806698
Di-n-octyl phthalate	U		0.000932	0.00300	1	01/24/2022 14:27	WG1806698
Pyrene	U		0.000107	0.00100	1	01/24/2022 14:27	WG1806698
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	01/24/2022 14:27	WG1806698
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	01/24/2022 14:27	WG1806698

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	01/24/2022 14:27	WG1806698
2,4-Dichlorophenol	U		0.000102	0.0100	1	01/24/2022 14:27	WG1806698
2,4-Dimethylphenol	U		0.0000636	0.0100	1	01/24/2022 14:27	WG1806698
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	01/24/2022 14:27	WG1806698
2,4-Dinitrophenol	U		0.00593	0.0100	1	01/24/2022 14:27	WG1806698
2-Nitrophenol	U		0.000117	0.0100	1	01/24/2022 14:27	WG1806698
2-Nitroaniline	U		0.000102	0.0100	1	01/24/2022 14:27	WG1806698
2-Methylphenol	U		0.0000929	0.0100	1	01/24/2022 14:27	WG1806698
3&4-Methyl Phenol	U		0.000168	0.0100	1	01/24/2022 14:27	WG1806698
3-Nitroaniline	U		0.0000869	0.0100	1	01/24/2022 14:27	WG1806698
4-Chloroaniline	U		0.000234	0.0100	1	01/24/2022 14:27	WG1806698
4-Nitroaniline	U		0.0000910	0.0100	1	01/24/2022 14:27	WG1806698
4-Nitrophenol	U		0.000143	0.0100	1	01/24/2022 14:27	WG1806698
Pentachlorophenol	U		0.000313	0.0100	1	01/24/2022 14:27	WG1806698
Phenol	U		0.00433	0.0100	1	01/24/2022 14:27	WG1806698
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	01/24/2022 14:27	WG1806698
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	01/24/2022 14:27	WG1806698
(S) 2-Fluorophenol	*29.6*			*10.0-120*		*01/24/2022 14:27*	WG1806698
(S) Phenol-d5	*17.1*			*10.0-120*		*01/24/2022 14:27*	WG1806698
(S) Nitrobenzene-d5	*66.9*			*10.0-127*		*01/24/2022 14:27*	WG1806698
(S) 2-Fluorobiphenyl	*79.5*			*10.0-130*		*01/24/2022 14:27*	WG1806698
(S) 2,4,6-Tribromophenol	*78.6*			*10.0-155*		*01/24/2022 14:27*	WG1806698
(S) p-Terphenyl-d14	*86.5*			*10.0-128*		*01/24/2022 14:27*	WG1806698

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	515		10.0	1	01/26/2022 19:00	WG1808517

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	169		8.45	20.0	1	01/23/2022 07:58	WG1806609

Sample Narrative:

L1453625-03 WG1806609: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	2.93		0.0500	0.100	1	02/07/2022 00:09	WG1811582

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	114		1.90	5.00	5	01/21/2022 21:13	WG1806319
Fluoride	0.977		0.0640	0.150	1	01/21/2022 21:00	WG1806319
Sulfate	82.5		0.594	5.00	1	01/21/2022 21:00	WG1806319

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	01/24/2022 11:11	WG1806647

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.149	J	0.0200	0.200	1	01/28/2022 14:00	WG1809337

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	02/05/2022 15:29	WG1808758
Arsenic,Dissolved	0.00396		0.000180	0.00200	1	02/05/2022 15:29	WG1808758
Barium,Dissolved	0.0975		0.000381	0.00200	1	02/05/2022 15:29	WG1808758
Cadmium,Dissolved	U		0.000150	0.00100	1	02/05/2022 15:29	WG1808758
Chromium,Dissolved	U		0.00124	0.00200	1	02/05/2022 15:29	WG1808758
Copper,Dissolved	U		0.00151	0.00500	1	02/05/2022 15:29	WG1808758
Cobalt,Dissolved	0.000260	J	0.0000596	0.00200	1	02/05/2022 15:29	WG1808758
Iron,Dissolved	U		0.0281	0.100	1	02/05/2022 15:29	WG1808758
Lead,Dissolved	U		0.000849	0.00200	1	02/05/2022 15:29	WG1808758
Manganese,Dissolved	0.00328	J	0.000704	0.00500	1	02/05/2022 15:29	WG1808758
Molybdenum,Dissolved	0.00285	J	0.000348	0.00500	1	02/05/2022 15:29	WG1808758
Nickel,Dissolved	U		0.000816	0.00200	1	02/05/2022 15:29	WG1808758
Selenium,Dissolved	0.00454		0.000300	0.00200	1	02/05/2022 15:29	WG1808758
Silver,Dissolved	U		0.0000700	0.00200	1	02/05/2022 15:29	WG1808758
Uranium,Dissolved	0.00201	J	0.0000700	0.0200	1	02/05/2022 15:29	WG1808758
Zinc,Dissolved	U		0.00302	0.0250	1	02/05/2022 15:29	WG1808758

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/22/2022 22:03	WG1806502
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*78.0-120*		*01/22/2022 22:03*	WG1806502

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	01/22/2022 06:17	WG1806323
Benzene	U		0.0000941	0.00100	1	01/22/2022 06:17	WG1806323
Bromodichloromethane	U		0.000136	0.00100	1	01/22/2022 06:17	WG1806323
Bromoform	U		0.000129	0.00100	1	01/22/2022 06:17	WG1806323
Bromomethane	U		0.000605	0.00500	1	01/22/2022 06:17	WG1806323
n-Butylbenzene	U		0.000157	0.00100	1	01/22/2022 06:17	WG1806323
sec-Butylbenzene	U		0.000125	0.00100	1	01/22/2022 06:17	WG1806323
tert-Butylbenzene	U		0.000127	0.00100	1	01/22/2022 06:17	WG1806323
Carbon disulfide	U		0.0000962	0.00100	1	01/22/2022 06:17	WG1806323
Carbon tetrachloride	U		0.000128	0.00100	1	01/22/2022 06:17	WG1806323
Chlorobenzene	U		0.000116	0.00100	1	01/22/2022 06:17	WG1806323
Chlorodibromomethane	U		0.000140	0.00100	1	01/22/2022 06:17	WG1806323
Chloroethane	U		0.000192	0.00500	1	01/22/2022 06:17	WG1806323
Chloroform	U		0.000111	0.00500	1	01/22/2022 06:17	WG1806323
Chloromethane	U		0.000960	0.00250	1	01/22/2022 06:17	WG1806323
1,2-Dibromoethane	U		0.000126	0.00100	1	01/22/2022 06:17	WG1806323
1,1-Dichloroethane	U		0.000100	0.00100	1	01/22/2022 06:17	WG1806323
1,2-Dichloroethane	U		0.0000819	0.00100	1	01/22/2022 06:17	WG1806323
1,1-Dichloroethene	U		0.000188	0.00100	1	01/22/2022 06:17	WG1806323
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	01/22/2022 06:17	WG1806323
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	01/22/2022 06:17	WG1806323
1,2-Dichloropropane	U		0.000149	0.00100	1	01/22/2022 06:17	WG1806323
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	01/22/2022 06:17	WG1806323
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	01/22/2022 06:17	WG1806323
Ethylbenzene	U		0.000137	0.00100	1	01/22/2022 06:17	WG1806323
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	01/22/2022 06:17	WG1806323
2-Hexanone	U		0.000787	0.0100	1	01/22/2022 06:17	WG1806323
Isopropylbenzene	U		0.000105	0.00100	1	01/22/2022 06:17	WG1806323
p-Isopropyltoluene	U		0.000120	0.00100	1	01/22/2022 06:17	WG1806323
2-Butanone (MEK)	U		0.00119	0.0100	1	01/22/2022 06:17	WG1806323
Methylene Chloride	U		0.000430	0.00500	1	01/22/2022 06:17	WG1806323
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	01/22/2022 06:17	WG1806323
Methyl tert-butyl ether	U		0.000101	0.00100	1	01/22/2022 06:17	WG1806323
Naphthalene	U		0.00100	0.00500	1	01/22/2022 06:17	WG1806323
n-Propylbenzene	U		0.0000993	0.00100	1	01/22/2022 06:17	WG1806323
Styrene	U		0.000118	0.00100	1	01/22/2022 06:17	WG1806323
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	01/22/2022 06:17	WG1806323
Tetrachloroethene	U		0.000300	0.00100	1	01/22/2022 06:17	WG1806323
Toluene	U		0.000278	0.00100	1	01/22/2022 06:17	WG1806323
1,1,1-Trichloroethane	U		0.000149	0.00100	1	01/22/2022 06:17	WG1806323
1,1,2-Trichloroethane	U		0.000158	0.00100	1	01/22/2022 06:17	WG1806323
Trichloroethene	U	J4	0.000190	0.00100	1	01/22/2022 06:17	WG1806323
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	01/22/2022 06:17	WG1806323
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	01/22/2022 06:17	WG1806323
Vinyl chloride	U		0.000234	0.00100	1	01/22/2022 06:17	WG1806323
Xylenes, Total	U		0.000174	0.00300	1	01/22/2022 06:17	WG1806323
(S) Toluene-d8	*103*			*80.0-120*		*01/22/2022 06:17*	WG1806323
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*01/22/2022 06:17*	WG1806323
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*01/22/2022 06:17*	WG1806323

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/28/2022 19:43	WG1809199
(S) o-Terphenyl	*81.1*			*31.0-160*		*01/28/2022 19:43*	WG1809199

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	01/25/2022 12:58	WG1807330
Acenaphthylene	U		0.0000921	0.00100	1	01/25/2022 12:58	WG1807330
Acetophenone	U		0.000208	0.0100	1	01/25/2022 12:58	WG1807330
Anthracene	U		0.0000804	0.00100	1	01/25/2022 12:58	WG1807330
Atrazine	U		0.000255	0.0100	1	01/25/2022 12:58	WG1807330
Benzo(a)anthracene	U		0.000199	0.00100	1	01/25/2022 12:58	WG1807330
Benzaldehyde	U	J4	0.00169	0.0100	1	01/25/2022 12:58	WG1807330
Benzo(b)fluoranthene	U		0.000130	0.00100	1	01/25/2022 12:58	WG1807330
Benzo(k)fluoranthene	U		0.000120	0.00100	1	01/25/2022 12:58	WG1807330
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	01/25/2022 12:58	WG1807330
Benzo(a)pyrene	U		0.0000381	0.000200	1	01/25/2022 12:58	WG1807330
Biphenyl	U		0.000790	0.0100	1	01/25/2022 12:58	WG1807330
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	01/25/2022 12:58	WG1807330
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	01/25/2022 12:58	WG1807330
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	01/25/2022 12:58	WG1807330
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	01/25/2022 12:58	WG1807330
2-Chloronaphthalene	U		0.0000648	0.00100	1	01/25/2022 12:58	WG1807330
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	01/25/2022 12:58	WG1807330
Caprolactam	U		0.000309	0.0100	1	01/25/2022 12:58	WG1807330
Carbazole	U		0.000111	0.0100	1	01/25/2022 12:58	WG1807330
Chrysene	U		0.000130	0.00100	1	01/25/2022 12:58	WG1807330
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	01/25/2022 12:58	WG1807330
Dibenzofuran	U		0.0000970	0.0100	1	01/25/2022 12:58	WG1807330
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	01/25/2022 12:58	WG1807330
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	01/25/2022 12:58	WG1807330
2,6-Dinitrotoluene	U		0.000250	0.0100	1	01/25/2022 12:58	WG1807330
Fluoranthene	U		0.000102	0.00100	1	01/25/2022 12:58	WG1807330
Fluorene	U		0.0000844	0.00100	1	01/25/2022 12:58	WG1807330
Hexachlorobenzene	U		0.0000755	0.00100	1	01/25/2022 12:58	WG1807330
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	01/25/2022 12:58	WG1807330
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	01/25/2022 12:58	WG1807330
Hexachloroethane	U		0.000127	0.0100	1	01/25/2022 12:58	WG1807330
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	01/25/2022 12:58	WG1807330
Isophorone	U		0.000143	0.0100	1	01/25/2022 12:58	WG1807330
1-Methylnaphthalene	U		0.0000790	0.00100	1	01/25/2022 12:58	WG1807330
2-Methylnaphthalene	U		0.000117	0.00100	1	01/25/2022 12:58	WG1807330
Naphthalene	U		0.000159	0.00100	1	01/25/2022 12:58	WG1807330
Nitrobenzene	U		0.000297	0.0100	1	01/25/2022 12:58	WG1807330
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	01/25/2022 12:58	WG1807330
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	01/25/2022 12:58	WG1807330
Phenanthrene	U		0.000112	0.00100	1	01/25/2022 12:58	WG1807330
Benzylbutyl phthalate	U		0.000765	0.00300	1	01/25/2022 12:58	WG1807330
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	01/25/2022 12:58	WG1807330
Di-n-butyl phthalate	U		0.000453	0.00300	1	01/25/2022 12:58	WG1807330
Diethyl phthalate	U		0.000287	0.00300	1	01/25/2022 12:58	WG1807330
Dimethyl phthalate	U		0.000260	0.00300	1	01/25/2022 12:58	WG1807330
Di-n-octyl phthalate	U		0.000932	0.00300	1	01/25/2022 12:58	WG1807330
Pyrene	U		0.000107	0.00100	1	01/25/2022 12:58	WG1807330
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	01/25/2022 12:58	WG1807330
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	01/25/2022 12:58	WG1807330

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	01/25/2022 12:58	WG1807330
2,4-Dichlorophenol	U		0.000102	0.0100	1	01/25/2022 12:58	WG1807330
2,4-Dimethylphenol	U		0.0000636	0.0100	1	01/25/2022 12:58	WG1807330
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	01/25/2022 12:58	WG1807330
2,4-Dinitrophenol	U		0.00593	0.0100	1	01/25/2022 12:58	WG1807330
2-Nitrophenol	U		0.000117	0.0100	1	01/25/2022 12:58	WG1807330
2-Nitroaniline	U		0.000102	0.0100	1	01/25/2022 12:58	WG1807330
2-Methylphenol	U		0.0000929	0.0100	1	01/25/2022 12:58	WG1807330
3&4-Methyl Phenol	U		0.000168	0.0100	1	01/25/2022 12:58	WG1807330
3-Nitroaniline	U		0.0000869	0.0100	1	01/25/2022 12:58	WG1807330
4-Chloroaniline	U		0.000234	0.0100	1	01/25/2022 12:58	WG1807330
4-Nitroaniline	U		0.0000910	0.0100	1	01/25/2022 12:58	WG1807330
4-Nitrophenol	U		0.000143	0.0100	1	01/25/2022 12:58	WG1807330
Pentachlorophenol	U		0.000313	0.0100	1	01/25/2022 12:58	WG1807330
Phenol	U		0.00433	0.0100	1	01/25/2022 12:58	WG1807330
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	01/25/2022 12:58	WG1807330
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	01/25/2022 12:58	WG1807330
(S) 2-Fluorophenol	*32.3*			*10.0-120*		*01/25/2022 12:58*	WG1807330
(S) Phenol-d5	*19.7*			*10.0-120*		*01/25/2022 12:58*	WG1807330
(S) Nitrobenzene-d5	*72.3*			*10.0-127*		*01/25/2022 12:58*	WG1807330
(S) 2-Fluorobiphenyl	*77.1*			*10.0-130*		*01/25/2022 12:58*	WG1807330
(S) 2,4,6-Tribromophenol	*60.0*			*10.0-155*		*01/25/2022 12:58*	WG1807330
(S) p-Terphenyl-d14	*93.2*			*10.0-128*		*01/25/2022 12:58*	WG1807330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	860		13.3	1	01/26/2022 14:30	WG1808300

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	181		8.45	20.0	1	01/23/2022 08:02	WG1806609

Sample Narrative:

L1453625-04 WG1806609: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	2.63		0.0500	0.100	1	02/07/2022 00:10	WG1811582

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	277		1.90	5.00	5	01/21/2022 21:39	WG1806319
Fluoride	0.724		0.0640	0.150	1	01/21/2022 21:26	WG1806319
Sulfate	86.3		0.594	5.00	1	01/21/2022 21:26	WG1806319

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	01/24/2022 15:50	WG1806866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.174	J	0.0200	0.200	1	01/28/2022 14:03	WG1809337

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	02/05/2022 15:32	WG1808758
Arsenic,Dissolved	0.00285		0.000180	0.00200	1	02/05/2022 15:32	WG1808758
Barium,Dissolved	0.123		0.000381	0.00200	1	02/05/2022 15:32	WG1808758
Cadmium,Dissolved	U		0.000150	0.00100	1	02/05/2022 15:32	WG1808758
Chromium,Dissolved	U		0.00124	0.00200	1	02/05/2022 15:32	WG1808758
Copper,Dissolved	0.00206	J	0.00151	0.00500	1	02/05/2022 15:32	WG1808758
Cobalt,Dissolved	0.0000993	J	0.0000596	0.00200	1	02/05/2022 15:32	WG1808758
Iron,Dissolved	U		0.0281	0.100	1	02/05/2022 15:32	WG1808758
Lead,Dissolved	U		0.000849	0.00200	1	02/05/2022 15:32	WG1808758
Manganese,Dissolved	0.00299	J	0.000704	0.00500	1	02/05/2022 15:32	WG1808758
Molybdenum,Dissolved	0.00232	J	0.000348	0.00500	1	02/05/2022 15:32	WG1808758
Nickel,Dissolved	U		0.000816	0.00200	1	02/05/2022 15:32	WG1808758
Selenium,Dissolved	0.00371		0.000300	0.00200	1	02/05/2022 15:32	WG1808758
Silver,Dissolved	U		0.0000700	0.00200	1	02/05/2022 15:32	WG1808758
Uranium,Dissolved	0.00243	J	0.0000700	0.0200	1	02/05/2022 15:32	WG1808758
Zinc,Dissolved	0.0120	J	0.00302	0.0250	1	02/05/2022 15:32	WG1808758

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/22/2022 22:27	WG1806502
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*78.0-120*		*01/22/2022 22:27*	WG1806502

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	01/22/2022 06:39	WG1806323
Benzene	0.000325	J	0.0000941	0.00100	1	01/22/2022 06:39	WG1806323
Bromodichloromethane	U		0.000136	0.00100	1	01/22/2022 06:39	WG1806323
Bromoform	U		0.000129	0.00100	1	01/22/2022 06:39	WG1806323
Bromomethane	U		0.000605	0.00500	1	01/22/2022 06:39	WG1806323
n-Butylbenzene	U		0.000157	0.00100	1	01/22/2022 06:39	WG1806323
sec-Butylbenzene	U		0.000125	0.00100	1	01/22/2022 06:39	WG1806323
tert-Butylbenzene	U		0.000127	0.00100	1	01/22/2022 06:39	WG1806323
Carbon disulfide	U		0.0000962	0.00100	1	01/22/2022 06:39	WG1806323
Carbon tetrachloride	0.000217	J	0.000128	0.00100	1	01/22/2022 06:39	WG1806323
Chlorobenzene	U		0.000116	0.00100	1	01/22/2022 06:39	WG1806323
Chlorodibromomethane	U		0.000140	0.00100	1	01/22/2022 06:39	WG1806323
Chloroethane	U		0.000192	0.00500	1	01/22/2022 06:39	WG1806323
Chloroform	0.000715	J	0.000111	0.00500	1	01/22/2022 06:39	WG1806323
Chloromethane	U		0.000960	0.00250	1	01/22/2022 06:39	WG1806323
1,2-Dibromoethane	U		0.000126	0.00100	1	01/22/2022 06:39	WG1806323
1,1-Dichloroethane	U		0.000100	0.00100	1	01/22/2022 06:39	WG1806323
1,2-Dichloroethane	U		0.0000819	0.00100	1	01/22/2022 06:39	WG1806323
1,1-Dichloroethene	U		0.000188	0.00100	1	01/22/2022 06:39	WG1806323
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	01/22/2022 06:39	WG1806323
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	01/22/2022 06:39	WG1806323
1,2-Dichloropropane	U		0.000149	0.00100	1	01/22/2022 06:39	WG1806323
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	01/22/2022 06:39	WG1806323
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	01/22/2022 06:39	WG1806323
Ethylbenzene	U		0.000137	0.00100	1	01/22/2022 06:39	WG1806323
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	01/22/2022 06:39	WG1806323
2-Hexanone	U		0.000787	0.0100	1	01/22/2022 06:39	WG1806323
Isopropylbenzene	U		0.000105	0.00100	1	01/22/2022 06:39	WG1806323
p-Isopropyltoluene	U		0.000120	0.00100	1	01/22/2022 06:39	WG1806323
2-Butanone (MEK)	U		0.00119	0.0100	1	01/22/2022 06:39	WG1806323
Methylene Chloride	U		0.000430	0.00500	1	01/22/2022 06:39	WG1806323
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	01/22/2022 06:39	WG1806323
Methyl tert-butyl ether	U		0.000101	0.00100	1	01/22/2022 06:39	WG1806323
Naphthalene	U		0.00100	0.00500	1	01/22/2022 06:39	WG1806323
n-Propylbenzene	U		0.0000993	0.00100	1	01/22/2022 06:39	WG1806323
Styrene	U		0.000118	0.00100	1	01/22/2022 06:39	WG1806323
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	01/22/2022 06:39	WG1806323
Tetrachloroethene	U		0.000300	0.00100	1	01/22/2022 06:39	WG1806323
Toluene	U		0.000278	0.00100	1	01/22/2022 06:39	WG1806323
1,1,1-Trichloroethane	U		0.000149	0.00100	1	01/22/2022 06:39	WG1806323
1,1,2-Trichloroethane	U		0.000158	0.00100	1	01/22/2022 06:39	WG1806323
Trichloroethene	U	J4	0.000190	0.00100	1	01/22/2022 06:39	WG1806323
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	01/22/2022 06:39	WG1806323
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	01/22/2022 06:39	WG1806323
Vinyl chloride	U		0.000234	0.00100	1	01/22/2022 06:39	WG1806323
Xylenes, Total	U		0.000174	0.00300	1	01/22/2022 06:39	WG1806323
(S) Toluene-d8	*103*			*80.0-120*		*01/22/2022 06:39*	WG1806323
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*01/22/2022 06:39*	WG1806323
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*01/22/2022 06:39*	WG1806323

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0558	J	0.0247	0.100	1	01/28/2022 20:09	WG1809199
(S) o-Terphenyl	*82.1*			*31.0-160*		*01/28/2022 20:09*	WG1809199

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	01/25/2022 14:55	WG1807330
Acenaphthylene	U		0.0000921	0.00100	1	01/25/2022 14:55	WG1807330
Acetophenone	U		0.000208	0.0100	1	01/25/2022 14:55	WG1807330
Anthracene	U		0.0000804	0.00100	1	01/25/2022 14:55	WG1807330
Atrazine	U		0.000255	0.0100	1	01/25/2022 14:55	WG1807330
Benzo(a)anthracene	U		0.000199	0.00100	1	01/25/2022 14:55	WG1807330
Benzaldehyde	U	J4	0.00169	0.0100	1	01/25/2022 14:55	WG1807330
Benzo(b)fluoranthene	U		0.000130	0.00100	1	01/25/2022 14:55	WG1807330
Benzo(k)fluoranthene	U		0.000120	0.00100	1	01/25/2022 14:55	WG1807330
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	01/25/2022 14:55	WG1807330
Benzo(a)pyrene	U		0.0000381	0.000200	1	01/25/2022 14:55	WG1807330
Biphenyl	U		0.000790	0.0100	1	01/25/2022 14:55	WG1807330
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	01/25/2022 14:55	WG1807330
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	01/25/2022 14:55	WG1807330
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	01/25/2022 14:55	WG1807330
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	01/25/2022 14:55	WG1807330
2-Chloronaphthalene	U		0.0000648	0.00100	1	01/25/2022 14:55	WG1807330
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	01/25/2022 14:55	WG1807330
Caprolactam	U		0.000309	0.0100	1	01/25/2022 14:55	WG1807330
Carbazole	U		0.000111	0.0100	1	01/25/2022 14:55	WG1807330
Chrysene	U		0.000130	0.00100	1	01/25/2022 14:55	WG1807330
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	01/25/2022 14:55	WG1807330
Dibenzofuran	U		0.0000970	0.0100	1	01/25/2022 14:55	WG1807330
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	01/25/2022 14:55	WG1807330
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	01/25/2022 14:55	WG1807330
2,6-Dinitrotoluene	U		0.000250	0.0100	1	01/25/2022 14:55	WG1807330
Fluoranthene	U		0.000102	0.00100	1	01/25/2022 14:55	WG1807330
Fluorene	U		0.0000844	0.00100	1	01/25/2022 14:55	WG1807330
Hexachlorobenzene	U		0.0000755	0.00100	1	01/25/2022 14:55	WG1807330
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	01/25/2022 14:55	WG1807330
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	01/25/2022 14:55	WG1807330
Hexachloroethane	U		0.000127	0.0100	1	01/25/2022 14:55	WG1807330
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	01/25/2022 14:55	WG1807330
Isophorone	U		0.000143	0.0100	1	01/25/2022 14:55	WG1807330
1-Methylnaphthalene	U		0.0000790	0.00100	1	01/25/2022 14:55	WG1807330
2-Methylnaphthalene	U		0.000117	0.00100	1	01/25/2022 14:55	WG1807330
Naphthalene	U		0.000159	0.00100	1	01/25/2022 14:55	WG1807330
Nitrobenzene	U		0.000297	0.0100	1	01/25/2022 14:55	WG1807330
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	01/25/2022 14:55	WG1807330
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	01/25/2022 14:55	WG1807330
Phenanthrene	U		0.000112	0.00100	1	01/25/2022 14:55	WG1807330
Benzylbutyl phthalate	U		0.000765	0.00300	1	01/25/2022 14:55	WG1807330
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	01/25/2022 14:55	WG1807330
Di-n-butyl phthalate	U		0.000453	0.00300	1	01/25/2022 14:55	WG1807330
Diethyl phthalate	U		0.000287	0.00300	1	01/25/2022 14:55	WG1807330
Dimethyl phthalate	U		0.000260	0.00300	1	01/25/2022 14:55	WG1807330
Di-n-octyl phthalate	U		0.000932	0.00300	1	01/25/2022 14:55	WG1807330
Pyrene	U		0.000107	0.00100	1	01/25/2022 14:55	WG1807330
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	01/25/2022 14:55	WG1807330
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	01/25/2022 14:55	WG1807330

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	01/25/2022 14:55	WG1807330
2,4-Dichlorophenol	U		0.000102	0.0100	1	01/25/2022 14:55	WG1807330
2,4-Dimethylphenol	U		0.0000636	0.0100	1	01/25/2022 14:55	WG1807330
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	01/25/2022 14:55	WG1807330
2,4-Dinitrophenol	U		0.00593	0.0100	1	01/25/2022 14:55	WG1807330
2-Nitrophenol	U		0.000117	0.0100	1	01/25/2022 14:55	WG1807330
2-Nitroaniline	U		0.000102	0.0100	1	01/25/2022 14:55	WG1807330
2-Methylphenol	U		0.0000929	0.0100	1	01/25/2022 14:55	WG1807330
3&4-Methyl Phenol	U		0.000168	0.0100	1	01/25/2022 14:55	WG1807330
3-Nitroaniline	U		0.0000869	0.0100	1	01/25/2022 14:55	WG1807330
4-Chloroaniline	U		0.000234	0.0100	1	01/25/2022 14:55	WG1807330
4-Nitroaniline	U		0.0000910	0.0100	1	01/25/2022 14:55	WG1807330
4-Nitrophenol	U		0.000143	0.0100	1	01/25/2022 14:55	WG1807330
Pentachlorophenol	U		0.000313	0.0100	1	01/25/2022 14:55	WG1807330
Phenol	U		0.00433	0.0100	1	01/25/2022 14:55	WG1807330
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	01/25/2022 14:55	WG1807330
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	01/25/2022 14:55	WG1807330
(S) 2-Fluorophenol	*30.5*			*10.0-120*		*01/25/2022 14:55*	WG1807330
(S) Phenol-d5	*18.7*			*10.0-120*		*01/25/2022 14:55*	WG1807330
(S) Nitrobenzene-d5	*69.1*			*10.0-127*		*01/25/2022 14:55*	WG1807330
(S) 2-Fluorobiphenyl	*74.8*			*10.0-130*		*01/25/2022 14:55*	WG1807330
(S) 2,4,6-Tribromophenol	*59.0*			*10.0-155*		*01/25/2022 14:55*	WG1807330
(S) p-Terphenyl-d14	*84.9*			*10.0-128*		*01/25/2022 14:55*	WG1807330

Method Blank (MB)

(MB) R3754884-1 01/26/22 14:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1453625-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1453625-02 01/26/22 14:30 • (DUP) R3754884-3 01/26/22 14:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	867	859	1	0.927		5

L1453625-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1453625-04 01/26/22 14:30 • (DUP) R3754884-4 01/26/22 14:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	860	863	1	0.310		5

Laboratory Control Sample (LCS)

(LCS) R3754884-2 01/26/22 14:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2440	99.2	77.4-123	

Method Blank (MB)

(MB) R3754777-1 01/26/22 19:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1453652-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1453652-01 01/26/22 19:00 • (DUP) R3754777-3 01/26/22 19:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1310	1330	1	1.71		5

L1454498-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1454498-04 01/26/22 19:00 • (DUP) R3754777-4 01/26/22 19:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	768	792	1	3.08		5

Laboratory Control Sample (LCS)

(LCS) R3754777-2 01/26/22 19:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2400	97.6	77.4-123	

Method Blank (MB)

(MB) R3752622-2 01/23/22 06:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1452939-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1452939-01 01/23/22 06:54 • (DUP) R3752622-3 01/23/22 06:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	14.2	17.8	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1453439-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1453439-02 01/23/22 07:40 • (DUP) R3752622-4 01/23/22 07:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	581	577	1	0.788		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3752622-1 01/23/22 06:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	106	106	90.0-110	

Sample Narrative:
LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3757451-1 02/06/22 23:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	0.0614	J	0.0500	0.100

L1453328-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1453328-01 02/06/22 23:56 • (DUP) R3757451-3 02/06/22 23:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.651	0.649	1	0.308		20

L1454764-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1454764-03 02/07/22 00:31 • (DUP) R3757451-4 02/07/22 00:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	2.20	2.19	1	0.456		20

Laboratory Control Sample (LCS)

(LCS) R3757451-2 02/06/22 23:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.64	106	90.0-110	

L1453460-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453460-05 02/07/22 00:40 • (MS) R3757451-6 02/07/22 00:56 • (MSD) R3757451-7 02/07/22 00:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	6.62	9.04	9.32	96.8	108	2	90.0-110			3.05	20

L1454983-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1454983-01 02/07/22 00:33 • (MS) R3757451-5 02/07/22 00:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.329	2.97	106	1	90.0-110	

Method Blank (MB)

(MB) R3752592-1 01/21/22 15:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1453400-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1453400-01 01/21/22 16:40 • (DUP) R3752592-3 01/21/22 17:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	12.3	12.2	1	1.24		15
Fluoride	0.504	0.504	1	0.0199		15
Sulfate	6.59	6.45	1	2.12		15

L1453549-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1453549-06 01/21/22 19:53 • (DUP) R3752592-7 01/21/22 20:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	73.0	74.0	1	1.35		15
Fluoride	0.369	0.374	1	1.27		15
Sulfate	127	130	1	1.87	E	15

L1453549-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1453549-06 01/22/22 10:35 • (DUP) R3752592-9 01/22/22 10:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	128	129	5	0.316		15

Laboratory Control Sample (LCS)

(LCS) R3752592-2 01/21/22 15:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.6	80.0-120	
Fluoride	8.00	7.89	98.6	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3752592-2 01/21/22 15:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	39.5	98.8	80.0-120	

L1453400-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453400-01 01/21/22 16:40 • (MS) R3752592-4 01/21/22 17:32 • (MSD) R3752592-5 01/21/22 18:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	12.3	62.2	63.4	99.8	102	1	80.0-120			1.87	15
Fluoride	5.00	0.504	5.63	5.76	102	105	1	80.0-120			2.29	15
Sulfate	50.0	6.59	56.3	57.4	99.4	102	1	80.0-120			2.01	15

L1453549-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1453549-06 01/21/22 19:53 • (MS) R3752592-8 01/21/22 20:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	73.0	122	97.5	1	80.0-120	E
Fluoride	5.00	0.369	5.36	99.8	1	80.0-120	
Sulfate	50.0	127	173	91.7	1	80.0-120	E

Method Blank (MB)

(MB) R3752571-1 01/21/22 19:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1453647-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1453647-03 01/21/22 22:19 • (DUP) R3752571-3 01/21/22 22:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.8	13.5	1	1.76		15
Fluoride	0.234	0.238	1	1.70		15
Sulfate	10.1	9.90	1	2.32		15

L1453647-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1453647-08 01/22/22 00:29 • (DUP) R3752571-6 01/22/22 00:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10.8	10.5	1	3.15		15
Fluoride	0.168	0.167	1	0.716		15
Sulfate	10.6	10.2	1	4.16		15

Laboratory Control Sample (LCS)

(LCS) R3752571-2 01/21/22 20:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.9	99.7	80.0-120	
Fluoride	8.00	7.99	99.8	80.0-120	
Sulfate	40.0	40.2	100	80.0-120	

L1453647-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453647-03 01/21/22 22:19 • (MS) R3752571-4 01/21/22 23:11 • (MSD) R3752571-5 01/21/22 23:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	13.8	63.8	65.5	100	104	1	80.0-120			2.73	15
Fluoride	5.00	0.234	5.41	5.57	104	107	1	80.0-120			2.89	15
Sulfate	50.0	10.1	60.0	62.0	99.7	104	1	80.0-120			3.21	15

L1453647-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1453647-08 01/22/22 00:29 • (MS) R3752571-7 01/22/22 00:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	10.8	61.1	101	1	80.0-120	
Fluoride	5.00	0.168	5.34	103	1	80.0-120	
Sulfate	50.0	10.6	60.6	99.8	1	80.0-120	

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3752883-1 01/24/22 10:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3752883-2 01/24/22 10:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00311	104	80.0-120	

L1453318-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453318-05 01/24/22 10:13 • (MS) R3752883-3 01/24/22 10:15 • (MSD) R3752883-4 01/24/22 10:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00309	0.00308	103	103	1	75.0-125			0.245	20

Released to Imaging: 4/14/2023 4:34:58 PM

Method Blank (MB)

(MB) R3753142-1 01/24/22 15:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3753142-2 01/24/22 15:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00325	108	80.0-120	

L1453625-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453625-04 01/24/22 15:50 • (MS) R3753142-3 01/24/22 15:52 • (MSD) R3753142-4 01/24/22 15:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00291	0.00289	96.9	96.2	1	75.0-125			0.739	20

Method Blank (MB)

(MB) R3754804-1 01/28/22 13:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3754804-2 01/28/22 13:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.975	97.5	80.0-120	

L1453302-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453302-01 01/28/22 13:15 • (MS) R3754804-4 01/28/22 13:20 • (MSD) R3754804-5 01/28/22 13:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	U	0.967	0.975	96.7	97.5	1	75.0-125			0.773	20

Method Blank (MB)

(MB) R3757276-1 02/05/22 13:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3757276-2 02/05/22 13:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	5.20	104	80.0-120	
Arsenic,Dissolved	0.0500	0.0517	103	80.0-120	
Barium,Dissolved	0.0500	0.0498	99.6	80.0-120	
Cadmium,Dissolved	0.0500	0.0542	108	80.0-120	
Chromium,Dissolved	0.0500	0.0537	107	80.0-120	
Copper,Dissolved	0.0500	0.0480	96.0	80.0-120	
Cobalt,Dissolved	0.0500	0.0538	108	80.0-120	
Iron,Dissolved	5.00	5.18	104	80.0-120	
Lead,Dissolved	0.0500	0.0526	105	80.0-120	
Manganese,Dissolved	0.0500	0.0536	107	80.0-120	
Molybdenum,Dissolved	0.0500	0.0505	101	80.0-120	
Nickel,Dissolved	0.0500	0.0555	111	80.0-120	
Selenium,Dissolved	0.0500	0.0554	111	80.0-120	
Silver,Dissolved	0.0500	0.0520	104	80.0-120	
Uranium,Dissolved	0.0500	0.0510	102	80.0-120	
Zinc,Dissolved	0.500	0.524	105	80.0-120	

L1454215-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1454215-02 02/05/22 13:48 • (MS) R3757276-4 02/05/22 13:54 • (MSD) R3757276-5 02/05/22 13:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	5.13	5.14	103	103	1	75.0-125			0.219	20
Arsenic,Dissolved	0.0500	0.000587	0.0521	0.0515	103	102	1	75.0-125			1.17	20
Barium,Dissolved	0.0500	0.0111	0.0634	0.0628	104	103	1	75.0-125			0.821	20
Cadmium,Dissolved	0.0500	U	0.0543	0.0549	109	110	1	75.0-125			1.21	20
Chromium,Dissolved	0.0500	U	0.0527	0.0533	105	107	1	75.0-125			1.06	20
Copper,Dissolved	0.0500	U	0.0466	0.0455	93.1	91.0	1	75.0-125			2.29	20
Cobalt,Dissolved	0.0500	U	0.0523	0.0531	105	106	1	75.0-125			1.64	20
Iron,Dissolved	5.00	U	5.36	5.38	107	108	1	75.0-125			0.351	20
Lead,Dissolved	0.0500	U	0.0521	0.0529	104	106	1	75.0-125			1.63	20
Manganese,Dissolved	0.0500	0.00551	0.0576	0.0582	104	105	1	75.0-125			1.16	20
Molybdenum,Dissolved	0.0500	0.000831	0.0532	0.0523	105	103	1	75.0-125			1.67	20
Nickel,Dissolved	0.0500	U	0.0540	0.0541	108	108	1	75.0-125			0.149	20
Selenium,Dissolved	0.0500	U	0.0552	0.0553	110	111	1	75.0-125			0.0646	20
Silver,Dissolved	0.0500	U	0.0521	0.0526	104	105	1	75.0-125			0.951	20
Uranium,Dissolved	0.0500	U	0.0537	0.0519	107	104	1	75.0-125			3.28	20
Zinc,Dissolved	0.500	U	0.503	0.513	101	103	1	75.0-125			2.05	20

L1454215-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1454215-06 02/05/22 14:01 • (MS) R3757276-6 02/05/22 14:04 • (MSD) R3757276-7 02/05/22 14:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	5.11	5.10	102	102	1	75.0-125			0.0986	20
Arsenic,Dissolved	0.0500	0.000881	0.0520	0.0519	102	102	1	75.0-125			0.222	20
Barium,Dissolved	0.0500	0.0103	0.0614	0.0617	102	103	1	75.0-125			0.486	20
Cadmium,Dissolved	0.0500	U	0.0557	0.0556	111	111	1	75.0-125			0.238	20
Chromium,Dissolved	0.0500	U	0.0532	0.0548	106	110	1	75.0-125			2.96	20
Copper,Dissolved	0.0500	0.00163	0.0455	0.0457	87.8	88.2	1	75.0-125			0.435	20
Cobalt,Dissolved	0.0500	0.0000739	0.0527	0.0534	105	107	1	75.0-125			1.34	20
Iron,Dissolved	5.00	U	5.27	5.35	105	107	1	75.0-125			1.65	20
Lead,Dissolved	0.0500	U	0.0527	0.0524	105	105	1	75.0-125			0.449	20
Manganese,Dissolved	0.0500	0.00142	0.0523	0.0531	102	103	1	75.0-125			1.47	20
Molybdenum,Dissolved	0.0500	0.000481	0.0525	0.0521	104	103	1	75.0-125			0.786	20
Nickel,Dissolved	0.0500	U	0.0548	0.0549	110	110	1	75.0-125			0.235	20
Selenium,Dissolved	0.0500	U	0.0553	0.0551	111	110	1	75.0-125			0.423	20
Silver,Dissolved	0.0500	U	0.0533	0.0537	107	107	1	75.0-125			0.766	20
Uranium,Dissolved	0.0500	U	0.0520	0.0538	104	108	1	75.0-125			3.53	20
Zinc,Dissolved	0.500	U	0.519	0.521	104	104	1	75.0-125			0.390	20

Method Blank (MB)

(MB) R3753332-2 01/22/22 18:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3753332-1 01/22/22 17:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.08	92.4	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

L1453470-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453470-01 01/22/22 18:54 • (MS) R3753332-3 01/23/22 02:21 • (MSD) R3753332-4 01/23/22 02:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.0638	2.86	2.73	50.8	48.5	1	10.0-160			4.65	22
(S) a,a,a-Trifluorotoluene(FID)					*98.8*	*97.6*		*78.0-120*				

Method Blank (MB)

(MB) R3752926-3 01/21/22 22:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3752926-3 01/21/22 22:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	0.000604	J	0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3752926-1 01/21/22 21:22 • (LCSD) R3752926-2 01/21/22 21:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0259	0.0247	104	98.8	19.0-160			4.74	27
Benzene	0.00500	0.00494	0.00445	98.8	89.0	70.0-123			10.4	20
Bromodichloromethane	0.00500	0.00496	0.00470	99.2	94.0	75.0-120			5.38	20
Bromoform	0.00500	0.00441	0.00412	88.2	82.4	68.0-132			6.80	20
Bromomethane	0.00500	0.00498	0.00419	99.6	83.8	10.0-160			17.2	25
n-Butylbenzene	0.00500	0.00491	0.00431	98.2	86.2	73.0-125			13.0	20
sec-Butylbenzene	0.00500	0.00534	0.00472	107	94.4	75.0-125			12.3	20
tert-Butylbenzene	0.00500	0.00547	0.00494	109	98.8	76.0-124			10.2	20
Carbon disulfide	0.00500	0.00453	0.00402	90.6	80.4	61.0-128			11.9	20
Carbon tetrachloride	0.00500	0.00528	0.00460	106	92.0	68.0-126			13.8	20
Chlorobenzene	0.00500	0.00523	0.00463	105	92.6	80.0-121			12.2	20
Chlorodibromomethane	0.00500	0.00495	0.00464	99.0	92.8	77.0-125			6.47	20
Chloroethane	0.00500	0.00517	0.00466	103	93.2	47.0-150			10.4	20
Chloroform	0.00500	0.00515	0.00475	103	95.0	73.0-120			8.08	20
Chloromethane	0.00500	0.00571	0.00502	114	100	41.0-142			12.9	20
1,2-Dibromoethane	0.00500	0.00501	0.00479	100	95.8	80.0-122			4.49	20
1,1-Dichloroethane	0.00500	0.00521	0.00471	104	94.2	70.0-126			10.1	20
1,2-Dichloroethane	0.00500	0.00501	0.00472	100	94.4	70.0-128			5.96	20
1,1-Dichloroethene	0.00500	0.00502	0.00417	100	83.4	71.0-124			18.5	20
cis-1,2-Dichloroethene	0.00500	0.00536	0.00471	107	94.2	73.0-120			12.9	20
trans-1,2-Dichloroethene	0.00500	0.00506	0.00457	101	91.4	73.0-120			10.2	20
1,2-Dichloropropane	0.00500	0.00518	0.00487	104	97.4	77.0-125			6.17	20
cis-1,3-Dichloropropene	0.00500	0.00489	0.00461	97.8	92.2	80.0-123			5.89	20
trans-1,3-Dichloropropene	0.00500	0.00489	0.00472	97.8	94.4	78.0-124			3.54	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3752926-1 01/21/22 21:22 • (LCSD) R3752926-2 01/21/22 21:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00515	0.00461	103	92.2	79.0-123			11.1	20
Hexachloro-1,3-butadiene	0.00500	0.00469	0.00418	93.8	83.6	54.0-138			11.5	20
2-Hexanone	0.0250	0.0252	0.0238	101	95.2	67.0-149			5.71	20
Isopropylbenzene	0.00500	0.00512	0.00459	102	91.8	76.0-127			10.9	20
p-Isopropyltoluene	0.00500	0.00535	0.00473	107	94.6	76.0-125			12.3	20
2-Butanone (MEK)	0.0250	0.0265	0.0256	106	102	44.0-160			3.45	20
Methylene Chloride	0.00500	0.00502	0.00460	100	92.0	67.0-120			8.73	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0271	0.0260	108	104	68.0-142			4.14	20
Methyl tert-butyl ether	0.00500	0.00518	0.00492	104	98.4	68.0-125			5.15	20
Naphthalene	0.00500	0.00451	0.00440	90.2	88.0	54.0-135			2.47	20
n-Propylbenzene	0.00500	0.00536	0.00470	107	94.0	77.0-124			13.1	20
Styrene	0.00500	0.00498	0.00458	99.6	91.6	73.0-130			8.37	20
1,1,2,2-Tetrachloroethane	0.00500	0.00538	0.00511	108	102	65.0-130			5.15	20
Tetrachloroethene	0.00500	0.00508	0.00453	102	90.6	72.0-132			11.4	20
Toluene	0.00500	0.00498	0.00447	99.6	89.4	79.0-120			10.8	20
1,1,1-Trichloroethane	0.00500	0.00530	0.00456	106	91.2	73.0-124			15.0	20
1,1,2-Trichloroethane	0.00500	0.00523	0.00500	105	100	80.0-120			4.50	20
Trichloroethene	0.00500	0.00667	0.00577	133	115	78.0-124	J4		14.5	20
1,2,4-Trimethylbenzene	0.00500	0.00524	0.00472	105	94.4	76.0-121			10.4	20
1,3,5-Trimethylbenzene	0.00500	0.00500	0.00449	100	89.8	76.0-122			10.7	20
Vinyl chloride	0.00500	0.00518	0.00457	104	91.4	67.0-131			12.5	20
Xylenes, Total	0.0150	0.0155	0.0140	103	93.3	79.0-123			10.2	20
(S) Toluene-d8				*98.5*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.7*	*99.4*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*100*	*102*	*70.0-130*				

Method Blank (MB)

(MB) R3754829-1 01/28/22 12:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*81.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3754829-2 01/28/22 12:42 • (LCSD) R3754829-3 01/28/22 13:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.50	1.56	100	104	50.0-150			3.92	20
(S) o-Terphenyl				*87.5*	*88.5*	*31.0-160*				

Method Blank (MB)

(MB) R3753063-2 01/24/22 10:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzaldehyde	U		0.00169	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
4-Chloroaniline	U		0.000234	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
2-Nitroaniline	U		0.000102	0.0100
3-Nitroaniline	U		0.0000869	0.0100

Method Blank (MB)

(MB) R3753063-2 01/24/22 10:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Nitroaniline	U		0.0000910	0.0100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) Nitrobenzene-d5	*72.7*			*10.0-127*
(S) 2-Fluorobiphenyl	*84.7*			*10.0-130*
(S) p-Terphenyl-d14	*97.0*			*10.0-128*
(S) Phenol-d5	*22.9*			*10.0-120*
(S) 2-Fluorophenol	*41.3*			*10.0-120*
(S) 2,4,6-Tribromophenol	*89.0*			*10.0-155*

Laboratory Control Sample (LCS)

(LCS) R3753063-1 01/24/22 10:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0380	76.0	41.0-120	
Acenaphthylene	0.0500	0.0385	77.0	43.0-120	
Acetophenone	0.0500	0.0365	73.0	29.0-120	
Anthracene	0.0500	0.0428	85.6	45.0-120	
Atrazine	0.0500	0.0449	89.8	39.0-141	
Benzaldehyde	0.0500	0.0932	186	10.0-160	J4
Benzo(a)anthracene	0.0500	0.0435	87.0	47.0-120	
Benzo(b)fluoranthene	0.0500	0.0436	87.2	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0427	85.4	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0364	72.8	48.0-121	
Benzo(a)pyrene	0.0500	0.0438	87.6	47.0-120	
Biphenyl	0.0500	0.0392	78.4	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0344	68.8	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0324	64.8	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0345	69.0	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0463	92.6	45.0-120	
Caprolactam	0.0500	0.00925	18.5	10.0-120	
Carbazole	0.0500	0.0406	81.2	51.0-122	
4-Chloroaniline	0.0500	0.0323	64.6	25.0-120	
2-Chloronaphthalene	0.0500	0.0385	77.0	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0426	85.2	44.0-120	
Chrysene	0.0500	0.0429	85.8	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0393	78.6	47.0-120	
Dibenzofuran	0.0500	0.0395	79.0	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0911	91.1	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0434	86.8	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0412	82.4	46.0-120	
Fluoranthene	0.0500	0.0411	82.2	51.0-120	
Fluorene	0.0500	0.0401	80.2	47.0-120	
Hexachlorobenzene	0.0500	0.0446	89.2	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0387	77.4	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0353	70.6	15.0-120	
Hexachloroethane	0.0500	0.0355	71.0	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0403	80.6	49.0-122	
Isophorone	0.0500	0.0348	69.6	36.0-120	
1-Methylnaphthalene	0.0500	0.0340	68.0	33.0-120	
2-Methylnaphthalene	0.0500	0.0341	68.2	33.0-120	
Naphthalene	0.0500	0.0318	63.6	27.0-120	
2-Nitroaniline	0.0500	0.0397	79.4	43.0-120	
3-Nitroaniline	0.0500	0.0370	74.0	38.0-120	

Laboratory Control Sample (LCS)

(LCS) R3753063-1 01/24/22 10:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Nitroaniline	0.0500	0.0390	78.0	18.0-160	
Nitrobenzene	0.0500	0.0349	69.8	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0411	82.2	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0358	71.6	31.0-120	
Phenanthrene	0.0500	0.0412	82.4	46.0-120	
Benzylbutyl phthalate	0.0500	0.0497	99.4	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0464	92.8	43.0-122	
Di-n-butyl phthalate	0.0500	0.0442	88.4	49.0-121	
Diethyl phthalate	0.0500	0.0428	85.6	48.0-122	
Dimethyl phthalate	0.0500	0.0412	82.4	48.0-120	
Di-n-octyl phthalate	0.0500	0.0408	81.6	42.0-125	
Pyrene	0.0500	0.0464	92.8	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0360	72.0	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0332	66.4	40.0-120	
2-Chlorophenol	0.0500	0.0294	58.8	25.0-120	
2-Methylphenol	0.0500	0.0245	49.0	28.0-120	
3&4-Methyl Phenol	0.0500	0.0253	50.6	31.0-120	
2,4-Dichlorophenol	0.0500	0.0354	70.8	36.0-120	
2,4-Dimethylphenol	0.0500	0.0338	67.6	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0495	99.0	38.0-138	
2,4-Dinitrophenol	0.0500	0.0441	88.2	10.0-120	
2-Nitrophenol	0.0500	0.0346	69.2	31.0-120	
4-Nitrophenol	0.0500	0.0122	24.4	10.0-120	
Pentachlorophenol	0.0500	0.0450	90.0	23.0-120	
Phenol	0.0500	0.0108	21.6	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0411	82.2	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0431	86.2	42.0-120	
(S) Nitrobenzene-d5			*59.4*	*10.0-127*	
(S) 2-Fluorobiphenyl			*80.1*	*10.0-130*	
(S) p-Terphenyl-d14			*96.0*	*10.0-128*	
(S) Phenol-d5			*20.9*	*10.0-120*	
(S) 2-Fluorophenol			*33.8*	*10.0-120*	
(S) 2,4,6-Tribromophenol			*92.5*	*10.0-155*	

L1453216-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453216-03 01/24/22 15:31 • (MS) R3753063-3 01/24/22 15:52 • (MSD) R3753063-4 01/24/22 16:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0365	0.0347	73.0	69.4	1	28.0-120			5.06	25
Acenaphthylene	0.0500	U	0.0374	0.0360	74.8	72.0	1	31.0-121			3.81	25
Acetophenone	0.0500	U	0.0353	0.0339	70.6	67.8	1	20.0-120			4.05	35
Anthracene	0.0500	U	0.0381	0.0363	76.2	72.6	1	36.0-120			4.84	23
Atrazine	0.0500	U	0.0364	0.0373	72.8	74.6	1	39.0-130			2.44	23
Benzaldehyde	0.0500	U	0.0925	0.0871	185	174	1	10.0-160	J5	J5	6.01	40
Benzo(a)anthracene	0.0500	U	0.0390	0.0379	78.0	75.8	1	39.0-120			2.86	23
Benzo(b)fluoranthene	0.0500	U	0.0388	0.0395	77.6	79.0	1	37.0-120			1.79	23
Benzo(k)fluoranthene	0.0500	U	0.0389	0.0399	77.8	79.8	1	37.0-120			2.54	26
Benzo(g,h,i)perylene	0.0500	U	0.0340	0.0280	68.0	56.0	1	37.0-123			19.4	25
Benzo(a)pyrene	0.0500	U	0.0383	0.0379	76.6	75.8	1	37.0-120			1.05	24
Biphenyl	0.0500	U	0.0412	0.0376	82.4	75.2	1	29.0-120			9.14	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0332	0.0323	66.4	64.6	1	17.0-120			2.75	31
Bis(2-chloroethyl)ether	0.0500	U	0.0337	0.0294	67.4	58.8	1	14.0-120			13.6	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0334	0.0326	66.8	65.2	1	18.0-120			2.42	34
4-Bromophenyl-phenylether	0.0500	U	0.0434	0.0412	86.8	82.4	1	37.0-120			5.20	24
Caprolactam	0.0500	U	0.00651	0.00719	13.0	14.4	1	10.0-120			9.93	40
Carbazole	0.0500	U	0.0360	0.0341	72.0	68.2	1	38.0-127			5.42	21
4-Chloroaniline	0.0500	U	0.0261	0.0249	52.2	49.8	1	10.0-120			4.71	31
2-Chloronaphthalene	0.0500	U	0.0395	0.0359	79.0	71.8	1	29.0-120			9.55	28
4-Chlorophenyl-phenylether	0.0500	U	0.0379	0.0377	75.8	75.4	1	36.0-120			0.529	23
Chrysene	0.0500	U	0.0385	0.0376	77.0	75.2	1	38.0-120			2.37	23
Dibenz(a,h)anthracene	0.0500	U	0.0356	0.0297	71.2	59.4	1	36.0-121			18.1	24
Dibenzofuran	0.0500	U	0.0374	0.0360	74.8	72.0	1	32.0-120			3.81	26
3,3-Dichlorobenzidine	0.100	U	0.00742	0.0103	7.42	10.3	1	10.0-134	J6	J3	32.5	30
2,4-Dinitrotoluene	0.0500	U	0.0372	0.0373	74.4	74.6	1	39.0-125			0.268	25
2,6-Dinitrotoluene	0.0500	U	0.0376	0.0383	75.2	76.6	1	36.0-120			1.84	27
Fluoranthene	0.0500	U	0.0366	0.0349	73.2	69.8	1	41.0-121			4.76	22
Fluorene	0.0500	U	0.0367	0.0355	73.4	71.0	1	37.0-120			3.32	24
Hexachlorobenzene	0.0500	U	0.0415	0.0394	83.0	78.8	1	35.0-122			5.19	24
Hexachloro-1,3-butadiene	0.0500	U	0.0381	0.0352	76.2	70.4	1	12.0-120			7.91	34
Hexachlorocyclopentadiene	0.0500	U	0.0386	0.0343	77.2	68.6	1	10.0-120			11.8	33
Hexachloroethane	0.0500	U	0.0347	0.0310	69.4	62.0	1	10.0-120			11.3	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0364	0.0311	72.8	62.2	1	38.0-125			15.7	24
Isophorone	0.0500	U	0.0325	0.0322	65.0	64.4	1	21.0-120			0.927	27
1-Methylnaphthalene	0.0500	U	0.0319	0.0313	63.8	62.6	1	11.0-120			1.90	27
2-Methylnaphthalene	0.0500	U	0.0321	0.0312	64.2	62.4	1	17.0-120			2.84	28
Naphthalene	0.0500	U	0.0324	0.0304	64.8	60.8	1	10.0-120			6.37	31
2-Nitroaniline	0.0500	U	0.0241	0.0270	48.2	54.0	1	33.0-120			11.4	27
3-Nitroaniline	0.0500	U	0.0181	0.0206	36.2	41.2	1	20.0-120			12.9	27

L1453216-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453216-03 01/24/22 15:31 • (MS) R3753063-3 01/24/22 15:52 • (MSD) R3753063-4 01/24/22 16:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Nitroaniline	0.0500	U	0.00941	0.0142	18.8	28.4	1	10.0-160		J3	40.6	26
Nitrobenzene	0.0500	U	0.0440	0.0399	88.0	79.8	1	12.0-120			9.77	30
n-Nitrosodiphenylamine	0.0500	U	0.0388	0.0366	77.6	73.2	1	37.0-120			5.84	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0324	0.0325	64.8	65.0	1	16.0-120			0.308	30
Phenanthrene	0.0500	U	0.0385	0.0361	77.0	72.2	1	33.0-120			6.43	22
Benzylbutyl phthalate	0.0500	U	0.0420	0.0428	84.0	85.6	1	34.0-126			1.89	24
Bis(2-ethylhexyl)phthalate	0.0500	U	0.0391	0.0398	78.2	79.6	1	33.0-126			1.77	25
Di-n-butyl phthalate	0.0500	U	0.0385	0.0369	77.0	73.8	1	35.0-128			4.24	23
Diethyl phthalate	0.0500	U	0.0360	0.0362	72.0	72.4	1	39.0-125			0.554	24
Dimethyl phthalate	0.0500	U	0.0360	0.0359	72.0	71.8	1	37.0-120			0.278	24
Di-n-octyl phthalate	0.0500	U	0.0345	0.0342	69.0	68.4	1	25.0-135			0.873	26
Pyrene	0.0500	U	0.0406	0.0410	81.2	82.0	1	39.0-120			0.980	22
1,2,4-Trichlorobenzene	0.0500	U	0.0358	0.0331	71.6	66.2	1	15.0-120			7.84	31
4-Chloro-3-methylphenol	0.0500	U	0.0263	0.0282	52.6	56.4	1	26.0-120			6.97	27
2-Chlorophenol	0.0500	U	0.0256	0.0258	51.2	51.6	1	18.0-120			0.778	34
2-Methylphenol	0.0500	U	0.0200	0.0206	40.0	41.2	1	10.0-120			2.96	30
3&4-Methyl Phenol	0.0500	U	0.0194	0.0206	38.8	41.2	1	10.0-120			6.00	36
2,4-Dichlorophenol	0.0500	U	0.0307	0.0312	61.4	62.4	1	19.0-120			1.62	27
2,4-Dimethylphenol	0.0500	U	0.0262	0.0268	52.4	53.6	1	15.0-120			2.26	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.0394	0.0391	78.8	78.2	1	10.0-144			0.764	39
2,4-Dinitrophenol	0.0500	U	0.0353	0.0368	70.6	73.6	1	10.0-120			4.16	40
2-Nitrophenol	0.0500	U	0.0334	0.0330	66.8	66.0	1	20.0-120			1.20	30
4-Nitrophenol	0.0500	U	0.00779	0.00968	15.6	19.4	1	10.0-120			21.6	40
Pentachlorophenol	0.0500	U	0.0357	0.0367	71.4	73.4	1	10.0-128			2.76	37
Phenol	0.0500	U	0.00816	0.00854	16.3	17.1	1	10.0-120			4.55	40
2,4,5-Trichlorophenol	0.0500	U	0.0357	0.0357	71.4	71.4	1	33.0-120			0.000	31
2,4,6-Trichlorophenol	0.0500	U	0.0379	0.0379	75.8	75.8	1	26.0-120			0.000	31
(S) Nitrobenzene-d5					*52.5*	*56.2*		*10.0-127*				
(S) 2-Fluorobiphenyl					*81.6*	*75.0*		*10.0-130*				
(S) p-Terphenyl-d14					*84.2*	*85.7*		*10.0-128*				
(S) Phenol-d5					*15.5*	*16.1*		*10.0-120*				
(S) 2-Fluorophenol					*28.4*	*28.5*		*10.0-120*				
(S) 2,4,6-Tribromophenol					*78.5*	*76.5*		*10.0-155*				

Method Blank (MB)

(MB) R3753486-2 01/25/22 12:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzaldehyde	U		0.00169	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
4-Chloroaniline	U		0.000234	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
2-Nitroaniline	U		0.000102	0.0100
3-Nitroaniline	U		0.0000869	0.0100

Method Blank (MB)

(MB) R3753486-2 01/25/22 12:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Nitroaniline	U		0.0000910	0.0100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) Nitrobenzene-d5	*84.1*			*10.0-127*
(S) 2-Fluorobiphenyl	*90.8*			*10.0-130*
(S) p-Terphenyl-d14	*105*			*10.0-128*
(S) Phenol-d5	*24.8*			*10.0-120*
(S) 2-Fluorophenol	*41.9*			*10.0-120*
(S) 2,4,6-Tribromophenol	*73.0*			*10.0-155*

Laboratory Control Sample (LCS)

(LCS) R3753486-1 01/25/22 11:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0422	84.4	41.0-120	
Acenaphthylene	0.0500	0.0436	87.2	43.0-120	
Acetophenone	0.0500	0.0438	87.6	29.0-120	
Anthracene	0.0500	0.0444	88.8	45.0-120	
Atrazine	0.0500	0.0455	91.0	39.0-141	
Benzaldehyde	0.0500	0.119	238	10.0-160	J4
Benzo(a)anthracene	0.0500	0.0447	89.4	47.0-120	
Benzo(b)fluoranthene	0.0500	0.0443	88.6	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0450	90.0	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0434	86.8	48.0-121	
Benzo(a)pyrene	0.0500	0.0426	85.2	47.0-120	
Biphenyl	0.0500	0.0430	86.0	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0397	79.4	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0439	87.8	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0422	84.4	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0418	83.6	45.0-120	
Caprolactam	0.0500	0.0100	20.0	10.0-120	
Carbazole	0.0500	0.0457	91.4	51.0-122	
4-Chloroaniline	0.0500	0.0308	61.6	25.0-120	
2-Chloronaphthalene	0.0500	0.0419	83.8	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0404	80.8	44.0-120	
Chrysene	0.0500	0.0468	93.6	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0450	90.0	47.0-120	
Dibenzofuran	0.0500	0.0422	84.4	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0857	85.7	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0460	92.0	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0441	88.2	46.0-120	
Fluoranthene	0.0500	0.0455	91.0	51.0-120	
Fluorene	0.0500	0.0433	86.6	47.0-120	
Hexachlorobenzene	0.0500	0.0391	78.2	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0329	65.8	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0217	43.4	15.0-120	
Hexachloroethane	0.0500	0.0406	81.2	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0457	91.4	49.0-122	
Isophorone	0.0500	0.0381	76.2	36.0-120	
1-Methylnaphthalene	0.0500	0.0364	72.8	33.0-120	
2-Methylnaphthalene	0.0500	0.0362	72.4	33.0-120	
Naphthalene	0.0500	0.0352	70.4	27.0-120	
2-Nitroaniline	0.0500	0.0441	88.2	43.0-120	
3-Nitroaniline	0.0500	0.0404	80.8	38.0-120	

Laboratory Control Sample (LCS)

(LCS) R3753486-1 01/25/22 11:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Nitroaniline	0.0500	0.0426	85.2	18.0-160	
Nitrobenzene	0.0500	0.0378	75.6	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0350	70.0	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0430	86.0	31.0-120	
Phenanthrene	0.0500	0.0435	87.0	46.0-120	
Benzylbutyl phthalate	0.0500	0.0467	93.4	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0453	90.6	43.0-122	
Di-n-butyl phthalate	0.0500	0.0504	101	49.0-121	
Diethyl phthalate	0.0500	0.0452	90.4	48.0-122	
Dimethyl phthalate	0.0500	0.0433	86.6	48.0-120	
Di-n-octyl phthalate	0.0500	0.0446	89.2	42.0-125	
Pyrene	0.0500	0.0460	92.0	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0344	68.8	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0294	58.8	40.0-120	
2-Chlorophenol	0.0500	0.0302	60.4	25.0-120	
2-Methylphenol	0.0500	0.0263	52.6	28.0-120	
3&4-Methyl Phenol	0.0500	0.0271	54.2	31.0-120	
2,4-Dichlorophenol	0.0500	0.0307	61.4	36.0-120	
2,4-Dimethylphenol	0.0500	0.0284	56.8	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0437	87.4	38.0-138	
2,4-Dinitrophenol	0.0500	0.0369	73.8	10.0-120	
2-Nitrophenol	0.0500	0.0353	70.6	31.0-120	
4-Nitrophenol	0.0500	0.0135	27.0	10.0-120	
Pentachlorophenol	0.0500	0.0371	74.2	23.0-120	
Phenol	0.0500	0.0127	25.4	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0376	75.2	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0383	76.6	42.0-120	
(S) Nitrobenzene-d5			*65.1*	*10.0-127*	
(S) 2-Fluorobiphenyl			*84.8*	*10.0-130*	
(S) p-Terphenyl-d14			*95.6*	*10.0-128*	
(S) Phenol-d5			*24.0*	*10.0-120*	
(S) 2-Fluorophenol			*37.5*	*10.0-120*	
(S) 2,4,6-Tribromophenol			*72.0*	*10.0-155*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Received by OCD: 4/14/2023 3:51:30 PM

Company Name/Address:
TRC Solutions - Austin, TX

505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: **Julie Speer**

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: Lovington Lea Refinery (1Q22 Water Wells)

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 512-684-3176

Client Project # 377274.0000.0000.

Lab Project # TRCATX-LOVINGTON NAV

Collected by (print): Bryan Bayles

Site/Facility ID #

P.O. # 165094

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8270TX 100ml Amb NoPres	DROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	HG 250mlHDPE-HNO3	NAVAJOMETALSDISS 250mlHDPE-NoPres (Lab to F.I+er)	NO2NO3 250mlHDPE-H2SO4	V8260 40mlAmb-HCl	V8260-TripBlank 40mlAmb-HCl-Blk	WetChem 500mlHDPE-NoPres			
WW-NORTH			GW		1/20/22	950	13	X	X	X	X	X	X	X		X			-01
WW-SOUTH			GW			850	13	X	X	X	X	X	X	X		X			-02
WW-EAST			GW			1045	13	X	X	X	X	X	X	X		X			-03
DUP-01			GW			900	13	X	X	X	X	X	X	X		X			-04
TRIP BLANK -01			GW			—	1	BA							X				

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 145325
J227

Acctnum: TRCATX
Template: T118335
Prelogin: P899258
PM: 526 - Chris McCord
PB:

Shipped Via:

Remarks | Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: WetChem = ALK,CHLORIDE,FLUORIDE,SULFATE,TDS.
Lab filter NAVAJOMETALSDISS.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier

Tracking # 552859460424

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		✓ N
Bottles arrive intact:		Y ✓
Correct bottles used:		✓ N
Sufficient volume sent:		✓ N
If Applicable		
VOA Zero Headspace:		✓ N
Preservation Correct/Checked:		✓ N
RAD Screen <0.5 mR/hr:		✓ N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR	
Bryan Bayles	1/20/22	1130			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.6 °C Bottles Received: 51	If preservation required by Login: Date/Time
				1.6 +0.6	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/21/22 Time: 0950	Hold: Condition: NCF / OK

Released to Imaging: 4/14/2023 4:34:58 PM

Page 162 of 721

01/21-NCF-L1453625-TRCATX PM

R5

Time estimate: oh **Time spent:** oh

Members

Paul Minnich (responsible)

- [ ] Parameter(s) past holding time
- [ ] Temperature not in range
- [ ] Improper container type
- [ ] pH not in range
- [ ] Insufficient sample volume
- [ ] Sample is biphasic
- [ ] Vials received with headspace
- [ ] Broken container
- [ ] Sufficient sample remains
- [ ] If broken container: Insufficient packing material around container
- [ ] If broken container: Insufficient packing material inside cooler
- [ ] If broken container: Improper handling by carrier:_____
- [ ] If broken container: Sample was frozen
- [ ] If broken container: Container lid not intact
- [ ] Client informed by Call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Paul Minnich *21 January 2022 2:57 PM*

One vial from WW-NORTH received broken. Trip blank received broken.

Received by OCD: 4/14/2023 3:51:30 PM

Released to Imaging: 4/14/2023 4:34:58 PM

ANALYTICAL REPORT

July 01, 2022

Revised Report

TRC Solutions - Austin, TX

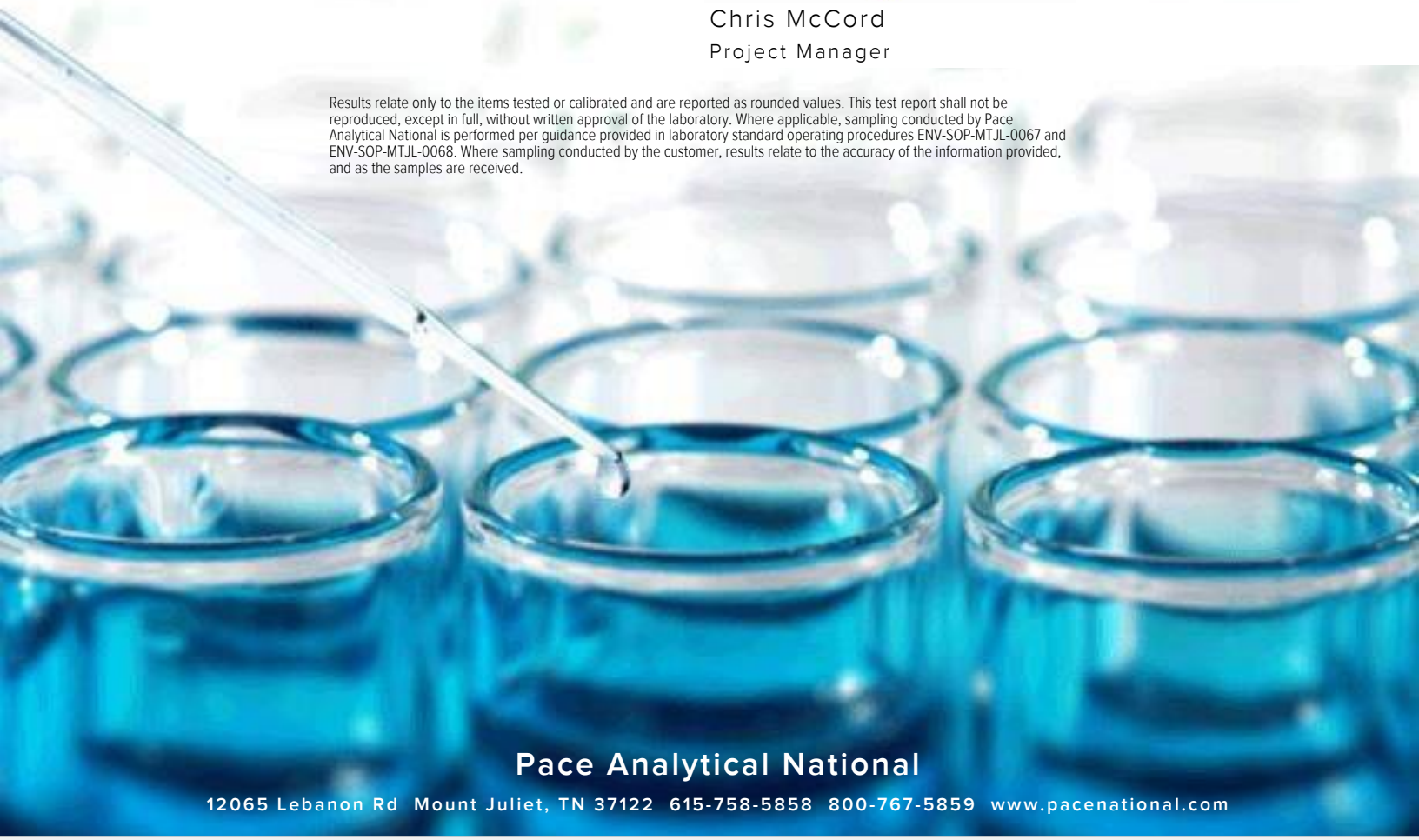
Sample Delivery Group:	L1482976
Samples Received:	04/15/2022
Project Number:	475791.0000.0000.
Description:	Lovington Lea Refinery

Report To: Julie Speer
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 11

Sr: Sample Results 12

- MW-1 L1482976-01 12
- MW-2 L1482976-02 14
- MW-6 L1482976-03 17
- MW-8 L1482976-04 19
- MW-12R2 L1482976-05 21
- MW-13R L1482976-06 25
- MW-15R L1482976-07 27
- MW-17R L1482976-08 28
- MW-19R L1482976-09 32
- MW-27 L1482976-10 33
- MW-29 L1482976-11 34
- MW-30 L1482976-12 36
- WW-NORTH L1482976-13 40
- WW-SOUTH L1482976-14 44
- WW-EAST L1482976-15 48
- DUP-01 L1482976-16 52
- EB-01 L1482976-17 56
- EB-02 L1482976-18 60
- TRIP BLANK-01 L1482976-19 64
- TRIP BLANK-02 L1482976-20 65
- MW-3 L1482976-21 66
- MW-11R L1482976-22 67
- MW-28 L1482976-23 71
- MW-32 L1482976-24 72
- MW-33 L1482976-25 76
- DUP-02 L1482976-26 80
- DUP-03 L1482976-27 84

Qc: Quality Control Summary 88

- Gravimetric Analysis by Method 2540 C-2011 88
- Wet Chemistry by Method 2320 B-2011 91
- Wet Chemistry by Method 353.2 93
- Wet Chemistry by Method 9056A 97
- Mercury by Method 7470A 106
- Metals (ICP) by Method 6010B 109
- Metals (ICPMS) by Method 6020 111

Volatile Organic Compounds (GC) by Method 8015D/GRO 123
Volatile Organic Compounds (GC/MS) by Method 8260B 126
Semi-Volatile Organic Compounds (GC) by Method 3511/8015 139
Semi Volatile Organic Compounds (GC/MS) by Method 8270C 140
Gl: Glossary of Terms 152
Al: Accreditations & Locations 153
Sc: Sample Chain of Custody 154

MW-1 L1482976-01 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:05 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG1851910	5	04/21/22 18:15	04/21/22 18:15	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 02:06	04/19/22 02:06	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850018	1	04/26/22 13:13	04/28/22 10:40	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 03:56	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850293	1	04/20/22 21:36	04/22/22 15:27	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 09:52	04/17/22 09:52	JAH	Mt. Juliet, TN

MW-2 L1482976-02 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 13:00 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 10:13	04/17/22 10:13	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 17:44	JNJ	Mt. Juliet, TN

MW-6 L1482976-03 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:55 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG1851910	5	04/21/22 18:17	04/21/22 18:17	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 02:52	04/19/22 02:52	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850018	1	04/26/22 13:13	04/28/22 10:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 03:59	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850293	1	04/20/22 21:36	04/22/22 15:30	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 10:34	04/17/22 10:34	JAH	Mt. Juliet, TN

MW-8 L1482976-04 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 10:25 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	5	04/21/22 18:18	04/21/22 18:18	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 03:23	04/19/22 03:23	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 03:38	04/19/22 03:38	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 10:55	04/17/22 10:55	JAH	Mt. Juliet, TN

MW-12R2 L1482976-05 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 10:25 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:14	04/17/22 10:14	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	5	04/21/22 18:19	04/21/22 18:19	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 03:53	04/19/22 03:53	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 10:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:02	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850293	1	04/20/22 21:36	04/22/22 15:33	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 11:16	04/17/22 11:16	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 18:06	JNJ	Mt. Juliet, TN

MW-13R L1482976-06 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 10:25
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	5	04/21/22 18:21	04/21/22 18:21	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 04:55	04/19/22 04:55	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 05:11	04/19/22 05:11	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:05	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:23	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 11:37	04/17/22 11:37	JAH	Mt. Juliet, TN

MW-15R L1482976-07 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 10:40
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:17	04/17/22 10:17	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	1	04/21/22 18:26	04/21/22 18:26	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 05:26	04/19/22 05:26	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	10	04/19/22 05:41	04/19/22 05:41	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:08	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:27	SJM	Mt. Juliet, TN

MW-17R L1482976-08 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 13:10
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:21	04/17/22 10:21	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	1	04/21/22 18:29	04/21/22 18:29	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 05:57	04/19/22 05:57	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 06:12	04/19/22 06:12	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:09	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:11	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:43	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 11:58	04/17/22 11:58	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 18:27	JNJ	Mt. Juliet, TN

MW-19R L1482976-09 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 11:20
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:33	04/17/22 10:33	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	1	04/21/22 18:31	04/21/22 18:31	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 06:28	04/19/22 06:28	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 06:43	04/19/22 06:43	LBR	Mt. Juliet, TN

MW-27 L1482976-10 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:55 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 12:19	04/17/22 12:19	JAH	Mt. Juliet, TN

MW-29 L1482976-11 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 12:25 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:11	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:47	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 12:40	04/17/22 12:40	JAH	Mt. Juliet, TN

MW-30 L1482976-12 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:50 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:36	04/17/22 10:36	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	5	04/21/22 18:32	04/21/22 18:32	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 06:59	04/19/22 06:59	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 07:45	04/19/22 07:45	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:13	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:50	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 13:01	04/17/22 13:01	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1.05	04/20/22 03:52	04/20/22 18:48	JNJ	Mt. Juliet, TN

WW-NORTH L1482976-13 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:50 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:40	04/17/22 10:40	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	1	04/21/22 18:33	04/21/22 18:33	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 08:00	04/19/22 08:00	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 08:16	04/19/22 08:16	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:16	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:54	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1850529	1	04/19/22 10:59	04/19/22 10:59	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849672	1	04/17/22 13:22	04/17/22 13:22	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 15:48	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 19:10	JNJ	Mt. Juliet, TN

WW-SOUTH L1482976-14 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 10:15 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:44	04/17/22 10:44	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	1	04/21/22 18:35	04/21/22 18:35	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 08:31	04/19/22 08:31	LBR	Mt. Juliet, TN

WW-SOUTH L1482976-14 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 10:15
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 08:46	04/19/22 08:46	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:18	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:28	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850294	1	04/20/22 22:54	04/25/22 14:57	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1850529	1	04/19/22 11:21	04/19/22 11:21	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 01:48	04/17/22 01:48	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 16:14	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 19:31	JNJ	Mt. Juliet, TN

WW-EAST L1482976-15 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 12:45
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:47	04/17/22 10:47	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851910	1	04/21/22 18:36	04/21/22 18:36	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 09:02	04/19/22 09:02	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 09:17	04/19/22 09:17	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:31	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850297	1	04/21/22 10:28	04/26/22 01:15	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1850529	1	04/19/22 11:42	04/19/22 11:42	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 02:09	04/17/22 02:09	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 16:40	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 19:52	JNJ	Mt. Juliet, TN

DUP-01 L1482976-16 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 12:00
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 10:51	04/17/22 10:51	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851912	1	04/21/22 21:44	04/21/22 21:44	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 09:33	04/19/22 09:33	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	5	04/19/22 09:48	04/19/22 09:48	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:22	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:34	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850297	1	04/21/22 10:28	04/26/22 01:18	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1850529	1	04/19/22 12:04	04/19/22 12:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 02:31	04/17/22 02:31	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 17:06	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 20:13	JNJ	Mt. Juliet, TN

EB-01 L1482976-17 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 13:00
Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 11:03	04/17/22 11:03	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851912	1	04/21/22 21:45	04/21/22 21:45	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 10:03	04/19/22 10:03	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:29	ABL	Mt. Juliet, TN

EB-01 L1482976-17 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 13:00 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:37	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850297	1	04/21/22 10:28	04/26/22 01:21	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1850529	1	04/19/22 09:28	04/19/22 09:28	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 01:06	04/17/22 01:06	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 17:31	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 20:35	JNJ	Mt. Juliet, TN

EB-02 L1482976-18 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 12:10 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1849696	1	04/16/22 22:14	04/17/22 04:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849721	1	04/17/22 11:10	04/17/22 11:10	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851912	1	04/21/22 21:50	04/21/22 21:50	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1850483	1	04/19/22 19:13	04/19/22 19:13	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850019	1	04/26/22 13:15	04/28/22 11:31	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851302	1	04/21/22 11:24	04/27/22 04:40	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850297	1	04/21/22 10:28	04/26/22 01:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 01:27	04/17/22 01:27	JCP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1.11	04/20/22 03:52	04/20/22 20:56	JNJ	Mt. Juliet, TN

TRIP BLANK-01 L1482976-19 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 00:00 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 00:01	04/17/22 00:01	JCP	Mt. Juliet, TN

TRIP BLANK-02 L1482976-20 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 00:00 | Received date/time: 04/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1849677	1	04/17/22 00:23	04/17/22 00:23	JCP	Mt. Juliet, TN

MW-3 L1482976-21 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 12:30 | Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG1851919	1	04/22/22 18:49	04/22/22 18:49	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1851361	1	04/20/22 10:20	04/20/22 10:20	KEG	Mt. Juliet, TN

MW-11R L1482976-22 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:25 | Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1852062	1	04/21/22 09:06	04/21/22 16:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849943	1	04/18/22 10:16	04/18/22 10:16	ARD	Mt. Juliet, TN
Mercury by Method 7470A	WG1850021	1	04/28/22 08:51	05/01/22 17:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851885	1	04/24/22 17:19	04/25/22 12:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850306	1	04/21/22 11:32	04/25/22 14:38	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1853681	1	04/26/22 00:57	04/26/22 11:48	SJM	Mt. Juliet, TN

MW-11R L1482976-22 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 11:25 | Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1850520	1	04/19/22 08:25	04/19/22 08:25	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 21:17	JNJ	Mt. Juliet, TN

MW-28 L1482976-23 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 13:15 | Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1849943	1	04/18/22 10:19	04/18/22 10:19	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851919	1	04/22/22 18:54	04/22/22 18:54	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1851537	1	04/21/22 02:30	04/21/22 02:30	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1851537	5	04/21/22 02:46	04/21/22 02:46	KEG	Mt. Juliet, TN

MW-32 L1482976-24 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 13:00 | Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1852510	1	04/21/22 18:37	04/21/22 19:35	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849943	1	04/18/22 10:23	04/18/22 10:23	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851919	10	04/22/22 18:55	04/22/22 18:55	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1851537	1	04/21/22 03:02	04/21/22 03:02	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1856364	5	04/30/22 18:45	04/30/22 18:45	MCG	Mt. Juliet, TN
Mercury by Method 7470A	WG1850021	1	04/28/22 08:51	05/01/22 17:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851885	1	04/24/22 17:19	04/25/22 12:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1850306	1	04/21/22 11:32	04/25/22 14:42	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1853681	1	04/26/22 00:57	04/26/22 11:52	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1851146	1	04/20/22 05:11	04/20/22 05:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1850520	1	04/19/22 08:44	04/19/22 08:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 17:57	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 23:46	JNJ	Mt. Juliet, TN

MW-33 L1482976-25 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 04/14/22 10:40 | Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1852062	1	04/21/22 09:06	04/21/22 16:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849943	1	04/18/22 10:35	04/18/22 10:35	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851919	1	04/22/22 18:56	04/22/22 18:56	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1851537	1	04/21/22 03:19	04/21/22 03:19	KEG	Mt. Juliet, TN
Mercury by Method 7470A	WG1850021	1	04/28/22 08:51	05/01/22 16:58	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851885	1	04/24/22 17:19	04/25/22 12:07	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1851656	1	04/21/22 00:51	04/22/22 00:02	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1851656	1	04/21/22 00:51	04/24/22 23:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1851528	1	04/21/22 06:12	04/21/22 06:12	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1850520	1	04/19/22 09:03	04/19/22 09:03	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/28/22 13:05	CLG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850890	1	04/20/22 03:52	04/20/22 21:39	JNJ	Mt. Juliet, TN

DUP-02 L1482976-26 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 11:00
Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1852510	1	04/21/22 18:37	04/21/22 19:35	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849943	1	04/18/22 10:42	04/18/22 10:42	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1859498	10	05/06/22 00:04	05/06/22 00:04	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1851537	1	04/21/22 04:24	04/21/22 04:24	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1856364	5	04/30/22 18:59	04/30/22 18:59	MCG	Mt. Juliet, TN
Mercury by Method 7470A	WG1850021	1	04/28/22 08:51	05/01/22 17:10	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851885	1	04/24/22 17:19	04/25/22 12:23	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1851656	1	04/21/22 00:51	04/22/22 00:19	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1851656	1	04/21/22 00:51	04/24/22 23:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1851146	1	04/20/22 05:58	04/20/22 05:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1850520	1	04/19/22 09:22	04/19/22 09:22	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/27/22 19:40	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850898	1	04/20/22 11:48	04/20/22 23:18	JNJ	Mt. Juliet, TN

DUP-03 L1482976-27 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 04/14/22 12:00
Received date/time: 04/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1852062	1	04/21/22 09:06	04/21/22 16:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1849943	1	04/18/22 10:46	04/18/22 10:46	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1851919	1	04/22/22 19:03	04/22/22 19:03	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1853041	1	04/22/22 23:35	04/22/22 23:35	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1850021	1	04/28/22 08:51	05/01/22 17:16	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1851885	1	04/24/22 17:19	04/25/22 12:26	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1851656	1	04/21/22 00:51	04/22/22 00:22	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1851656	1	04/21/22 00:51	04/24/22 23:35	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1851146	1	04/20/22 06:22	04/20/22 06:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1850520	1	04/19/22 09:41	04/19/22 09:41	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1854507	1	04/27/22 08:38	04/28/22 14:48	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1850898	1	04/20/22 11:48	04/20/22 23:40	JNJ	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 05/06/22 18:32

Project Narrative

Revised to correct the Method Blank result in WG1854507.

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1482976-25	MW-33	3511/8015
L1482976-27	DUP-03	3511/8015

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.79		0.250	0.500	5	04/21/2022 18:15	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	51.9		0.379	1.00	1	04/19/2022 02:06	WG1850483
Fluoride	0.985		0.0640	0.150	1	04/19/2022 02:06	WG1850483
Sulfate	73.1		0.594	5.00	1	04/19/2022 02:06	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 10:40	WG1850018

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.166	J	0.0200	0.200	1	04/27/2022 03:56	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/22/2022 15:27	WG1850293
Arsenic,Dissolved	0.00543		0.000180	0.00200	1	04/22/2022 15:27	WG1850293
Barium,Dissolved	0.145		0.000381	0.00200	1	04/22/2022 15:27	WG1850293
Cadmium,Dissolved	U		0.000150	0.00100	1	04/22/2022 15:27	WG1850293
Chromium,Dissolved	U		0.00124	0.00200	1	04/22/2022 15:27	WG1850293
Copper,Dissolved	0.00187	J	0.00151	0.00500	1	04/22/2022 15:27	WG1850293
Cobalt,Dissolved	0.0000640	J	0.0000596	0.00200	1	04/22/2022 15:27	WG1850293
Iron,Dissolved	U		0.0281	0.100	1	04/22/2022 15:27	WG1850293
Lead,Dissolved	U		0.000849	0.00200	1	04/22/2022 15:27	WG1850293
Manganese,Dissolved	0.00117	J	0.000704	0.00500	1	04/22/2022 15:27	WG1850293
Molybdenum,Dissolved	0.00312	B J	0.000348	0.00500	1	04/22/2022 15:27	WG1850293
Nickel,Dissolved	U		0.000816	0.00200	1	04/22/2022 15:27	WG1850293
Selenium,Dissolved	0.00220		0.000300	0.00200	1	04/22/2022 15:27	WG1850293
Silver,Dissolved	U		0.0000700	0.00200	1	04/22/2022 15:27	WG1850293
Uranium,Dissolved	0.00167	J	0.0000700	0.0200	1	04/22/2022 15:27	WG1850293
Zinc,Dissolved	0.0122	J	0.00302	0.0250	1	04/22/2022 15:27	WG1850293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 09:52	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 09:52	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 09:52	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 09:52	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 09:52	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 09:52	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 09:52	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 09:52	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 09:52	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 09:52	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 09:52	WG1849672

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 09:52	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 09:52	WG1849672
Chloroform	0.000522	J	0.000111	0.00500	1	04/17/2022 09:52	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 09:52	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 09:52	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 09:52	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 09:52	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 09:52	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 09:52	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 09:52	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 09:52	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 09:52	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 09:52	WG1849672
Ethylbenzene	0.000241	J	0.000137	0.00100	1	04/17/2022 09:52	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 09:52	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 09:52	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 09:52	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 09:52	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 09:52	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 09:52	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 09:52	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 09:52	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 09:52	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 09:52	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 09:52	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 09:52	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 09:52	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 09:52	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 09:52	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 09:52	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 09:52	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 09:52	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 09:52	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 09:52	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 09:52	WG1849672
(S) Toluene-d8	*107*			*80.0-120*		*04/17/2022 09:52*	WG1849672
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*04/17/2022 09:52*	WG1849672
(S) 1,2-Dichloroethane-d4	*82.9*			*70.0-130*		*04/17/2022 09:52*	WG1849672

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 10:13	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 10:13	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 10:13	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 10:13	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 10:13	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 10:13	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 10:13	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 10:13	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 10:13	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 10:13	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 10:13	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 10:13	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 10:13	WG1849672
Chloroform	0.000630	J	0.000111	0.00500	1	04/17/2022 10:13	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 10:13	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 10:13	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 10:13	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 10:13	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 10:13	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 10:13	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 10:13	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 10:13	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 10:13	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 10:13	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 10:13	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 10:13	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 10:13	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 10:13	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 10:13	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 10:13	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 10:13	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 10:13	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 10:13	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 10:13	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 10:13	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 10:13	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 10:13	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 10:13	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 10:13	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 10:13	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 10:13	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 10:13	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 10:13	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 10:13	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 10:13	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 10:13	WG1849672
(S) Toluene-d8	*108*			*80.0-120*		*04/17/2022 10:13*	WG1849672
(S) 4-Bromofluorobenzene	*98.7*			*77.0-126*		*04/17/2022 10:13*	WG1849672
(S) 1,2-Dichloroethane-d4	*83.8*			*70.0-130*		*04/17/2022 10:13*	WG1849672

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 17:44	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 17:44	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 17:44	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 17:44	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 17:44	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 17:44	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 17:44	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 17:44	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 17:44	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 17:44	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 17:44	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 17:44	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 17:44	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 17:44	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 17:44	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 17:44	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 17:44	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 17:44	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 17:44	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 17:44	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 17:44	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 17:44	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 17:44	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 17:44	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 17:44	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 17:44	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 17:44	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 17:44	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 17:44	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 17:44	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 17:44	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 17:44	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 17:44	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 17:44	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 17:44	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 17:44	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 17:44	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 17:44	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 17:44	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 17:44	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 17:44	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 17:44	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 17:44	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 17:44	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 17:44	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 17:44	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 17:44	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 17:44	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 17:44	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 17:44	WG1850890
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 17:44	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 17:44	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 17:44	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 17:44	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 17:44	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 17:44	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 17:44	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 17:44	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 17:44	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 17:44	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 17:44	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 17:44	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 17:44	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 17:44	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 17:44	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 17:44	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 17:44	WG1850890
(S) 2-Fluorophenol	*32.0*			*10.0-120*		*04/20/2022 17:44*	WG1850890
(S) Phenol-d5	*20.7*			*10.0-120*		*04/20/2022 17:44*	WG1850890
(S) Nitrobenzene-d5	*77.7*			*10.0-127*		*04/20/2022 17:44*	WG1850890
(S) 2-Fluorobiphenyl	*72.5*			*10.0-130*		*04/20/2022 17:44*	WG1850890
(S) 2,4,6-Tribromophenol	*69.5*			*10.0-155*		*04/20/2022 17:44*	WG1850890
(S) p-Terphenyl-d14	*69.1*			*10.0-128*		*04/20/2022 17:44*	WG1850890

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	5.60		0.250	0.500	5	04/21/2022 18:17	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	91.2		0.379	1.00	1	04/19/2022 02:52	WG1850483
Fluoride	0.807		0.0640	0.150	1	04/19/2022 02:52	WG1850483
Sulfate	78.6		0.594	5.00	1	04/19/2022 02:52	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 10:43	WG1850018

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.180	J	0.0200	0.200	1	04/27/2022 03:59	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0331	B J	0.0185	0.100	1	04/22/2022 15:30	WG1850293
Arsenic,Dissolved	0.00682		0.000180	0.00200	1	04/22/2022 15:30	WG1850293
Barium,Dissolved	0.178		0.000381	0.00200	1	04/22/2022 15:30	WG1850293
Cadmium,Dissolved	U		0.000150	0.00100	1	04/22/2022 15:30	WG1850293
Chromium,Dissolved	U		0.00124	0.00200	1	04/22/2022 15:30	WG1850293
Copper,Dissolved	0.00613		0.00151	0.00500	1	04/22/2022 15:30	WG1850293
Cobalt,Dissolved	0.0000813	J	0.0000596	0.00200	1	04/22/2022 15:30	WG1850293
Iron,Dissolved	U		0.0281	0.100	1	04/22/2022 15:30	WG1850293
Lead,Dissolved	U		0.000849	0.00200	1	04/22/2022 15:30	WG1850293
Manganese,Dissolved	0.00132	J	0.000704	0.00500	1	04/22/2022 15:30	WG1850293
Molybdenum,Dissolved	0.00201	B J	0.000348	0.00500	1	04/22/2022 15:30	WG1850293
Nickel,Dissolved	0.00234	B	0.000816	0.00200	1	04/22/2022 15:30	WG1850293
Selenium,Dissolved	0.00328		0.000300	0.00200	1	04/22/2022 15:30	WG1850293
Silver,Dissolved	U		0.0000700	0.00200	1	04/22/2022 15:30	WG1850293
Uranium,Dissolved	0.00435	J	0.0000700	0.0200	1	04/22/2022 15:30	WG1850293
Zinc,Dissolved	0.0601		0.00302	0.0250	1	04/22/2022 15:30	WG1850293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 10:34	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 10:34	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 10:34	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 10:34	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 10:34	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 10:34	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 10:34	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 10:34	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 10:34	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 10:34	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 10:34	WG1849672

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 10:34	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 10:34	WG1849672
Chloroform	0.000268	J	0.000111	0.00500	1	04/17/2022 10:34	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 10:34	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 10:34	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 10:34	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 10:34	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 10:34	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 10:34	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 10:34	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 10:34	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 10:34	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 10:34	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 10:34	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 10:34	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 10:34	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 10:34	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 10:34	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 10:34	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 10:34	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 10:34	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 10:34	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 10:34	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 10:34	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 10:34	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 10:34	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 10:34	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 10:34	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 10:34	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 10:34	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 10:34	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 10:34	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 10:34	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 10:34	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 10:34	WG1849672
(S) Toluene-d8	*105*			*80.0-120*		*04/17/2022 10:34*	WG1849672
(S) 4-Bromofluorobenzene	*98.7*			*77.0-126*		*04/17/2022 10:34*	WG1849672
(S) 1,2-Dichloroethane-d4	*86.6*			*70.0-130*		*04/17/2022 10:34*	WG1849672

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	881		13.3	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	8.40		0.250	0.500	5	04/21/2022 18:18	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	193		1.90	5.00	5	04/19/2022 03:38	WG1850483
Fluoride	0.618		0.0640	0.150	1	04/19/2022 03:23	WG1850483
Sulfate	81.6		0.594	5.00	1	04/19/2022 03:23	WG1850483

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 10:55	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 10:55	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 10:55	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 10:55	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 10:55	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 10:55	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 10:55	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 10:55	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 10:55	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 10:55	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 10:55	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 10:55	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 10:55	WG1849672
Chloroform	0.000352	J	0.000111	0.00500	1	04/17/2022 10:55	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 10:55	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 10:55	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 10:55	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 10:55	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 10:55	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 10:55	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 10:55	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 10:55	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 10:55	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 10:55	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 10:55	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 10:55	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 10:55	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 10:55	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 10:55	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 10:55	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 10:55	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 10:55	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 10:55	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 10:55	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 10:55	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 10:55	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 10:55	WG1849672

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 10:55	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 10:55	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 10:55	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 10:55	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 10:55	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 10:55	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 10:55	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 10:55	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 10:55	WG1849672
(S) Toluene-d8	*108*			*80.0-120*		*04/17/2022 10:55*	WG1849672
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*04/17/2022 10:55*	WG1849672
(S) 1,2-Dichloroethane-d4	*84.1*			*70.0-130*		*04/17/2022 10:55*	WG1849672

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	508		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	196		8.45	20.0	1	04/17/2022 10:14	WG1849721

Sample Narrative:

L1482976-05 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	4.98		0.250	0.500	5	04/21/2022 18:19	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	92.1		0.379	1.00	1	04/19/2022 03:53	WG1850483
Fluoride	0.912		0.0640	0.150	1	04/19/2022 03:53	WG1850483
Sulfate	65.0		0.594	5.00	1	04/19/2022 03:53	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 10:51	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.189	J	0.0200	0.200	1	04/27/2022 04:02	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0222	B J	0.0185	0.100	1	04/22/2022 15:33	WG1850293
Arsenic,Dissolved	0.00406		0.000180	0.00200	1	04/22/2022 15:33	WG1850293
Barium,Dissolved	0.118		0.000381	0.00200	1	04/22/2022 15:33	WG1850293
Cadmium,Dissolved	U		0.000150	0.00100	1	04/22/2022 15:33	WG1850293
Chromium,Dissolved	0.00170	B J	0.00124	0.00200	1	04/22/2022 15:33	WG1850293
Copper,Dissolved	0.00254	J	0.00151	0.00500	1	04/22/2022 15:33	WG1850293
Cobalt,Dissolved	0.0000920	J	0.0000596	0.00200	1	04/22/2022 15:33	WG1850293
Iron,Dissolved	U		0.0281	0.100	1	04/22/2022 15:33	WG1850293
Lead,Dissolved	U		0.000849	0.00200	1	04/22/2022 15:33	WG1850293
Manganese,Dissolved	0.00106	J	0.000704	0.00500	1	04/22/2022 15:33	WG1850293
Molybdenum,Dissolved	0.00380	B J	0.000348	0.00500	1	04/22/2022 15:33	WG1850293
Nickel,Dissolved	0.00614	B	0.000816	0.00200	1	04/22/2022 15:33	WG1850293
Selenium,Dissolved	0.00265		0.000300	0.00200	1	04/22/2022 15:33	WG1850293
Silver,Dissolved	U		0.0000700	0.00200	1	04/22/2022 15:33	WG1850293
Uranium,Dissolved	0.00152	J	0.0000700	0.0200	1	04/22/2022 15:33	WG1850293
Zinc,Dissolved	0.0314		0.00302	0.0250	1	04/22/2022 15:33	WG1850293

MW-12R2
Collected date/time: 04/14/22 10:25
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 11:16	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 11:16	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 11:16	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 11:16	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 11:16	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 11:16	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 11:16	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 11:16	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 11:16	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 11:16	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 11:16	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 11:16	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 11:16	WG1849672
Chloroform	U		0.000111	0.00500	1	04/17/2022 11:16	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 11:16	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 11:16	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 11:16	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 11:16	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 11:16	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 11:16	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 11:16	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 11:16	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 11:16	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 11:16	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 11:16	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 11:16	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 11:16	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 11:16	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 11:16	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 11:16	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 11:16	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 11:16	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 11:16	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 11:16	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 11:16	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 11:16	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 11:16	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 11:16	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 11:16	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 11:16	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 11:16	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 11:16	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 11:16	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 11:16	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 11:16	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 11:16	WG1849672
(S) Toluene-d8	*105*			*80.0-120*		*04/17/2022 11:16*	WG1849672
(S) 4-Bromofluorobenzene	*96.6*			*77.0-126*		*04/17/2022 11:16*	WG1849672
(S) 1,2-Dichloroethane-d4	*82.4*			*70.0-130*		*04/17/2022 11:16*	WG1849672

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 18:06	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 18:06	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 18:06	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 18:06	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 18:06	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 18:06	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 18:06	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 18:06	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 18:06	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 18:06	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 18:06	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 18:06	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 18:06	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 18:06	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 18:06	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 18:06	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 18:06	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 18:06	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 18:06	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 18:06	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 18:06	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 18:06	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 18:06	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 18:06	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 18:06	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 18:06	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 18:06	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 18:06	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 18:06	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 18:06	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 18:06	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 18:06	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 18:06	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 18:06	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 18:06	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 18:06	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 18:06	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 18:06	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 18:06	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 18:06	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 18:06	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 18:06	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 18:06	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 18:06	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 18:06	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 18:06	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 18:06	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 18:06	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 18:06	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 18:06	WG1850890
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 18:06	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 18:06	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 18:06	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 18:06	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 18:06	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 18:06	WG1850890

MW-12R2
Collected date/time: 04/14/22 10:25
L1482976

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 18:06	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 18:06	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 18:06	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 18:06	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 18:06	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 18:06	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 18:06	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 18:06	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 18:06	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 18:06	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 18:06	WG1850890
(S) 2-Fluorophenol	*25.8*			*10.0-120*		*04/20/2022 18:06*	WG1850890
(S) Phenol-d5	*17.3*			*10.0-120*		*04/20/2022 18:06*	WG1850890
(S) Nitrobenzene-d5	*75.2*			*10.0-127*		*04/20/2022 18:06*	WG1850890
(S) 2-Fluorobiphenyl	*70.0*			*10.0-130*		*04/20/2022 18:06*	WG1850890
(S) 2,4,6-Tribromophenol	*55.5*			*10.0-155*		*04/20/2022 18:06*	WG1850890
(S) p-Terphenyl-d14	*62.2*			*10.0-128*		*04/20/2022 18:06*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1120		20.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	5.35		0.250	0.500	5	04/21/2022 18:21	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	242		1.90	5.00	5	04/19/2022 05:11	WG1850483
Fluoride	0.402		0.0640	0.150	1	04/19/2022 04:55	WG1850483
Sulfate	144		2.97	25.0	5	04/19/2022 05:11	WG1850483

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/28/2022 11:05	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.230		0.0200	0.200	1	04/27/2022 04:05	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	0.0557	J	0.0185	0.100	1	04/25/2022 14:23	WG1850294
Arsenic,Dissolved	0.00275		0.000180	0.00200	1	04/25/2022 14:23	WG1850294
Barium,Dissolved	0.125		0.000381	0.00200	1	04/25/2022 14:23	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:23	WG1850294
Chromium,Dissolved	0.00661		0.00124	0.00200	1	04/25/2022 14:23	WG1850294
Copper,Dissolved	0.00775		0.00151	0.00500	1	04/25/2022 14:23	WG1850294
Cobalt,Dissolved	0.000277	J	0.0000596	0.00200	1	04/25/2022 14:23	WG1850294
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:23	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:23	WG1850294
Manganese,Dissolved	0.0145		0.000704	0.00500	1	04/25/2022 14:23	WG1850294
Molybdenum,Dissolved	0.000995	J	0.000348	0.00500	1	04/25/2022 14:23	WG1850294
Nickel,Dissolved	0.00528		0.000816	0.00200	1	04/25/2022 14:23	WG1850294
Selenium,Dissolved	0.00132	J	0.000300	0.00200	1	04/25/2022 14:23	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:23	WG1850294
Uranium,Dissolved	0.0117	J	0.0000700	0.0200	1	04/25/2022 14:23	WG1850294
Zinc,Dissolved	0.0232	J	0.00302	0.0250	1	04/25/2022 14:23	WG1850294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 11:37	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 11:37	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 11:37	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 11:37	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 11:37	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 11:37	WG1849672

MW-13R
Collected date/time: 04/14/22 10:25
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.000143	J	0.000125	0.00100	1	04/17/2022 11:37	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 11:37	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 11:37	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 11:37	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 11:37	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 11:37	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 11:37	WG1849672
Chloroform	0.000225	J	0.000111	0.00500	1	04/17/2022 11:37	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 11:37	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 11:37	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 11:37	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 11:37	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 11:37	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 11:37	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 11:37	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 11:37	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 11:37	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 11:37	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 11:37	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 11:37	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 11:37	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 11:37	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 11:37	WG1849672
2-Butanone (MEK)	0.00329	J	0.00119	0.0100	1	04/17/2022 11:37	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 11:37	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 11:37	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 11:37	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 11:37	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 11:37	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 11:37	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 11:37	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 11:37	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 11:37	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 11:37	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 11:37	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 11:37	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 11:37	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 11:37	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 11:37	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 11:37	WG1849672
(S) Toluene-d8	*106*			*80.0-120*		*04/17/2022 11:37*	WG1849672
(S) 4-Bromofluorobenzene	*97.3*			*77.0-126*		*04/17/2022 11:37*	WG1849672
(S) 1,2-Dichloroethane-d4	*83.8*			*70.0-130*		*04/17/2022 11:37*	WG1849672

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1430		25.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	180		8.45	20.0	1	04/17/2022 10:17	WG1849721

Sample Narrative:

L1482976-07 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.50		0.0500	0.100	1	04/21/2022 18:26	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	595		3.79	10.0	10	04/19/2022 05:41	WG1850483
Fluoride	0.573		0.0640	0.150	1	04/19/2022 05:26	WG1850483
Sulfate	92.3		0.594	5.00	1	04/19/2022 05:26	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:07	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.197	J	0.0200	0.200	1	04/27/2022 04:08	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/25/2022 14:27	WG1850294
Arsenic,Dissolved	0.00258		0.000180	0.00200	1	04/25/2022 14:27	WG1850294
Barium,Dissolved	0.178		0.000381	0.00200	1	04/25/2022 14:27	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:27	WG1850294
Chromium,Dissolved	0.0102		0.00124	0.00200	1	04/25/2022 14:27	WG1850294
Copper,Dissolved	0.00866		0.00151	0.00500	1	04/25/2022 14:27	WG1850294
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/25/2022 14:27	WG1850294
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:27	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:27	WG1850294
Manganese,Dissolved	0.00210	B J	0.000704	0.00500	1	04/25/2022 14:27	WG1850294
Molybdenum,Dissolved	0.00175	J	0.000348	0.00500	1	04/25/2022 14:27	WG1850294
Nickel,Dissolved	0.00312		0.000816	0.00200	1	04/25/2022 14:27	WG1850294
Selenium,Dissolved	0.00233		0.000300	0.00200	1	04/25/2022 14:27	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:27	WG1850294
Uranium,Dissolved	0.00237	J	0.0000700	0.0200	1	04/25/2022 14:27	WG1850294
Zinc,Dissolved	0.0687		0.00302	0.0250	1	04/25/2022 14:27	WG1850294

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	586		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	811		8.45	20.0	1	04/17/2022 10:21	WG1849721

Sample Narrative:

L1482976-08 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.06		0.0500	0.100	1	04/21/2022 18:29	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	126		1.90	5.00	5	04/19/2022 06:12	WG1850483
Fluoride	0.634		0.0640	0.150	1	04/19/2022 05:57	WG1850483
Sulfate	72.5		0.594	5.00	1	04/19/2022 05:57	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:09	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.153	J	0.0200	0.200	1	04/27/2022 04:11	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0872	J	0.0185	0.100	1	04/25/2022 14:43	WG1850294
Arsenic,Dissolved	0.00385		0.000180	0.00200	1	04/25/2022 14:43	WG1850294
Barium,Dissolved	0.117		0.000381	0.00200	1	04/25/2022 14:43	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:43	WG1850294
Chromium,Dissolved	0.00214		0.00124	0.00200	1	04/25/2022 14:43	WG1850294
Copper,Dissolved	0.00286	J	0.00151	0.00500	1	04/25/2022 14:43	WG1850294
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/25/2022 14:43	WG1850294
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:43	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:43	WG1850294
Manganese,Dissolved	0.00193	B J	0.000704	0.00500	1	04/25/2022 14:43	WG1850294
Molybdenum,Dissolved	0.00167	J	0.000348	0.00500	1	04/25/2022 14:43	WG1850294
Nickel,Dissolved	0.00218		0.000816	0.00200	1	04/25/2022 14:43	WG1850294
Selenium,Dissolved	0.00156	J	0.000300	0.00200	1	04/25/2022 14:43	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:43	WG1850294
Uranium,Dissolved	0.00209	J	0.0000700	0.0200	1	04/25/2022 14:43	WG1850294
Zinc,Dissolved	0.00729	J	0.00302	0.0250	1	04/25/2022 14:43	WG1850294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 11:58	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 11:58	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 11:58	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 11:58	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 11:58	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 11:58	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 11:58	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 11:58	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 11:58	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 11:58	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 11:58	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 11:58	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 11:58	WG1849672
Chloroform	U		0.000111	0.00500	1	04/17/2022 11:58	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 11:58	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 11:58	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 11:58	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 11:58	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 11:58	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 11:58	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 11:58	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 11:58	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 11:58	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 11:58	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 11:58	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 11:58	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 11:58	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 11:58	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 11:58	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 11:58	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 11:58	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 11:58	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 11:58	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 11:58	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 11:58	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 11:58	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 11:58	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 11:58	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 11:58	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 11:58	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 11:58	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 11:58	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 11:58	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 11:58	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 11:58	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 11:58	WG1849672
(S) Toluene-d8	*103*			*80.0-120*		*04/17/2022 11:58*	WG1849672
(S) 4-Bromofluorobenzene	*99.7*			*77.0-126*		*04/17/2022 11:58*	WG1849672
(S) 1,2-Dichloroethane-d4	*83.5*			*70.0-130*		*04/17/2022 11:58*	WG1849672

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 18:27	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 18:27	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 18:27	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 18:27	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 18:27	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 18:27	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 18:27	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 18:27	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 18:27	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 18:27	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 18:27	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 18:27	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 18:27	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 18:27	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 18:27	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 18:27	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 18:27	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 18:27	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 18:27	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 18:27	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 18:27	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 18:27	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 18:27	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 18:27	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 18:27	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 18:27	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 18:27	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 18:27	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 18:27	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 18:27	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 18:27	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 18:27	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 18:27	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 18:27	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 18:27	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 18:27	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 18:27	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 18:27	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 18:27	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 18:27	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 18:27	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 18:27	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 18:27	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 18:27	WG1850890
Diethyl phthalate	0.000433	J	0.000287	0.00300	1	04/20/2022 18:27	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 18:27	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 18:27	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 18:27	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 18:27	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 18:27	WG1850890
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 18:27	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 18:27	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 18:27	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 18:27	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 18:27	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 18:27	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 18:27	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 18:27	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 18:27	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 18:27	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 18:27	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 18:27	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 18:27	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 18:27	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 18:27	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 18:27	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 18:27	WG1850890
(S) 2-Fluorophenol	*29.9*			*10.0-120*		*04/20/2022 18:27*	WG1850890
(S) Phenol-d5	*19.2*			*10.0-120*		*04/20/2022 18:27*	WG1850890
(S) Nitrobenzene-d5	*72.6*			*10.0-127*		*04/20/2022 18:27*	WG1850890
(S) 2-Fluorobiphenyl	*63.0*			*10.0-130*		*04/20/2022 18:27*	WG1850890
(S) 2,4,6-Tribromophenol	*60.5*			*10.0-155*		*04/20/2022 18:27*	WG1850890
(S) p-Terphenyl-d14	*48.6*			*10.0-128*		*04/20/2022 18:27*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	780		13.3	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	169		8.45	20.0	1	04/17/2022 10:33	WG1849721

Sample Narrative:

L1482976-09 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.97		0.0500	0.100	1	04/21/2022 18:31	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	273		1.90	5.00	5	04/19/2022 06:43	WG1850483
Fluoride	0.643		0.0640	0.150	1	04/19/2022 06:28	WG1850483
Sulfate	55.4		0.594	5.00	1	04/19/2022 06:28	WG1850483

MW-27
Collected date/time: 04/14/22 11:55
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 12:19	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 12:19	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 12:19	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 12:19	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 12:19	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 12:19	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 12:19	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 12:19	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 12:19	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 12:19	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 12:19	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 12:19	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 12:19	WG1849672
Chloroform	0.000199	J	0.000111	0.00500	1	04/17/2022 12:19	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 12:19	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 12:19	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 12:19	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 12:19	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 12:19	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 12:19	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 12:19	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 12:19	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 12:19	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 12:19	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 12:19	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 12:19	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 12:19	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 12:19	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 12:19	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 12:19	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 12:19	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 12:19	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 12:19	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 12:19	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 12:19	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 12:19	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 12:19	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 12:19	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 12:19	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 12:19	WG1849672
1,1,2-Trichloroethane	0.000424	J	0.000158	0.00100	1	04/17/2022 12:19	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 12:19	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 12:19	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 12:19	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 12:19	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 12:19	WG1849672
(S) Toluene-d8	*107*			*80.0-120*		*04/17/2022 12:19*	WG1849672
(S) 4-Bromofluorobenzene	*98.4*			*77.0-126*		*04/17/2022 12:19*	WG1849672
(S) 1,2-Dichloroethane-d4	*84.3*			*70.0-130*		*04/17/2022 12:19*	WG1849672

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:11	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.210		0.0200	0.200	1	04/27/2022 04:14	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/25/2022 14:47	WG1850294
Arsenic,Dissolved	0.00265		0.000180	0.00200	1	04/25/2022 14:47	WG1850294
Barium,Dissolved	0.182		0.000381	0.00200	1	04/25/2022 14:47	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:47	WG1850294
Chromium,Dissolved	0.0425		0.00124	0.00200	1	04/25/2022 14:47	WG1850294
Copper,Dissolved	0.00253	J	0.00151	0.00500	1	04/25/2022 14:47	WG1850294
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/25/2022 14:47	WG1850294
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:47	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:47	WG1850294
Manganese,Dissolved	0.000863	B J	0.000704	0.00500	1	04/25/2022 14:47	WG1850294
Molybdenum,Dissolved	0.00190	J	0.000348	0.00500	1	04/25/2022 14:47	WG1850294
Nickel,Dissolved	0.00171	J	0.000816	0.00200	1	04/25/2022 14:47	WG1850294
Selenium,Dissolved	0.00159	J	0.000300	0.00200	1	04/25/2022 14:47	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:47	WG1850294
Uranium,Dissolved	0.00689	J	0.0000700	0.0200	1	04/25/2022 14:47	WG1850294
Zinc,Dissolved	0.0241	J	0.00302	0.0250	1	04/25/2022 14:47	WG1850294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 12:40	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 12:40	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 12:40	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 12:40	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 12:40	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 12:40	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 12:40	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 12:40	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 12:40	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 12:40	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 12:40	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 12:40	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 12:40	WG1849672
Chloroform	0.000558	J	0.000111	0.00500	1	04/17/2022 12:40	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 12:40	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 12:40	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 12:40	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 12:40	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 12:40	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 12:40	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 12:40	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 12:40	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 12:40	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 12:40	WG1849672

MW-23
Collected date/time: 04/14/22 12:25
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 12:40	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 12:40	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 12:40	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 12:40	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 12:40	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 12:40	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 12:40	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 12:40	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 12:40	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 12:40	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 12:40	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 12:40	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 12:40	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 12:40	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 12:40	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 12:40	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 12:40	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 12:40	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 12:40	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 12:40	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 12:40	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 12:40	WG1849672
(S) Toluene-d8	*107*			*80.0-120*		*04/17/2022 12:40*	WG1849672
(S) 4-Bromofluorobenzene	*95.8*			*77.0-126*		*04/17/2022 12:40*	WG1849672
(S) 1,2-Dichloroethane-d4	*82.0*			*70.0-130*		*04/17/2022 12:40*	WG1849672

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	536		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	197		8.45	20.0	1	04/17/2022 10:36	WG1849721

Sample Narrative:

L1482976-12 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	4.03		0.250	0.500	5	04/21/2022 18:32	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	110		1.90	5.00	5	04/19/2022 07:45	WG1850483
Fluoride	0.951		0.0640	0.150	1	04/19/2022 06:59	WG1850483
Sulfate	60.8		0.594	5.00	1	04/19/2022 06:59	WG1850483

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/28/2022 11:13	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.176	J	0.0200	0.200	1	04/27/2022 04:17	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	0.0333	J	0.0185	0.100	1	04/25/2022 14:50	WG1850294
Arsenic,Dissolved	0.00423		0.000180	0.00200	1	04/25/2022 14:50	WG1850294
Barium,Dissolved	0.108		0.000381	0.00200	1	04/25/2022 14:50	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:50	WG1850294
Chromium,Dissolved	0.0229		0.00124	0.00200	1	04/25/2022 14:50	WG1850294
Copper,Dissolved	0.00178	J	0.00151	0.00500	1	04/25/2022 14:50	WG1850294
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/25/2022 14:50	WG1850294
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:50	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:50	WG1850294
Manganese,Dissolved	0.00112	B J	0.000704	0.00500	1	04/25/2022 14:50	WG1850294
Molybdenum,Dissolved	0.00213	J	0.000348	0.00500	1	04/25/2022 14:50	WG1850294
Nickel,Dissolved	0.00325		0.000816	0.00200	1	04/25/2022 14:50	WG1850294
Selenium,Dissolved	0.00191	J	0.000300	0.00200	1	04/25/2022 14:50	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:50	WG1850294
Uranium,Dissolved	0.00223	J	0.0000700	0.0200	1	04/25/2022 14:50	WG1850294
Zinc,Dissolved	0.00903	J	0.00302	0.0250	1	04/25/2022 14:50	WG1850294

MW-30
Collected date/time: 04/14/22 11:50
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 13:01	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 13:01	WG1849672
Bromodichloromethane	0.00652		0.000136	0.00100	1	04/17/2022 13:01	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 13:01	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 13:01	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 13:01	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 13:01	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 13:01	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 13:01	WG1849672
Carbon tetrachloride	0.000308	J	0.000128	0.00100	1	04/17/2022 13:01	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 13:01	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 13:01	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 13:01	WG1849672
Chloroform	0.0311		0.000111	0.00500	1	04/17/2022 13:01	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 13:01	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 13:01	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 13:01	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 13:01	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 13:01	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 13:01	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 13:01	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 13:01	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 13:01	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 13:01	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 13:01	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 13:01	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 13:01	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 13:01	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 13:01	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 13:01	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 13:01	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 13:01	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 13:01	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 13:01	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 13:01	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 13:01	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 13:01	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 13:01	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 13:01	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 13:01	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 13:01	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 13:01	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 13:01	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 13:01	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 13:01	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 13:01	WG1849672
(S) Toluene-d8	*110*			*80.0-120*		*04/17/2022 13:01*	WG1849672
(S) 4-Bromofluorobenzene	*94.2*			*77.0-126*		*04/17/2022 13:01*	WG1849672
(S) 1,2-Dichloroethane-d4	*82.6*			*70.0-130*		*04/17/2022 13:01*	WG1849672

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000930	0.00105	1.05	04/20/2022 18:48	WG1850890
Acenaphthylene	U		0.0000967	0.00105	1.05	04/20/2022 18:48	WG1850890
Acetophenone	U		0.000218	0.0105	1.05	04/20/2022 18:48	WG1850890
Anthracene	U		0.0000844	0.00105	1.05	04/20/2022 18:48	WG1850890
Atrazine	U		0.000268	0.0105	1.05	04/20/2022 18:48	WG1850890
Benzo(a)anthracene	U		0.000209	0.00105	1.05	04/20/2022 18:48	WG1850890
Benzaldehyde	U	J4	0.00177	0.0105	1.05	04/20/2022 18:48	WG1850890
Benzo(b)fluoranthene	U		0.000136	0.00105	1.05	04/20/2022 18:48	WG1850890
Benzo(k)fluoranthene	U		0.000126	0.00105	1.05	04/20/2022 18:48	WG1850890
Benzo(g,h,i)perylene	U		0.000127	0.00105	1.05	04/20/2022 18:48	WG1850890
Benzo(a)pyrene	U		0.0000400	0.000210	1.05	04/20/2022 18:48	WG1850890
Biphenyl	U		0.000829	0.0105	1.05	04/20/2022 18:48	WG1850890
Bis(2-chlorethoxy)methane	U		0.000122	0.0105	1.05	04/20/2022 18:48	WG1850890
Bis(2-chloroethyl)ether	U		0.000144	0.0105	1.05	04/20/2022 18:48	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000221	0.0105	1.05	04/20/2022 18:48	WG1850890
4-Bromophenyl-phenylether	U		0.0000921	0.0105	1.05	04/20/2022 18:48	WG1850890
2-Chloronaphthalene	U		0.0000680	0.00105	1.05	04/20/2022 18:48	WG1850890
4-Chlorophenyl-phenylether	U		0.0000972	0.0105	1.05	04/20/2022 18:48	WG1850890
Caprolactam	U		0.000324	0.0105	1.05	04/20/2022 18:48	WG1850890
Carbazole	U		0.000117	0.0105	1.05	04/20/2022 18:48	WG1850890
Chrysene	U		0.000136	0.00105	1.05	04/20/2022 18:48	WG1850890
Dibenz(a,h)anthracene	U		0.0000676	0.000210	1.05	04/20/2022 18:48	WG1850890
Dibenzofuran	U		0.000102	0.0105	1.05	04/20/2022 18:48	WG1850890
3,3-Dichlorobenzidine	U		0.000223	0.0105	1.05	04/20/2022 18:48	WG1850890
2,4-Dinitrotoluene	U		0.000103	0.0105	1.05	04/20/2022 18:48	WG1850890
2,6-Dinitrotoluene	U		0.000263	0.0105	1.05	04/20/2022 18:48	WG1850890
Fluoranthene	U		0.000107	0.00105	1.05	04/20/2022 18:48	WG1850890
Fluorene	U		0.0000886	0.00105	1.05	04/20/2022 18:48	WG1850890
Hexachlorobenzene	U		0.0000793	0.00105	1.05	04/20/2022 18:48	WG1850890
Hexachloro-1,3-butadiene	U		0.000102	0.0105	1.05	04/20/2022 18:48	WG1850890
Hexachlorocyclopentadiene	U		0.0000628	0.0105	1.05	04/20/2022 18:48	WG1850890
Hexachloroethane	U		0.000133	0.0105	1.05	04/20/2022 18:48	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000293	0.00105	1.05	04/20/2022 18:48	WG1850890
Isophorone	U		0.000150	0.0105	1.05	04/20/2022 18:48	WG1850890
1-Methylnaphthalene	U		0.0000829	0.00105	1.05	04/20/2022 18:48	WG1850890
2-Methylnaphthalene	U		0.000123	0.00105	1.05	04/20/2022 18:48	WG1850890
Naphthalene	U		0.000167	0.00105	1.05	04/20/2022 18:48	WG1850890
Nitrobenzene	U		0.000312	0.0105	1.05	04/20/2022 18:48	WG1850890
n-Nitrosodiphenylamine	U		0.00249	0.0105	1.05	04/20/2022 18:48	WG1850890
n-Nitrosodi-n-propylamine	U		0.000274	0.0105	1.05	04/20/2022 18:48	WG1850890
Phenanthrene	U		0.000118	0.00105	1.05	04/20/2022 18:48	WG1850890
Benzylbutyl phthalate	U		0.000803	0.00315	1.05	04/20/2022 18:48	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000940	0.00315	1.05	04/20/2022 18:48	WG1850890
Di-n-butyl phthalate	U		0.000476	0.00315	1.05	04/20/2022 18:48	WG1850890
Diethyl phthalate	U		0.000301	0.00315	1.05	04/20/2022 18:48	WG1850890
Dimethyl phthalate	U		0.000273	0.00315	1.05	04/20/2022 18:48	WG1850890
Di-n-octyl phthalate	U		0.000979	0.00315	1.05	04/20/2022 18:48	WG1850890
Pyrene	U		0.000112	0.00105	1.05	04/20/2022 18:48	WG1850890
1,2,4-Trichlorobenzene	U		0.0000733	0.0105	1.05	04/20/2022 18:48	WG1850890
4-Chloro-3-methylphenol	U		0.000138	0.0105	1.05	04/20/2022 18:48	WG1850890
2-Chlorophenol	U		0.000140	0.0105	1.05	04/20/2022 18:48	WG1850890
2,4-Dichlorophenol	U		0.000107	0.0105	1.05	04/20/2022 18:48	WG1850890
2,4-Dimethylphenol	U		0.0000668	0.0105	1.05	04/20/2022 18:48	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00118	0.0105	1.05	04/20/2022 18:48	WG1850890
2,4-Dinitrophenol	U		0.00623	0.0105	1.05	04/20/2022 18:48	WG1850890
2-Nitrophenol	U		0.000123	0.0105	1.05	04/20/2022 18:48	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Nitroaniline	U		0.000107	0.0105	1.05	04/20/2022 18:48	WG1850890
2-Methylphenol	U		0.0000975	0.0105	1.05	04/20/2022 18:48	WG1850890
3&4-Methyl Phenol	U		0.000176	0.0105	1.05	04/20/2022 18:48	WG1850890
3-Nitroaniline	U		0.0000912	0.0105	1.05	04/20/2022 18:48	WG1850890
4-Chloroaniline	U		0.000246	0.0105	1.05	04/20/2022 18:48	WG1850890
4-Nitroaniline	U		0.0000956	0.0105	1.05	04/20/2022 18:48	WG1850890
4-Nitrophenol	U		0.000150	0.0105	1.05	04/20/2022 18:48	WG1850890
Pentachlorophenol	U		0.000329	0.0105	1.05	04/20/2022 18:48	WG1850890
Phenol	U		0.00455	0.0105	1.05	04/20/2022 18:48	WG1850890
2,4,5-Trichlorophenol	U		0.000114	0.0105	1.05	04/20/2022 18:48	WG1850890
2,4,6-Trichlorophenol	U		0.000105	0.0105	1.05	04/20/2022 18:48	WG1850890
(S) 2-Fluorophenol	*34.8*			*10.0-120*		*04/20/2022 18:48*	WG1850890
(S) Phenol-d5	*20.6*			*10.0-120*		*04/20/2022 18:48*	WG1850890
(S) Nitrobenzene-d5	*70.7*			*10.0-127*		*04/20/2022 18:48*	WG1850890
(S) 2-Fluorobiphenyl	*66.6*			*10.0-130*		*04/20/2022 18:48*	WG1850890
(S) 2,4,6-Tribromophenol	*67.6*			*10.0-155*		*04/20/2022 18:48*	WG1850890
(S) p-Terphenyl-d14	*64.9*			*10.0-128*		*04/20/2022 18:48*	WG1850890

Sample Narrative:

L1482976-12 WG1850890: Dilution due to sample volume.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	586		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	192		8.45	20.0	1	04/17/2022 10:40	WG1849721

Sample Narrative:

L1482976-13 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.93		0.0500	0.100	1	04/21/2022 18:33	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	128		1.90	5.00	5	04/19/2022 08:16	WG1850483
Fluoride	0.836		0.0640	0.150	1	04/19/2022 08:00	WG1850483
Sulfate	79.8		0.594	5.00	1	04/19/2022 08:00	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:16	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.143	J	0.0200	0.200	1	04/27/2022 04:20	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/25/2022 14:54	WG1850294
Arsenic,Dissolved	0.00555		0.000180	0.00200	1	04/25/2022 14:54	WG1850294
Barium,Dissolved	0.118		0.000381	0.00200	1	04/25/2022 14:54	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:54	WG1850294
Chromium,Dissolved	0.00284		0.00124	0.00200	1	04/25/2022 14:54	WG1850294
Copper,Dissolved	0.00334	J	0.00151	0.00500	1	04/25/2022 14:54	WG1850294
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/25/2022 14:54	WG1850294
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:54	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:54	WG1850294
Manganese,Dissolved	U		0.000704	0.00500	1	04/25/2022 14:54	WG1850294
Molybdenum,Dissolved	0.00281	J	0.000348	0.00500	1	04/25/2022 14:54	WG1850294
Nickel,Dissolved	0.000873	J	0.000816	0.00200	1	04/25/2022 14:54	WG1850294
Selenium,Dissolved	0.00392		0.000300	0.00200	1	04/25/2022 14:54	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:54	WG1850294
Uranium,Dissolved	0.00183	J	0.0000700	0.0200	1	04/25/2022 14:54	WG1850294
Zinc,Dissolved	0.00638	J	0.00302	0.0250	1	04/25/2022 14:54	WG1850294

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2022 10:59	WG1850529
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*78.0-120*		*04/19/2022 10:59*	WG1850529

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	04/17/2022 13:22	WG1849672
Benzene	U		0.0000941	0.00100	1	04/17/2022 13:22	WG1849672
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 13:22	WG1849672
Bromoform	U		0.000129	0.00100	1	04/17/2022 13:22	WG1849672
Bromomethane	U		0.000605	0.00500	1	04/17/2022 13:22	WG1849672
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 13:22	WG1849672
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 13:22	WG1849672
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 13:22	WG1849672
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 13:22	WG1849672
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 13:22	WG1849672
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 13:22	WG1849672
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 13:22	WG1849672
Chloroethane	U		0.000192	0.00500	1	04/17/2022 13:22	WG1849672
Chloroform	U		0.000111	0.00500	1	04/17/2022 13:22	WG1849672
Chloromethane	U		0.000960	0.00250	1	04/17/2022 13:22	WG1849672
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 13:22	WG1849672
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 13:22	WG1849672
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 13:22	WG1849672
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 13:22	WG1849672
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 13:22	WG1849672
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 13:22	WG1849672
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 13:22	WG1849672
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 13:22	WG1849672
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 13:22	WG1849672
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 13:22	WG1849672
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 13:22	WG1849672
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 13:22	WG1849672
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 13:22	WG1849672
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 13:22	WG1849672
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 13:22	WG1849672
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 13:22	WG1849672
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 13:22	WG1849672
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 13:22	WG1849672
Naphthalene	U		0.00100	0.00500	1	04/17/2022 13:22	WG1849672
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 13:22	WG1849672
Styrene	U		0.000118	0.00100	1	04/17/2022 13:22	WG1849672
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 13:22	WG1849672
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 13:22	WG1849672
Toluene	U		0.000278	0.00100	1	04/17/2022 13:22	WG1849672
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 13:22	WG1849672
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 13:22	WG1849672
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 13:22	WG1849672
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 13:22	WG1849672
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 13:22	WG1849672
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 13:22	WG1849672
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 13:22	WG1849672
(S) Toluene-d8	*109*			*80.0-120*		*04/17/2022 13:22*	WG1849672
(S) 4-Bromofluorobenzene	*97.0*			*77.0-126*		*04/17/2022 13:22*	WG1849672
(S) 1,2-Dichloroethane-d4	*84.3*			*70.0-130*		*04/17/2022 13:22*	WG1849672

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0366	J	0.0247	0.100	1	04/27/2022 15:48	WG1854507
(S) o-Terphenyl	*98.9*			*31.0-160*		*04/27/2022 15:48*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 19:10	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 19:10	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 19:10	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 19:10	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 19:10	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 19:10	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 19:10	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 19:10	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 19:10	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 19:10	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 19:10	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 19:10	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 19:10	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 19:10	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 19:10	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 19:10	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 19:10	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 19:10	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 19:10	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 19:10	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 19:10	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 19:10	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 19:10	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 19:10	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 19:10	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 19:10	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 19:10	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 19:10	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 19:10	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 19:10	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 19:10	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 19:10	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 19:10	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 19:10	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 19:10	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 19:10	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 19:10	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 19:10	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 19:10	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 19:10	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 19:10	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 19:10	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 19:10	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 19:10	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 19:10	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 19:10	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 19:10	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 19:10	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 19:10	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 19:10	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 19:10	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 19:10	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 19:10	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 19:10	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 19:10	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 19:10	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 19:10	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 19:10	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 19:10	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 19:10	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 19:10	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 19:10	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 19:10	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 19:10	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 19:10	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 19:10	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 19:10	WG1850890
(S) 2-Fluorophenol	*29.3*			*10.0-120*		*04/20/2022 19:10*	WG1850890
(S) Phenol-d5	*17.8*			*10.0-120*		*04/20/2022 19:10*	WG1850890
(S) Nitrobenzene-d5	*75.2*			*10.0-127*		*04/20/2022 19:10*	WG1850890
(S) 2-Fluorobiphenyl	*69.5*			*10.0-130*		*04/20/2022 19:10*	WG1850890
(S) 2,4,6-Tribromophenol	*65.9*			*10.0-155*		*04/20/2022 19:10*	WG1850890
(S) p-Terphenyl-d14	*67.6*			*10.0-128*		*04/20/2022 19:10*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	960		20.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	189		8.45	20.0	1	04/17/2022 10:44	WG1849721

Sample Narrative:

L1482976-14 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.05		0.0500	0.100	1	04/21/2022 18:35	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	318		1.90	5.00	5	04/19/2022 08:46	WG1850483
Fluoride	0.695		0.0640	0.150	1	04/19/2022 08:31	WG1850483
Sulfate	91.2		0.594	5.00	1	04/19/2022 08:31	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:18	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.179	J	0.0200	0.200	1	04/27/2022 04:28	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0370	J	0.0185	0.100	1	04/25/2022 14:57	WG1850294
Arsenic,Dissolved	0.00471		0.000180	0.00200	1	04/25/2022 14:57	WG1850294
Barium,Dissolved	0.119		0.000381	0.00200	1	04/25/2022 14:57	WG1850294
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:57	WG1850294
Chromium,Dissolved	0.00217		0.00124	0.00200	1	04/25/2022 14:57	WG1850294
Copper,Dissolved	0.00206	J	0.00151	0.00500	1	04/25/2022 14:57	WG1850294
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/25/2022 14:57	WG1850294
Iron,Dissolved	0.0526	J	0.0281	0.100	1	04/25/2022 14:57	WG1850294
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:57	WG1850294
Manganese,Dissolved	0.00182	B J	0.000704	0.00500	1	04/25/2022 14:57	WG1850294
Molybdenum,Dissolved	0.00223	J	0.000348	0.00500	1	04/25/2022 14:57	WG1850294
Nickel,Dissolved	U		0.000816	0.00200	1	04/25/2022 14:57	WG1850294
Selenium,Dissolved	0.00359		0.000300	0.00200	1	04/25/2022 14:57	WG1850294
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:57	WG1850294
Uranium,Dissolved	0.00226	J	0.0000700	0.0200	1	04/25/2022 14:57	WG1850294
Zinc,Dissolved	0.0226	J	0.00302	0.0250	1	04/25/2022 14:57	WG1850294

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2022 11:21	WG1850529
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*78.0-120*		*04/19/2022 11:21*	WG1850529

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/17/2022 01:48	WG1849677
Benzene	0.000255	J	0.0000941	0.00100	1	04/17/2022 01:48	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 01:48	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 01:48	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 01:48	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 01:48	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 01:48	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 01:48	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 01:48	WG1849677
Carbon tetrachloride	0.000610	J	0.000128	0.00100	1	04/17/2022 01:48	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 01:48	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 01:48	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 01:48	WG1849677
Chloroform	0.00106	J	0.000111	0.00500	1	04/17/2022 01:48	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 01:48	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 01:48	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 01:48	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 01:48	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 01:48	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 01:48	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 01:48	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 01:48	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 01:48	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 01:48	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 01:48	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 01:48	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 01:48	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 01:48	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 01:48	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 01:48	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 01:48	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 01:48	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 01:48	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 01:48	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 01:48	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 01:48	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 01:48	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 01:48	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 01:48	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 01:48	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 01:48	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 01:48	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 01:48	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 01:48	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 01:48	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 01:48	WG1849677
(S) Toluene-d8	*101*			*80.0-120*		*04/17/2022 01:48*	WG1849677
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*04/17/2022 01:48*	WG1849677
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/17/2022 01:48*	WG1849677

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0647	J	0.0247	0.100	1	04/27/2022 16:14	WG1854507
(S) o-Terphenyl	*101*			*31.0-160*		*04/27/2022 16:14*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 19:31	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 19:31	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 19:31	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 19:31	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 19:31	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 19:31	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 19:31	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 19:31	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 19:31	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 19:31	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 19:31	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 19:31	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 19:31	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 19:31	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 19:31	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 19:31	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 19:31	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 19:31	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 19:31	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 19:31	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 19:31	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 19:31	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 19:31	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 19:31	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 19:31	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 19:31	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 19:31	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 19:31	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 19:31	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 19:31	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 19:31	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 19:31	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 19:31	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 19:31	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 19:31	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 19:31	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 19:31	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 19:31	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 19:31	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 19:31	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 19:31	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 19:31	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 19:31	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 19:31	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 19:31	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 19:31	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 19:31	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 19:31	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 19:31	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 19:31	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 19:31	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 19:31	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 19:31	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 19:31	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 19:31	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 19:31	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 19:31	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 19:31	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 19:31	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 19:31	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 19:31	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 19:31	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 19:31	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 19:31	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 19:31	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 19:31	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 19:31	WG1850890
(S) 2-Fluorophenol	*26.5*			*10.0-120*		*04/20/2022 19:31*	WG1850890
(S) Phenol-d5	*17.5*			*10.0-120*		*04/20/2022 19:31*	WG1850890
(S) Nitrobenzene-d5	*67.9*			*10.0-127*		*04/20/2022 19:31*	WG1850890
(S) 2-Fluorobiphenyl	*63.7*			*10.0-130*		*04/20/2022 19:31*	WG1850890
(S) 2,4,6-Tribromophenol	*57.7*			*10.0-155*		*04/20/2022 19:31*	WG1850890
(S) p-Terphenyl-d14	*64.1*			*10.0-128*		*04/20/2022 19:31*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	540		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	179		8.45	20.0	1	04/17/2022 10:47	WG1849721

Sample Narrative:

L1482976-15 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.87		0.0500	0.100	1	04/21/2022 18:36	WG1851910

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	112		1.90	5.00	5	04/19/2022 09:17	WG1850483
Fluoride	0.949		0.0640	0.150	1	04/19/2022 09:02	WG1850483
Sulfate	85.4		0.594	5.00	1	04/19/2022 09:02	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:20	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.142	J	0.0200	0.200	1	04/27/2022 04:31	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/26/2022 01:15	WG1850297
Arsenic,Dissolved	0.00578		0.000180	0.00200	1	04/26/2022 01:15	WG1850297
Barium,Dissolved	0.0938		0.000381	0.00200	1	04/26/2022 01:15	WG1850297
Cadmium,Dissolved	0.000301	J	0.000150	0.00100	1	04/26/2022 01:15	WG1850297
Chromium,Dissolved	0.00394		0.00124	0.00200	1	04/26/2022 01:15	WG1850297
Copper,Dissolved	0.00253	J	0.00151	0.00500	1	04/26/2022 01:15	WG1850297
Cobalt,Dissolved	0.000137	J	0.0000596	0.00200	1	04/26/2022 01:15	WG1850297
Iron,Dissolved	0.0601	J	0.0281	0.100	1	04/26/2022 01:15	WG1850297
Lead,Dissolved	0.00281		0.000849	0.00200	1	04/26/2022 01:15	WG1850297
Manganese,Dissolved	0.00553		0.000704	0.00500	1	04/26/2022 01:15	WG1850297
Molybdenum,Dissolved	0.00295	J	0.000348	0.00500	1	04/26/2022 01:15	WG1850297
Nickel,Dissolved	0.00126	J	0.000816	0.00200	1	04/26/2022 01:15	WG1850297
Selenium,Dissolved	0.0197		0.000300	0.00200	1	04/26/2022 01:15	WG1850297
Silver,Dissolved	U		0.0000700	0.00200	1	04/26/2022 01:15	WG1850297
Uranium,Dissolved	0.00186	J	0.0000700	0.0200	1	04/26/2022 01:15	WG1850297
Zinc,Dissolved	0.0149	J	0.00302	0.0250	1	04/26/2022 01:15	WG1850297

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2022 11:42	WG1850529
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*		*04/19/2022 11:42*	WG1850529

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/17/2022 02:09	WG1849677
Benzene	U		0.0000941	0.00100	1	04/17/2022 02:09	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 02:09	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 02:09	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 02:09	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 02:09	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 02:09	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 02:09	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 02:09	WG1849677
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 02:09	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 02:09	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 02:09	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 02:09	WG1849677
Chloroform	U		0.000111	0.00500	1	04/17/2022 02:09	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 02:09	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 02:09	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 02:09	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 02:09	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 02:09	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 02:09	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 02:09	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 02:09	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 02:09	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 02:09	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 02:09	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 02:09	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 02:09	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 02:09	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 02:09	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 02:09	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 02:09	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 02:09	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 02:09	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 02:09	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 02:09	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 02:09	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 02:09	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 02:09	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 02:09	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 02:09	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 02:09	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 02:09	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 02:09	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 02:09	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 02:09	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 02:09	WG1849677
(S) Toluene-d8	*96.4*			*80.0-120*		*04/17/2022 02:09*	WG1849677
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*04/17/2022 02:09*	WG1849677
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*04/17/2022 02:09*	WG1849677

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0480	J	0.0247	0.100	1	04/27/2022 16:40	WG1854507
(S) o-Terphenyl	*100*			*31.0-160*		*04/27/2022 16:40*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 19:52	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 19:52	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 19:52	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 19:52	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 19:52	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 19:52	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 19:52	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 19:52	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 19:52	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 19:52	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 19:52	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 19:52	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 19:52	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 19:52	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 19:52	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 19:52	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 19:52	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 19:52	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 19:52	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 19:52	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 19:52	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 19:52	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 19:52	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 19:52	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 19:52	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 19:52	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 19:52	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 19:52	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 19:52	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 19:52	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 19:52	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 19:52	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 19:52	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 19:52	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 19:52	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 19:52	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 19:52	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 19:52	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 19:52	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 19:52	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 19:52	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 19:52	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 19:52	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 19:52	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 19:52	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 19:52	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 19:52	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 19:52	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 19:52	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 19:52	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 19:52	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 19:52	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 19:52	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 19:52	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 19:52	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 19:52	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 19:52	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 19:52	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 19:52	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 19:52	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 19:52	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 19:52	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 19:52	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 19:52	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 19:52	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 19:52	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 19:52	WG1850890
(S) 2-Fluorophenol	*23.4*			*10.0-120*		*04/20/2022 19:52*	WG1850890
(S) Phenol-d5	*15.4*			*10.0-120*		*04/20/2022 19:52*	WG1850890
(S) Nitrobenzene-d5	*62.0*			*10.0-127*		*04/20/2022 19:52*	WG1850890
(S) 2-Fluorobiphenyl	*60.0*			*10.0-130*		*04/20/2022 19:52*	WG1850890
(S) 2,4,6-Tribromophenol	*56.0*			*10.0-155*		*04/20/2022 19:52*	WG1850890
(S) p-Terphenyl-d14	*62.7*			*10.0-128*		*04/20/2022 19:52*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	924		20.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	184		8.45	20.0	1	04/17/2022 10:51	WG1849721

Sample Narrative:

L1482976-16 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.91		0.0500	0.100	1	04/21/2022 21:44	WG1851912

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	317		1.90	5.00	5	04/19/2022 09:48	WG1850483
Fluoride	0.693		0.0640	0.150	1	04/19/2022 09:33	WG1850483
Sulfate	91.2		0.594	5.00	1	04/19/2022 09:33	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:22	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.178	J	0.0200	0.200	1	04/27/2022 04:34	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0244	J	0.0185	0.100	1	04/26/2022 01:18	WG1850297
Arsenic,Dissolved	0.00539		0.000180	0.00200	1	04/26/2022 01:18	WG1850297
Barium,Dissolved	0.118		0.000381	0.00200	1	04/26/2022 01:18	WG1850297
Cadmium,Dissolved	0.000322	J	0.000150	0.00100	1	04/26/2022 01:18	WG1850297
Chromium,Dissolved	0.00172	J	0.00124	0.00200	1	04/26/2022 01:18	WG1850297
Copper,Dissolved	0.00262	J	0.00151	0.00500	1	04/26/2022 01:18	WG1850297
Cobalt,Dissolved	0.000109	J	0.0000596	0.00200	1	04/26/2022 01:18	WG1850297
Iron,Dissolved	0.0819	J	0.0281	0.100	1	04/26/2022 01:18	WG1850297
Lead,Dissolved	U		0.000849	0.00200	1	04/26/2022 01:18	WG1850297
Manganese,Dissolved	0.00262	J	0.000704	0.00500	1	04/26/2022 01:18	WG1850297
Molybdenum,Dissolved	0.00232	J	0.000348	0.00500	1	04/26/2022 01:18	WG1850297
Nickel,Dissolved	0.00118	J	0.000816	0.00200	1	04/26/2022 01:18	WG1850297
Selenium,Dissolved	0.00496		0.000300	0.00200	1	04/26/2022 01:18	WG1850297
Silver,Dissolved	U		0.0000700	0.00200	1	04/26/2022 01:18	WG1850297
Uranium,Dissolved	0.00206	J	0.0000700	0.0200	1	04/26/2022 01:18	WG1850297
Zinc,Dissolved	0.0254		0.00302	0.0250	1	04/26/2022 01:18	WG1850297

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2022 12:04	WG1850529
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*78.0-120*		*04/19/2022 12:04*	WG1850529

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/17/2022 02:31	WG1849677
Benzene	0.000260	J	0.0000941	0.00100	1	04/17/2022 02:31	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 02:31	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 02:31	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 02:31	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 02:31	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 02:31	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 02:31	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 02:31	WG1849677
Carbon tetrachloride	0.000633	J	0.000128	0.00100	1	04/17/2022 02:31	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 02:31	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 02:31	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 02:31	WG1849677
Chloroform	0.00103	J	0.000111	0.00500	1	04/17/2022 02:31	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 02:31	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 02:31	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 02:31	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 02:31	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 02:31	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 02:31	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 02:31	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 02:31	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 02:31	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 02:31	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 02:31	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 02:31	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 02:31	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 02:31	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 02:31	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 02:31	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 02:31	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 02:31	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 02:31	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 02:31	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 02:31	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 02:31	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 02:31	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 02:31	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 02:31	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 02:31	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 02:31	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 02:31	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 02:31	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 02:31	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 02:31	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 02:31	WG1849677
(S) Toluene-d8	*102*			*80.0-120*		*04/17/2022 02:31*	WG1849677
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*04/17/2022 02:31*	WG1849677
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/17/2022 02:31*	WG1849677

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0803	J	0.0247	0.100	1	04/27/2022 17:06	WG1854507
(S) o-Terphenyl	*104*			*31.0-160*		*04/27/2022 17:06*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 20:13	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 20:13	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 20:13	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 20:13	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 20:13	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 20:13	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 20:13	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 20:13	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 20:13	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 20:13	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 20:13	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 20:13	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 20:13	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 20:13	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 20:13	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 20:13	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 20:13	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 20:13	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 20:13	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 20:13	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 20:13	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 20:13	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 20:13	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 20:13	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 20:13	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 20:13	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 20:13	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 20:13	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 20:13	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 20:13	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 20:13	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 20:13	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 20:13	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 20:13	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 20:13	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 20:13	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 20:13	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 20:13	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 20:13	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 20:13	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 20:13	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 20:13	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 20:13	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 20:13	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 20:13	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 20:13	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 20:13	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 20:13	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 20:13	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 20:13	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 20:13	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 20:13	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 20:13	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 20:13	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 20:13	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 20:13	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 20:13	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 20:13	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 20:13	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 20:13	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 20:13	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 20:13	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 20:13	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 20:13	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 20:13	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 20:13	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 20:13	WG1850890
(S) 2-Fluorophenol	*26.7*			*10.0-120*		*04/20/2022 20:13*	WG1850890
(S) Phenol-d5	*17.7*			*10.0-120*		*04/20/2022 20:13*	WG1850890
(S) Nitrobenzene-d5	*72.6*			*10.0-127*		*04/20/2022 20:13*	WG1850890
(S) 2-Fluorobiphenyl	*68.8*			*10.0-130*		*04/20/2022 20:13*	WG1850890
(S) 2,4,6-Tribromophenol	*62.6*			*10.0-155*		*04/20/2022 20:13*	WG1850890
(S) p-Terphenyl-d14	*65.7*			*10.0-128*		*04/20/2022 20:13*	WG1850890

LB-01
Collected date/time: 04/14/22 13:00
L1482976

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	U		8.45	20.0	1	04/17/2022 11:03	WG1849721

Sample Narrative:
L1482976-17 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	04/21/2022 21:45	WG1851912

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	04/19/2022 10:03	WG1850483
Fluoride	U		0.0640	0.150	1	04/19/2022 10:03	WG1850483
Sulfate	U		0.594	5.00	1	04/19/2022 10:03	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:29	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	U		0.0200	0.200	1	04/27/2022 04:37	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/26/2022 01:21	WG1850297
Arsenic,Dissolved	U		0.000180	0.00200	1	04/26/2022 01:21	WG1850297
Barium,Dissolved	U		0.000381	0.00200	1	04/26/2022 01:21	WG1850297
Cadmium,Dissolved	U		0.000150	0.00100	1	04/26/2022 01:21	WG1850297
Chromium,Dissolved	U		0.00124	0.00200	1	04/26/2022 01:21	WG1850297
Copper,Dissolved	U		0.00151	0.00500	1	04/26/2022 01:21	WG1850297
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/26/2022 01:21	WG1850297
Iron,Dissolved	U		0.0281	0.100	1	04/26/2022 01:21	WG1850297
Lead,Dissolved	U		0.000849	0.00200	1	04/26/2022 01:21	WG1850297
Manganese,Dissolved	U		0.000704	0.00500	1	04/26/2022 01:21	WG1850297
Molybdenum,Dissolved	U		0.000348	0.00500	1	04/26/2022 01:21	WG1850297
Nickel,Dissolved	U		0.000816	0.00200	1	04/26/2022 01:21	WG1850297
Selenium,Dissolved	0.000537	J	0.000300	0.00200	1	04/26/2022 01:21	WG1850297
Silver,Dissolved	U		0.0000700	0.00200	1	04/26/2022 01:21	WG1850297
Uranium,Dissolved	U		0.0000700	0.0200	1	04/26/2022 01:21	WG1850297
Zinc,Dissolved	U		0.00302	0.0250	1	04/26/2022 01:21	WG1850297

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2022 09:28	WG1850529
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*78.0-120*		*04/19/2022 09:28*	WG1850529

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/17/2022 01:06	WG1849677
Benzene	U		0.0000941	0.00100	1	04/17/2022 01:06	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 01:06	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 01:06	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 01:06	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 01:06	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 01:06	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 01:06	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 01:06	WG1849677
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 01:06	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 01:06	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 01:06	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 01:06	WG1849677
Chloroform	U		0.000111	0.00500	1	04/17/2022 01:06	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 01:06	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 01:06	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 01:06	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 01:06	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 01:06	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 01:06	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 01:06	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 01:06	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 01:06	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 01:06	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 01:06	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 01:06	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 01:06	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 01:06	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 01:06	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 01:06	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 01:06	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 01:06	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 01:06	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 01:06	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 01:06	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 01:06	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 01:06	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 01:06	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 01:06	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 01:06	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 01:06	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 01:06	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 01:06	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 01:06	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 01:06	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 01:06	WG1849677
(S) Toluene-d8	*97.9*			*80.0-120*		*04/17/2022 01:06*	WG1849677
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*04/17/2022 01:06*	WG1849677
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/17/2022 01:06*	WG1849677

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0526	J	0.0247	0.100	1	04/27/2022 17:31	WG1854507
(S) o-Terphenyl	*106*			*31.0-160*		*04/27/2022 17:31*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 20:35	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 20:35	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 20:35	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 20:35	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 20:35	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 20:35	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 20:35	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 20:35	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 20:35	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 20:35	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 20:35	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 20:35	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 20:35	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 20:35	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 20:35	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 20:35	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 20:35	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 20:35	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 20:35	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 20:35	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 20:35	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 20:35	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 20:35	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 20:35	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 20:35	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 20:35	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 20:35	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 20:35	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 20:35	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 20:35	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 20:35	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 20:35	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 20:35	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 20:35	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 20:35	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 20:35	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 20:35	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 20:35	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 20:35	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 20:35	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 20:35	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 20:35	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 20:35	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 20:35	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 20:35	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 20:35	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 20:35	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 20:35	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 20:35	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 20:35	WG1850890

LB-01
Collected date/time: 04/14/22 13:00
L1482976

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 20:35	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 20:35	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 20:35	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 20:35	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 20:35	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 20:35	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 20:35	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 20:35	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 20:35	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 20:35	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 20:35	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 20:35	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 20:35	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 20:35	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 20:35	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 20:35	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 20:35	WG1850890
(S) 2-Fluorophenol	*25.7*			*10.0-120*		*04/20/2022 20:35*	WG1850890
(S) Phenol-d5	*17.3*			*10.0-120*		*04/20/2022 20:35*	WG1850890
(S) Nitrobenzene-d5	*76.2*			*10.0-127*		*04/20/2022 20:35*	WG1850890
(S) 2-Fluorobiphenyl	*71.4*			*10.0-130*		*04/20/2022 20:35*	WG1850890
(S) 2,4,6-Tribromophenol	*57.1*			*10.0-155*		*04/20/2022 20:35*	WG1850890
(S) p-Terphenyl-d14	*67.8*			*10.0-128*		*04/20/2022 20:35*	WG1850890

LB-02
Collected date/time: 04/14/22 12:10
L1482976

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	04/17/2022 04:51	WG1849696

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	U		8.45	20.0	1	04/17/2022 11:10	WG1849721

Sample Narrative:
L1482976-18 WG1849721: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	04/21/2022 21:50	WG1851912

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	04/19/2022 19:13	WG1850483
Fluoride	U		0.0640	0.150	1	04/19/2022 19:13	WG1850483
Sulfate	U		0.594	5.00	1	04/19/2022 19:13	WG1850483

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	04/28/2022 11:31	WG1850019

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	U		0.0200	0.200	1	04/27/2022 04:40	WG1851302

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/26/2022 01:25	WG1850297
Arsenic,Dissolved	U		0.000180	0.00200	1	04/26/2022 01:25	WG1850297
Barium,Dissolved	0.000393	B J	0.000381	0.00200	1	04/26/2022 01:25	WG1850297
Cadmium,Dissolved	U		0.000150	0.00100	1	04/26/2022 01:25	WG1850297
Chromium,Dissolved	U		0.00124	0.00200	1	04/26/2022 01:25	WG1850297
Copper,Dissolved	U		0.00151	0.00500	1	04/26/2022 01:25	WG1850297
Cobalt,Dissolved	U		0.0000596	0.00200	1	04/26/2022 01:25	WG1850297
Iron,Dissolved	U		0.0281	0.100	1	04/26/2022 01:25	WG1850297
Lead,Dissolved	U		0.000849	0.00200	1	04/26/2022 01:25	WG1850297
Manganese,Dissolved	U		0.000704	0.00500	1	04/26/2022 01:25	WG1850297
Molybdenum,Dissolved	U		0.000348	0.00500	1	04/26/2022 01:25	WG1850297
Nickel,Dissolved	U		0.000816	0.00200	1	04/26/2022 01:25	WG1850297
Selenium,Dissolved	0.000458	J	0.000300	0.00200	1	04/26/2022 01:25	WG1850297
Silver,Dissolved	U		0.0000700	0.00200	1	04/26/2022 01:25	WG1850297
Uranium,Dissolved	U		0.0000700	0.0200	1	04/26/2022 01:25	WG1850297
Zinc,Dissolved	U		0.00302	0.0250	1	04/26/2022 01:25	WG1850297

LB-02
Collected date/time: 04/14/22 12:10
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	04/17/2022 01:27	WG1849677
Benzene	U		0.0000941	0.00100	1	04/17/2022 01:27	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 01:27	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 01:27	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 01:27	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 01:27	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 01:27	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 01:27	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 01:27	WG1849677
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 01:27	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 01:27	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 01:27	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 01:27	WG1849677
Chloroform	U		0.000111	0.00500	1	04/17/2022 01:27	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 01:27	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 01:27	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 01:27	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 01:27	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 01:27	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 01:27	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 01:27	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 01:27	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 01:27	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 01:27	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 01:27	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 01:27	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 01:27	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 01:27	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 01:27	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 01:27	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 01:27	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 01:27	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 01:27	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 01:27	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 01:27	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 01:27	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 01:27	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 01:27	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 01:27	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 01:27	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 01:27	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 01:27	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 01:27	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 01:27	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 01:27	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 01:27	WG1849677
(S) Toluene-d8	*104*			*80.0-120*		*04/17/2022 01:27*	WG1849677
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*04/17/2022 01:27*	WG1849677
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*04/17/2022 01:27*	WG1849677

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000983	0.00111	1.11	04/20/2022 20:56	WG1850890
Acenaphthylene	U		0.000102	0.00111	1.11	04/20/2022 20:56	WG1850890
Acetophenone	U		0.000231	0.0111	1.11	04/20/2022 20:56	WG1850890
Anthracene	U		0.0000892	0.00111	1.11	04/20/2022 20:56	WG1850890
Atrazine	U		0.000283	0.0111	1.11	04/20/2022 20:56	WG1850890
Benzo(a)anthracene	U		0.000221	0.00111	1.11	04/20/2022 20:56	WG1850890
Benzaldehyde	U	J4	0.00188	0.0111	1.11	04/20/2022 20:56	WG1850890
Benzo(b)fluoranthene	U		0.000144	0.00111	1.11	04/20/2022 20:56	WG1850890
Benzo(k)fluoranthene	U		0.000133	0.00111	1.11	04/20/2022 20:56	WG1850890
Benzo(g,h,i)perylene	U		0.000134	0.00111	1.11	04/20/2022 20:56	WG1850890
Benzo(a)pyrene	U		0.0000423	0.000222	1.11	04/20/2022 20:56	WG1850890
Biphenyl	U		0.000877	0.0111	1.11	04/20/2022 20:56	WG1850890
Bis(2-chlorethoxy)methane	U		0.000129	0.0111	1.11	04/20/2022 20:56	WG1850890
Bis(2-chloroethyl)ether	U		0.000152	0.0111	1.11	04/20/2022 20:56	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000233	0.0111	1.11	04/20/2022 20:56	WG1850890
4-Bromophenyl-phenylether	U		0.0000973	0.0111	1.11	04/20/2022 20:56	WG1850890
2-Chloronaphthalene	U		0.0000719	0.00111	1.11	04/20/2022 20:56	WG1850890
4-Chlorophenyl-phenylether	U		0.000103	0.0111	1.11	04/20/2022 20:56	WG1850890
Caprolactam	U		0.000343	0.0111	1.11	04/20/2022 20:56	WG1850890
Carbazole	U		0.000123	0.0111	1.11	04/20/2022 20:56	WG1850890
Chrysene	U		0.000144	0.00111	1.11	04/20/2022 20:56	WG1850890
Dibenz(a,h)anthracene	U		0.0000715	0.000222	1.11	04/20/2022 20:56	WG1850890
Dibenzofuran	U		0.000108	0.0111	1.11	04/20/2022 20:56	WG1850890
3,3-Dichlorobenzidine	U		0.000235	0.0111	1.11	04/20/2022 20:56	WG1850890
2,4-Dinitrotoluene	U		0.000109	0.0111	1.11	04/20/2022 20:56	WG1850890
2,6-Dinitrotoluene	U		0.000278	0.0111	1.11	04/20/2022 20:56	WG1850890
Fluoranthene	U		0.000113	0.00111	1.11	04/20/2022 20:56	WG1850890
Fluorene	U		0.0000937	0.00111	1.11	04/20/2022 20:56	WG1850890
Hexachlorobenzene	U		0.0000838	0.00111	1.11	04/20/2022 20:56	WG1850890
Hexachloro-1,3-butadiene	U		0.000107	0.0111	1.11	04/20/2022 20:56	WG1850890
Hexachlorocyclopentadiene	U		0.0000664	0.0111	1.11	04/20/2022 20:56	WG1850890
Hexachloroethane	U		0.000141	0.0111	1.11	04/20/2022 20:56	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000310	0.00111	1.11	04/20/2022 20:56	WG1850890
Isophorone	U		0.000159	0.0111	1.11	04/20/2022 20:56	WG1850890
1-Methylnaphthalene	U		0.0000877	0.00111	1.11	04/20/2022 20:56	WG1850890
2-Methylnaphthalene	U		0.000130	0.00111	1.11	04/20/2022 20:56	WG1850890
Naphthalene	U		0.000176	0.00111	1.11	04/20/2022 20:56	WG1850890
Nitrobenzene	U		0.000330	0.0111	1.11	04/20/2022 20:56	WG1850890
n-Nitrosodiphenylamine	U		0.00263	0.0111	1.11	04/20/2022 20:56	WG1850890
n-Nitrosodi-n-propylamine	U		0.000290	0.0111	1.11	04/20/2022 20:56	WG1850890
Phenanthrene	U		0.000124	0.00111	1.11	04/20/2022 20:56	WG1850890
Benzylbutyl phthalate	U		0.000849	0.00333	1.11	04/20/2022 20:56	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000993	0.00333	1.11	04/20/2022 20:56	WG1850890
Di-n-butyl phthalate	U		0.000503	0.00333	1.11	04/20/2022 20:56	WG1850890
Diethyl phthalate	U		0.000319	0.00333	1.11	04/20/2022 20:56	WG1850890
Dimethyl phthalate	U		0.000289	0.00333	1.11	04/20/2022 20:56	WG1850890
Di-n-octyl phthalate	U		0.00103	0.00333	1.11	04/20/2022 20:56	WG1850890
Pyrene	U		0.000119	0.00111	1.11	04/20/2022 20:56	WG1850890
1,2,4-Trichlorobenzene	U		0.0000775	0.0111	1.11	04/20/2022 20:56	WG1850890
4-Chloro-3-methylphenol	U		0.000145	0.0111	1.11	04/20/2022 20:56	WG1850890
2-Chlorophenol	U		0.000148	0.0111	1.11	04/20/2022 20:56	WG1850890
2,4-Dichlorophenol	U		0.000113	0.0111	1.11	04/20/2022 20:56	WG1850890
2,4-Dimethylphenol	U		0.0000706	0.0111	1.11	04/20/2022 20:56	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00124	0.0111	1.11	04/20/2022 20:56	WG1850890
2,4-Dinitrophenol	U		0.00658	0.0111	1.11	04/20/2022 20:56	WG1850890
2-Nitrophenol	U		0.000130	0.0111	1.11	04/20/2022 20:56	WG1850890

LB-02
Collected date/time: 04/14/22 12:10
L1482976

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Nitroaniline	U		0.000113	0.0111	1.11	04/20/2022 20:56	WG1850890
2-Methylphenol	U		0.000103	0.0111	1.11	04/20/2022 20:56	WG1850890
3&4-Methyl Phenol	U		0.000186	0.0111	1.11	04/20/2022 20:56	WG1850890
3-Nitroaniline	U		0.0000965	0.0111	1.11	04/20/2022 20:56	WG1850890
4-Chloroaniline	U		0.000260	0.0111	1.11	04/20/2022 20:56	WG1850890
4-Nitroaniline	U		0.000101	0.0111	1.11	04/20/2022 20:56	WG1850890
4-Nitrophenol	U		0.000159	0.0111	1.11	04/20/2022 20:56	WG1850890
Pentachlorophenol	U		0.000347	0.0111	1.11	04/20/2022 20:56	WG1850890
Phenol	U		0.00481	0.0111	1.11	04/20/2022 20:56	WG1850890
2,4,5-Trichlorophenol	U		0.000121	0.0111	1.11	04/20/2022 20:56	WG1850890
2,4,6-Trichlorophenol	U		0.000111	0.0111	1.11	04/20/2022 20:56	WG1850890
(S) 2-Fluorophenol	*36.9*			*10.0-120*		*04/20/2022 20:56*	WG1850890
(S) Phenol-d5	*22.1*			*10.0-120*		*04/20/2022 20:56*	WG1850890
(S) Nitrobenzene-d5	*74.8*			*10.0-127*		*04/20/2022 20:56*	WG1850890
(S) 2-Fluorobiphenyl	*70.5*			*10.0-130*		*04/20/2022 20:56*	WG1850890
(S) 2,4,6-Tribromophenol	*67.1*			*10.0-155*		*04/20/2022 20:56*	WG1850890
(S) p-Terphenyl-d14	*69.5*			*10.0-128*		*04/20/2022 20:56*	WG1850890

Sample Narrative:

L1482976-18 WG1850890: Dilution due to sample volume.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/17/2022 00:01	WG1849677
Benzene	U		0.0000941	0.00100	1	04/17/2022 00:01	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 00:01	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 00:01	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 00:01	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 00:01	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 00:01	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 00:01	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 00:01	WG1849677
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 00:01	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 00:01	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 00:01	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 00:01	WG1849677
Chloroform	U		0.000111	0.00500	1	04/17/2022 00:01	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 00:01	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 00:01	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 00:01	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 00:01	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 00:01	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 00:01	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 00:01	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 00:01	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 00:01	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 00:01	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 00:01	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 00:01	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 00:01	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 00:01	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 00:01	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 00:01	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 00:01	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 00:01	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 00:01	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 00:01	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 00:01	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 00:01	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 00:01	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 00:01	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 00:01	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 00:01	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 00:01	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 00:01	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 00:01	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 00:01	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 00:01	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 00:01	WG1849677
(S) Toluene-d8	*102*			*80.0-120*		*04/17/2022 00:01*	WG1849677
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*04/17/2022 00:01*	WG1849677
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*04/17/2022 00:01*	WG1849677

TRIP BLANK-02
Collected date/time: 04/14/22 00:00
L1482976

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/17/2022 00:23	WG1849677
Benzene	U		0.0000941	0.00100	1	04/17/2022 00:23	WG1849677
Bromodichloromethane	U		0.000136	0.00100	1	04/17/2022 00:23	WG1849677
Bromoform	U		0.000129	0.00100	1	04/17/2022 00:23	WG1849677
Bromomethane	U		0.000605	0.00500	1	04/17/2022 00:23	WG1849677
n-Butylbenzene	U		0.000157	0.00100	1	04/17/2022 00:23	WG1849677
sec-Butylbenzene	U		0.000125	0.00100	1	04/17/2022 00:23	WG1849677
tert-Butylbenzene	U		0.000127	0.00100	1	04/17/2022 00:23	WG1849677
Carbon disulfide	U		0.0000962	0.00100	1	04/17/2022 00:23	WG1849677
Carbon tetrachloride	U		0.000128	0.00100	1	04/17/2022 00:23	WG1849677
Chlorobenzene	U		0.000116	0.00100	1	04/17/2022 00:23	WG1849677
Chlorodibromomethane	U		0.000140	0.00100	1	04/17/2022 00:23	WG1849677
Chloroethane	U		0.000192	0.00500	1	04/17/2022 00:23	WG1849677
Chloroform	U		0.000111	0.00500	1	04/17/2022 00:23	WG1849677
Chloromethane	U		0.000960	0.00250	1	04/17/2022 00:23	WG1849677
1,2-Dibromoethane	U		0.000126	0.00100	1	04/17/2022 00:23	WG1849677
1,1-Dichloroethane	U		0.000100	0.00100	1	04/17/2022 00:23	WG1849677
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/17/2022 00:23	WG1849677
1,1-Dichloroethene	U		0.000188	0.00100	1	04/17/2022 00:23	WG1849677
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/17/2022 00:23	WG1849677
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/17/2022 00:23	WG1849677
1,2-Dichloropropane	U		0.000149	0.00100	1	04/17/2022 00:23	WG1849677
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/17/2022 00:23	WG1849677
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/17/2022 00:23	WG1849677
Ethylbenzene	U		0.000137	0.00100	1	04/17/2022 00:23	WG1849677
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/17/2022 00:23	WG1849677
2-Hexanone	U		0.000787	0.0100	1	04/17/2022 00:23	WG1849677
Isopropylbenzene	U		0.000105	0.00100	1	04/17/2022 00:23	WG1849677
p-Isopropyltoluene	U		0.000120	0.00100	1	04/17/2022 00:23	WG1849677
2-Butanone (MEK)	U		0.00119	0.0100	1	04/17/2022 00:23	WG1849677
Methylene Chloride	U		0.000430	0.00500	1	04/17/2022 00:23	WG1849677
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/17/2022 00:23	WG1849677
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/17/2022 00:23	WG1849677
Naphthalene	U	J4	0.00100	0.00500	1	04/17/2022 00:23	WG1849677
n-Propylbenzene	U		0.0000993	0.00100	1	04/17/2022 00:23	WG1849677
Styrene	U		0.000118	0.00100	1	04/17/2022 00:23	WG1849677
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/17/2022 00:23	WG1849677
Tetrachloroethene	U		0.000300	0.00100	1	04/17/2022 00:23	WG1849677
Toluene	U		0.000278	0.00100	1	04/17/2022 00:23	WG1849677
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/17/2022 00:23	WG1849677
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/17/2022 00:23	WG1849677
Trichloroethene	U		0.000190	0.00100	1	04/17/2022 00:23	WG1849677
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/17/2022 00:23	WG1849677
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/17/2022 00:23	WG1849677
Vinyl chloride	U		0.000234	0.00100	1	04/17/2022 00:23	WG1849677
Xylenes, Total	U		0.000174	0.00300	1	04/17/2022 00:23	WG1849677
(S) Toluene-d8	*101*			*80.0-120*		*04/17/2022 00:23*	WG1849677
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*04/17/2022 00:23*	WG1849677
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/17/2022 00:23*	WG1849677

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	1.63		0.0500	0.100	1	04/22/2022 18:49	WG1851919

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	27.4		0.379	1.00	1	04/20/2022 10:20	WG1851361
Fluoride	0.357		0.0640	0.150	1	04/20/2022 10:20	WG1851361
Sulfate	73.9		0.594	5.00	1	04/20/2022 10:20	WG1851361

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1140		20.0	1	04/21/2022 16:36	WG1852062

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	260		8.45	20.0	1	04/18/2022 10:16	WG1849943

Sample Narrative:

L1482976-22 WG1849943: Endpoint pH 4.5 headspace

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	05/01/2022 17:05	WG1850021

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.267		0.0200	0.200	1	04/25/2022 12:17	WG1851885

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	04/25/2022 14:38	WG1850306
Arsenic,Dissolved	0.00256		0.000180	0.00200	1	04/25/2022 14:38	WG1850306
Barium,Dissolved	0.181		0.000381	0.00200	1	04/25/2022 14:38	WG1850306
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:38	WG1850306
Chromium,Dissolved	U		0.00124	0.00200	1	04/26/2022 11:48	WG1853681
Copper,Dissolved	0.0441		0.00151	0.00500	1	04/25/2022 14:38	WG1850306
Cobalt,Dissolved	0.000135	J	0.0000596	0.00200	1	04/25/2022 14:38	WG1850306
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:38	WG1850306
Lead,Dissolved	0.000957	J	0.000849	0.00200	1	04/25/2022 14:38	WG1850306
Manganese,Dissolved	0.0166		0.000704	0.00500	1	04/25/2022 14:38	WG1850306
Molybdenum,Dissolved	0.00114	B J	0.000348	0.00500	1	04/25/2022 14:38	WG1850306
Nickel,Dissolved	0.00303	B	0.000816	0.00200	1	04/25/2022 14:38	WG1850306
Selenium,Dissolved	0.00153	J	0.000300	0.00200	1	04/25/2022 14:38	WG1850306
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:38	WG1850306
Uranium,Dissolved	0.00455	J	0.0000700	0.0200	1	04/25/2022 14:38	WG1850306
Zinc,Dissolved	0.0660		0.00302	0.0250	1	04/25/2022 14:38	WG1850306

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	04/19/2022 08:25	WG1850520
Benzene	U		0.0000941	0.00100	1	04/19/2022 08:25	WG1850520
Bromodichloromethane	0.000456	J	0.000136	0.00100	1	04/19/2022 08:25	WG1850520
Bromoform	U		0.000129	0.00100	1	04/19/2022 08:25	WG1850520
Bromomethane	U		0.000605	0.00500	1	04/19/2022 08:25	WG1850520
n-Butylbenzene	U		0.000157	0.00100	1	04/19/2022 08:25	WG1850520
sec-Butylbenzene	U		0.000125	0.00100	1	04/19/2022 08:25	WG1850520
tert-Butylbenzene	U		0.000127	0.00100	1	04/19/2022 08:25	WG1850520
Carbon disulfide	U		0.0000962	0.00100	1	04/19/2022 08:25	WG1850520
Carbon tetrachloride	U		0.000128	0.00100	1	04/19/2022 08:25	WG1850520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	04/19/2022 08:25	WG1850520
Chlorodibromomethane	U		0.000140	0.00100	1	04/19/2022 08:25	WG1850520
Chloroethane	U		0.000192	0.00500	1	04/19/2022 08:25	WG1850520
Chloroform	0.00174	J	0.000111	0.00500	1	04/19/2022 08:25	WG1850520
Chloromethane	U		0.000960	0.00250	1	04/19/2022 08:25	WG1850520
1,2-Dibromoethane	U		0.000126	0.00100	1	04/19/2022 08:25	WG1850520
1,1-Dichloroethane	U		0.000100	0.00100	1	04/19/2022 08:25	WG1850520
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/19/2022 08:25	WG1850520
1,1-Dichloroethene	U		0.000188	0.00100	1	04/19/2022 08:25	WG1850520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/19/2022 08:25	WG1850520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/19/2022 08:25	WG1850520
1,2-Dichloropropane	U		0.000149	0.00100	1	04/19/2022 08:25	WG1850520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/19/2022 08:25	WG1850520
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/19/2022 08:25	WG1850520
Ethylbenzene	U		0.000137	0.00100	1	04/19/2022 08:25	WG1850520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/19/2022 08:25	WG1850520
2-Hexanone	U		0.000787	0.0100	1	04/19/2022 08:25	WG1850520
Isopropylbenzene	U		0.000105	0.00100	1	04/19/2022 08:25	WG1850520
p-Isopropyltoluene	U		0.000120	0.00100	1	04/19/2022 08:25	WG1850520
2-Butanone (MEK)	U		0.00119	0.0100	1	04/19/2022 08:25	WG1850520
Methylene Chloride	U		0.000430	0.00500	1	04/19/2022 08:25	WG1850520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/19/2022 08:25	WG1850520
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/19/2022 08:25	WG1850520
Naphthalene	U		0.00100	0.00500	1	04/19/2022 08:25	WG1850520
n-Propylbenzene	U		0.0000993	0.00100	1	04/19/2022 08:25	WG1850520
Styrene	U		0.000118	0.00100	1	04/19/2022 08:25	WG1850520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/19/2022 08:25	WG1850520
Tetrachloroethene	U		0.000300	0.00100	1	04/19/2022 08:25	WG1850520
Toluene	U		0.000278	0.00100	1	04/19/2022 08:25	WG1850520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/19/2022 08:25	WG1850520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/19/2022 08:25	WG1850520
Trichloroethene	U		0.000190	0.00100	1	04/19/2022 08:25	WG1850520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/19/2022 08:25	WG1850520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/19/2022 08:25	WG1850520
Vinyl chloride	U		0.000234	0.00100	1	04/19/2022 08:25	WG1850520
Xylenes, Total	U		0.000174	0.00300	1	04/19/2022 08:25	WG1850520
(S) Toluene-d8	*99.7*			*80.0-120*		*04/19/2022 08:25*	WG1850520
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/19/2022 08:25*	WG1850520
(S) 1,2-Dichloroethane-d4	*88.4*			*70.0-130*		*04/19/2022 08:25*	WG1850520

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 21:17	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 21:17	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 21:17	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 21:17	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 21:17	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 21:17	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 21:17	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 21:17	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 21:17	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 21:17	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 21:17	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 21:17	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 21:17	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 21:17	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 21:17	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 21:17	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 21:17	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 21:17	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 21:17	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 21:17	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 21:17	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 21:17	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 21:17	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 21:17	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 21:17	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 21:17	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 21:17	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 21:17	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 21:17	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 21:17	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 21:17	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 21:17	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 21:17	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 21:17	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 21:17	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 21:17	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 21:17	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 21:17	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 21:17	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 21:17	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 21:17	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 21:17	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 21:17	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 21:17	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 21:17	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 21:17	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 21:17	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 21:17	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 21:17	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 21:17	WG1850890
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 21:17	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 21:17	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 21:17	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 21:17	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 21:17	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 21:17	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 21:17	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 21:17	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 21:17	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 21:17	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 21:17	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 21:17	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 21:17	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 21:17	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 21:17	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 21:17	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 21:17	WG1850890
(S) 2-Fluorophenol	*30.4*			*10.0-120*		*04/20/2022 21:17*	WG1850890
(S) Phenol-d5	*19.0*			*10.0-120*		*04/20/2022 21:17*	WG1850890

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) Nitrobenzene-d5	*71.8*			*10.0-127*		*04/20/2022 21:17*	WG1850890
(S) 2-Fluorobiphenyl	*73.8*			*10.0-130*		*04/20/2022 21:17*	WG1850890
(S) 2,4,6-Tribromophenol	*67.9*			*10.0-155*		*04/20/2022 21:17*	WG1850890
(S) p-Terphenyl-d14	*75.0*			*10.0-128*		*04/20/2022 21:17*	WG1850890

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	182		8.45	20.0	1	04/18/2022 10:19	WG1849943

Sample Narrative:

L1482976-23 WG1849943: Endpoint pH 4.5 headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.66		0.0500	0.100	1	04/22/2022 18:54	WG1851919

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	133		1.90	5.00	5	04/21/2022 02:46	WG1851537
Fluoride	1.94		0.0640	0.150	1	04/21/2022 02:30	WG1851537
Sulfate	85.4		0.594	5.00	1	04/21/2022 02:30	WG1851537

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	813		13.3	1	04/21/2022 19:35	WG1852510

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	432		8.45	20.0	1	04/18/2022 10:23	WG1849943

Sample Narrative:

L1482976-24 WG1849943: Endpoint pH 4.5 headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	12.5		0.500	1.00	10	04/22/2022 18:55	WG1851919

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	42.5		0.379	1.00	1	04/21/2022 03:02	WG1851537
Fluoride	0.274		0.0640	0.150	1	04/21/2022 03:02	WG1851537
Sulfate	170		2.97	25.0	5	04/30/2022 18:45	WG1856364

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	05/01/2022 17:07	WG1850021

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.226		0.0200	0.200	1	04/25/2022 12:20	WG1851885

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/25/2022 14:42	WG1850306
Arsenic,Dissolved	0.00266		0.000180	0.00200	1	04/25/2022 14:42	WG1850306
Barium,Dissolved	0.337		0.000381	0.00200	1	04/25/2022 14:42	WG1850306
Cadmium,Dissolved	U		0.000150	0.00100	1	04/25/2022 14:42	WG1850306
Chromium,Dissolved	U		0.00124	0.00200	1	04/26/2022 11:52	WG1853681
Copper,Dissolved	0.00446	J	0.00151	0.00500	1	04/25/2022 14:42	WG1850306
Cobalt,Dissolved	0.00102	J	0.0000596	0.00200	1	04/25/2022 14:42	WG1850306
Iron,Dissolved	U		0.0281	0.100	1	04/25/2022 14:42	WG1850306
Lead,Dissolved	U		0.000849	0.00200	1	04/25/2022 14:42	WG1850306
Manganese,Dissolved	0.198		0.000704	0.00500	1	04/25/2022 14:42	WG1850306
Molybdenum,Dissolved	0.00159	B J	0.000348	0.00500	1	04/25/2022 14:42	WG1850306
Nickel,Dissolved	0.00345	B	0.000816	0.00200	1	04/25/2022 14:42	WG1850306
Selenium,Dissolved	0.000501	J	0.000300	0.00200	1	04/25/2022 14:42	WG1850306
Silver,Dissolved	U		0.0000700	0.00200	1	04/25/2022 14:42	WG1850306
Uranium,Dissolved	0.00889	J	0.0000700	0.0200	1	04/25/2022 14:42	WG1850306
Zinc,Dissolved	0.0278		0.00302	0.0250	1	04/25/2022 14:42	WG1850306

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/20/2022 05:11	WG1851146
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*78.0-120*		*04/20/2022 05:11*	WG1851146

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/19/2022 08:44	WG1850520
Benzene	U		0.0000941	0.00100	1	04/19/2022 08:44	WG1850520
Bromodichloromethane	U		0.000136	0.00100	1	04/19/2022 08:44	WG1850520
Bromoform	U		0.000129	0.00100	1	04/19/2022 08:44	WG1850520
Bromomethane	U		0.000605	0.00500	1	04/19/2022 08:44	WG1850520
n-Butylbenzene	U		0.000157	0.00100	1	04/19/2022 08:44	WG1850520
sec-Butylbenzene	U		0.000125	0.00100	1	04/19/2022 08:44	WG1850520
tert-Butylbenzene	U		0.000127	0.00100	1	04/19/2022 08:44	WG1850520
Carbon disulfide	U		0.0000962	0.00100	1	04/19/2022 08:44	WG1850520
Carbon tetrachloride	U		0.000128	0.00100	1	04/19/2022 08:44	WG1850520
Chlorobenzene	U		0.000116	0.00100	1	04/19/2022 08:44	WG1850520
Chlorodibromomethane	U		0.000140	0.00100	1	04/19/2022 08:44	WG1850520
Chloroethane	U		0.000192	0.00500	1	04/19/2022 08:44	WG1850520
Chloroform	U		0.000111	0.00500	1	04/19/2022 08:44	WG1850520
Chloromethane	U		0.000960	0.00250	1	04/19/2022 08:44	WG1850520
1,2-Dibromoethane	U		0.000126	0.00100	1	04/19/2022 08:44	WG1850520
1,1-Dichloroethane	U		0.000100	0.00100	1	04/19/2022 08:44	WG1850520
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/19/2022 08:44	WG1850520
1,1-Dichloroethene	U		0.000188	0.00100	1	04/19/2022 08:44	WG1850520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/19/2022 08:44	WG1850520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/19/2022 08:44	WG1850520
1,2-Dichloropropane	U		0.000149	0.00100	1	04/19/2022 08:44	WG1850520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/19/2022 08:44	WG1850520
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/19/2022 08:44	WG1850520
Ethylbenzene	U		0.000137	0.00100	1	04/19/2022 08:44	WG1850520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/19/2022 08:44	WG1850520
2-Hexanone	U		0.000787	0.0100	1	04/19/2022 08:44	WG1850520
Isopropylbenzene	U		0.000105	0.00100	1	04/19/2022 08:44	WG1850520
p-Isopropyltoluene	U		0.000120	0.00100	1	04/19/2022 08:44	WG1850520
2-Butanone (MEK)	U		0.00119	0.0100	1	04/19/2022 08:44	WG1850520
Methylene Chloride	U		0.000430	0.00500	1	04/19/2022 08:44	WG1850520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/19/2022 08:44	WG1850520
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/19/2022 08:44	WG1850520
Naphthalene	U		0.00100	0.00500	1	04/19/2022 08:44	WG1850520
n-Propylbenzene	U		0.0000993	0.00100	1	04/19/2022 08:44	WG1850520
Styrene	U		0.000118	0.00100	1	04/19/2022 08:44	WG1850520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/19/2022 08:44	WG1850520
Tetrachloroethene	U		0.000300	0.00100	1	04/19/2022 08:44	WG1850520
Toluene	U		0.000278	0.00100	1	04/19/2022 08:44	WG1850520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/19/2022 08:44	WG1850520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/19/2022 08:44	WG1850520
Trichloroethene	U		0.000190	0.00100	1	04/19/2022 08:44	WG1850520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/19/2022 08:44	WG1850520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/19/2022 08:44	WG1850520
Vinyl chloride	U		0.000234	0.00100	1	04/19/2022 08:44	WG1850520
Xylenes, Total	U		0.000174	0.00300	1	04/19/2022 08:44	WG1850520
(S) Toluene-d8	*99.6*			*80.0-120*		*04/19/2022 08:44*	WG1850520
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*04/19/2022 08:44*	WG1850520
(S) 1,2-Dichloroethane-d4	*91.8*			*70.0-130*		*04/19/2022 08:44*	WG1850520

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.385		0.0247	0.100	1	04/27/2022 17:57	WG1854507
(S) o-Terphenyl	*101*			*31.0-160*		*04/27/2022 17:57*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 23:46	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 23:46	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 23:46	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 23:46	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 23:46	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 23:46	WG1850890
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 23:46	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 23:46	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 23:46	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 23:46	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 23:46	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 23:46	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 23:46	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 23:46	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 23:46	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 23:46	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 23:46	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 23:46	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 23:46	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 23:46	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 23:46	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 23:46	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 23:46	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 23:46	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 23:46	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 23:46	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 23:46	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 23:46	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 23:46	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 23:46	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 23:46	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 23:46	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 23:46	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 23:46	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 23:46	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 23:46	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 23:46	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 23:46	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 23:46	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 23:46	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 23:46	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 23:46	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 23:46	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 23:46	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 23:46	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 23:46	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 23:46	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 23:46	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 23:46	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 23:46	WG1850890

MW-32
Collected date/time: 04/14/22 13:00
L1482976

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 23:46	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 23:46	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 23:46	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 23:46	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 23:46	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 23:46	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 23:46	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 23:46	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 23:46	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 23:46	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 23:46	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 23:46	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 23:46	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 23:46	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 23:46	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 23:46	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 23:46	WG1850890
(S) 2-Fluorophenol	*32.1*			*10.0-120*		*04/20/2022 23:46*	WG1850890
(S) Phenol-d5	*20.6*			*10.0-120*		*04/20/2022 23:46*	WG1850890
(S) Nitrobenzene-d5	*75.4*			*10.0-127*		*04/20/2022 23:46*	WG1850890
(S) 2-Fluorobiphenyl	*69.0*			*10.0-130*		*04/20/2022 23:46*	WG1850890
(S) 2,4,6-Tribromophenol	*66.3*			*10.0-155*		*04/20/2022 23:46*	WG1850890
(S) p-Terphenyl-d14	*63.1*			*10.0-128*		*04/20/2022 23:46*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1220		20.0	1	04/21/2022 16:36	WG1852062

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	995		8.45	20.0	1	04/18/2022 10:35	WG1849943

Sample Narrative:

L1482976-25 WG1849943: Endpoint pH 4.5 headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	04/22/2022 18:56	WG1851919

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	91.8		0.379	1.00	1	04/21/2022 03:19	WG1851537
Fluoride	0.715		0.0640	0.150	1	04/21/2022 03:19	WG1851537
Sulfate	8.21		0.594	5.00	1	04/21/2022 03:19	WG1851537

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U	J6	0.000100	0.000200	1	05/01/2022 16:58	WG1850021

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.161	J	0.0200	0.200	1	04/25/2022 12:07	WG1851885

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/22/2022 00:02	WG1851656
Arsenic,Dissolved	0.00654		0.000180	0.00200	1	04/22/2022 00:02	WG1851656
Barium,Dissolved	0.470		0.000381	0.00200	1	04/22/2022 00:02	WG1851656
Cadmium,Dissolved	0.000220	J	0.000150	0.00100	1	04/22/2022 00:02	WG1851656
Chromium,Dissolved	U		0.00124	0.00200	1	04/22/2022 00:02	WG1851656
Copper,Dissolved	U		0.00151	0.00500	1	04/22/2022 00:02	WG1851656
Cobalt,Dissolved	0.000265	J	0.0000596	0.00200	1	04/22/2022 00:02	WG1851656
Iron,Dissolved	1.99		0.0281	0.100	1	04/22/2022 00:02	WG1851656
Lead,Dissolved	U		0.000849	0.00200	1	04/22/2022 00:02	WG1851656
Manganese,Dissolved	0.897		0.000704	0.00500	1	04/22/2022 00:02	WG1851656
Molybdenum,Dissolved	0.00278	J	0.000348	0.00500	1	04/22/2022 00:02	WG1851656
Nickel,Dissolved	0.00186	J	0.000816	0.00200	1	04/24/2022 23:01	WG1851656
Selenium,Dissolved	0.000394	J	0.000300	0.00200	1	04/22/2022 00:02	WG1851656
Silver,Dissolved	U		0.0000700	0.00200	1	04/22/2022 00:02	WG1851656
Uranium,Dissolved	0.0353		0.0000700	0.0200	1	04/22/2022 00:02	WG1851656
Zinc,Dissolved	U		0.00302	0.0250	1	04/22/2022 00:02	WG1851656

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.188		0.0314	0.100	1	04/21/2022 06:12	WG1851528
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*78.0-120*		*04/21/2022 06:12*	WG1851528

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/19/2022 09:03	WG1850520
Benzene	0.000234	J	0.0000941	0.00100	1	04/19/2022 09:03	WG1850520
Bromodichloromethane	U		0.000136	0.00100	1	04/19/2022 09:03	WG1850520
Bromoform	U		0.000129	0.00100	1	04/19/2022 09:03	WG1850520
Bromomethane	U		0.000605	0.00500	1	04/19/2022 09:03	WG1850520
n-Butylbenzene	U		0.000157	0.00100	1	04/19/2022 09:03	WG1850520
sec-Butylbenzene	U		0.000125	0.00100	1	04/19/2022 09:03	WG1850520
tert-Butylbenzene	0.000167	J	0.000127	0.00100	1	04/19/2022 09:03	WG1850520
Carbon disulfide	U		0.0000962	0.00100	1	04/19/2022 09:03	WG1850520
Carbon tetrachloride	U		0.000128	0.00100	1	04/19/2022 09:03	WG1850520
Chlorobenzene	U		0.000116	0.00100	1	04/19/2022 09:03	WG1850520
Chlorodibromomethane	U		0.000140	0.00100	1	04/19/2022 09:03	WG1850520
Chloroethane	U		0.000192	0.00500	1	04/19/2022 09:03	WG1850520
Chloroform	U		0.000111	0.00500	1	04/19/2022 09:03	WG1850520
Chloromethane	U		0.000960	0.00250	1	04/19/2022 09:03	WG1850520
1,2-Dibromoethane	U		0.000126	0.00100	1	04/19/2022 09:03	WG1850520
1,1-Dichloroethane	U		0.000100	0.00100	1	04/19/2022 09:03	WG1850520
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/19/2022 09:03	WG1850520
1,1-Dichloroethene	U		0.000188	0.00100	1	04/19/2022 09:03	WG1850520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/19/2022 09:03	WG1850520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/19/2022 09:03	WG1850520
1,2-Dichloropropane	U		0.000149	0.00100	1	04/19/2022 09:03	WG1850520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/19/2022 09:03	WG1850520
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/19/2022 09:03	WG1850520
Ethylbenzene	U		0.000137	0.00100	1	04/19/2022 09:03	WG1850520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/19/2022 09:03	WG1850520
2-Hexanone	U		0.000787	0.0100	1	04/19/2022 09:03	WG1850520
Isopropylbenzene	U		0.000105	0.00100	1	04/19/2022 09:03	WG1850520
p-Isopropyltoluene	U		0.000120	0.00100	1	04/19/2022 09:03	WG1850520
2-Butanone (MEK)	U		0.00119	0.0100	1	04/19/2022 09:03	WG1850520
Methylene Chloride	U		0.000430	0.00500	1	04/19/2022 09:03	WG1850520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/19/2022 09:03	WG1850520
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/19/2022 09:03	WG1850520
Naphthalene	U		0.00100	0.00500	1	04/19/2022 09:03	WG1850520
n-Propylbenzene	U		0.0000993	0.00100	1	04/19/2022 09:03	WG1850520
Styrene	U		0.000118	0.00100	1	04/19/2022 09:03	WG1850520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/19/2022 09:03	WG1850520
Tetrachloroethene	U		0.000300	0.00100	1	04/19/2022 09:03	WG1850520
Toluene	U		0.000278	0.00100	1	04/19/2022 09:03	WG1850520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/19/2022 09:03	WG1850520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/19/2022 09:03	WG1850520
Trichloroethene	U		0.000190	0.00100	1	04/19/2022 09:03	WG1850520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/19/2022 09:03	WG1850520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/19/2022 09:03	WG1850520
Vinyl chloride	U		0.000234	0.00100	1	04/19/2022 09:03	WG1850520
Xylenes, Total	U		0.000174	0.00300	1	04/19/2022 09:03	WG1850520
(S) Toluene-d8	*98.5*			*80.0-120*		*04/19/2022 09:03*	WG1850520
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/19/2022 09:03*	WG1850520
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*		*04/19/2022 09:03*	WG1850520

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.138	B	0.0247	0.100	1	04/28/2022 13:05	WG1854507
(S) o-Terphenyl	*108*			*31.0-160*		*04/28/2022 13:05*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 21:39	WG1850890
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 21:39	WG1850890
Acetophenone	U		0.000208	0.0100	1	04/20/2022 21:39	WG1850890
Anthracene	U		0.0000804	0.00100	1	04/20/2022 21:39	WG1850890
Atrazine	U		0.000255	0.0100	1	04/20/2022 21:39	WG1850890
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 21:39	WG1850890
Benzaldehyde	U	J4 J5	0.00169	0.0100	1	04/20/2022 21:39	WG1850890
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 21:39	WG1850890
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 21:39	WG1850890
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 21:39	WG1850890
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 21:39	WG1850890
Biphenyl	U		0.000790	0.0100	1	04/20/2022 21:39	WG1850890
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 21:39	WG1850890
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 21:39	WG1850890
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 21:39	WG1850890
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 21:39	WG1850890
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 21:39	WG1850890
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 21:39	WG1850890
Caprolactam	U		0.000309	0.0100	1	04/20/2022 21:39	WG1850890
Carbazole	U		0.000111	0.0100	1	04/20/2022 21:39	WG1850890
Chrysene	U		0.000130	0.00100	1	04/20/2022 21:39	WG1850890
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 21:39	WG1850890
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 21:39	WG1850890
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 21:39	WG1850890
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 21:39	WG1850890
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 21:39	WG1850890
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 21:39	WG1850890
Fluorene	U		0.0000844	0.00100	1	04/20/2022 21:39	WG1850890
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 21:39	WG1850890
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 21:39	WG1850890
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 21:39	WG1850890
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 21:39	WG1850890
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 21:39	WG1850890
Isophorone	U		0.000143	0.0100	1	04/20/2022 21:39	WG1850890
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 21:39	WG1850890
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 21:39	WG1850890
Naphthalene	U		0.000159	0.00100	1	04/20/2022 21:39	WG1850890
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 21:39	WG1850890
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 21:39	WG1850890
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 21:39	WG1850890
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 21:39	WG1850890
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 21:39	WG1850890
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 21:39	WG1850890
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 21:39	WG1850890
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 21:39	WG1850890
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 21:39	WG1850890
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 21:39	WG1850890
Pyrene	U		0.000107	0.00100	1	04/20/2022 21:39	WG1850890
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 21:39	WG1850890
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 21:39	WG1850890

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 21:39	WG1850890
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 21:39	WG1850890
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 21:39	WG1850890
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 21:39	WG1850890
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 21:39	WG1850890
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 21:39	WG1850890
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 21:39	WG1850890
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 21:39	WG1850890
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 21:39	WG1850890
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 21:39	WG1850890
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 21:39	WG1850890
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 21:39	WG1850890
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 21:39	WG1850890
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 21:39	WG1850890
Phenol	U		0.00433	0.0100	1	04/20/2022 21:39	WG1850890
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 21:39	WG1850890
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 21:39	WG1850890
(S) 2-Fluorophenol	*25.6*			*10.0-120*		*04/20/2022 21:39*	WG1850890
(S) Phenol-d5	*16.8*			*10.0-120*		*04/20/2022 21:39*	WG1850890
(S) Nitrobenzene-d5	*67.3*			*10.0-127*		*04/20/2022 21:39*	WG1850890
(S) 2-Fluorobiphenyl	*59.6*			*10.0-130*		*04/20/2022 21:39*	WG1850890
(S) 2,4,6-Tribromophenol	*45.7*			*10.0-155*		*04/20/2022 21:39*	WG1850890
(S) p-Terphenyl-d14	*55.8*			*10.0-128*		*04/20/2022 21:39*	WG1850890

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	788		13.3	1	04/21/2022 19:35	WG1852510

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	443		8.45	20.0	1	04/18/2022 10:42	WG1849943

Sample Narrative:

L1482976-26 WG1849943: Endpoint pH 4.5

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	12.7		0.500	1.00	10	05/06/2022 00:04	WG1859498

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	42.9		0.379	1.00	1	04/21/2022 04:24	WG1851537
Fluoride	0.272		0.0640	0.150	1	04/21/2022 04:24	WG1851537
Sulfate	167		2.97	25.0	5	04/30/2022 18:59	WG1856364

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	05/01/2022 17:10	WG1850021

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.230		0.0200	0.200	1	04/25/2022 12:23	WG1851885

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	04/22/2022 00:19	WG1851656
Arsenic,Dissolved	0.00291		0.000180	0.00200	1	04/22/2022 00:19	WG1851656
Barium,Dissolved	0.316		0.000381	0.00200	1	04/22/2022 00:19	WG1851656
Cadmium,Dissolved	U		0.000150	0.00100	1	04/22/2022 00:19	WG1851656
Chromium,Dissolved	U		0.00124	0.00200	1	04/22/2022 00:19	WG1851656
Copper,Dissolved	0.00388	J	0.00151	0.00500	1	04/22/2022 00:19	WG1851656
Cobalt,Dissolved	0.000849	J	0.0000596	0.00200	1	04/22/2022 00:19	WG1851656
Iron,Dissolved	U		0.0281	0.100	1	04/22/2022 00:19	WG1851656
Lead,Dissolved	U		0.000849	0.00200	1	04/22/2022 00:19	WG1851656
Manganese,Dissolved	0.177		0.000704	0.00500	1	04/22/2022 00:19	WG1851656
Molybdenum,Dissolved	0.00146	J	0.000348	0.00500	1	04/22/2022 00:19	WG1851656
Nickel,Dissolved	0.00320		0.000816	0.00200	1	04/24/2022 23:32	WG1851656
Selenium,Dissolved	0.00148	J	0.000300	0.00200	1	04/22/2022 00:19	WG1851656
Silver,Dissolved	U		0.0000700	0.00200	1	04/22/2022 00:19	WG1851656
Uranium,Dissolved	0.00823	J	0.0000700	0.0200	1	04/22/2022 00:19	WG1851656
Zinc,Dissolved	0.0281		0.00302	0.0250	1	04/22/2022 00:19	WG1851656

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/20/2022 05:58	WG1851146
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*		*04/20/2022 05:58*	WG1851146

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/19/2022 09:22	WG1850520
Benzene	U		0.0000941	0.00100	1	04/19/2022 09:22	WG1850520
Bromodichloromethane	U		0.000136	0.00100	1	04/19/2022 09:22	WG1850520
Bromoform	U		0.000129	0.00100	1	04/19/2022 09:22	WG1850520
Bromomethane	U		0.000605	0.00500	1	04/19/2022 09:22	WG1850520
n-Butylbenzene	U		0.000157	0.00100	1	04/19/2022 09:22	WG1850520
sec-Butylbenzene	U		0.000125	0.00100	1	04/19/2022 09:22	WG1850520
tert-Butylbenzene	U		0.000127	0.00100	1	04/19/2022 09:22	WG1850520
Carbon disulfide	U		0.0000962	0.00100	1	04/19/2022 09:22	WG1850520
Carbon tetrachloride	U		0.000128	0.00100	1	04/19/2022 09:22	WG1850520
Chlorobenzene	U		0.000116	0.00100	1	04/19/2022 09:22	WG1850520
Chlorodibromomethane	U		0.000140	0.00100	1	04/19/2022 09:22	WG1850520
Chloroethane	U		0.000192	0.00500	1	04/19/2022 09:22	WG1850520
Chloroform	U		0.000111	0.00500	1	04/19/2022 09:22	WG1850520
Chloromethane	U		0.000960	0.00250	1	04/19/2022 09:22	WG1850520
1,2-Dibromoethane	U		0.000126	0.00100	1	04/19/2022 09:22	WG1850520
1,1-Dichloroethane	U		0.000100	0.00100	1	04/19/2022 09:22	WG1850520
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/19/2022 09:22	WG1850520
1,1-Dichloroethene	U		0.000188	0.00100	1	04/19/2022 09:22	WG1850520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/19/2022 09:22	WG1850520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/19/2022 09:22	WG1850520
1,2-Dichloropropane	U		0.000149	0.00100	1	04/19/2022 09:22	WG1850520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/19/2022 09:22	WG1850520
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/19/2022 09:22	WG1850520
Ethylbenzene	U		0.000137	0.00100	1	04/19/2022 09:22	WG1850520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/19/2022 09:22	WG1850520
2-Hexanone	U		0.000787	0.0100	1	04/19/2022 09:22	WG1850520
Isopropylbenzene	U		0.000105	0.00100	1	04/19/2022 09:22	WG1850520
p-Isopropyltoluene	U		0.000120	0.00100	1	04/19/2022 09:22	WG1850520
2-Butanone (MEK)	U		0.00119	0.0100	1	04/19/2022 09:22	WG1850520
Methylene Chloride	U		0.000430	0.00500	1	04/19/2022 09:22	WG1850520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/19/2022 09:22	WG1850520
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/19/2022 09:22	WG1850520
Naphthalene	U		0.00100	0.00500	1	04/19/2022 09:22	WG1850520
n-Propylbenzene	U		0.0000993	0.00100	1	04/19/2022 09:22	WG1850520
Styrene	U		0.000118	0.00100	1	04/19/2022 09:22	WG1850520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/19/2022 09:22	WG1850520
Tetrachloroethene	U		0.000300	0.00100	1	04/19/2022 09:22	WG1850520
Toluene	U		0.000278	0.00100	1	04/19/2022 09:22	WG1850520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/19/2022 09:22	WG1850520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/19/2022 09:22	WG1850520
Trichloroethene	U		0.000190	0.00100	1	04/19/2022 09:22	WG1850520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/19/2022 09:22	WG1850520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/19/2022 09:22	WG1850520
Vinyl chloride	U		0.000234	0.00100	1	04/19/2022 09:22	WG1850520
Xylenes, Total	U		0.000174	0.00300	1	04/19/2022 09:22	WG1850520
(S) Toluene-d8	*99.1*			*80.0-120*		*04/19/2022 09:22*	WG1850520
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*04/19/2022 09:22*	WG1850520
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*04/19/2022 09:22*	WG1850520

DUP-02
Collected date/time: 04/14/22 11:00
L1482976

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.364		0.0247	0.100	1	04/27/2022 19:40	WG1854507
(S) o-Terphenyl	*98.4*			*31.0-160*		*04/27/2022 19:40*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 23:18	WG1850898
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 23:18	WG1850898
Acetophenone	U		0.000208	0.0100	1	04/20/2022 23:18	WG1850898
Anthracene	U		0.0000804	0.00100	1	04/20/2022 23:18	WG1850898
Atrazine	U		0.000255	0.0100	1	04/20/2022 23:18	WG1850898
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 23:18	WG1850898
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 23:18	WG1850898
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 23:18	WG1850898
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 23:18	WG1850898
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 23:18	WG1850898
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 23:18	WG1850898
Biphenyl	U		0.000790	0.0100	1	04/20/2022 23:18	WG1850898
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 23:18	WG1850898
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 23:18	WG1850898
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 23:18	WG1850898
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 23:18	WG1850898
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 23:18	WG1850898
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 23:18	WG1850898
Caprolactam	U		0.000309	0.0100	1	04/20/2022 23:18	WG1850898
Carbazole	U		0.000111	0.0100	1	04/20/2022 23:18	WG1850898
Chrysene	U		0.000130	0.00100	1	04/20/2022 23:18	WG1850898
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 23:18	WG1850898
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 23:18	WG1850898
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 23:18	WG1850898
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 23:18	WG1850898
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 23:18	WG1850898
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 23:18	WG1850898
Fluorene	U		0.0000844	0.00100	1	04/20/2022 23:18	WG1850898
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 23:18	WG1850898
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 23:18	WG1850898
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 23:18	WG1850898
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 23:18	WG1850898
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 23:18	WG1850898
Isophorone	U		0.000143	0.0100	1	04/20/2022 23:18	WG1850898
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 23:18	WG1850898
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 23:18	WG1850898
Naphthalene	U		0.000159	0.00100	1	04/20/2022 23:18	WG1850898
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 23:18	WG1850898
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 23:18	WG1850898
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 23:18	WG1850898
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 23:18	WG1850898
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 23:18	WG1850898
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 23:18	WG1850898
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 23:18	WG1850898
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 23:18	WG1850898
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 23:18	WG1850898
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 23:18	WG1850898
Pyrene	U		0.000107	0.00100	1	04/20/2022 23:18	WG1850898
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 23:18	WG1850898
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 23:18	WG1850898

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 23:18	WG1850898
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 23:18	WG1850898
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 23:18	WG1850898
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 23:18	WG1850898
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 23:18	WG1850898
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 23:18	WG1850898
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 23:18	WG1850898
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 23:18	WG1850898
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 23:18	WG1850898
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 23:18	WG1850898
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 23:18	WG1850898
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 23:18	WG1850898
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 23:18	WG1850898
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 23:18	WG1850898
Phenol	U		0.00433	0.0100	1	04/20/2022 23:18	WG1850898
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 23:18	WG1850898
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 23:18	WG1850898
(S) 2-Fluorophenol	*23.7*			*10.0-120*		*04/20/2022 23:18*	WG1850898
(S) Phenol-d5	*15.4*			*10.0-120*		*04/20/2022 23:18*	WG1850898
(S) Nitrobenzene-d5	*45.2*			*10.0-127*		*04/20/2022 23:18*	WG1850898
(S) 2-Fluorobiphenyl	*58.9*			*10.0-130*		*04/20/2022 23:18*	WG1850898
(S) 2,4,6-Tribromophenol	*55.5*			*10.0-155*		*04/20/2022 23:18*	WG1850898
(S) p-Terphenyl-d14	*50.8*			*10.0-128*		*04/20/2022 23:18*	WG1850898

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1210		20.0	1	04/21/2022 16:36	WG1852062

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	962		8.45	20.0	1	04/18/2022 10:46	WG1849943

Sample Narrative:

L1482976-27 WG1849943: Endpoint pH 4.5 headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	04/22/2022 19:03	WG1851919

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	90.5		0.379	1.00	1	04/22/2022 23:35	WG1853041
Fluoride	0.713		0.0640	0.150	1	04/22/2022 23:35	WG1853041
Sulfate	8.57		0.594	5.00	1	04/22/2022 23:35	WG1853041

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	05/01/2022 17:16	WG1850021

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.156	J	0.0200	0.200	1	04/25/2022 12:26	WG1851885

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0312	J	0.0185	0.100	1	04/22/2022 00:22	WG1851656
Arsenic,Dissolved	0.00602		0.000180	0.00200	1	04/22/2022 00:22	WG1851656
Barium,Dissolved	0.477		0.000381	0.00200	1	04/22/2022 00:22	WG1851656
Cadmium,Dissolved	U		0.000150	0.00100	1	04/22/2022 00:22	WG1851656
Chromium,Dissolved	U		0.00124	0.00200	1	04/22/2022 00:22	WG1851656
Copper,Dissolved	U		0.00151	0.00500	1	04/22/2022 00:22	WG1851656
Cobalt,Dissolved	0.0000782	J	0.0000596	0.00200	1	04/22/2022 00:22	WG1851656
Iron,Dissolved	1.99		0.0281	0.100	1	04/22/2022 00:22	WG1851656
Lead,Dissolved	U		0.000849	0.00200	1	04/22/2022 00:22	WG1851656
Manganese,Dissolved	0.884		0.000704	0.00500	1	04/22/2022 00:22	WG1851656
Molybdenum,Dissolved	0.00259	J	0.000348	0.00500	1	04/22/2022 00:22	WG1851656
Nickel,Dissolved	0.00168	J	0.000816	0.00200	1	04/24/2022 23:35	WG1851656
Selenium,Dissolved	0.000665	J	0.000300	0.00200	1	04/22/2022 00:22	WG1851656
Silver,Dissolved	U		0.0000700	0.00200	1	04/22/2022 00:22	WG1851656
Uranium,Dissolved	0.0355		0.0000700	0.0200	1	04/22/2022 00:22	WG1851656
Zinc,Dissolved	0.00327	J	0.00302	0.0250	1	04/22/2022 00:22	WG1851656

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/20/2022 06:22	WG1851146
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*78.0-120*		*04/20/2022 06:22*	WG1851146

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	04/19/2022 09:41	WG1850520
Benzene	0.000225	J	0.0000941	0.00100	1	04/19/2022 09:41	WG1850520
Bromodichloromethane	U		0.000136	0.00100	1	04/19/2022 09:41	WG1850520
Bromoform	U		0.000129	0.00100	1	04/19/2022 09:41	WG1850520
Bromomethane	U		0.000605	0.00500	1	04/19/2022 09:41	WG1850520
n-Butylbenzene	U		0.000157	0.00100	1	04/19/2022 09:41	WG1850520
sec-Butylbenzene	U		0.000125	0.00100	1	04/19/2022 09:41	WG1850520
tert-Butylbenzene	0.000175	J	0.000127	0.00100	1	04/19/2022 09:41	WG1850520
Carbon disulfide	U		0.0000962	0.00100	1	04/19/2022 09:41	WG1850520
Carbon tetrachloride	U		0.000128	0.00100	1	04/19/2022 09:41	WG1850520
Chlorobenzene	U		0.000116	0.00100	1	04/19/2022 09:41	WG1850520
Chlorodibromomethane	U		0.000140	0.00100	1	04/19/2022 09:41	WG1850520
Chloroethane	U		0.000192	0.00500	1	04/19/2022 09:41	WG1850520
Chloroform	U		0.000111	0.00500	1	04/19/2022 09:41	WG1850520
Chloromethane	U		0.000960	0.00250	1	04/19/2022 09:41	WG1850520
1,2-Dibromoethane	U		0.000126	0.00100	1	04/19/2022 09:41	WG1850520
1,1-Dichloroethane	U		0.000100	0.00100	1	04/19/2022 09:41	WG1850520
1,2-Dichloroethane	U		0.0000819	0.00100	1	04/19/2022 09:41	WG1850520
1,1-Dichloroethene	U		0.000188	0.00100	1	04/19/2022 09:41	WG1850520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	04/19/2022 09:41	WG1850520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	04/19/2022 09:41	WG1850520
1,2-Dichloropropane	U		0.000149	0.00100	1	04/19/2022 09:41	WG1850520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	04/19/2022 09:41	WG1850520
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	04/19/2022 09:41	WG1850520
Ethylbenzene	U		0.000137	0.00100	1	04/19/2022 09:41	WG1850520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	04/19/2022 09:41	WG1850520
2-Hexanone	U		0.000787	0.0100	1	04/19/2022 09:41	WG1850520
Isopropylbenzene	U		0.000105	0.00100	1	04/19/2022 09:41	WG1850520
p-Isopropyltoluene	U		0.000120	0.00100	1	04/19/2022 09:41	WG1850520
2-Butanone (MEK)	U		0.00119	0.0100	1	04/19/2022 09:41	WG1850520
Methylene Chloride	U		0.000430	0.00500	1	04/19/2022 09:41	WG1850520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	04/19/2022 09:41	WG1850520
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/19/2022 09:41	WG1850520
Naphthalene	U		0.00100	0.00500	1	04/19/2022 09:41	WG1850520
n-Propylbenzene	U		0.0000993	0.00100	1	04/19/2022 09:41	WG1850520
Styrene	U		0.000118	0.00100	1	04/19/2022 09:41	WG1850520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	04/19/2022 09:41	WG1850520
Tetrachloroethene	U		0.000300	0.00100	1	04/19/2022 09:41	WG1850520
Toluene	U		0.000278	0.00100	1	04/19/2022 09:41	WG1850520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	04/19/2022 09:41	WG1850520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	04/19/2022 09:41	WG1850520
Trichloroethene	U		0.000190	0.00100	1	04/19/2022 09:41	WG1850520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	04/19/2022 09:41	WG1850520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	04/19/2022 09:41	WG1850520
Vinyl chloride	U		0.000234	0.00100	1	04/19/2022 09:41	WG1850520
Xylenes, Total	U		0.000174	0.00300	1	04/19/2022 09:41	WG1850520
(S) Toluene-d8	*98.9*			*80.0-120*		*04/19/2022 09:41*	WG1850520
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*04/19/2022 09:41*	WG1850520
(S) 1,2-Dichloroethane-d4	*90.8*			*70.0-130*		*04/19/2022 09:41*	WG1850520

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.142	B	0.0247	0.100	1	04/28/2022 14:48	WG1854507
(S) o-Terphenyl	*98.9*			*31.0-160*		*04/28/2022 14:48*	WG1854507

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	04/20/2022 23:40	WG1850898
Acenaphthylene	U		0.0000921	0.00100	1	04/20/2022 23:40	WG1850898
Acetophenone	U		0.000208	0.0100	1	04/20/2022 23:40	WG1850898
Anthracene	U		0.0000804	0.00100	1	04/20/2022 23:40	WG1850898
Atrazine	U		0.000255	0.0100	1	04/20/2022 23:40	WG1850898
Benzo(a)anthracene	U		0.000199	0.00100	1	04/20/2022 23:40	WG1850898
Benzaldehyde	U	J4	0.00169	0.0100	1	04/20/2022 23:40	WG1850898
Benzo(b)fluoranthene	U		0.000130	0.00100	1	04/20/2022 23:40	WG1850898
Benzo(k)fluoranthene	U		0.000120	0.00100	1	04/20/2022 23:40	WG1850898
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	04/20/2022 23:40	WG1850898
Benzo(a)pyrene	U		0.0000381	0.000200	1	04/20/2022 23:40	WG1850898
Biphenyl	U		0.000790	0.0100	1	04/20/2022 23:40	WG1850898
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	04/20/2022 23:40	WG1850898
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	04/20/2022 23:40	WG1850898
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	04/20/2022 23:40	WG1850898
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	04/20/2022 23:40	WG1850898
2-Chloronaphthalene	U		0.0000648	0.00100	1	04/20/2022 23:40	WG1850898
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	04/20/2022 23:40	WG1850898
Caprolactam	U		0.000309	0.0100	1	04/20/2022 23:40	WG1850898
Carbazole	U		0.000111	0.0100	1	04/20/2022 23:40	WG1850898
Chrysene	U		0.000130	0.00100	1	04/20/2022 23:40	WG1850898
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	04/20/2022 23:40	WG1850898
Dibenzofuran	U		0.0000970	0.0100	1	04/20/2022 23:40	WG1850898
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	04/20/2022 23:40	WG1850898
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	04/20/2022 23:40	WG1850898
2,6-Dinitrotoluene	U		0.000250	0.0100	1	04/20/2022 23:40	WG1850898
Fluoranthene	U		0.000102	0.00100	1	04/20/2022 23:40	WG1850898
Fluorene	U		0.0000844	0.00100	1	04/20/2022 23:40	WG1850898
Hexachlorobenzene	U		0.0000755	0.00100	1	04/20/2022 23:40	WG1850898
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	04/20/2022 23:40	WG1850898
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	04/20/2022 23:40	WG1850898
Hexachloroethane	U		0.000127	0.0100	1	04/20/2022 23:40	WG1850898
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	04/20/2022 23:40	WG1850898
Isophorone	U		0.000143	0.0100	1	04/20/2022 23:40	WG1850898
1-Methylnaphthalene	U		0.0000790	0.00100	1	04/20/2022 23:40	WG1850898
2-Methylnaphthalene	U		0.000117	0.00100	1	04/20/2022 23:40	WG1850898
Naphthalene	U		0.000159	0.00100	1	04/20/2022 23:40	WG1850898
Nitrobenzene	U		0.000297	0.0100	1	04/20/2022 23:40	WG1850898
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	04/20/2022 23:40	WG1850898
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	04/20/2022 23:40	WG1850898
Phenanthrene	U		0.000112	0.00100	1	04/20/2022 23:40	WG1850898
Benzylbutyl phthalate	U		0.000765	0.00300	1	04/20/2022 23:40	WG1850898
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	04/20/2022 23:40	WG1850898
Di-n-butyl phthalate	U		0.000453	0.00300	1	04/20/2022 23:40	WG1850898
Diethyl phthalate	U		0.000287	0.00300	1	04/20/2022 23:40	WG1850898
Dimethyl phthalate	U		0.000260	0.00300	1	04/20/2022 23:40	WG1850898
Di-n-octyl phthalate	U		0.000932	0.00300	1	04/20/2022 23:40	WG1850898
Pyrene	U		0.000107	0.00100	1	04/20/2022 23:40	WG1850898
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	04/20/2022 23:40	WG1850898
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	04/20/2022 23:40	WG1850898

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	04/20/2022 23:40	WG1850898
2,4-Dichlorophenol	U		0.000102	0.0100	1	04/20/2022 23:40	WG1850898
2,4-Dimethylphenol	U		0.0000636	0.0100	1	04/20/2022 23:40	WG1850898
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	04/20/2022 23:40	WG1850898
2,4-Dinitrophenol	U		0.00593	0.0100	1	04/20/2022 23:40	WG1850898
2-Nitrophenol	U		0.000117	0.0100	1	04/20/2022 23:40	WG1850898
2-Nitroaniline	U		0.000102	0.0100	1	04/20/2022 23:40	WG1850898
2-Methylphenol	U		0.0000929	0.0100	1	04/20/2022 23:40	WG1850898
3&4-Methyl Phenol	U		0.000168	0.0100	1	04/20/2022 23:40	WG1850898
3-Nitroaniline	U		0.0000869	0.0100	1	04/20/2022 23:40	WG1850898
4-Chloroaniline	U		0.000234	0.0100	1	04/20/2022 23:40	WG1850898
4-Nitroaniline	U		0.0000910	0.0100	1	04/20/2022 23:40	WG1850898
4-Nitrophenol	U		0.000143	0.0100	1	04/20/2022 23:40	WG1850898
Pentachlorophenol	U		0.000313	0.0100	1	04/20/2022 23:40	WG1850898
Phenol	U		0.00433	0.0100	1	04/20/2022 23:40	WG1850898
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	04/20/2022 23:40	WG1850898
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	04/20/2022 23:40	WG1850898
(S) 2-Fluorophenol	*15.1*			*10.0-120*		*04/20/2022 23:40*	WG1850898
(S) Phenol-d5	*10.3*			*10.0-120*		*04/20/2022 23:40*	WG1850898
(S) Nitrobenzene-d5	*41.8*			*10.0-127*		*04/20/2022 23:40*	WG1850898
(S) 2-Fluorobiphenyl	*62.9*			*10.0-130*		*04/20/2022 23:40*	WG1850898
(S) 2,4,6-Tribromophenol	*53.5*			*10.0-155*		*04/20/2022 23:40*	WG1850898
(S) p-Terphenyl-d14	*65.5*			*10.0-128*		*04/20/2022 23:40*	WG1850898

Method Blank (MB)

(MB) R3782708-1 04/17/22 04:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1482870-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482870-01 04/17/22 04:51 • (DUP) R3782708-3 04/17/22 04:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1280	1290	1	1.09		5

L1482976-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-12 04/17/22 04:51 • (DUP) R3782708-4 04/17/22 04:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	536	549	1	2.40		5

Laboratory Control Sample (LCS)

(LCS) R3782708-2 04/17/22 04:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8570	97.4	77.4-123	

Method Blank (MB)

(MB) R3784875-1 04/21/22 16:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1482377-63 Original Sample (OS) • Duplicate (DUP)

(OS) L1482377-63 04/21/22 16:36 • (DUP) R3784875-3 04/21/22 16:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	ND	ND	1	0.000		5

Sample Narrative:

OS: OOH result did not match in hold result.

L1483468-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1483468-17 04/21/22 16:36 • (DUP) R3784875-4 04/21/22 16:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	745	744	1	0.179		5

Laboratory Control Sample (LCS)

(LCS) R3784875-2 04/21/22 16:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8480	96.4	77.4-123	

Method Blank (MB)

(MB) R3784885-1 04/21/22 19:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1482901-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482901-01 04/21/22 19:35 • (DUP) R3784885-3 04/21/22 19:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	732	753	1	2.87		5

L1482988-42 Original Sample (OS) • Duplicate (DUP)

(OS) L1482988-42 04/21/22 19:35 • (DUP) R3784885-4 04/21/22 19:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2080	2100	1	1.20		5

Laboratory Control Sample (LCS)

(LCS) R3784885-2 04/21/22 19:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8320	94.5	77.4-123	

Method Blank (MB)

(MB) R3781988-2 04/17/22 09:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1482868-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1482868-03 04/17/22 09:33 • (DUP) R3781988-3 04/17/22 09:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	521	531	1	1.74		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1482976-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-18 04/17/22 11:10 • (DUP) R3781988-4 04/17/22 11:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3781988-1 04/17/22 09:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	103	103	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3782394-2 04/18/22 09:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1483347-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1483347-01 04/18/22 09:57 • (DUP) R3782394-3 04/18/22 10:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	33.8	33.7	1	0.384		20

Sample Narrative:
OS: Endpoint pH 4.5 headspace
DUP: Endpoint pH 4.5

L1482976-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-25 04/18/22 10:35 • (DUP) R3782394-4 04/18/22 10:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	995	997	1	0.223		20

Sample Narrative:
OS: Endpoint pH 4.5 headspace
DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3782394-1 04/18/22 08:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	102	102	90.0-110	

Sample Narrative:
LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3783837-1 04/21/22 17:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1482788-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482788-01 04/21/22 18:09 • (DUP) R3783837-3 04/21/22 18:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1.10	1.11	1	0.905		20

L1482976-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-07 04/21/22 18:26 • (DUP) R3783837-6 04/21/22 18:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	3.50	3.54	1	1.14		20

Laboratory Control Sample (LCS)

(LCS) R3783837-2 04/21/22 17:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.57	103	90.0-110	

L1482788-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482788-01 04/21/22 18:09 • (MS) R3783837-4 04/21/22 18:12 • (MSD) R3783837-5 04/21/22 18:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	1.10	3.47	3.56	94.8	98.4	1	90.0-110			2.56	20

L1482976-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482976-07 04/21/22 18:26 • (MS) R3783837-7 04/21/22 18:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	3.50	5.79	91.6	1	90.0-110	E

Method Blank (MB)

(MB) R3783864-1 04/21/22 21:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1482976-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-17 04/21/22 21:45 • (DUP) R3783864-3 04/21/22 21:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1482988-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482988-01 04/21/22 21:51 • (DUP) R3783864-6 04/21/22 21:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3783864-2 04/21/22 21:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.54	102	90.0-110	

L1482976-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-17 04/21/22 21:45 • (MS) R3783864-4 04/21/22 21:48 • (MSD) R3783864-5 04/21/22 21:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.50	2.59	100	104	1	90.0-110			3.54	20

L1482988-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482988-01 04/21/22 21:51 • (MS) R3783864-7 04/21/22 21:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.48	99.2	1	90.0-110	

Method Blank (MB)

(MB) R3784259-1 04/22/22 18:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1482314-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482314-01 04/22/22 18:41 • (DUP) R3784259-3 04/22/22 18:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.380	0.380	1	0.000		20

L1482976-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-25 04/22/22 18:56 • (DUP) R3784259-5 04/22/22 18:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3784259-2 04/22/22 18:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.54	102	90.0-110	

L1482314-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482314-01 04/22/22 18:41 • (MS) R3784259-4 04/22/22 18:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.380	2.90	101	1	90.0-110	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/22/22 18:56 • (MS) R3784259-6 04/22/22 18:59 • (MSD) R3784259-7 04/22/22 19:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.41	2.42	96.4	96.8	1	90.0-110			0.414	20

Method Blank (MB)

(MB) R3788735-1 05/05/22 23:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1482976-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-24 05/06/22 00:02 • (DUP) R3788735-5 05/06/22 00:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	12.2	12.6	10	3.23		20

L1482976-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-26 05/06/22 00:04 • (DUP) R3788735-6 05/06/22 00:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	12.7	12.5	10	1.59		20

Laboratory Control Sample (LCS)

(LCS) R3788735-2 05/06/22 00:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.56	102	90.0-110	

L1487948-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1487948-17 05/06/22 00:07 • (MS) R3788735-7 05/06/22 00:08 • (MSD) R3788735-8 05/06/22 00:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.414	2.97	3.07	102	106	1	90.0-110			3.31	20

L1487948-18 Original Sample (OS) • Matrix Spike (MS)

(OS) L1487948-18 05/06/22 00:14 • (MS) R3788735-9 05/06/22 00:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.61	104	1	90.0-110	

Method Blank (MB)

(MB) R3785338-1 04/19/22 01:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1482976-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-01 04/19/22 02:06 • (DUP) R3785338-3 04/19/22 02:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	51.9	51.8	1	0.108		15
Fluoride	0.985	0.981	1	0.427		15
Sulfate	73.1	73.1	1	0.0804		15

L1482988-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1482988-25 04/19/22 22:02 • (DUP) R3785338-5 04/19/22 22:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3785338-2 04/19/22 01:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.0	100	80.0-120	
Fluoride	8.00	8.10	101	80.0-120	
Sulfate	40.0	40.5	101	80.0-120	

L1482976-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482976-01 04/19/22 02:06 • (MS) R3785338-4 04/19/22 02:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	51.9	102	99.6	1	80.0-120	E
Fluoride	5.00	0.985	6.08	102	1	80.0-120	
Sulfate	50.0	73.1	121	96.4	1	80.0-120	E

L1482988-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482988-25 04/19/22 22:02 • (MS) R3785338-6 04/19/22 22:33 • (MSD) R3785338-7 04/19/22 22:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	U	46.6	46.8	93.2	93.6	1	80.0-120			0.438	15
Fluoride	5.00	U	4.57	4.60	91.5	91.9	1	80.0-120			0.486	15
Sulfate	50.0	U	46.7	46.8	93.3	93.7	1	80.0-120			0.355	15

Method Blank (MB)

(MB) R3786371-1 04/20/22 02:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1482976-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-21 04/20/22 10:20 • (DUP) R3786371-3 04/20/22 10:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	27.4	27.5	1	0.303		15
Fluoride	0.357	0.348	1	2.78		15
Sulfate	73.9	73.8	1	0.0364		15

L1482988-38 Original Sample (OS) • Duplicate (DUP)

(OS) L1482988-38 04/20/22 19:14 • (DUP) R3786371-6 04/20/22 19:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.883	0.881	1	0.227		15

L1482988-38 Original Sample (OS) • Duplicate (DUP)

(OS) L1482988-38 04/20/22 19:47 • (DUP) R3786371-7 04/20/22 20:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	397	396	10	0.340		15
Sulfate	340	340	10	0.0562		15

Laboratory Control Sample (LCS)

(LCS) R3786371-2 04/20/22 03:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.6	99.0	80.0-120	
Fluoride	8.00	7.85	98.1	80.0-120	
Sulfate	40.0	40.0	100	80.0-120	

L1482976-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-21 04/20/22 10:20 • (MS) R3786371-4 04/20/22 10:53 • (MSD) R3786371-5 04/20/22 11:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	27.4	76.8	76.6	98.9	98.4	1	80.0-120			0.353	15
Fluoride	5.00	0.357	5.47	5.45	102	102	1	80.0-120			0.311	15
Sulfate	50.0	73.9	121	122	93.8	97.1	1	80.0-120	E	E	1.37	15

L1482988-38 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482988-38 04/20/22 19:14 • (MS) R3786371-8 04/20/22 20:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	396	425	58.7	1	80.0-120	E V
Fluoride	5.00	0.883	5.85	99.3	1	80.0-120	
Sulfate	50.0	345	370	50.9	1	80.0-120	E V

Method Blank (MB)

(MB) R3786372-1 04/21/22 01:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1482976-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1482976-25 04/21/22 03:19 • (DUP) R3786372-3 04/21/22 03:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	91.8	90.0	1	1.95		15
Fluoride	0.715	0.714	1	0.126		15
Sulfate	8.21	8.13	1	0.995		15

L1482988-47 Original Sample (OS) • Duplicate (DUP)

(OS) L1482988-47 04/21/22 05:46 • (DUP) R3786372-6 04/21/22 06:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3786372-2 04/21/22 01:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.5	80.0-120	
Fluoride	8.00	8.09	101	80.0-120	
Sulfate	40.0	40.1	100	80.0-120	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/21/22 03:19 • (MS) R3786372-4 04/21/22 03:51 • (MSD) R3786372-5 04/21/22 04:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	91.8	137	137	90.7	89.6	1	80.0-120	E	E	0.418	15
Fluoride	5.00	0.715	5.72	5.72	100	100	1	80.0-120			0.0297	15
Sulfate	50.0	8.21	58.1	56.9	99.7	97.3	1	80.0-120			2.10	15

L1482988-47 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482988-47 04/21/22 05:46 • (MS) R3786372-7 04/21/22 06:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	19.6	39.1	1	80.0-120	J6
Fluoride	5.00	U	1.90	37.9	1	80.0-120	J6
Sulfate	50.0	U	19.5	38.9	1	80.0-120	J6

Method Blank (MB)

(MB) R3785264-1 04/22/22 18:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1485342-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1485342-01 04/22/22 19:24 • (DUP) R3785264-3 04/22/22 19:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	351	352	1	0.115	E	15
Fluoride	0.103	0.104	1	0.969	J	15
Sulfate	0.826	0.825	1	0.109	J	15

L1484085-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1484085-04 04/23/22 01:39 • (DUP) R3785264-5 04/23/22 01:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1620	1620	10	0.0222	E	15
Fluoride	1.01	1.02	10	0.756	J	15
Sulfate	820	820	10	0.0730		15

Laboratory Control Sample (LCS)

(LCS) R3785264-2 04/22/22 18:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.9	97.2	80.0-120	
Fluoride	8.00	7.89	98.6	80.0-120	
Sulfate	40.0	39.6	98.9	80.0-120	

L1485342-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1485342-01 04/22/22 19:24 • (MS) R3785264-4 04/22/22 19:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	351	384	65.4	1	80.0-120	E V
Fluoride	5.00	0.103	3.38	65.5	1	80.0-120	J6
Sulfate	50.0	0.826	45.2	88.8	1	80.0-120	

L1484085-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1484085-04 04/23/22 01:39 • (MS) R3785264-6 04/23/22 02:09 • (MSD) R3785264-7 04/23/22 02:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1620	1590	1580	0.000	0.000	10	80.0-120	E V	E V	1.11	15
Fluoride	5.00	1.01	5.26	5.20	84.9	83.7	10	80.0-120			1.18	15
Sulfate	50.0	820	827	818	13.5	0.000	10	80.0-120	V	V	1.09	15

Method Blank (MB)

(MB) R3786784-1 04/30/22 17:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1484837-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1484837-05 04/30/22 17:51 • (DUP) R3786784-3 04/30/22 18:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	314	313	1	0.515	E	15

Laboratory Control Sample (LCS)

(LCS) R3786784-2 04/30/22 17:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	37.4	93.6	80.0-120	

L1484837-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1484837-05 04/30/22 17:51 • (MS) R3786784-4 04/30/22 18:18 • (MSD) R3786784-5 04/30/22 18:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50.0	314	346	351	63.3	73.8	1	80.0-120	E V	E V	1.50	15

Method Blank (MB)

(MB) R3786014-1 04/28/22 09:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3786014-2 04/28/22 09:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00307	102	80.0-120	

L1482831-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482831-01 04/28/22 09:50 • (MS) R3786014-3 04/28/22 09:52 • (MSD) R3786014-4 04/28/22 09:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00325	0.00308	108	103	1	75.0-125			5.37	20

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3786019-1 04/28/22 10:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3786019-2 04/28/22 10:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00307	102	80.0-120	

L1482976-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-05 04/28/22 10:51 • (MS) R3786019-3 04/28/22 10:54 • (MSD) R3786019-4 04/28/22 11:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00321	0.00319	107	106	1	75.0-125			0.625	20

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Method Blank (MB)

(MB) R3786942-1 05/01/22 16:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3786942-2 05/01/22 16:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00289	96.4	80.0-120	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 05/01/22 16:58 • (MS) R3786942-3 05/01/22 17:00 • (MSD) R3786942-4 05/01/22 17:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00151	0.00152	50.4	50.7	1	75.0-125	J6	J6	0.549	20

Method Blank (MB)

(MB) R3785374-1 04/27/22 03:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3785374-2 04/27/22 03:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.969	96.9	80.0-120	

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3784754-1 04/25/22 12:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3784754-2 04/25/22 12:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.951	95.1	80.0-120	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/25/22 12:07 • (MS) R3784754-4 04/25/22 12:12 • (MSD) R3784754-5 04/25/22 12:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.161	1.12	1.13	96.1	96.5	1	75.0-125			0.385	20

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Method Blank (MB)

(MB) R3784087-1 04/22/22 12:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	0.0241	J	0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	0.00203		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	0.0300	J	0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	0.000578	J	0.000348	0.00500
Nickel,Dissolved	0.00134	J	0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3784087-2 04/22/22 12:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	5.01	100	80.0-120	
Arsenic,Dissolved	0.0500	0.0476	95.3	80.0-120	
Barium,Dissolved	0.0500	0.0488	97.6	80.0-120	
Cadmium,Dissolved	0.0500	0.0508	102	80.0-120	
Chromium,Dissolved	0.0500	0.0514	103	80.0-120	
Copper,Dissolved	0.0500	0.0523	105	80.0-120	
Cobalt,Dissolved	0.0500	0.0499	99.9	80.0-120	
Iron,Dissolved	5.00	5.05	101	80.0-120	
Lead,Dissolved	0.0500	0.0482	96.3	80.0-120	
Manganese,Dissolved	0.0500	0.0501	100	80.0-120	
Molybdenum,Dissolved	0.0500	0.0484	96.8	80.0-120	
Nickel,Dissolved	0.0500	0.0517	103	80.0-120	
Selenium,Dissolved	0.0500	0.0511	102	80.0-120	
Silver,Dissolved	0.0500	0.0482	96.4	80.0-120	
Uranium,Dissolved	0.0500	0.0468	93.6	80.0-120	
Zinc,Dissolved	0.500	0.476	95.2	80.0-120	

L1482549-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482549-04 04/22/22 12:14 • (MS) R3784087-4 04/22/22 12:21 • (MSD) R3784087-5 04/22/22 12:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	4.68	4.72	93.5	94.3	1	75.0-125			0.859	20
Arsenic,Dissolved	0.0500	0.00114	0.0484	0.0484	94.6	94.6	1	75.0-125			0.000744	20
Barium,Dissolved	0.0500	0.0189	0.0693	0.0676	101	97.4	1	75.0-125			2.56	20
Cadmium,Dissolved	0.0500	U	0.0507	0.0505	101	101	1	75.0-125			0.461	20
Chromium,Dissolved	0.0500	0.00359	0.0500	0.0499	92.9	92.7	1	75.0-125			0.204	20
Copper,Dissolved	0.0500	0.00341	0.0511	0.0520	95.4	97.1	1	75.0-125			1.66	20
Cobalt,Dissolved	0.0500	0.00119	0.0491	0.0486	95.8	94.9	1	75.0-125			1.00	20
Iron,Dissolved	5.00	0.0361	4.81	4.92	95.5	97.8	1	75.0-125			2.32	20
Lead,Dissolved	0.0500	0.00125	0.0477	0.0479	92.9	93.2	1	75.0-125			0.388	20
Manganese,Dissolved	0.0500	0.0284	0.0763	0.0766	95.9	96.5	1	75.0-125			0.403	20
Molybdenum,Dissolved	0.0500	0.000607	0.0498	0.0502	98.5	99.2	1	75.0-125			0.737	20
Nickel,Dissolved	0.0500	0.00510	0.0522	0.0525	94.2	94.9	1	75.0-125			0.682	20
Selenium,Dissolved	0.0500	0.000397	0.0519	0.0503	103	99.7	1	75.0-125			3.22	20
Silver,Dissolved	0.0500	U	0.0487	0.0478	97.3	95.7	1	75.0-125			1.72	20
Uranium,Dissolved	0.0500	0.00139	0.0492	0.0493	95.5	95.8	1	75.0-125			0.309	20
Zinc,Dissolved	0.500	U	0.465	0.464	93.0	92.7	1	75.0-125			0.270	20

Method Blank (MB)

(MB) R3784763-1 04/25/22 13:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	0.000881	J	0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3784763-2 04/25/22 13:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	5.17	103	80.0-120	
Arsenic,Dissolved	0.0500	0.0475	95.1	80.0-120	
Barium,Dissolved	0.0500	0.0508	102	80.0-120	
Cadmium,Dissolved	0.0500	0.0539	108	80.0-120	
Chromium,Dissolved	0.0500	0.0510	102	80.0-120	
Copper,Dissolved	0.0500	0.0445	89.0	80.0-120	
Cobalt,Dissolved	0.0500	0.0512	102	80.0-120	
Iron,Dissolved	5.00	5.23	105	80.0-120	
Lead,Dissolved	0.0500	0.0515	103	80.0-120	
Manganese,Dissolved	0.0500	0.0514	103	80.0-120	
Molybdenum,Dissolved	0.0500	0.0502	100	80.0-120	
Nickel,Dissolved	0.0500	0.0521	104	80.0-120	
Selenium,Dissolved	0.0500	0.0488	97.6	80.0-120	
Silver,Dissolved	0.0500	0.0515	103	80.0-120	
Uranium,Dissolved	0.0500	0.0487	97.5	80.0-120	
Zinc,Dissolved	0.500	0.491	98.3	80.0-120	

L1482653-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482653-03 04/25/22 13:17 • (MS) R3784763-4 04/25/22 13:23 • (MSD) R3784763-5 04/25/22 13:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	5.03	5.06	101	101	1	75.0-125			0.717	20
Arsenic,Dissolved	0.0500	0.0175	0.0634	0.0654	91.7	95.8	1	75.0-125			3.20	20
Barium,Dissolved	0.0500	0.0263	0.0782	0.0798	104	107	1	75.0-125			2.00	20
Cadmium,Dissolved	0.0500	U	0.0534	0.0537	107	107	1	75.0-125			0.621	20
Chromium,Dissolved	0.0500	6.69	6.57	6.77	0.000	165	1	75.0-125	V	V	3.03	20
Copper,Dissolved	0.0500	0.00160	0.0492	0.0502	95.2	97.2	1	75.0-125			2.10	20
Cobalt,Dissolved	0.0500	U	0.0483	0.0493	96.5	98.7	1	75.0-125			2.22	20
Iron,Dissolved	5.00	U	4.98	5.02	99.6	100	1	75.0-125			0.779	20
Lead,Dissolved	0.0500	U	0.0501	0.0505	100	101	1	75.0-125			0.843	20
Manganese,Dissolved	0.0500	0.0119	0.0593	0.0605	94.8	97.3	1	75.0-125			2.05	20
Molybdenum,Dissolved	0.0500	0.0188	0.0704	0.0703	103	103	1	75.0-125			0.201	20
Nickel,Dissolved	0.0500	0.00107	0.0503	0.0503	98.5	98.4	1	75.0-125			0.0292	20
Selenium,Dissolved	0.0500	0.00257	0.0535	0.0544	102	104	1	75.0-125			1.67	20
Silver,Dissolved	0.0500	U	0.0490	0.0503	98.0	101	1	75.0-125			2.58	20
Uranium,Dissolved	0.0500	0.00318	0.0529	0.0530	99.5	99.6	1	75.0-125			0.0822	20
Zinc,Dissolved	0.500	U	0.470	0.487	94.0	97.4	1	75.0-125			3.52	20

Method Blank (MB)

(MB) R3785005-1 04/25/22 20:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	0.000502	J	0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3785005-2 04/25/22 20:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	5.29	106	80.0-120	
Arsenic,Dissolved	0.0500	0.0508	102	80.0-120	
Barium,Dissolved	0.0500	0.0525	105	80.0-120	
Cadmium,Dissolved	0.0500	0.0528	106	80.0-120	
Chromium,Dissolved	0.0500	0.0526	105	80.0-120	
Copper,Dissolved	0.0500	0.0524	105	80.0-120	
Cobalt,Dissolved	0.0500	0.0531	106	80.0-120	
Iron,Dissolved	5.00	5.20	104	80.0-120	
Lead,Dissolved	0.0500	0.0498	99.6	80.0-120	
Manganese,Dissolved	0.0500	0.0533	107	80.0-120	
Molybdenum,Dissolved	0.0500	0.0503	101	80.0-120	
Nickel,Dissolved	0.0500	0.0540	108	80.0-120	
Selenium,Dissolved	0.0500	0.0506	101	80.0-120	
Silver,Dissolved	0.0500	0.0516	103	80.0-120	
Uranium,Dissolved	0.0500	0.0486	97.1	80.0-120	
Zinc,Dissolved	0.500	0.515	103	80.0-120	

L1482677-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482677-19 04/25/22 20:36 • (MS) R3785005-4 04/25/22 20:42 • (MSD) R3785005-5 04/25/22 20:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	5.07	5.03	101	101	1	75.0-125			0.756	20
Arsenic,Dissolved	0.0500	0.000269	0.0500	0.0503	99.4	100	1	75.0-125			0.616	20
Barium,Dissolved	0.0500	0.00361	0.0515	0.0520	95.8	96.7	1	75.0-125			0.863	20
Cadmium,Dissolved	0.0500	U	0.0529	0.0530	106	106	1	75.0-125			0.174	20
Chromium,Dissolved	0.0500	0.00682	0.0521	0.0527	90.5	91.7	1	75.0-125			1.14	20
Copper,Dissolved	0.0500	U	0.0502	0.0512	100	102	1	75.0-125			1.91	20
Cobalt,Dissolved	0.0500	0.000111	0.0511	0.0518	102	103	1	75.0-125			1.42	20
Iron,Dissolved	5.00	0.0514	5.10	5.11	101	101	1	75.0-125			0.283	20
Lead,Dissolved	0.0500	U	0.0496	0.0483	99.3	96.6	1	75.0-125			2.72	20
Manganese,Dissolved	0.0500	U	0.0514	0.0507	103	101	1	75.0-125			1.38	20
Molybdenum,Dissolved	0.0500	U	0.0511	0.0514	102	103	1	75.0-125			0.605	20
Nickel,Dissolved	0.0500	0.00257	0.0531	0.0533	101	101	1	75.0-125			0.272	20
Selenium,Dissolved	0.0500	0.00136	0.0522	0.0529	102	103	1	75.0-125			1.43	20
Silver,Dissolved	0.0500	U	0.0510	0.0510	102	102	1	75.0-125			0.0325	20
Uranium,Dissolved	0.0500	U	0.0489	0.0479	97.8	95.9	1	75.0-125			1.95	20
Zinc,Dissolved	0.500	0.00769	0.502	0.500	98.9	98.4	1	75.0-125			0.513	20

Method Blank (MB)

(MB) R3784832-1 04/25/22 14:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	0.0323	J	0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	0.000613	J	0.000348	0.00500
Nickel,Dissolved	0.00113	J	0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3784832-2 04/25/22 14:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	5.08	102	80.0-120	
Arsenic,Dissolved	0.0500	0.0489	97.9	80.0-120	
Barium,Dissolved	0.0500	0.0493	98.7	80.0-120	
Cadmium,Dissolved	0.0500	0.0539	108	80.0-120	
Copper,Dissolved	0.0500	0.0519	104	80.0-120	
Cobalt,Dissolved	0.0500	0.0515	103	80.0-120	
Iron,Dissolved	5.00	5.08	102	80.0-120	
Lead,Dissolved	0.0500	0.0504	101	80.0-120	
Manganese,Dissolved	0.0500	0.0511	102	80.0-120	
Molybdenum,Dissolved	0.0500	0.0505	101	80.0-120	
Nickel,Dissolved	0.0500	0.0537	107	80.0-120	
Selenium,Dissolved	0.0500	0.0491	98.1	80.0-120	
Silver,Dissolved	0.0500	0.0516	103	80.0-120	
Uranium,Dissolved	0.0500	0.0499	99.8	80.0-120	
Zinc,Dissolved	0.500	0.498	99.6	80.0-120	

L1482988-55 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482988-55 04/25/22 14:25 • (MS) R3784832-4 04/25/22 14:31 • (MSD) R3784832-5 04/25/22 14:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	5.04	5.06	101	101	1	75.0-125			0.463	20
Arsenic,Dissolved	0.0500	0.000223	0.0492	0.0487	97.9	97.0	1	75.0-125			0.886	20
Barium,Dissolved	0.0500	U	0.0521	0.0516	104	103	1	75.0-125			1.05	20
Cadmium,Dissolved	0.0500	U	0.0541	0.0536	108	107	1	75.0-125			0.833	20
Copper,Dissolved	0.0500	U	0.0525	0.0523	105	105	1	75.0-125			0.449	20
Cobalt,Dissolved	0.0500	U	0.0513	0.0520	103	104	1	75.0-125			1.33	20
Iron,Dissolved	5.00	U	5.06	5.02	101	100	1	75.0-125			0.702	20
Lead,Dissolved	0.0500	U	0.0500	0.0529	100	106	1	75.0-125			5.69	20
Manganese,Dissolved	0.0500	U	0.0493	0.0495	98.5	99.0	1	75.0-125			0.471	20
Molybdenum,Dissolved	0.0500	U	0.0499	0.0511	99.8	102	1	75.0-125			2.34	20
Nickel,Dissolved	0.0500	U	0.0515	0.0524	103	105	1	75.0-125			1.87	20
Selenium,Dissolved	0.0500	U	0.0495	0.0499	99.0	99.8	1	75.0-125			0.757	20
Silver,Dissolved	0.0500	U	0.0509	0.0514	102	103	1	75.0-125			1.12	20
Uranium,Dissolved	0.0500	U	0.0486	0.0502	97.3	100	1	75.0-125			3.21	20
Zinc,Dissolved	0.500	U	0.500	0.505	100	101	1	75.0-125			0.952	20

Method Blank (MB)

(MB) R3783968-1 04/21/22 23:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Method Blank (MB)

(MB) R3784552-1 04/24/22 22:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nickel,Dissolved	U		0.000816	0.00200

Laboratory Control Sample (LCS)

(LCS) R3783968-2 04/21/22 23:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	4.81	96.3	80.0-120	
Arsenic,Dissolved	0.0500	0.0473	94.7	80.0-120	
Barium,Dissolved	0.0500	0.0439	87.8	80.0-120	
Cadmium,Dissolved	0.0500	0.0515	103	80.0-120	
Chromium,Dissolved	0.0500	0.0501	100	80.0-120	
Copper,Dissolved	0.0500	0.0406	81.3	80.0-120	
Cobalt,Dissolved	0.0500	0.0501	100	80.0-120	
Iron,Dissolved	5.00	5.16	103	80.0-120	
Lead,Dissolved	0.0500	0.0476	95.3	80.0-120	
Manganese,Dissolved	0.0500	0.0488	97.6	80.0-120	
Molybdenum,Dissolved	0.0500	0.0456	91.3	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3783968-2 04/21/22 23:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium,Dissolved	0.0500	0.0492	98.4	80.0-120	
Silver,Dissolved	0.0500	0.0472	94.4	80.0-120	
Uranium,Dissolved	0.0500	0.0454	90.8	80.0-120	
Zinc,Dissolved	0.500	0.478	95.6	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3784552-2 04/24/22 22:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nickel,Dissolved	0.0500	0.0525	105	80.0-120	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/22/22 00:02 • (MS) R3783968-4 04/22/22 00:08 • (MSD) R3783968-5 04/22/22 00:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	4.50	4.62	89.9	92.5	1	75.0-125			2.77	20
Arsenic,Dissolved	0.0500	0.00654	0.0530	0.0538	93.0	94.5	1	75.0-125			1.36	20
Barium,Dissolved	0.0500	0.470	0.514	0.515	89.3	90.4	1	75.0-125			0.106	20
Cadmium,Dissolved	0.0500	0.000220	0.0502	0.0514	100	102	1	75.0-125			2.29	20
Chromium,Dissolved	0.0500	U	0.0490	0.0494	98.1	98.9	1	75.0-125			0.800	20
Copper,Dissolved	0.0500	U	0.0486	0.0489	97.3	97.7	1	75.0-125			0.429	20
Cobalt,Dissolved	0.0500	0.000265	0.0490	0.0492	97.4	97.8	1	75.0-125			0.371	20
Iron,Dissolved	5.00	1.99	6.92	7.01	98.5	100	1	75.0-125			1.38	20
Lead,Dissolved	0.0500	U	0.0483	0.0492	96.5	98.5	1	75.0-125			1.96	20
Manganese,Dissolved	0.0500	0.897	0.916	0.904	37.2	13.9	1	75.0-125	V	V	1.28	20
Molybdenum,Dissolved	0.0500	0.00278	0.0498	0.0504	94.0	95.2	1	75.0-125			1.23	20
Selenium,Dissolved	0.0500	0.000394	0.0500	0.0524	99.2	104	1	75.0-125			4.65	20
Silver,Dissolved	0.0500	U	0.0467	0.0473	93.5	94.7	1	75.0-125			1.28	20
Uranium,Dissolved	0.0500	0.0353	0.0824	0.0841	94.2	97.6	1	75.0-125			2.04	20
Zinc,Dissolved	0.500	U	0.472	0.477	94.5	95.4	1	75.0-125			1.01	20

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/24/22 23:01 • (MS) R3784552-4 04/24/22 23:08 • (MSD) R3784552-5 04/24/22 23:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nickel,Dissolved	0.0500	0.00186	0.0497	0.0502	95.7	96.6	1	75.0-125			0.877	20

Method Blank (MB)

(MB) R3785101-1 04/26/22 11:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chromium,Dissolved	U		0.00124	0.00200

Laboratory Control Sample (LCS)

(LCS) R3785101-2 04/26/22 11:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium,Dissolved	0.0500	0.0488	97.7	80.0-120	

L1484402-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1484402-07 04/26/22 11:35 • (MS) R3785101-4 04/26/22 11:42 • (MSD) R3785101-5 04/26/22 11:45

Analyte	Spike Amount mg/l	Original Result	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500		0.0483	0.0471	96.5	94.2	1	75.0-125			2.46	20

Method Blank (MB)

(MB) R3782916-3 04/19/22 07:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0409	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3782916-1 04/19/22 06:20 • (LCSD) R3782916-2 04/19/22 06:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.36	5.94	97.5	108	72.0-127			10.3	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*104*	*78.0-120*				

Method Blank (MB)

(MB) R3783107-2 04/20/22 03:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.2*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3783107-1 04/20/22 02:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.03	110	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3783436-2 04/21/22 04:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3783436-1 04/21/22 04:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.35	115	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/21/22 06:12 • (MS) R3783436-3 04/21/22 06:32 • (MSD) R3783436-4 04/21/22 06:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.188	6.23	6.24	110	110	1	10.0-160			0.160	22
(S) a,a,a-Trifluorotoluene(FID)					*106*	*105*		*78.0-120*				

Method Blank (MB)

(MB) R3783343-3 04/17/22 06:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3783343-3 04/17/22 06:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*85.7*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3783343-1 04/17/22 05:02 • (LCSD) R3783343-2 04/17/22 05:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0284	0.0204	114	81.6	19.0-160		J3	32.8	27
Benzene	0.00500	0.00508	0.00510	102	102	70.0-123			0.393	20
Bromodichloromethane	0.00500	0.00427	0.00420	85.4	84.0	75.0-120			1.65	20
Bromoform	0.00500	0.00346	0.00359	69.2	71.8	68.0-132			3.69	20
Bromomethane	0.00500	0.00422	0.00506	84.4	101	10.0-160			18.1	25
n-Butylbenzene	0.00500	0.00423	0.00436	84.6	87.2	73.0-125			3.03	20
sec-Butylbenzene	0.00500	0.00463	0.00490	92.6	98.0	75.0-125			5.67	20
tert-Butylbenzene	0.00500	0.00460	0.00495	92.0	99.0	76.0-124			7.33	20
Carbon disulfide	0.00500	0.00514	0.00514	103	103	61.0-128			0.000	20
Carbon tetrachloride	0.00500	0.00493	0.00500	98.6	100	68.0-126			1.41	20
Chlorobenzene	0.00500	0.00502	0.00510	100	102	80.0-121			1.58	20
Chlorodibromomethane	0.00500	0.00424	0.00435	84.8	87.0	77.0-125			2.56	20
Chloroethane	0.00500	0.00580	0.00572	116	114	47.0-150			1.39	20
Chloroform	0.00500	0.00508	0.00512	102	102	73.0-120			0.784	20
Chloromethane	0.00500	0.00527	0.00497	105	99.4	41.0-142			5.86	20
1,2-Dibromoethane	0.00500	0.00494	0.00478	98.8	95.6	80.0-122			3.29	20
1,1-Dichloroethane	0.00500	0.00504	0.00497	101	99.4	70.0-126			1.40	20
1,2-Dichloroethane	0.00500	0.00478	0.00470	95.6	94.0	70.0-128			1.69	20
1,1-Dichloroethene	0.00500	0.00535	0.00538	107	108	71.0-124			0.559	20
cis-1,2-Dichloroethene	0.00500	0.00505	0.00516	101	103	73.0-120			2.15	20
trans-1,2-Dichloroethene	0.00500	0.00547	0.00556	109	111	73.0-120			1.63	20
1,2-Dichloropropane	0.00500	0.00542	0.00548	108	110	77.0-125			1.10	20
cis-1,3-Dichloropropene	0.00500	0.00449	0.00454	89.8	90.8	80.0-123			1.11	20
trans-1,3-Dichloropropene	0.00500	0.00410	0.00422	82.0	84.4	78.0-124			2.88	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3783343-1 04/17/22 05:02 • (LCSD) R3783343-2 04/17/22 05:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00485	0.00508	97.0	102	79.0-123			4.63	20
Hexachloro-1,3-butadiene	0.00500	0.00415	0.00435	83.0	87.0	54.0-138			4.71	20
2-Hexanone	0.0250	0.0248	0.0247	99.2	98.8	67.0-149			0.404	20
Isopropylbenzene	0.00500	0.00449	0.00465	89.8	93.0	76.0-127			3.50	20
p-Isopropyltoluene	0.00500	0.00439	0.00464	87.8	92.8	76.0-125			5.54	20
2-Butanone (MEK)	0.0250	0.0257	0.0238	103	95.2	44.0-160			7.68	20
Methylene Chloride	0.00500	0.00563	0.00546	113	109	67.0-120			3.07	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0243	0.0241	97.2	96.4	68.0-142			0.826	20
Methyl tert-butyl ether	0.00500	0.00492	0.00503	98.4	101	68.0-125			2.21	20
Naphthalene	0.00500	0.00421	0.00412	84.2	82.4	54.0-135			2.16	20
n-Propylbenzene	0.00500	0.00466	0.00495	93.2	99.0	77.0-124			6.04	20
Styrene	0.00500	0.00408	0.00404	81.6	80.8	73.0-130			0.985	20
1,1,2,2-Tetrachloroethane	0.00500	0.00504	0.00536	101	107	65.0-130			6.15	20
Tetrachloroethene	0.00500	0.00466	0.00482	93.2	96.4	72.0-132			3.38	20
Toluene	0.00500	0.00495	0.00504	99.0	101	79.0-120			1.80	20
1,1,1-Trichloroethane	0.00500	0.00482	0.00473	96.4	94.6	73.0-124			1.88	20
1,1,2-Trichloroethane	0.00500	0.00505	0.00515	101	103	80.0-120			1.96	20
Trichloroethene	0.00500	0.00523	0.00500	105	100	78.0-124			4.50	20
1,2,4-Trimethylbenzene	0.00500	0.00452	0.00481	90.4	96.2	76.0-121			6.22	20
1,3,5-Trimethylbenzene	0.00500	0.00465	0.00488	93.0	97.6	76.0-122			4.83	20
Vinyl chloride	0.00500	0.00475	0.00514	95.0	103	67.0-131			7.89	20
Xylenes, Total	0.0150	0.0141	0.0146	94.0	97.3	79.0-123			3.48	20
(S) Toluene-d8				*104*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*100*	*101*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*83.7*	*83.4*	*70.0-130*				

L1482870-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482870-01 04/17/22 07:48 • (MS) R3783343-4 04/17/22 13:43 • (MSD) R3783343-5 04/17/22 14:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	U	0.0207	0.0225	82.8	90.0	1	10.0-160			8.33	35
Benzene	0.00500	U	0.00591	0.00621	118	124	1	17.0-158			4.95	27
Bromodichloromethane	0.00500	U	0.00488	0.00490	97.6	98.0	1	31.0-150			0.409	27
Bromoform	0.00500	U	0.00384	0.00394	76.8	78.8	1	29.0-150			2.57	29
Bromomethane	0.00500	U	0.00510	0.00571	102	114	1	10.0-160			11.3	38
n-Butylbenzene	0.00500	U	0.00277	0.00453	55.4	90.6	1	31.0-150		J3	48.2	30
sec-Butylbenzene	0.00500	U	0.00446	0.00556	89.2	111	1	33.0-155			22.0	29
tert-Butylbenzene	0.00500	U	0.00504	0.00578	101	116	1	34.0-153			13.7	28

L1482870-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482870-01 04/17/22 07:48 • (MS) R3783343-4 04/17/22 13:43 • (MSD) R3783343-5 04/17/22 14:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon disulfide	0.00500	U	0.00563	0.00600	113	120	1	10.0-156			6.36	28
Carbon tetrachloride	0.00500	U	0.00587	0.00625	117	125	1	23.0-159			6.27	28
Chlorobenzene	0.00500	U	0.00556	0.00582	111	116	1	33.0-152			4.57	27
Chlorodibromomethane	0.00500	U	0.00482	0.00486	96.4	97.2	1	37.0-149			0.826	27
Chloroethane	0.00500	U	0.00685	0.00688	137	138	1	10.0-160			0.437	30
Chloroform	0.00500	U	0.00587	0.00589	117	118	1	29.0-154			0.340	28
Chloromethane	0.00500	U	0.00596	0.00581	119	116	1	10.0-160			2.55	29
1,2-Dibromoethane	0.00500	U	0.00529	0.00523	106	105	1	34.0-147			1.14	27
1,1-Dichloroethane	0.00500	U	0.00584	0.00611	117	122	1	25.0-158			4.52	27
1,2-Dichloroethane	0.00500	U	0.00517	0.00527	103	105	1	29.0-151			1.92	27
1,1-Dichloroethene	0.00500	U	0.00615	0.00645	123	129	1	11.0-160			4.76	29
cis-1,2-Dichloroethene	0.00500	U	0.00597	0.00631	119	126	1	10.0-160			5.54	27
trans-1,2-Dichloroethene	0.00500	U	0.00609	0.00652	122	130	1	17.0-153			6.82	27
1,2-Dichloropropane	0.00500	U	0.00623	0.00625	125	125	1	30.0-156			0.321	27
cis-1,3-Dichloropropene	0.00500	U	0.00470	0.00481	94.0	96.2	1	34.0-149			2.31	28
trans-1,3-Dichloropropene	0.00500	U	0.00467	0.00463	93.4	92.6	1	32.0-149			0.860	28
Ethylbenzene	0.00500	U	0.00503	0.00569	101	114	1	30.0-155			12.3	27
Hexachloro-1,3-butadiene	0.00500	U	0.00225	0.00441	45.0	88.2	1	20.0-154		J3	64.9	34
2-Hexanone	0.0250	U	0.0259	0.0267	104	107	1	21.0-160			3.04	29
Isopropylbenzene	0.00500	U	0.00470	0.00535	94.0	107	1	28.0-157			12.9	27
p-Isopropyltoluene	0.00500	U	0.00366	0.00502	73.2	100	1	30.0-154		J3	31.3	29
2-Butanone (MEK)	0.0250	U	0.0263	0.0258	105	103	1	10.0-160			1.92	32
Methylene Chloride	0.00500	U	0.00596	0.00612	119	122	1	23.0-144			2.65	28
4-Methyl-2-pentanone (MIBK)	0.0250	U	0.0256	0.0264	102	106	1	29.0-160			3.08	29
Methyl tert-butyl ether	0.00500	0.00477	0.0101	0.0105	107	115	1	28.0-150			3.88	29
Naphthalene	0.00500	U	0.00313	0.00438	62.6	87.6	1	12.0-156			33.3	35
n-Propylbenzene	0.00500	U	0.00456	0.00550	91.2	110	1	31.0-154			18.7	28
Styrene	0.00500	U	0.00416	0.00446	83.2	89.2	1	33.0-155			6.96	28
1,1,2,2-Tetrachloroethane	0.00500	U	0.00604	0.00616	121	123	1	33.0-150			1.97	28
Tetrachloroethene	0.00500	0.000829	0.00526	0.00602	105	120	1	10.0-160			13.5	27
Toluene	0.00500	U	0.00553	0.00574	111	115	1	26.0-154			3.73	28
1,1,1-Trichloroethane	0.00500	U	0.00566	0.00597	113	119	1	23.0-160			5.33	28
1,1,2-Trichloroethane	0.00500	U	0.00561	0.00560	112	112	1	35.0-147			0.178	27
Trichloroethene	0.00500	U	0.00524	0.00591	105	118	1	10.0-160			12.0	25
1,2,4-Trimethylbenzene	0.00500	U	0.00439	0.00516	87.8	103	1	26.0-154			16.1	27
1,3,5-Trimethylbenzene	0.00500	U	0.00471	0.00533	94.2	107	1	28.0-153			12.4	27
Vinyl chloride	0.00500	U	0.00573	0.00593	115	119	1	10.0-160			3.43	27
Xylenes, Total	0.0150	U	0.0150	0.0163	100	109	1	29.0-154			8.31	28
(S) Toluene-d8					*107*	*103*		*80.0-120*				
(S) 4-Bromofluorobenzene					*100*	*97.6*		*77.0-126*				

L1482870-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482870-01 04/17/22 07:48 • (MS) R3783343-4 04/17/22 13:43 • (MSD) R3783343-5 04/17/22 14:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 1,2-Dichloroethane-d4					*83.6*	*83.6*		*70.0-130*				

Method Blank (MB)

(MB) R3782845-2 04/16/22 23:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	0.000448	J	0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3782845-2 04/16/22 23:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*109*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3782845-1 04/16/22 22:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0228	91.2	19.0-160	
Benzene	0.00500	0.00524	105	70.0-123	
Bromodichloromethane	0.00500	0.00541	108	75.0-120	
Bromoform	0.00500	0.00488	97.6	68.0-132	
Bromomethane	0.00500	0.00386	77.2	10.0-160	
n-Butylbenzene	0.00500	0.00370	74.0	73.0-125	
sec-Butylbenzene	0.00500	0.00423	84.6	75.0-125	
tert-Butylbenzene	0.00500	0.00419	83.8	76.0-124	
Carbon disulfide	0.00500	0.00514	103	61.0-128	
Carbon tetrachloride	0.00500	0.00575	115	68.0-126	
Chlorobenzene	0.00500	0.00480	96.0	80.0-121	
Chlorodibromomethane	0.00500	0.00516	103	77.0-125	
Chloroethane	0.00500	0.00506	101	47.0-150	
Chloroform	0.00500	0.00519	104	73.0-120	
Chloromethane	0.00500	0.00511	102	41.0-142	
1,2-Dibromoethane	0.00500	0.00553	111	80.0-122	
1,1-Dichloroethane	0.00500	0.00490	98.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00508	102	70.0-128	
1,1-Dichloroethene	0.00500	0.00500	100	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00506	101	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00503	101	73.0-120	
1,2-Dichloropropane	0.00500	0.00476	95.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00519	104	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00439	87.8	78.0-124	

Received by OCD: 4/14/2023 3:51:30 PM

Laboratory Control Sample (LCS)

(LCS) R3782845-1 04/16/22 22:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00447	89.4	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00441	88.2	54.0-138	
2-Hexanone	0.0250	0.0221	88.4	67.0-149	
Isopropylbenzene	0.00500	0.00463	92.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00433	86.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0254	102	44.0-160	
Methylene Chloride	0.00500	0.00499	99.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0245	98.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00519	104	68.0-125	
Naphthalene	0.00500	0.00251	50.2	54.0-135	J4
n-Propylbenzene	0.00500	0.00408	81.6	77.0-124	
Styrene	0.00500	0.00454	90.8	73.0-130	
1,1,2,2-Tetrachloroethane	0.00500	0.00427	85.4	65.0-130	
Tetrachloroethene	0.00500	0.00497	99.4	72.0-132	
Toluene	0.00500	0.00499	99.8	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00582	116	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00487	97.4	80.0-120	
Trichloroethene	0.00500	0.00586	117	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00426	85.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00426	85.2	76.0-122	
Vinyl chloride	0.00500	0.00410	82.0	67.0-131	
Xylenes, Total	0.0150	0.0133	88.7	79.0-123	
(S) Toluene-d8			*98.9*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Released to Imaging: 4/14/2023 4:34:58 PM

Method Blank (MB)

(MB) R3783782-3 04/19/22 03:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3783782-3 04/19/22 03:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*88.6*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3783782-1 04/19/22 02:26 • (LCSD) R3783782-2 04/19/22 02:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0150	0.0153	60.0	61.2	19.0-160			1.98	27
Benzene	0.00500	0.00470	0.00448	94.0	89.6	70.0-123			4.79	20
Bromodichloromethane	0.00500	0.00481	0.00473	96.2	94.6	75.0-120			1.68	20
Bromoform	0.00500	0.00469	0.00477	93.8	95.4	68.0-132			1.69	20
Bromomethane	0.00500	0.00454	0.00436	90.8	87.2	10.0-160			4.04	25
n-Butylbenzene	0.00500	0.00439	0.00446	87.8	89.2	73.0-125			1.58	20
sec-Butylbenzene	0.00500	0.00472	0.00457	94.4	91.4	75.0-125			3.23	20
tert-Butylbenzene	0.00500	0.00471	0.00461	94.2	92.2	76.0-124			2.15	20
Carbon disulfide	0.00500	0.00461	0.00458	92.2	91.6	61.0-128			0.653	20
Carbon tetrachloride	0.00500	0.00521	0.00488	104	97.6	68.0-126			6.54	20
Chlorobenzene	0.00500	0.00474	0.00459	94.8	91.8	80.0-121			3.22	20
Chlorodibromomethane	0.00500	0.00489	0.00481	97.8	96.2	77.0-125			1.65	20
Chloroethane	0.00500	0.00482	0.00441	96.4	88.2	47.0-150			8.88	20
Chloroform	0.00500	0.00464	0.00459	92.8	91.8	73.0-120			1.08	20
Chloromethane	0.00500	0.00439	0.00425	87.8	85.0	41.0-142			3.24	20
1,2-Dibromoethane	0.00500	0.00493	0.00485	98.6	97.0	80.0-122			1.64	20
1,1-Dichloroethane	0.00500	0.00462	0.00432	92.4	86.4	70.0-126			6.71	20
1,2-Dichloroethane	0.00500	0.00446	0.00424	89.2	84.8	70.0-128			5.06	20
1,1-Dichloroethene	0.00500	0.00491	0.00473	98.2	94.6	71.0-124			3.73	20
cis-1,2-Dichloroethene	0.00500	0.00509	0.00475	102	95.0	73.0-120			6.91	20
trans-1,2-Dichloroethene	0.00500	0.00505	0.00481	101	96.2	73.0-120			4.87	20
1,2-Dichloropropane	0.00500	0.00481	0.00476	96.2	95.2	77.0-125			1.04	20
cis-1,3-Dichloropropene	0.00500	0.00516	0.00511	103	102	80.0-123			0.974	20
trans-1,3-Dichloropropene	0.00500	0.00465	0.00454	93.0	90.8	78.0-124			2.39	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3783782-1 04/19/22 02:26 • (LCSD) R3783782-2 04/19/22 02:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00460	0.00457	92.0	91.4	79.0-123			0.654	20
Hexachloro-1,3-butadiene	0.00500	0.00436	0.00456	87.2	91.2	54.0-138			4.48	20
2-Hexanone	0.0250	0.0238	0.0246	95.2	98.4	67.0-149			3.31	20
Isopropylbenzene	0.00500	0.00494	0.00483	98.8	96.6	76.0-127			2.25	20
p-Isopropyltoluene	0.00500	0.00457	0.00453	91.4	90.6	76.0-125			0.879	20
2-Butanone (MEK)	0.0250	0.0223	0.0236	89.2	94.4	44.0-160			5.66	20
Methylene Chloride	0.00500	0.00471	0.00430	94.2	86.0	67.0-120			9.10	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0224	0.0227	89.6	90.8	68.0-142			1.33	20
Methyl tert-butyl ether	0.00500	0.00461	0.00433	92.2	86.6	68.0-125			6.26	20
Naphthalene	0.00500	0.00367	0.00415	73.4	83.0	54.0-135			12.3	20
n-Propylbenzene	0.00500	0.00463	0.00442	92.6	88.4	77.0-124			4.64	20
Styrene	0.00500	0.00480	0.00468	96.0	93.6	73.0-130			2.53	20
1,1,2,2-Tetrachloroethane	0.00500	0.00456	0.00432	91.2	86.4	65.0-130			5.41	20
Tetrachloroethene	0.00500	0.00505	0.00489	101	97.8	72.0-132			3.22	20
Toluene	0.00500	0.00460	0.00448	92.0	89.6	79.0-120			2.64	20
1,1,1-Trichloroethane	0.00500	0.00498	0.00470	99.6	94.0	73.0-124			5.79	20
1,1,2-Trichloroethane	0.00500	0.00490	0.00492	98.0	98.4	80.0-120			0.407	20
Trichloroethene	0.00500	0.00548	0.00535	110	107	78.0-124			2.40	20
1,2,4-Trimethylbenzene	0.00500	0.00464	0.00453	92.8	90.6	76.0-121			2.40	20
1,3,5-Trimethylbenzene	0.00500	0.00467	0.00450	93.4	90.0	76.0-122			3.71	20
Vinyl chloride	0.00500	0.00494	0.00501	98.8	100	67.0-131			1.41	20
Xylenes, Total	0.0150	0.0130	0.0134	86.7	89.3	79.0-123			3.03	20
(S) Toluene-d8				*98.7*	*99.7*	*80.0-120*				
(S) 4-Bromofluorobenzene				*104*	*108*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*89.6*	*90.3*	*70.0-130*				

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/19/22 09:03 • (MS) R3783782-4 04/19/22 10:00 • (MSD) R3783782-5 04/19/22 10:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	U	0.0183	0.0170	73.2	68.0	1	10.0-160			7.37	35
Benzene	0.00500	0.000234	0.00635	0.00604	122	116	1	17.0-158			5.00	27
Bromodichloromethane	0.00500	U	0.00603	0.00579	121	116	1	31.0-150			4.06	27
Bromoform	0.00500	U	0.00576	0.00521	115	104	1	29.0-150			10.0	29
Bromomethane	0.00500	U	0.00568	0.00558	114	112	1	10.0-160			1.78	38
n-Butylbenzene	0.00500	U	0.00556	0.00456	111	91.2	1	31.0-150			19.8	30
sec-Butylbenzene	0.00500	U	0.00593	0.00558	119	112	1	33.0-155			6.08	29
tert-Butylbenzene	0.00500	0.000167	0.00617	0.00616	120	120	1	34.0-153			0.162	28

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/19/22 09:03 • (MS) R3783782-4 04/19/22 10:00 • (MSD) R3783782-5 04/19/22 10:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon disulfide	0.00500	U	0.00577	0.00573	115	115	1	10.0-156			0.696	28
Carbon tetrachloride	0.00500	U	0.00638	0.00635	128	127	1	23.0-159			0.471	28
Chlorobenzene	0.00500	U	0.00603	0.00552	121	110	1	33.0-152			8.83	27
Chlorodibromomethane	0.00500	U	0.00603	0.00549	121	110	1	37.0-149			9.37	27
Chloroethane	0.00500	U	0.00646	0.00587	129	117	1	10.0-160			9.57	30
Chloroform	0.00500	U	0.00603	0.00589	121	118	1	29.0-154			2.35	28
Chloromethane	0.00500	U	0.00579	0.00561	116	112	1	10.0-160			3.16	29
1,2-Dibromoethane	0.00500	U	0.00618	0.00577	124	115	1	34.0-147			6.86	27
1,1-Dichloroethane	0.00500	U	0.00601	0.00584	120	117	1	25.0-158			2.87	27
1,2-Dichloroethane	0.00500	U	0.00558	0.00520	112	104	1	29.0-151			7.05	27
1,1-Dichloroethene	0.00500	U	0.00669	0.00619	134	124	1	11.0-160			7.76	29
cis-1,2-Dichloroethene	0.00500	U	0.00632	0.00604	126	121	1	10.0-160			4.53	27
trans-1,2-Dichloroethene	0.00500	U	0.00645	0.00596	129	119	1	17.0-153			7.90	27
1,2-Dichloropropane	0.00500	U	0.00636	0.00594	127	119	1	30.0-156			6.83	27
cis-1,3-Dichloropropene	0.00500	U	0.00623	0.00573	125	115	1	34.0-149			8.36	28
trans-1,3-Dichloropropene	0.00500	U	0.00563	0.00519	113	104	1	32.0-149			8.13	28
Ethylbenzene	0.00500	U	0.00595	0.00539	119	108	1	30.0-155			9.88	27
Hexachloro-1,3-butadiene	0.00500	U	0.00567	0.00407	113	81.4	1	20.0-154			32.9	34
2-Hexanone	0.0250	U	0.0308	0.0281	123	112	1	21.0-160			9.17	29
Isopropylbenzene	0.00500	U	0.00634	0.00586	127	117	1	28.0-157			7.87	27
p-Isopropyltoluene	0.00500	U	0.00573	0.00510	115	102	1	30.0-154			11.6	29
2-Butanone (MEK)	0.0250	U	0.0284	0.0261	114	104	1	10.0-160			8.44	32
Methylene Chloride	0.00500	U	0.00556	0.00564	111	113	1	23.0-144			1.43	28
4-Methyl-2-pentanone (MIBK)	0.0250	U	0.0289	0.0265	116	106	1	29.0-160			8.66	29
Methyl tert-butyl ether	0.00500	U	0.00541	0.00552	108	110	1	28.0-150			2.01	29
Naphthalene	0.00500	U	0.00500	0.00424	100	84.8	1	12.0-156			16.5	35
n-Propylbenzene	0.00500	U	0.00575	0.00534	115	107	1	31.0-154			7.39	28
Styrene	0.00500	U	0.00626	0.00553	125	111	1	33.0-155			12.4	28
1,1,2,2-Tetrachloroethane	0.00500	U	0.00570	0.00559	114	112	1	33.0-150			1.95	28
Tetrachloroethene	0.00500	U	0.00646	0.00550	129	110	1	10.0-160			16.1	27
Toluene	0.00500	U	0.00597	0.00546	119	109	1	26.0-154			8.92	28
1,1,1-Trichloroethane	0.00500	U	0.00615	0.00639	123	128	1	23.0-160			3.83	28
1,1,2-Trichloroethane	0.00500	U	0.00644	0.00589	129	118	1	35.0-147			8.92	27
Trichloroethene	0.00500	U	0.00703	0.00609	141	122	1	10.0-160			14.3	25
1,2,4-Trimethylbenzene	0.00500	U	0.00567	0.00520	113	104	1	26.0-154			8.65	27
1,3,5-Trimethylbenzene	0.00500	U	0.00565	0.00533	113	107	1	28.0-153			5.83	27
Vinyl chloride	0.00500	U	0.00667	0.00668	133	134	1	10.0-160			0.150	27
Xylenes, Total	0.0150	U	0.0181	0.0169	121	113	1	29.0-154			6.86	28
(S) Toluene-d8					*98.2*	*99.7*		*80.0-120*				
(S) 4-Bromofluorobenzene					*106*	*104*		*77.0-126*				

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/19/22 09:03 • (MS) R3783782-4 04/19/22 10:00 • (MSD) R3783782-5 04/19/22 10:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 1,2-Dichloroethane-d4					*90.1*	*91.3*		*70.0-130*				

Method Blank (MB)

(MB) R3785822-1 04/27/22 14:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*103*			*31.0-160*

Laboratory Control Sample (LCS)

(LCS) R3785822-2 04/27/22 15:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	1.50	1.39	92.7	50.0-150	
(S) o-Terphenyl			*122*	*31.0-160*	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/28/22 13:05 • (MS) R3785995-1 04/28/22 13:31 • (MSD) R3785995-2 04/28/22 13:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.43	0.138	1.67	1.71	107	110	1	50.0-150			2.37	20
(S) o-Terphenyl					*127*	*134*		*31.0-160*				

Method Blank (MB)

(MB) R3783566-2 04/20/22 16:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Method Blank (MB)

(MB) R3783566-2 04/20/22 16:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*37.5*			*10.0-120*
(S) Phenol-d5	*22.8*			*10.0-120*
(S) Nitrobenzene-d5	*85.9*			*10.0-127*
(S) 2-Fluorobiphenyl	*79.1*			*10.0-130*
(S) 2,4,6-Tribromophenol	*78.5*			*10.0-155*
(S) p-Terphenyl-d14	*72.6*			*10.0-128*

Laboratory Control Sample (LCS)

(LCS) R3783566-1 04/20/22 16:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0412	82.4	41.0-120	
Acenaphthylene	0.0500	0.0441	88.2	43.0-120	
Acetophenone	0.0500	0.0421	84.2	29.0-120	
Anthracene	0.0500	0.0436	87.2	45.0-120	
Atrazine	0.0500	0.0418	83.6	39.0-141	
Benzo(a)anthracene	0.0500	0.0445	89.0	47.0-120	
Benzaldehyde	0.0500	0.127	254	10.0-160	J4
Benzo(b)fluoranthene	0.0500	0.0462	92.4	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0464	92.8	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0410	82.0	48.0-121	
Benzo(a)pyrene	0.0500	0.0468	93.6	47.0-120	
Biphenyl	0.0500	0.0409	81.8	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0383	76.6	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0426	85.2	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0388	77.6	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0435	87.0	45.0-120	
2-Chloronaphthalene	0.0500	0.0424	84.8	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0431	86.2	44.0-120	
Caprolactam	0.0500	0.00942	18.8	10.0-120	
Carbazole	0.0500	0.0436	87.2	51.0-122	
Chrysene	0.0500	0.0442	88.4	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0415	83.0	47.0-120	
Dibenzofuran	0.0500	0.0434	86.8	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0856	85.6	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0487	97.4	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0463	92.6	46.0-120	
Fluoranthene	0.0500	0.0445	89.0	51.0-120	
Fluorene	0.0500	0.0431	86.2	47.0-120	
Hexachlorobenzene	0.0500	0.0424	84.8	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0352	70.4	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0231	46.2	15.0-120	
Hexachloroethane	0.0500	0.0401	80.2	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0415	83.0	49.0-122	
Isophorone	0.0500	0.0382	76.4	36.0-120	
1-Methylnaphthalene	0.0500	0.0360	72.0	33.0-120	
2-Methylnaphthalene	0.0500	0.0348	69.6	33.0-120	
Naphthalene	0.0500	0.0358	71.6	27.0-120	
Nitrobenzene	0.0500	0.0390	78.0	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0415	83.0	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0434	86.8	31.0-120	

Laboratory Control Sample (LCS)

(LCS) R3783566-1 04/20/22 16:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	0.0500	0.0417	83.4	46.0-120	
Benzylbutyl phthalate	0.0500	0.0430	86.0	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0411	82.2	43.0-122	
Di-n-butyl phthalate	0.0500	0.0434	86.8	49.0-121	
Diethyl phthalate	0.0500	0.0427	85.4	48.0-122	
Dimethyl phthalate	0.0500	0.0419	83.8	48.0-120	
Di-n-octyl phthalate	0.0500	0.0400	80.0	42.0-125	
Pyrene	0.0500	0.0444	88.8	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0350	70.0	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0337	67.4	40.0-120	
2-Chlorophenol	0.0500	0.0330	66.0	25.0-120	
2,4-Dichlorophenol	0.0500	0.0350	70.0	36.0-120	
2,4-Dimethylphenol	0.0500	0.0320	64.0	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0562	112	38.0-138	
2,4-Dinitrophenol	0.0500	0.0539	108	10.0-120	
2-Nitrophenol	0.0500	0.0400	80.0	31.0-120	
2-Nitroaniline	0.0500	0.0463	92.6	43.0-120	
2-Methylphenol	0.0500	0.0281	56.2	28.0-120	
3&4-Methyl Phenol	0.0500	0.0291	58.2	31.0-120	
3-Nitroaniline	0.0500	0.0425	85.0	38.0-120	
4-Chloroaniline	0.0500	0.0299	59.8	25.0-120	
4-Nitroaniline	0.0500	0.0447	89.4	18.0-160	
4-Nitrophenol	0.0500	0.0152	30.4	10.0-120	
Pentachlorophenol	0.0500	0.0449	89.8	23.0-120	
Phenol	0.0500	0.0122	24.4	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0456	91.2	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0484	96.8	42.0-120	
(S) 2-Fluorophenol			*37.4*	*10.0-120*	
(S) Phenol-d5			*23.6*	*10.0-120*	
(S) Nitrobenzene-d5			*73.6*	*10.0-127*	
(S) 2-Fluorobiphenyl			*79.9*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*90.0*	*10.0-155*	
(S) p-Terphenyl-d14			*73.5*	*10.0-128*	

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/20/22 21:39 • (MS) R3783566-3 04/20/22 22:00 • (MSD) R3783566-4 04/20/22 22:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0455	U	0.0323	0.0312	71.0	68.6	1	28.0-120			3.46	25
Acenaphthylene	0.0455	U	0.0345	0.0336	75.8	73.8	1	31.0-121			2.64	25
Acetophenone	0.0455	U	0.0336	0.0311	73.8	68.4	1	20.0-120			7.73	35
Anthracene	0.0455	U	0.0343	0.0337	75.4	74.1	1	36.0-120			1.76	23
Atrazine	0.0455	U	0.0365	0.0341	80.2	74.9	1	39.0-130			6.80	23
Benzo(a)anthracene	0.0455	U	0.0351	0.0360	77.1	79.1	1	39.0-120			2.53	23
Benzaldehyde	0.0455	U	0.101	0.0928	222	204	1	10.0-160	J5	J5	8.46	40
Benzo(b)fluoranthene	0.0455	U	0.0340	0.0343	74.7	75.4	1	37.0-120			0.878	23
Benzo(k)fluoranthene	0.0455	U	0.0349	0.0356	76.7	78.2	1	37.0-120			1.99	26
Benzo(g,h,i)perylene	0.0455	U	0.0281	0.0285	61.8	62.6	1	37.0-123			1.41	25
Benzo(a)pyrene	0.0455	U	0.0351	0.0353	77.1	77.6	1	37.0-120			0.568	24
Biphenyl	0.0455	U	0.0315	0.0301	69.2	66.2	1	29.0-120			4.55	33
Bis(2-chlorethoxy)methane	0.0455	U	0.0311	0.0292	68.4	64.2	1	17.0-120			6.30	31
Bis(2-chloroethyl)ether	0.0455	U	0.0342	0.0319	75.2	70.1	1	14.0-120			6.96	33
2,2-Oxybis(1-Chloropropane)	0.0455	U	0.0313	0.0285	68.8	62.6	1	18.0-120			9.36	34
4-Bromophenyl-phenylether	0.0455	U	0.0345	0.0337	75.8	74.1	1	37.0-120			2.35	24
2-Chloronaphthalene	0.0455	U	0.0326	0.0315	71.6	69.2	1	29.0-120			3.43	28
4-Chlorophenyl-phenylether	0.0455	U	0.0341	0.0323	74.9	71.0	1	36.0-120			5.42	23
Caprolactam	0.0455	U	0.00825	0.00823	18.1	18.1	1	10.0-120			0.243	40
Carbazole	0.0455	U	0.0365	0.0356	80.2	78.2	1	38.0-127			2.50	21
Chrysene	0.0455	U	0.0347	0.0344	76.3	75.6	1	38.0-120			0.868	23
Dibenz(a,h)anthracene	0.0455	U	0.0277	0.0288	60.9	63.3	1	36.0-121			3.89	24
Dibenzofuran	0.0455	U	0.0340	0.0325	74.7	71.4	1	32.0-120			4.51	26
3,3-Dichlorobenzidine	0.0910	U	0.0652	0.0669	71.6	73.5	1	10.0-134			2.57	30
2,4-Dinitrotoluene	0.0455	U	0.0393	0.0379	86.4	83.3	1	39.0-125			3.63	25
2,6-Dinitrotoluene	0.0455	U	0.0368	0.0353	80.9	77.6	1	36.0-120			4.16	27
Fluoranthene	0.0455	U	0.0367	0.0358	80.7	78.7	1	41.0-121			2.48	22
Fluorene	0.0455	U	0.0339	0.0326	74.5	71.6	1	37.0-120			3.91	24
Hexachlorobenzene	0.0455	U	0.0331	0.0331	72.7	72.7	1	35.0-122			0.000	24
Hexachloro-1,3-butadiene	0.0455	U	0.0282	0.0271	62.0	59.6	1	12.0-120			3.98	34
Hexachlorocyclopentadiene	0.0455	U	0.0175	0.0189	38.5	41.5	1	10.0-120			7.69	33
Hexachloroethane	0.0455	U	0.0322	0.0302	70.8	66.4	1	10.0-120			6.41	40
Indeno(1,2,3-cd)pyrene	0.0455	U	0.0274	0.0279	60.2	61.3	1	38.0-125			1.81	24
Isophorone	0.0455	U	0.0313	0.0289	68.8	63.5	1	21.0-120			7.97	27
1-Methylnaphthalene	0.0455	U	0.0291	0.0276	64.0	60.7	1	11.0-120			5.29	27
2-Methylnaphthalene	0.0455	U	0.0280	0.0267	61.5	58.7	1	17.0-120			4.75	28
Naphthalene	0.0455	U	0.0285	0.0275	62.6	60.4	1	10.0-120			3.57	31
Nitrobenzene	0.0455	U	0.0319	0.0302	70.1	66.4	1	12.0-120			5.48	30
n-Nitrosodiphenylamine	0.0455	U	0.0307	0.0313	67.5	68.8	1	37.0-120			1.94	24
n-Nitrosodi-n-propylamine	0.0455	U	0.0350	0.0326	76.9	71.6	1	16.0-120			7.10	30

L1482976-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482976-25 04/20/22 21:39 • (MS) R3783566-3 04/20/22 22:00 • (MSD) R3783566-4 04/20/22 22:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0455	U	0.0336	0.0333	73.8	73.2	1	33.0-120			0.897	22
Benzylbutyl phthalate	0.0455	U	0.0357	0.0354	78.5	77.8	1	34.0-126			0.844	24
Bis(2-ethylhexyl)phthalate	0.0455	U	0.0277	0.0286	60.9	62.9	1	33.0-126			3.20	25
Di-n-butyl phthalate	0.0455	U	0.0355	0.0349	78.0	76.7	1	35.0-128			1.70	23
Diethyl phthalate	0.0455	U	0.0355	0.0330	78.0	72.5	1	39.0-125			7.30	24
Dimethyl phthalate	0.0455	U	0.0336	0.0323	73.8	71.0	1	37.0-120			3.95	24
Di-n-octyl phthalate	0.0455	U	0.0266	0.0277	58.5	60.9	1	25.0-135			4.05	26
Pyrene	0.0455	U	0.0372	0.0370	81.8	81.3	1	39.0-120			0.539	22
1,2,4-Trichlorobenzene	0.0455	U	0.0281	0.0266	61.8	58.5	1	15.0-120			5.48	31
4-Chloro-3-methylphenol	0.0455	U	0.0213	0.0245	46.8	53.8	1	26.0-120			14.0	27
2-Chlorophenol	0.0455	U	0.0211	0.0228	46.4	50.1	1	18.0-120			7.74	34
2,4-Dichlorophenol	0.0455	U	0.0221	0.0256	48.6	56.3	1	19.0-120			14.7	27
2,4-Dimethylphenol	0.0455	U	0.0207	0.0229	45.5	50.3	1	15.0-120			10.1	28
4,6-Dinitro-2-methylphenol	0.0455	U	0.0401	0.0445	88.1	97.8	1	10.0-144			10.4	39
2,4-Dinitrophenol	0.0455	U	0.0369	0.0417	81.1	91.6	1	10.0-120			12.2	40
2-Nitrophenol	0.0455	U	0.0268	0.0297	58.9	65.3	1	20.0-120			10.3	30
2-Nitroaniline	0.0455	U	0.0372	0.0357	81.8	78.5	1	33.0-120			4.12	27
2-Methylphenol	0.0455	U	0.0185	0.0202	40.7	44.4	1	10.0-120			8.79	30
3&4-Methyl Phenol	0.0455	U	0.0193	0.0207	42.4	45.5	1	10.0-120			7.00	36
3-Nitroaniline	0.0455	U	0.0350	0.0333	76.9	73.2	1	20.0-120			4.98	27
4-Chloroaniline	0.0455	U	0.0269	0.0266	59.1	58.5	1	10.0-120			1.12	31
4-Nitroaniline	0.0455	U	0.0364	0.0358	80.0	78.7	1	10.0-160			1.66	26
4-Nitrophenol	0.0455	U	0.0113	0.0114	24.8	25.1	1	10.0-120			0.881	40
Pentachlorophenol	0.0455	U	0.0328	0.0367	72.1	80.7	1	10.0-128			11.2	37
Phenol	0.0455	U	0.00929	0.00924	20.4	20.3	1	10.0-120			0.540	40
2,4,5-Trichlorophenol	0.0455	U	0.0291	0.0331	64.0	72.7	1	33.0-120			12.9	31
2,4,6-Trichlorophenol	0.0455	U	0.0306	0.0344	67.3	75.6	1	26.0-120			11.7	31
(S) 2-Fluorophenol					*29.1*	*29.8*		*10.0-120*				
(S) Phenol-d5					*20.1*	*19.5*		*10.0-120*				
(S) Nitrobenzene-d5					*64.2*	*59.2*		*10.0-127*				
(S) 2-Fluorobiphenyl					*68.9*	*66.4*		*10.0-130*				
(S) 2,4,6-Tribromophenol					*68.1*	*74.7*		*10.0-155*				
(S) p-Terphenyl-d14					*64.2*	*64.8*		*10.0-128*				

Method Blank (MB)

(MB) R3783590-2 04/20/22 22:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Method Blank (MB)

(MB) R3783590-2 04/20/22 22:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*24.9*			*10.0-120*
(S) Phenol-d5	*16.0*			*10.0-120*
(S) Nitrobenzene-d5	*52.7*			*10.0-127*
(S) 2-Fluorobiphenyl	*69.4*			*10.0-130*
(S) 2,4,6-Tribromophenol	*70.5*			*10.0-155*
(S) p-Terphenyl-d14	*78.7*			*10.0-128*

Laboratory Control Sample (LCS)

(LCS) R3783590-1 04/20/22 22:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0380	76.0	41.0-120	
Acenaphthylene	0.0500	0.0401	80.2	43.0-120	
Acetophenone	0.0500	0.0336	67.2	29.0-120	
Anthracene	0.0500	0.0425	85.0	45.0-120	
Atrazine	0.0500	0.0435	87.0	39.0-141	
Benzo(a)anthracene	0.0500	0.0441	88.2	47.0-120	
Benzaldehyde	0.0500	0.0837	167	10.0-160	J4
Benzo(b)fluoranthene	0.0500	0.0427	85.4	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0438	87.6	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0421	84.2	48.0-121	
Benzo(a)pyrene	0.0500	0.0486	97.2	47.0-120	
Biphenyl	0.0500	0.0370	74.0	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0344	68.8	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0322	64.4	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0303	60.6	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0448	89.6	45.0-120	
2-Chloronaphthalene	0.0500	0.0363	72.6	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0402	80.4	44.0-120	
Caprolactam	0.0500	0.00825	16.5	10.0-120	
Carbazole	0.0500	0.0436	87.2	51.0-122	
Chrysene	0.0500	0.0411	82.2	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0410	82.0	47.0-120	
Dibenzofuran	0.0500	0.0405	81.0	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0942	94.2	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0474	94.8	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0438	87.6	46.0-120	
Fluoranthene	0.0500	0.0449	89.8	51.0-120	
Fluorene	0.0500	0.0395	79.0	47.0-120	
Hexachlorobenzene	0.0500	0.0432	86.4	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0273	54.6	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0217	43.4	15.0-120	
Hexachloroethane	0.0500	0.0282	56.4	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0427	85.4	49.0-122	
Isophorone	0.0500	0.0328	65.6	36.0-120	
1-Methylnaphthalene	0.0500	0.0321	64.2	33.0-120	
2-Methylnaphthalene	0.0500	0.0310	62.0	33.0-120	
Naphthalene	0.0500	0.0295	59.0	27.0-120	
Nitrobenzene	0.0500	0.0286	57.2	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0399	79.8	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0335	67.0	31.0-120	

Received by OCD: 4/14/2023 3:51:30 PM

Laboratory Control Sample (LCS)

(LCS) R3783590-1 04/20/22 22:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	0.0500	0.0409	81.8	46.0-120	
Benzylbutyl phthalate	0.0500	0.0473	94.6	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0445	89.0	43.0-122	
Di-n-butyl phthalate	0.0500	0.0476	95.2	49.0-121	
Diethyl phthalate	0.0500	0.0422	84.4	48.0-122	
Dimethyl phthalate	0.0500	0.0413	82.6	48.0-120	
Di-n-octyl phthalate	0.0500	0.0418	83.6	42.0-125	
Pyrene	0.0500	0.0429	85.8	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0285	57.0	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0239	47.8	40.0-120	
2-Chlorophenol	0.0500	0.0198	39.6	25.0-120	
2,4-Dichlorophenol	0.0500	0.0237	47.4	36.0-120	
2,4-Dimethylphenol	0.0500	0.0220	44.0	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0475	95.0	38.0-138	
2,4-Dinitrophenol	0.0500	0.0346	69.2	10.0-120	
2-Nitrophenol	0.0500	0.0298	59.6	31.0-120	
2-Nitroaniline	0.0500	0.0423	84.6	43.0-120	
2-Methylphenol	0.0500	0.0177	35.4	28.0-120	
3&4-Methyl Phenol	0.0500	0.0191	38.2	31.0-120	
3-Nitroaniline	0.0500	0.0319	63.8	38.0-120	
4-Chloroaniline	0.0500	0.0205	41.0	25.0-120	
4-Nitroaniline	0.0500	0.0361	72.2	18.0-160	
4-Nitrophenol	0.0500	0.0104	20.8	10.0-120	
Pentachlorophenol	0.0500	0.0402	80.4	23.0-120	
Phenol	0.0500	0.00874	17.5	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0351	70.2	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0364	72.8	42.0-120	
(S) 2-Fluorophenol			*25.3*	*10.0-120*	
(S) Phenol-d5			*17.1*	*10.0-120*	
(S) Nitrobenzene-d5			*48.3*	*10.0-127*	
(S) 2-Fluorobiphenyl			*74.4*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*94.5*	*10.0-155*	
(S) p-Terphenyl-d14			*75.4*	*10.0-128*	

Released to Imaging: 4/14/2023 4:34:58 PM

L1483380-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1483380-01 04/21/22 05:50 • (MS) R3783590-3 04/21/22 06:12 • (MSD) R3783590-4 04/21/22 06:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0359	0.0317	71.8	63.4	1	28.0-120			12.4	25
Acenaphthylene	0.0500	U	0.0385	0.0329	77.0	65.8	1	31.0-121			15.7	25
Acetophenone	0.0500	U	0.0339	0.0281	67.8	56.2	1	20.0-120			18.7	35
Anthracene	0.0500	U	0.0356	0.0318	71.2	63.6	1	36.0-120			11.3	23
Atrazine	0.0500	U	0.0441	0.0416	88.2	83.2	1	39.0-130			5.83	23
Benzo(a)anthracene	0.0500	U	0.0309	0.0255	61.8	51.0	1	39.0-120			19.1	23
Benzaldehyde	0.0500	U	0.0823	0.0677	165	135	1	10.0-160	J5		19.5	40
Benzo(b)fluoranthene	0.0500	U	0.0294	0.0240	58.8	48.0	1	37.0-120			20.2	23
Benzo(k)fluoranthene	0.0500	U	0.0295	0.0238	59.0	47.6	1	37.0-120			21.4	26
Benzo(g,h,i)perylene	0.0500	U	0.0283	0.0222	56.6	44.4	1	37.0-123			24.2	25
Benzo(a)pyrene	0.0500	U	0.0340	0.0275	68.0	55.0	1	37.0-120			21.1	24
Biphenyl	0.0500	U	0.0359	0.0313	71.8	62.6	1	29.0-120			13.7	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0347	0.0307	69.4	61.4	1	17.0-120			12.2	31
Bis(2-chloroethyl)ether	0.0500	U	0.0325	0.0267	65.0	53.4	1	14.0-120			19.6	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0301	0.0249	60.2	49.8	1	18.0-120			18.9	34
4-Bromophenyl-phenylether	0.0500	U	0.0370	0.0332	74.0	66.4	1	37.0-120			10.8	24
2-Chloronaphthalene	0.0500	U	0.0354	0.0305	70.8	61.0	1	29.0-120			14.9	28
4-Chlorophenyl-phenylether	0.0500	U	0.0347	0.0317	69.4	63.4	1	36.0-120			9.04	23
Caprolactam	0.0500	U	0.00806	0.00690	16.1	13.8	1	10.0-120			15.5	40
Carbazole	0.0500	U	0.0418	0.0390	83.6	78.0	1	38.0-127			6.93	21
Chrysene	0.0500	U	0.0282	0.0232	56.4	46.4	1	38.0-120			19.5	23
Dibenz(a,h)anthracene	0.0500	U	0.0256	0.0201	51.2	40.2	1	36.0-121		J3	24.1	24
Dibenzofuran	0.0500	U	0.0379	0.0338	75.8	67.6	1	32.0-120			11.4	26
3,3-Dichlorobenzidine	0.100	U	0.0818	0.0703	81.8	70.3	1	10.0-134			15.1	30
2,4-Dinitrotoluene	0.0500	U	0.0458	0.0434	91.6	86.8	1	39.0-125			5.38	25
2,6-Dinitrotoluene	0.0500	U	0.0425	0.0397	85.0	79.4	1	36.0-120			6.81	27
Fluoranthene	0.0500	U	0.0349	0.0301	69.8	60.2	1	41.0-121			14.8	22
Fluorene	0.0500	U	0.0360	0.0330	72.0	66.0	1	37.0-120			8.70	24
Hexachlorobenzene	0.0500	U	0.0315	0.0264	63.0	52.8	1	35.0-122			17.6	24
Hexachloro-1,3-butadiene	0.0500	U	0.0250	0.0212	50.0	42.4	1	12.0-120			16.5	34
Hexachlorocyclopentadiene	0.0500	U	0.0216	0.0179	43.2	35.8	1	10.0-120			18.7	33
Hexachloroethane	0.0500	U	0.0271	0.0222	54.2	44.4	1	10.0-120			19.9	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0276	0.0218	55.2	43.6	1	38.0-125			23.5	24
Isophorone	0.0500	U	0.0326	0.0295	65.2	59.0	1	21.0-120			9.98	27
1-Methylnaphthalene	0.0500	U	0.0313	0.0269	62.6	53.8	1	11.0-120			15.1	27
2-Methylnaphthalene	0.0500	U	0.0304	0.0261	60.8	52.2	1	17.0-120			15.2	28
Naphthalene	0.0500	U	0.0294	0.0248	58.8	49.6	1	10.0-120			17.0	31
Nitrobenzene	0.0500	U	0.0285	0.0241	57.0	48.2	1	12.0-120			16.7	30
n-Nitrosodiphenylamine	0.0500	U	0.0383	0.0345	76.6	69.0	1	37.0-120			10.4	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0328	0.0282	65.6	56.4	1	16.0-120			15.1	30

L1483380-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1483380-01 04/21/22 05:50 • (MS) R3783590-3 04/21/22 06:12 • (MSD) R3783590-4 04/21/22 06:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0500	U	0.0345	0.0318	69.0	63.6	1	33.0-120			8.14	22
Benzylbutyl phthalate	0.0500	U	0.0325	0.0275	65.0	55.0	1	34.0-126			16.7	24
Bis(2-ethylhexyl)phthalate	0.0500	U	0.00711	0.00500	14.2	10.0	1	33.0-126	J6	J3 J6	34.8	25
Di-n-butyl phthalate	0.0500	U	0.0358	0.0311	71.6	62.2	1	35.0-128			14.1	23
Diethyl phthalate	0.0500	U	0.0400	0.0377	80.0	75.4	1	39.0-125			5.92	24
Dimethyl phthalate	0.0500	U	0.0405	0.0380	81.0	76.0	1	37.0-120			6.37	24
Di-n-octyl phthalate	0.0500	U	0.00605	0.00436	12.1	8.72	1	25.0-135	J6	J3 J6	32.5	26
Pyrene	0.0500	U	0.0334	0.0290	66.8	58.0	1	39.0-120			14.1	22
1,2,4-Trichlorobenzene	0.0500	U	0.0284	0.0238	56.8	47.6	1	15.0-120			17.6	31
4-Chloro-3-methylphenol	0.0500	U	0.0287	0.0262	57.4	52.4	1	26.0-120			9.11	27
2-Chlorophenol	0.0500	U	0.0235	0.0183	47.0	36.6	1	18.0-120			24.9	34
2,4-Dichlorophenol	0.0500	U	0.0272	0.0224	54.4	44.8	1	19.0-120			19.4	27
2,4-Dimethylphenol	0.0500	U	0.0266	0.0214	53.2	42.8	1	15.0-120			21.7	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.0427	0.0412	85.4	82.4	1	10.0-144			3.58	39
2,4-Dinitrophenol	0.0500	U	0.0358	0.0340	71.6	68.0	1	10.0-120			5.16	40
2-Nitrophenol	0.0500	U	0.0306	0.0256	61.2	51.2	1	20.0-120			17.8	30
2-Nitroaniline	0.0500	U	0.0440	0.0413	88.0	82.6	1	33.0-120			6.33	27
2-Methylphenol	0.0500	U	0.0218	0.0166	43.6	33.2	1	10.0-120			27.1	30
3&4-Methyl Phenol	0.0500	U	0.0226	0.0176	45.2	35.2	1	10.0-120			24.9	36
3-Nitroaniline	0.0500	U	0.0346	0.0303	69.2	60.6	1	20.0-120			13.3	27
4-Chloroaniline	0.0500	U	0.0225	0.0180	45.0	36.0	1	10.0-120			22.2	31
4-Nitroaniline	0.0500	U	0.0399	0.0364	79.8	72.8	1	10.0-160			9.17	26
4-Nitrophenol	0.0500	U	0.0124	0.0118	24.8	23.6	1	10.0-120			4.96	40
Pentachlorophenol	0.0500	U	0.0338	0.0313	67.6	62.6	1	10.0-128			7.68	37
Phenol	0.0500	U	0.00931	0.00698	18.6	14.0	1	10.0-120			28.6	40
2,4,5-Trichlorophenol	0.0500	U	0.0361	0.0323	72.2	64.6	1	33.0-120			11.1	31
2,4,6-Trichlorophenol	0.0500	U	0.0355	0.0316	71.0	63.2	1	26.0-120			11.6	31
(S) 2-Fluorophenol					*28.4*	*21.3*		*10.0-120*				
(S) Phenol-d5					*18.7*	*14.0*		*10.0-120*				
(S) Nitrobenzene-d5					*45.9*	*38.8*		*10.0-127*				
(S) 2-Fluorobiphenyl					*69.6*	*61.4*		*10.0-130*				
(S) 2,4,6-Tribromophenol					*84.5*	*78.5*		*10.0-155*				
(S) p-Terphenyl-d14					*42.6*	*31.9*		*10.0-128*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com;** aoliuri@trccompanies.com

Project Description: **Lovington Lea Refinery**

City/State Collected: **Lovington, NM**

Phone: **512-684-3170**
Fax:

Client Project # **475791.0000.0000.**

Lab Project # **TRCATX-LOVINGTON NAV**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1482976
F205

Acctnum: TRCATX
Template: T206205
Prelogin: P914400
TSR: 526
PB: 3 25-2022m

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs (8260) - Select List	LL SVOCs (8270) - TCL + 1-MNP	Total Metals (7470) - Hg	Dissolved Metals (6020)-Select List -FF	Anions (9056) - Cl, F, SO4	Nitrate/Nitrite (353.2)	TDS (2540 C-2011)	Alkalinity (2320 B-2011)	TPH (8015) - GRO/DRO		Remarks	Sample # (lab only)
MW-1	Grab	GW		4-14-22	1105	7	X		X	X	X	X						-01
MW-2	Grab	GW			1300	5	X	X										-02
MW-3	Grab	GW			1230	2					X	X						-21
MW-6	Grab	GW			1155	7	X		X	X	X	X						-03
MW-8	Grab	GW			1025	5	X				X	X	X					-04
MW-11R	Grab	GW			1125	8	X	X	X	X			X	X				-22
MW-12R2	Grab	GW			1025	9	X	X	X	X	X	X	X	X				-05
MW-13R	Grab	GW			1025	7	X		X	X	X	X	X					-06
MW-15R	Grab	GW			1040	4			X	X	X	X	X	X				-07
MW-17R	Grab	GW		↓	1310	9	X	X	X	X	X	X	X	X				-08

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Use 8270TX for SVOCs.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No (HCl) / MeoH TBR
Scott Ude	4/14/22	1700		2
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/15/22 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: (NCF) / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com;** aeliuri@trccompanies.com

Project Description: **Lovington Lea Refinery**

City/State Collected: **Lovington, NM**

Phone: **512-684-3170**
Fax:

Client Project # **475791.0000.0000.**

Lab Project # **TRCATX-LOVINGTON NAV**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 3

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1482976

Table #

Acctnum: TRCATX
Template: T206205
Prelogin: P914400
TSR: 526
PB: 3-25-2022

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs (8260) - Select List	LL SVOCs (8270) - TCL + 1-MNP	Total Metals (7470) - Hg	Dissolved Metals (6020)-Select List -LF	Anions (9056) - Cl, F, SO4	Nitrate/Nitrite (353.2)	TDS (2540 C-2011)	Alkalinity (2320 B-2011)	TPH (8015) - GRO/DRO		Remarks	Sample # (lab only)
MW-19R	Grab	GW		4-14-22	1120	2					X	X	X	X				-09
MW-27	Grab	GW			1155	3	X											-10
MW-28	Grab	GW			1315	2					X	X		X				-23
MW-29	Grab	GW			1225	5	X		X	X								-11
MW-30	Grab	GW		↓	1150	9	X	X	X	X	X	X	X	X				-12
~~MW-31~~	~~Grab~~	~~GW~~				~~13~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		(LNAPL Recovery)	
MW-32	Grab	GW		4-14-22	1300	13	X	X	X	X	X	X	X	X	X			-26
MW-33	Grab	GW			1040	33	X	X	X	X	X	X	X	X	X		MS/MSD	-25
WW-NORTH	Grab	GW		↓	1150	13	X	X	X	X	X	X	X	X	X			-13
WW-SOUTH	Grab	GW			1015	13	X	X	X	X	X	X	X	X	X			-14

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Use 8270TX for SVOCs.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X N
COC Signed/Accurate: X __N
Bottles arrive intact: X __N
Correct bottles used: X __N
Sufficient volume sent: X __N
If Applicable
VOA Zero Headspace: X __N
Preservation Correct/Checked: X __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	4/14/22	1700		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/15/22 Time: 900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com;** aeliuri@trccompanies.com

Project Description: **Lovington Lea Refinery**

City/State Collected: **Lovington, NM**

Phone: **512-684-3170**
Fax:

Client Project # **475791.0000.0000.**

Lab Project # **TRCATX-LOVINGTON NAV**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs (8260) - Select List	LL SVOCs (8270) - TCL + 1-MNP	Total Metals (7470) - Hg	Dissolved Metals (6020)-Select List -LF	Anions (9056) - Cl, F, SO4	Nitrate/Nitrite (353.2)	TDS (2540 C-2011)	Alkalinity (2320 B-2011)	TPH (8015) - GRO/DRO	Remarks	Sample # (lab only)
WW-EAST	Grab	GW		4-14-22	1245	13	X	X	X	X	X	X	X	X	X		-15
DUP-01	Grab	GW			1200	13	X	X	X	X	X	X	X	X	X		-16
DUP-02	Grab	GW			1100	13	X	X	X	X	X	X	X	X	X		-26
DUP-03	Grab	GW			1200	13	X	X	X	X	X	X	X	X	X		-27
EB-01	Grab	GW			1300	13	X	X	X	X	X	X	X	X	X		-77
EB-02	Grab	GW			1210	9	X	X	X	X	X	X	X	X			-28
TRIP BLANK-01	Grab	GW			—	1	X										-15
TRIP BLANK-02	Grab	GW			—	1	X										-70

Chain of Custody Page 3 of 3

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1482976

Table #

Acctnum: TRCATX

Template: T206205

Prelogin: P914400

TSR: 526

PB: 3-25-2022

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Use 8270TX for SVOCs.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	4/14/22	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Date: 4/15/22 Time: 900

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

U482476

Tracking Numbers		Temperature
5719 6174 7033		JAA6 4.4+0=4.4
5719 6174 7055		JAA6 4.2+0=4.2
5719 6174 7077		JAA6 2.9+0=2.9
5719 6174 7044		JAA6 2.6+0=2.6
5719 6174 7066		JAA6 2.5+0=2.5
5719 6174 7088		PRA7 2.7+0=2.7

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

04/15-L1482976-NCF TRCATX

Shortholds

Time estimate: oh **Time spent:** oh **Grouping date:** 19 April 2022

Members

Cole Medley (responsible) Christopher McCord EM Erica McNeese

~~Due on *19 April 2022 5:00 PM* for target *Done*~~ (Was done by Cole Medley at 19 April 2022 8:25 AM)

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [ ] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [x] Date/Time: 4/18/22 08:17
- [x] PM initials: CM
- [ ] Client Contact:_____

Comments

Cole Medley *15 April 2022 2:57 PM*

Did not receive IDs:
MW-3
MW-11R
MW-28
MW-32
MW-33
DUP-02
DUP-03

Page 320 of 721

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

Cole Medley *15 April 2022 3:16 PM*

- For IDs: MW-1, MW-6, MW-12R2, MW-13R,MW-15R ,and MW-17R chain lists them as being Field Filtered but they were received unpreserved.
- For IDs: MW-29 & MW-30 chain lists them as Lab Filtered but the lid on the container says they were Field Filtered.

Please advise.

Cole Medley *16 April 2022 2:14 PM*

- Received all missing samples today
- For IDs: MW-11R chain lists it as being Field Filtered but they were received unpreserved.
- For IDs: MW-32,MW-33,DUP-02 & DUP-03 chain lists them as Lab Filtered but the lid on the container says they were Field Filtered.

Please advise.

Christopher McCord *18 April 2022 8:55 AM*

All samples are field filtered. Please add Nitric acid to all.

Cole Medley *19 April 2022 8:25 AM*

Done.

Page 321 of 721

ANALYTICAL REPORT

August 23, 2022

Revised Report

TRC Solutions - Austin, TX

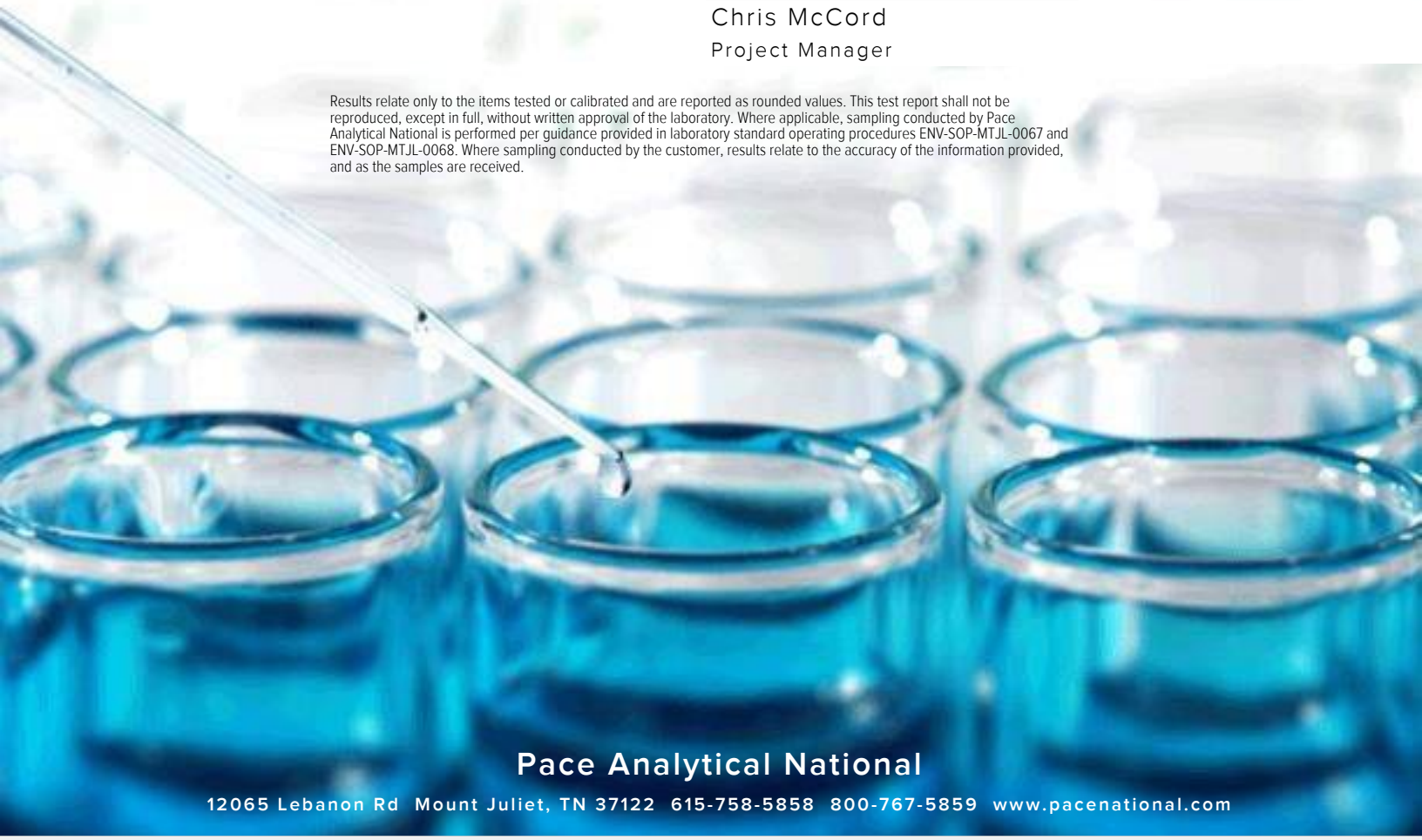
Sample Delivery Group:	L1515221
Samples Received:	07/15/2022
Project Number:	377274.0000.0000.
Description:	Lovington Lea Refinery

Report To: Julie Speer
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

WW-NORTH L1515221-01 6

WW-SOUTH L1515221-02 10

WW-EAST L1515221-03 14

DUP-01 L1515221-04 18

TRIP BLANK L1515221-05 22

Qc: Quality Control Summary 23

Gravimetric Analysis by Method 2540 C-2011 23

Wet Chemistry by Method 2320 B-2011 24

Wet Chemistry by Method 9056A 25

Mercury by Method 7470A 27

Metals (ICP) by Method 6010B 28

Metals (ICPMS) by Method 6020 29

Volatile Organic Compounds (GC) by Method 8015D/GRO 31

Volatile Organic Compounds (GC/MS) by Method 8260B 32

Semi-Volatile Organic Compounds (GC) by Method 3511/8015 35

Semi Volatile Organic Compounds (GC/MS) by Method 8270C 36

Gl: Glossary of Terms 40

Al: Accreditations & Locations 41

Sc: Sample Chain of Custody 42

WW-NORTH L1515221-01 GW

Collected by: BB/HMI Team | Collected date/time: 07/14/22 08:35 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1898960	1	07/21/22 15:50	07/21/22 17:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1899246	1	07/26/22 05:43	07/26/22 05:43	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1895734	1	07/15/22 20:53	07/15/22 20:53	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1896597	1	07/22/22 08:20	07/23/22 10:56	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1900428	1	07/26/22 02:48	07/26/22 12:30	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1900439	1	07/28/22 00:36	07/28/22 15:29	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897020	1	07/18/22 19:57	07/18/22 19:57	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1896520	1	07/18/22 11:40	07/18/22 11:40	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1897303	1	07/19/22 18:02	07/20/22 17:05	AEG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1896881	1	07/21/22 03:43	07/21/22 17:47	JNJ	Mt. Juliet, TN

WW-SOUTH L1515221-02 GW

Collected by: BB/HMI Team | Collected date/time: 07/14/22 09:25 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1898960	1	07/21/22 15:50	07/21/22 17:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1899246	1	07/26/22 05:51	07/26/22 05:51	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1895734	1	07/15/22 21:19	07/15/22 21:19	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1895734	5	07/15/22 21:31	07/15/22 21:31	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1896597	1	07/22/22 08:20	07/23/22 10:58	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1900428	1	07/26/22 02:48	07/26/22 12:33	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1900439	1	07/28/22 00:36	07/28/22 15:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897020	1	07/18/22 20:19	07/18/22 20:19	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1896520	1	07/18/22 12:01	07/18/22 12:01	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1897303	1	07/19/22 18:02	07/20/22 17:32	AEG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1896881	1	07/21/22 03:43	07/21/22 21:29	JNJ	Mt. Juliet, TN

WW-EAST L1515221-03 GW

Collected by: BB/HMI Team | Collected date/time: 07/14/22 10:15 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1898960	1	07/21/22 15:50	07/21/22 17:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1899246	1	07/26/22 06:08	07/26/22 06:08	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1895734	1	07/15/22 21:44	07/15/22 21:44	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1896597	1	07/22/22 08:20	07/23/22 11:00	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1900428	1	07/26/22 02:48	07/26/22 12:35	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1900439	1	07/28/22 00:36	07/28/22 15:36	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897020	1	07/18/22 20:41	07/18/22 20:41	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1896520	1	07/18/22 12:22	07/18/22 12:22	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1897303	1	07/19/22 18:02	07/20/22 21:27	AEG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1896881	1	07/21/22 03:43	07/21/22 18:09	JNJ	Mt. Juliet, TN

DUP-01 L1515221-04 GW

Collected by: BB/HMI Team | Collected date/time: 07/14/22 09:00 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1898960	1	07/21/22 15:50	07/21/22 17:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1899246	1	07/26/22 06:13	07/26/22 06:13	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1895734	1	07/15/22 22:35	07/15/22 22:35	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1895734	5	07/15/22 22:48	07/15/22 22:48	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1896597	1	07/22/22 08:20	07/23/22 11:02	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1900428	1	07/26/22 02:48	07/26/22 12:38	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1900439	1	07/28/22 00:36	07/28/22 15:39	LD	Mt. Juliet, TN

DUP-01 L1515221-04 GW

Collected by: BB/HMI Team
Collected date/time: 07/14/22 09:00
Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1897020	1	07/18/22 21:03	07/18/22 21:03	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1896520	1	07/18/22 12:43	07/18/22 12:43	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1897303	1	07/19/22 18:02	07/20/22 21:53	AEG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1896881	1	07/21/22 03:43	07/21/22 18:31	JNJ	Mt. Juliet, TN

TRIP BLANK L1515221-05 GW

Collected by: BB/HMI Team
Collected date/time: 07/14/22 00:00
Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1896520	1	07/18/22 10:49	07/18/22 10:49	JCP	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 07/29/22 13:11

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	528		10.0	1	07/21/2022 17:54	WG1898960

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	175		8.45	20.0	1	07/26/2022 05:43	WG1899246

Sample Narrative:

L1515221-01 WG1899246: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	122		0.379	1.00	1	07/15/2022 20:53	WG1895734
Fluoride	0.845		0.0640	0.150	1	07/15/2022 20:53	WG1895734
Nitrate	2.82		0.0480	0.100	1	07/15/2022 20:53	WG1895734
Nitrite	0.0786	J	0.0420	0.100	1	07/15/2022 20:53	WG1895734
Sulfate	79.1		0.594	5.00	1	07/15/2022 20:53	WG1895734

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	07/23/2022 10:56	WG1896597

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.148	J	0.0200	0.200	1	07/26/2022 12:30	WG1900428

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	07/28/2022 15:29	WG1900439
Arsenic,Dissolved	0.00557		0.000180	0.00200	1	07/28/2022 15:29	WG1900439
Barium,Dissolved	0.108		0.000381	0.00200	1	07/28/2022 15:29	WG1900439
Cadmium,Dissolved	U		0.000150	0.00100	1	07/28/2022 15:29	WG1900439
Chromium,Dissolved	0.00217		0.00124	0.00200	1	07/28/2022 15:29	WG1900439
Copper,Dissolved	0.00467	J	0.00151	0.00500	1	07/28/2022 15:29	WG1900439
Cobalt,Dissolved	0.0000720	J	0.0000596	0.00200	1	07/28/2022 15:29	WG1900439
Iron,Dissolved	U		0.0281	0.100	1	07/28/2022 15:29	WG1900439
Lead,Dissolved	U		0.000849	0.00200	1	07/28/2022 15:29	WG1900439
Manganese,Dissolved	0.00179	J	0.000704	0.00500	1	07/28/2022 15:29	WG1900439
Molybdenum,Dissolved	0.00281	J	0.000348	0.00500	1	07/28/2022 15:29	WG1900439
Nickel,Dissolved	0.00152	J	0.000816	0.00200	1	07/28/2022 15:29	WG1900439
Selenium,Dissolved	0.00401		0.000300	0.00200	1	07/28/2022 15:29	WG1900439
Silver,Dissolved	U		0.0000700	0.00200	1	07/28/2022 15:29	WG1900439
Uranium,Dissolved	0.00186	J	0.0000700	0.0200	1	07/28/2022 15:29	WG1900439
Zinc,Dissolved	0.0128	J	0.00302	0.0250	1	07/28/2022 15:29	WG1900439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	07/18/2022 19:57	WG1897020
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*78.0-120*		*07/18/2022 19:57*	WG1897020

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	07/18/2022 11:40	WG1896520
Benzene	U		0.0000941	0.00100	1	07/18/2022 11:40	WG1896520
Bromodichloromethane	U		0.000136	0.00100	1	07/18/2022 11:40	WG1896520
Bromoform	U		0.000129	0.00100	1	07/18/2022 11:40	WG1896520
Bromomethane	U		0.000605	0.00500	1	07/18/2022 11:40	WG1896520
n-Butylbenzene	U		0.000157	0.00100	1	07/18/2022 11:40	WG1896520
sec-Butylbenzene	U		0.000125	0.00100	1	07/18/2022 11:40	WG1896520
tert-Butylbenzene	U		0.000127	0.00100	1	07/18/2022 11:40	WG1896520
Carbon disulfide	U		0.0000962	0.00100	1	07/18/2022 11:40	WG1896520
Carbon tetrachloride	U		0.000128	0.00100	1	07/18/2022 11:40	WG1896520
Chlorobenzene	U		0.000116	0.00100	1	07/18/2022 11:40	WG1896520
Chlorodibromomethane	U		0.000140	0.00100	1	07/18/2022 11:40	WG1896520
Chloroethane	U		0.000192	0.00500	1	07/18/2022 11:40	WG1896520
Chloroform	U		0.000111	0.00500	1	07/18/2022 11:40	WG1896520
Chloromethane	U		0.000960	0.00250	1	07/18/2022 11:40	WG1896520
1,2-Dibromoethane	U		0.000126	0.00100	1	07/18/2022 11:40	WG1896520
1,1-Dichloroethane	U		0.000100	0.00100	1	07/18/2022 11:40	WG1896520
1,2-Dichloroethane	U		0.0000819	0.00100	1	07/18/2022 11:40	WG1896520
1,1-Dichloroethene	U		0.000188	0.00100	1	07/18/2022 11:40	WG1896520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	07/18/2022 11:40	WG1896520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	07/18/2022 11:40	WG1896520
1,2-Dichloropropane	U		0.000149	0.00100	1	07/18/2022 11:40	WG1896520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	07/18/2022 11:40	WG1896520
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	07/18/2022 11:40	WG1896520
Ethylbenzene	U		0.000137	0.00100	1	07/18/2022 11:40	WG1896520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	07/18/2022 11:40	WG1896520
2-Hexanone	U		0.000787	0.0100	1	07/18/2022 11:40	WG1896520
Isopropylbenzene	U		0.000105	0.00100	1	07/18/2022 11:40	WG1896520
p-Isopropyltoluene	U		0.000120	0.00100	1	07/18/2022 11:40	WG1896520
2-Butanone (MEK)	U		0.00119	0.0100	1	07/18/2022 11:40	WG1896520
Methylene Chloride	U		0.000430	0.00500	1	07/18/2022 11:40	WG1896520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	07/18/2022 11:40	WG1896520
Methyl tert-butyl ether	U		0.000101	0.00100	1	07/18/2022 11:40	WG1896520
Naphthalene	U		0.00100	0.00500	1	07/18/2022 11:40	WG1896520
n-Propylbenzene	U		0.0000993	0.00100	1	07/18/2022 11:40	WG1896520
Styrene	U		0.000118	0.00100	1	07/18/2022 11:40	WG1896520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	07/18/2022 11:40	WG1896520
Tetrachloroethene	U		0.000300	0.00100	1	07/18/2022 11:40	WG1896520
Toluene	U		0.000278	0.00100	1	07/18/2022 11:40	WG1896520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	07/18/2022 11:40	WG1896520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	07/18/2022 11:40	WG1896520
Trichloroethene	U		0.000190	0.00100	1	07/18/2022 11:40	WG1896520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	07/18/2022 11:40	WG1896520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	07/18/2022 11:40	WG1896520
Vinyl chloride	U		0.000234	0.00100	1	07/18/2022 11:40	WG1896520
Xylenes, Total	U		0.000174	0.00300	1	07/18/2022 11:40	WG1896520
(S) Toluene-d8	*107*			*80.0-120*		*07/18/2022 11:40*	WG1896520
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*07/18/2022 11:40*	WG1896520
(S) 1,2-Dichloroethane-d4	*88.9*			*70.0-130*		*07/18/2022 11:40*	WG1896520

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0417	B J	0.0247	0.100	1	07/20/2022 17:05	WG1897303
(S) o-Terphenyl	*124*			*31.0-160*		*07/20/2022 17:05*	WG1897303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	07/21/2022 17:47	WG1896881
Acenaphthylene	U		0.0000921	0.00100	1	07/21/2022 17:47	WG1896881
Acetophenone	U		0.000208	0.0100	1	07/21/2022 17:47	WG1896881
Anthracene	U		0.0000804	0.00100	1	07/21/2022 17:47	WG1896881
Atrazine	U		0.000255	0.0100	1	07/21/2022 17:47	WG1896881
Benzo(a)anthracene	U		0.000199	0.00100	1	07/21/2022 17:47	WG1896881
Benzaldehyde	U		0.00169	0.0100	1	07/21/2022 17:47	WG1896881
Benzo(b)fluoranthene	U		0.000130	0.00100	1	07/21/2022 17:47	WG1896881
Benzo(k)fluoranthene	U		0.000120	0.00100	1	07/21/2022 17:47	WG1896881
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	07/21/2022 17:47	WG1896881
Benzo(a)pyrene	U		0.0000381	0.000200	1	07/21/2022 17:47	WG1896881
Biphenyl	U		0.000790	0.0100	1	07/21/2022 17:47	WG1896881
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	07/21/2022 17:47	WG1896881
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	07/21/2022 17:47	WG1896881
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	07/21/2022 17:47	WG1896881
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	07/21/2022 17:47	WG1896881
2-Chloronaphthalene	U		0.0000648	0.00100	1	07/21/2022 17:47	WG1896881
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	07/21/2022 17:47	WG1896881
Caprolactam	U		0.000309	0.0100	1	07/21/2022 17:47	WG1896881
Carbazole	U		0.000111	0.0100	1	07/21/2022 17:47	WG1896881
Chrysene	U		0.000130	0.00100	1	07/21/2022 17:47	WG1896881
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	07/21/2022 17:47	WG1896881
Dibenzofuran	U		0.0000970	0.0100	1	07/21/2022 17:47	WG1896881
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	07/21/2022 17:47	WG1896881
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	07/21/2022 17:47	WG1896881
2,6-Dinitrotoluene	U		0.000250	0.0100	1	07/21/2022 17:47	WG1896881
Fluoranthene	U		0.000102	0.00100	1	07/21/2022 17:47	WG1896881
Fluorene	U		0.0000844	0.00100	1	07/21/2022 17:47	WG1896881
Hexachlorobenzene	U		0.0000755	0.00100	1	07/21/2022 17:47	WG1896881
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	07/21/2022 17:47	WG1896881
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	07/21/2022 17:47	WG1896881
Hexachloroethane	U		0.000127	0.0100	1	07/21/2022 17:47	WG1896881
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	07/21/2022 17:47	WG1896881
Isophorone	U		0.000143	0.0100	1	07/21/2022 17:47	WG1896881
1-Methylnaphthalene	U		0.0000790	0.00100	1	07/21/2022 17:47	WG1896881
2-Methylnaphthalene	U		0.000117	0.00100	1	07/21/2022 17:47	WG1896881
Naphthalene	U		0.000159	0.00100	1	07/21/2022 17:47	WG1896881
Nitrobenzene	U		0.000297	0.0100	1	07/21/2022 17:47	WG1896881
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	07/21/2022 17:47	WG1896881
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	07/21/2022 17:47	WG1896881
Phenanthrene	U		0.000112	0.00100	1	07/21/2022 17:47	WG1896881
Benzylbutyl phthalate	U		0.000765	0.00300	1	07/21/2022 17:47	WG1896881
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	07/21/2022 17:47	WG1896881
Di-n-butyl phthalate	U		0.000453	0.00300	1	07/21/2022 17:47	WG1896881
Diethyl phthalate	U		0.000287	0.00300	1	07/21/2022 17:47	WG1896881
Dimethyl phthalate	U		0.000260	0.00300	1	07/21/2022 17:47	WG1896881
Di-n-octyl phthalate	U		0.000932	0.00300	1	07/21/2022 17:47	WG1896881
Pyrene	U		0.000107	0.00100	1	07/21/2022 17:47	WG1896881
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	07/21/2022 17:47	WG1896881
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	07/21/2022 17:47	WG1896881

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	07/21/2022 17:47	WG1896881
2,4-Dichlorophenol	U		0.000102	0.0100	1	07/21/2022 17:47	WG1896881
2,4-Dimethylphenol	U		0.0000636	0.0100	1	07/21/2022 17:47	WG1896881
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	07/21/2022 17:47	WG1896881
2,4-Dinitrophenol	U		0.00593	0.0100	1	07/21/2022 17:47	WG1896881
2-Nitrophenol	U		0.000117	0.0100	1	07/21/2022 17:47	WG1896881
2-Nitroaniline	U		0.000102	0.0100	1	07/21/2022 17:47	WG1896881
2-Methylphenol	U		0.0000929	0.0100	1	07/21/2022 17:47	WG1896881
3&4-Methyl Phenol	U		0.000168	0.0100	1	07/21/2022 17:47	WG1896881
3-Nitroaniline	U		0.0000869	0.0100	1	07/21/2022 17:47	WG1896881
4-Chloroaniline	U		0.000234	0.0100	1	07/21/2022 17:47	WG1896881
4-Nitroaniline	U		0.0000910	0.0100	1	07/21/2022 17:47	WG1896881
4-Nitrophenol	U		0.000143	0.0100	1	07/21/2022 17:47	WG1896881
Pentachlorophenol	U		0.000313	0.0100	1	07/21/2022 17:47	WG1896881
Phenol	U		0.00433	0.0100	1	07/21/2022 17:47	WG1896881
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	07/21/2022 17:47	WG1896881
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	07/21/2022 17:47	WG1896881
(S) 2-Fluorophenol	*22.8*			*10.0-120*		*07/21/2022 17:47*	WG1896881
(S) Phenol-d5	*14.8*			*10.0-120*		*07/21/2022 17:47*	WG1896881
(S) Nitrobenzene-d5	*44.0*			*10.0-127*		*07/21/2022 17:47*	WG1896881
(S) 2-Fluorobiphenyl	*41.7*			*10.0-130*		*07/21/2022 17:47*	WG1896881
(S) 2,4,6-Tribromophenol	*51.2*			*10.0-155*		*07/21/2022 17:47*	WG1896881
(S) p-Terphenyl-d14	*73.7*			*10.0-128*		*07/21/2022 17:47*	WG1896881

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	964		20.0	1	07/21/2022 17:54	WG1898960

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	173		8.45	20.0	1	07/26/2022 05:51	WG1899246

Sample Narrative:

L1515221-02 WG1899246: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	287		1.90	5.00	5	07/15/2022 21:31	WG1895734
Fluoride	0.709		0.0640	0.150	1	07/15/2022 21:19	WG1895734
Nitrate	3.01		0.0480	0.100	1	07/15/2022 21:19	WG1895734
Nitrite	0.167		0.0420	0.100	1	07/15/2022 21:19	WG1895734
Sulfate	90.6		0.594	5.00	1	07/15/2022 21:19	WG1895734

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	07/23/2022 10:58	WG1896597

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.176	J	0.0200	0.200	1	07/26/2022 12:33	WG1900428

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	07/28/2022 15:32	WG1900439
Arsenic,Dissolved	0.00365		0.000180	0.00200	1	07/28/2022 15:32	WG1900439
Barium,Dissolved	0.116		0.000381	0.00200	1	07/28/2022 15:32	WG1900439
Cadmium,Dissolved	U		0.000150	0.00100	1	07/28/2022 15:32	WG1900439
Chromium,Dissolved	U		0.00124	0.00200	1	07/28/2022 15:32	WG1900439
Copper,Dissolved	0.0342		0.00151	0.00500	1	07/28/2022 15:32	WG1900439
Cobalt,Dissolved	U		0.0000596	0.00200	1	07/28/2022 15:32	WG1900439
Iron,Dissolved	U		0.0281	0.100	1	07/28/2022 15:32	WG1900439
Lead,Dissolved	U		0.000849	0.00200	1	07/28/2022 15:32	WG1900439
Manganese,Dissolved	0.00389	J	0.000704	0.00500	1	07/28/2022 15:32	WG1900439
Molybdenum,Dissolved	0.00209	J	0.000348	0.00500	1	07/28/2022 15:32	WG1900439
Nickel,Dissolved	0.00143	J	0.000816	0.00200	1	07/28/2022 15:32	WG1900439
Selenium,Dissolved	0.00399		0.000300	0.00200	1	07/28/2022 15:32	WG1900439
Silver,Dissolved	U		0.0000700	0.00200	1	07/28/2022 15:32	WG1900439
Uranium,Dissolved	0.00200	J	0.0000700	0.0200	1	07/28/2022 15:32	WG1900439
Zinc,Dissolved	0.232		0.00302	0.0250	1	07/28/2022 15:32	WG1900439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	07/18/2022 20:19	WG1897020
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*78.0-120*		*07/18/2022 20:19*	WG1897020

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	07/18/2022 12:01	WG1896520
Benzene	U		0.0000941	0.00100	1	07/18/2022 12:01	WG1896520
Bromodichloromethane	U		0.000136	0.00100	1	07/18/2022 12:01	WG1896520
Bromoform	U		0.000129	0.00100	1	07/18/2022 12:01	WG1896520
Bromomethane	U		0.000605	0.00500	1	07/18/2022 12:01	WG1896520
n-Butylbenzene	U		0.000157	0.00100	1	07/18/2022 12:01	WG1896520
sec-Butylbenzene	U		0.000125	0.00100	1	07/18/2022 12:01	WG1896520
tert-Butylbenzene	U		0.000127	0.00100	1	07/18/2022 12:01	WG1896520
Carbon disulfide	U		0.0000962	0.00100	1	07/18/2022 12:01	WG1896520
Carbon tetrachloride	U		0.000128	0.00100	1	07/18/2022 12:01	WG1896520
Chlorobenzene	U		0.000116	0.00100	1	07/18/2022 12:01	WG1896520
Chlorodibromomethane	U		0.000140	0.00100	1	07/18/2022 12:01	WG1896520
Chloroethane	U		0.000192	0.00500	1	07/18/2022 12:01	WG1896520
Chloroform	0.000939	J	0.000111	0.00500	1	07/18/2022 12:01	WG1896520
Chloromethane	U		0.000960	0.00250	1	07/18/2022 12:01	WG1896520
1,2-Dibromoethane	U		0.000126	0.00100	1	07/18/2022 12:01	WG1896520
1,1-Dichloroethane	U		0.000100	0.00100	1	07/18/2022 12:01	WG1896520
1,2-Dichloroethane	U		0.0000819	0.00100	1	07/18/2022 12:01	WG1896520
1,1-Dichloroethene	U		0.000188	0.00100	1	07/18/2022 12:01	WG1896520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	07/18/2022 12:01	WG1896520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	07/18/2022 12:01	WG1896520
1,2-Dichloropropane	U		0.000149	0.00100	1	07/18/2022 12:01	WG1896520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	07/18/2022 12:01	WG1896520
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	07/18/2022 12:01	WG1896520
Ethylbenzene	U		0.000137	0.00100	1	07/18/2022 12:01	WG1896520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	07/18/2022 12:01	WG1896520
2-Hexanone	U		0.000787	0.0100	1	07/18/2022 12:01	WG1896520
Isopropylbenzene	U		0.000105	0.00100	1	07/18/2022 12:01	WG1896520
p-Isopropyltoluene	U		0.000120	0.00100	1	07/18/2022 12:01	WG1896520
2-Butanone (MEK)	U		0.00119	0.0100	1	07/18/2022 12:01	WG1896520
Methylene Chloride	U		0.000430	0.00500	1	07/18/2022 12:01	WG1896520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	07/18/2022 12:01	WG1896520
Methyl tert-butyl ether	U		0.000101	0.00100	1	07/18/2022 12:01	WG1896520
Naphthalene	U		0.00100	0.00500	1	07/18/2022 12:01	WG1896520
n-Propylbenzene	U		0.0000993	0.00100	1	07/18/2022 12:01	WG1896520
Styrene	U		0.000118	0.00100	1	07/18/2022 12:01	WG1896520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	07/18/2022 12:01	WG1896520
Tetrachloroethene	U		0.000300	0.00100	1	07/18/2022 12:01	WG1896520
Toluene	U		0.000278	0.00100	1	07/18/2022 12:01	WG1896520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	07/18/2022 12:01	WG1896520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	07/18/2022 12:01	WG1896520
Trichloroethene	U		0.000190	0.00100	1	07/18/2022 12:01	WG1896520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	07/18/2022 12:01	WG1896520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	07/18/2022 12:01	WG1896520
Vinyl chloride	U		0.000234	0.00100	1	07/18/2022 12:01	WG1896520
Xylenes, Total	U		0.000174	0.00300	1	07/18/2022 12:01	WG1896520
(S) Toluene-d8	*107*			*80.0-120*		*07/18/2022 12:01*	WG1896520
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*07/18/2022 12:01*	WG1896520
(S) 1,2-Dichloroethane-d4	*83.6*			*70.0-130*		*07/18/2022 12:01*	WG1896520

Cp Tc Ss Cn Sr Qc Gl Al Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0675	B J	0.0247	0.100	1	07/20/2022 17:32	WG1897303
(S) o-Terphenyl	*128*			*31.0-160*		*07/20/2022 17:32*	WG1897303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	07/21/2022 21:29	WG1896881
Acenaphthylene	U		0.0000921	0.00100	1	07/21/2022 21:29	WG1896881
Acetophenone	U		0.000208	0.0100	1	07/21/2022 21:29	WG1896881
Anthracene	U		0.0000804	0.00100	1	07/21/2022 21:29	WG1896881
Atrazine	U		0.000255	0.0100	1	07/21/2022 21:29	WG1896881
Benzo(a)anthracene	U		0.000199	0.00100	1	07/21/2022 21:29	WG1896881
Benzaldehyde	U		0.00169	0.0100	1	07/21/2022 21:29	WG1896881
Benzo(b)fluoranthene	U		0.000130	0.00100	1	07/21/2022 21:29	WG1896881
Benzo(k)fluoranthene	U		0.000120	0.00100	1	07/21/2022 21:29	WG1896881
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	07/21/2022 21:29	WG1896881
Benzo(a)pyrene	U		0.0000381	0.000200	1	07/21/2022 21:29	WG1896881
Biphenyl	U		0.000790	0.0100	1	07/21/2022 21:29	WG1896881
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	07/21/2022 21:29	WG1896881
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	07/21/2022 21:29	WG1896881
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	07/21/2022 21:29	WG1896881
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	07/21/2022 21:29	WG1896881
2-Chloronaphthalene	U		0.0000648	0.00100	1	07/21/2022 21:29	WG1896881
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	07/21/2022 21:29	WG1896881
Caprolactam	0.000414	J	0.000309	0.0100	1	07/21/2022 21:29	WG1896881
Carbazole	U		0.000111	0.0100	1	07/21/2022 21:29	WG1896881
Chrysene	U		0.000130	0.00100	1	07/21/2022 21:29	WG1896881
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	07/21/2022 21:29	WG1896881
Dibenzofuran	U		0.0000970	0.0100	1	07/21/2022 21:29	WG1896881
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	07/21/2022 21:29	WG1896881
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	07/21/2022 21:29	WG1896881
2,6-Dinitrotoluene	U		0.000250	0.0100	1	07/21/2022 21:29	WG1896881
Fluoranthene	U		0.000102	0.00100	1	07/21/2022 21:29	WG1896881
Fluorene	U		0.0000844	0.00100	1	07/21/2022 21:29	WG1896881
Hexachlorobenzene	U		0.0000755	0.00100	1	07/21/2022 21:29	WG1896881
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	07/21/2022 21:29	WG1896881
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	07/21/2022 21:29	WG1896881
Hexachloroethane	U		0.000127	0.0100	1	07/21/2022 21:29	WG1896881
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	07/21/2022 21:29	WG1896881
Isophorone	U		0.000143	0.0100	1	07/21/2022 21:29	WG1896881
1-Methylnaphthalene	U		0.0000790	0.00100	1	07/21/2022 21:29	WG1896881
2-Methylnaphthalene	U		0.000117	0.00100	1	07/21/2022 21:29	WG1896881
Naphthalene	U		0.000159	0.00100	1	07/21/2022 21:29	WG1896881
Nitrobenzene	U		0.000297	0.0100	1	07/21/2022 21:29	WG1896881
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	07/21/2022 21:29	WG1896881
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	07/21/2022 21:29	WG1896881
Phenanthrene	U		0.000112	0.00100	1	07/21/2022 21:29	WG1896881
Benzylbutyl phthalate	U		0.000765	0.00300	1	07/21/2022 21:29	WG1896881
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	07/21/2022 21:29	WG1896881
Di-n-butyl phthalate	U		0.000453	0.00300	1	07/21/2022 21:29	WG1896881
Diethyl phthalate	U		0.000287	0.00300	1	07/21/2022 21:29	WG1896881
Dimethyl phthalate	U		0.000260	0.00300	1	07/21/2022 21:29	WG1896881
Di-n-octyl phthalate	U		0.000932	0.00300	1	07/21/2022 21:29	WG1896881
Pyrene	U		0.000107	0.00100	1	07/21/2022 21:29	WG1896881
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	07/21/2022 21:29	WG1896881
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	07/21/2022 21:29	WG1896881

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	07/21/2022 21:29	WG1896881
2,4-Dichlorophenol	U		0.000102	0.0100	1	07/21/2022 21:29	WG1896881
2,4-Dimethylphenol	U		0.0000636	0.0100	1	07/21/2022 21:29	WG1896881
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	07/21/2022 21:29	WG1896881
2,4-Dinitrophenol	U		0.00593	0.0100	1	07/21/2022 21:29	WG1896881
2-Nitrophenol	U		0.000117	0.0100	1	07/21/2022 21:29	WG1896881
2-Nitroaniline	U		0.000102	0.0100	1	07/21/2022 21:29	WG1896881
2-Methylphenol	U		0.0000929	0.0100	1	07/21/2022 21:29	WG1896881
3&4-Methyl Phenol	U		0.000168	0.0100	1	07/21/2022 21:29	WG1896881
3-Nitroaniline	U		0.0000869	0.0100	1	07/21/2022 21:29	WG1896881
4-Chloroaniline	U		0.000234	0.0100	1	07/21/2022 21:29	WG1896881
4-Nitroaniline	U		0.0000910	0.0100	1	07/21/2022 21:29	WG1896881
4-Nitrophenol	U		0.000143	0.0100	1	07/21/2022 21:29	WG1896881
Pentachlorophenol	U		0.000313	0.0100	1	07/21/2022 21:29	WG1896881
Phenol	U		0.00433	0.0100	1	07/21/2022 21:29	WG1896881
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	07/21/2022 21:29	WG1896881
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	07/21/2022 21:29	WG1896881
(S) 2-Fluorophenol	*14.8*			*10.0-120*		*07/21/2022 21:29*	WG1896881
(S) Phenol-d5	*9.53*	J2		*10.0-120*		*07/21/2022 21:29*	WG1896881
(S) Nitrobenzene-d5	*33.1*			*10.0-127*		*07/21/2022 21:29*	WG1896881
(S) 2-Fluorobiphenyl	*30.0*			*10.0-130*		*07/21/2022 21:29*	WG1896881
(S) 2,4,6-Tribromophenol	*41.4*			*10.0-155*		*07/21/2022 21:29*	WG1896881
(S) p-Terphenyl-d14	*61.1*			*10.0-128*		*07/21/2022 21:29*	WG1896881

Sample Narrative:

L1515221-02 WG1896881: Duplicate Analysis performed due to surrogate failure. Results confirm; reporting in hold data

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	493		10.0	1	07/21/2022 17:54	WG1898960

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	166		8.45	20.0	1	07/26/2022 06:08	WG1899246

Sample Narrative:

L1515221-03 WG1899246: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	106		0.379	1.00	1	07/15/2022 21:44	WG1895734
Fluoride	0.943		0.0640	0.150	1	07/15/2022 21:44	WG1895734
Nitrate	2.74		0.0480	0.100	1	07/15/2022 21:44	WG1895734
Nitrite	0.0722	J	0.0420	0.100	1	07/15/2022 21:44	WG1895734
Sulfate	82.2		0.594	5.00	1	07/15/2022 21:44	WG1895734

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	07/23/2022 11:00	WG1896597

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.146	J	0.0200	0.200	1	07/26/2022 12:35	WG1900428

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	07/28/2022 15:36	WG1900439
Arsenic,Dissolved	0.00450		0.000180	0.00200	1	07/28/2022 15:36	WG1900439
Barium,Dissolved	0.0851		0.000381	0.00200	1	07/28/2022 15:36	WG1900439
Cadmium,Dissolved	U		0.000150	0.00100	1	07/28/2022 15:36	WG1900439
Chromium,Dissolved	0.00279		0.00124	0.00200	1	07/28/2022 15:36	WG1900439
Copper,Dissolved	0.00232	J	0.00151	0.00500	1	07/28/2022 15:36	WG1900439
Cobalt,Dissolved	0.0000825	J	0.0000596	0.00200	1	07/28/2022 15:36	WG1900439
Iron,Dissolved	U		0.0281	0.100	1	07/28/2022 15:36	WG1900439
Lead,Dissolved	U		0.000849	0.00200	1	07/28/2022 15:36	WG1900439
Manganese,Dissolved	0.00278	J	0.000704	0.00500	1	07/28/2022 15:36	WG1900439
Molybdenum,Dissolved	0.00272	J	0.000348	0.00500	1	07/28/2022 15:36	WG1900439
Nickel,Dissolved	0.00164	J	0.000816	0.00200	1	07/28/2022 15:36	WG1900439
Selenium,Dissolved	0.00414		0.000300	0.00200	1	07/28/2022 15:36	WG1900439
Silver,Dissolved	U		0.0000700	0.00200	1	07/28/2022 15:36	WG1900439
Uranium,Dissolved	0.00182	J	0.0000700	0.0200	1	07/28/2022 15:36	WG1900439
Zinc,Dissolved	0.00870	J	0.00302	0.0250	1	07/28/2022 15:36	WG1900439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	07/18/2022 20:41	WG1897020
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*78.0-120*		*07/18/2022 20:41*	WG1897020

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	07/18/2022 12:22	WG1896520
Benzene	U		0.0000941	0.00100	1	07/18/2022 12:22	WG1896520
Bromodichloromethane	U		0.000136	0.00100	1	07/18/2022 12:22	WG1896520
Bromoform	U		0.000129	0.00100	1	07/18/2022 12:22	WG1896520
Bromomethane	U		0.000605	0.00500	1	07/18/2022 12:22	WG1896520
n-Butylbenzene	U		0.000157	0.00100	1	07/18/2022 12:22	WG1896520
sec-Butylbenzene	U		0.000125	0.00100	1	07/18/2022 12:22	WG1896520
tert-Butylbenzene	U		0.000127	0.00100	1	07/18/2022 12:22	WG1896520
Carbon disulfide	U		0.0000962	0.00100	1	07/18/2022 12:22	WG1896520
Carbon tetrachloride	U		0.000128	0.00100	1	07/18/2022 12:22	WG1896520
Chlorobenzene	U		0.000116	0.00100	1	07/18/2022 12:22	WG1896520
Chlorodibromomethane	U		0.000140	0.00100	1	07/18/2022 12:22	WG1896520
Chloroethane	U		0.000192	0.00500	1	07/18/2022 12:22	WG1896520
Chloroform	U		0.000111	0.00500	1	07/18/2022 12:22	WG1896520
Chloromethane	U		0.000960	0.00250	1	07/18/2022 12:22	WG1896520
1,2-Dibromoethane	U		0.000126	0.00100	1	07/18/2022 12:22	WG1896520
1,1-Dichloroethane	U		0.000100	0.00100	1	07/18/2022 12:22	WG1896520
1,2-Dichloroethane	U		0.0000819	0.00100	1	07/18/2022 12:22	WG1896520
1,1-Dichloroethene	U		0.000188	0.00100	1	07/18/2022 12:22	WG1896520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	07/18/2022 12:22	WG1896520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	07/18/2022 12:22	WG1896520
1,2-Dichloropropane	U		0.000149	0.00100	1	07/18/2022 12:22	WG1896520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	07/18/2022 12:22	WG1896520
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	07/18/2022 12:22	WG1896520
Ethylbenzene	U		0.000137	0.00100	1	07/18/2022 12:22	WG1896520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	07/18/2022 12:22	WG1896520
2-Hexanone	U		0.000787	0.0100	1	07/18/2022 12:22	WG1896520
Isopropylbenzene	U		0.000105	0.00100	1	07/18/2022 12:22	WG1896520
p-Isopropyltoluene	U		0.000120	0.00100	1	07/18/2022 12:22	WG1896520
2-Butanone (MEK)	U		0.00119	0.0100	1	07/18/2022 12:22	WG1896520
Methylene Chloride	U		0.000430	0.00500	1	07/18/2022 12:22	WG1896520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	07/18/2022 12:22	WG1896520
Methyl tert-butyl ether	U		0.000101	0.00100	1	07/18/2022 12:22	WG1896520
Naphthalene	U		0.00100	0.00500	1	07/18/2022 12:22	WG1896520
n-Propylbenzene	U		0.0000993	0.00100	1	07/18/2022 12:22	WG1896520
Styrene	U		0.000118	0.00100	1	07/18/2022 12:22	WG1896520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	07/18/2022 12:22	WG1896520
Tetrachloroethene	U		0.000300	0.00100	1	07/18/2022 12:22	WG1896520
Toluene	U		0.000278	0.00100	1	07/18/2022 12:22	WG1896520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	07/18/2022 12:22	WG1896520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	07/18/2022 12:22	WG1896520
Trichloroethene	U		0.000190	0.00100	1	07/18/2022 12:22	WG1896520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	07/18/2022 12:22	WG1896520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	07/18/2022 12:22	WG1896520
Vinyl chloride	U		0.000234	0.00100	1	07/18/2022 12:22	WG1896520
Xylenes, Total	U		0.000174	0.00300	1	07/18/2022 12:22	WG1896520
(S) Toluene-d8	*103*			*80.0-120*		*07/18/2022 12:22*	WG1896520
(S) 4-Bromofluorobenzene	*96.3*			*77.0-126*		*07/18/2022 12:22*	WG1896520
(S) 1,2-Dichloroethane-d4	*88.6*			*70.0-130*		*07/18/2022 12:22*	WG1896520

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0267	B J	0.0247	0.100	1	07/20/2022 21:27	WG1897303
(S) o-Terphenyl	*113*			*31.0-160*		*07/20/2022 21:27*	WG1897303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	07/21/2022 18:09	WG1896881
Acenaphthylene	U		0.0000921	0.00100	1	07/21/2022 18:09	WG1896881
Acetophenone	U		0.000208	0.0100	1	07/21/2022 18:09	WG1896881
Anthracene	U		0.0000804	0.00100	1	07/21/2022 18:09	WG1896881
Atrazine	U		0.000255	0.0100	1	07/21/2022 18:09	WG1896881
Benzo(a)anthracene	U		0.000199	0.00100	1	07/21/2022 18:09	WG1896881
Benzaldehyde	U		0.00169	0.0100	1	07/21/2022 18:09	WG1896881
Benzo(b)fluoranthene	U		0.000130	0.00100	1	07/21/2022 18:09	WG1896881
Benzo(k)fluoranthene	U		0.000120	0.00100	1	07/21/2022 18:09	WG1896881
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	07/21/2022 18:09	WG1896881
Benzo(a)pyrene	U		0.0000381	0.000200	1	07/21/2022 18:09	WG1896881
Biphenyl	U		0.000790	0.0100	1	07/21/2022 18:09	WG1896881
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	07/21/2022 18:09	WG1896881
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	07/21/2022 18:09	WG1896881
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	07/21/2022 18:09	WG1896881
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	07/21/2022 18:09	WG1896881
2-Chloronaphthalene	U		0.0000648	0.00100	1	07/21/2022 18:09	WG1896881
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	07/21/2022 18:09	WG1896881
Caprolactam	0.000405	J	0.000309	0.0100	1	07/21/2022 18:09	WG1896881
Carbazole	U		0.000111	0.0100	1	07/21/2022 18:09	WG1896881
Chrysene	U		0.000130	0.00100	1	07/21/2022 18:09	WG1896881
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	07/21/2022 18:09	WG1896881
Dibenzofuran	U		0.0000970	0.0100	1	07/21/2022 18:09	WG1896881
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	07/21/2022 18:09	WG1896881
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	07/21/2022 18:09	WG1896881
2,6-Dinitrotoluene	U		0.000250	0.0100	1	07/21/2022 18:09	WG1896881
Fluoranthene	U		0.000102	0.00100	1	07/21/2022 18:09	WG1896881
Fluorene	U		0.0000844	0.00100	1	07/21/2022 18:09	WG1896881
Hexachlorobenzene	U		0.0000755	0.00100	1	07/21/2022 18:09	WG1896881
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	07/21/2022 18:09	WG1896881
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	07/21/2022 18:09	WG1896881
Hexachloroethane	U		0.000127	0.0100	1	07/21/2022 18:09	WG1896881
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	07/21/2022 18:09	WG1896881
Isophorone	U		0.000143	0.0100	1	07/21/2022 18:09	WG1896881
1-Methylnaphthalene	U		0.0000790	0.00100	1	07/21/2022 18:09	WG1896881
2-Methylnaphthalene	U		0.000117	0.00100	1	07/21/2022 18:09	WG1896881
Naphthalene	U		0.000159	0.00100	1	07/21/2022 18:09	WG1896881
Nitrobenzene	U		0.000297	0.0100	1	07/21/2022 18:09	WG1896881
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	07/21/2022 18:09	WG1896881
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	07/21/2022 18:09	WG1896881
Phenanthrene	U		0.000112	0.00100	1	07/21/2022 18:09	WG1896881
Benzylbutyl phthalate	U		0.000765	0.00300	1	07/21/2022 18:09	WG1896881
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	07/21/2022 18:09	WG1896881
Di-n-butyl phthalate	U		0.000453	0.00300	1	07/21/2022 18:09	WG1896881
Diethyl phthalate	U		0.000287	0.00300	1	07/21/2022 18:09	WG1896881
Dimethyl phthalate	U		0.000260	0.00300	1	07/21/2022 18:09	WG1896881
Di-n-octyl phthalate	U		0.000932	0.00300	1	07/21/2022 18:09	WG1896881
Pyrene	U		0.000107	0.00100	1	07/21/2022 18:09	WG1896881
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	07/21/2022 18:09	WG1896881
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	07/21/2022 18:09	WG1896881

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	07/21/2022 18:09	WG1896881
2,4-Dichlorophenol	U		0.000102	0.0100	1	07/21/2022 18:09	WG1896881
2,4-Dimethylphenol	U		0.0000636	0.0100	1	07/21/2022 18:09	WG1896881
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	07/21/2022 18:09	WG1896881
2,4-Dinitrophenol	U		0.00593	0.0100	1	07/21/2022 18:09	WG1896881
2-Nitrophenol	U		0.000117	0.0100	1	07/21/2022 18:09	WG1896881
2-Nitroaniline	U		0.000102	0.0100	1	07/21/2022 18:09	WG1896881
2-Methylphenol	U		0.0000929	0.0100	1	07/21/2022 18:09	WG1896881
3&4-Methyl Phenol	U		0.000168	0.0100	1	07/21/2022 18:09	WG1896881
3-Nitroaniline	U		0.0000869	0.0100	1	07/21/2022 18:09	WG1896881
4-Chloroaniline	U		0.000234	0.0100	1	07/21/2022 18:09	WG1896881
4-Nitroaniline	U		0.0000910	0.0100	1	07/21/2022 18:09	WG1896881
4-Nitrophenol	U		0.000143	0.0100	1	07/21/2022 18:09	WG1896881
Pentachlorophenol	U		0.000313	0.0100	1	07/21/2022 18:09	WG1896881
Phenol	U		0.00433	0.0100	1	07/21/2022 18:09	WG1896881
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	07/21/2022 18:09	WG1896881
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	07/21/2022 18:09	WG1896881
(S) 2-Fluorophenol	*17.5*			*10.0-120*		*07/21/2022 18:09*	WG1896881
(S) Phenol-d5	*11.2*			*10.0-120*		*07/21/2022 18:09*	WG1896881
(S) Nitrobenzene-d5	*39.8*			*10.0-127*		*07/21/2022 18:09*	WG1896881
(S) 2-Fluorobiphenyl	*36.6*			*10.0-130*		*07/21/2022 18:09*	WG1896881
(S) 2,4,6-Tribromophenol	*44.8*			*10.0-155*		*07/21/2022 18:09*	WG1896881
(S) p-Terphenyl-d14	*58.6*			*10.0-128*		*07/21/2022 18:09*	WG1896881

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	924		20.0	1	07/21/2022 17:54	WG1898960

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	173		8.45	20.0	1	07/26/2022 06:13	WG1899246

Sample Narrative:

L1515221-04 WG1899246: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	301		1.90	5.00	5	07/15/2022 22:48	WG1895734
Fluoride	0.698		0.0640	0.150	1	07/15/2022 22:35	WG1895734
Nitrate	2.94		0.0480	0.100	1	07/15/2022 22:35	WG1895734
Nitrite	0.178		0.0420	0.100	1	07/15/2022 22:35	WG1895734
Sulfate	87.6		0.594	5.00	1	07/15/2022 22:35	WG1895734

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	07/23/2022 11:02	WG1896597

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.174	J	0.0200	0.200	1	07/26/2022 12:38	WG1900428

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	07/28/2022 15:39	WG1900439
Arsenic,Dissolved	0.00278		0.000180	0.00200	1	07/28/2022 15:39	WG1900439
Barium,Dissolved	0.113		0.000381	0.00200	1	07/28/2022 15:39	WG1900439
Cadmium,Dissolved	U		0.000150	0.00100	1	07/28/2022 15:39	WG1900439
Chromium,Dissolved	U		0.00124	0.00200	1	07/28/2022 15:39	WG1900439
Copper,Dissolved	0.00281	J	0.00151	0.00500	1	07/28/2022 15:39	WG1900439
Cobalt,Dissolved	0.0000817	J	0.0000596	0.00200	1	07/28/2022 15:39	WG1900439
Iron,Dissolved	U		0.0281	0.100	1	07/28/2022 15:39	WG1900439
Lead,Dissolved	U		0.000849	0.00200	1	07/28/2022 15:39	WG1900439
Manganese,Dissolved	0.00923		0.000704	0.00500	1	07/28/2022 15:39	WG1900439
Molybdenum,Dissolved	0.00218	J	0.000348	0.00500	1	07/28/2022 15:39	WG1900439
Nickel,Dissolved	0.00302		0.000816	0.00200	1	07/28/2022 15:39	WG1900439
Selenium,Dissolved	0.00351		0.000300	0.00200	1	07/28/2022 15:39	WG1900439
Silver,Dissolved	U		0.0000700	0.00200	1	07/28/2022 15:39	WG1900439
Uranium,Dissolved	0.00209	J	0.0000700	0.0200	1	07/28/2022 15:39	WG1900439
Zinc,Dissolved	0.123		0.00302	0.0250	1	07/28/2022 15:39	WG1900439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	07/18/2022 21:03	WG1897020
(S) a,a,a-Trifluorotoluene(FID)	*96.7*			*78.0-120*		*07/18/2022 21:03*	WG1897020

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	07/18/2022 12:43	WG1896520
Benzene	U		0.0000941	0.00100	1	07/18/2022 12:43	WG1896520
Bromodichloromethane	U		0.000136	0.00100	1	07/18/2022 12:43	WG1896520
Bromoform	U		0.000129	0.00100	1	07/18/2022 12:43	WG1896520
Bromomethane	U		0.000605	0.00500	1	07/18/2022 12:43	WG1896520
n-Butylbenzene	U		0.000157	0.00100	1	07/18/2022 12:43	WG1896520
sec-Butylbenzene	U		0.000125	0.00100	1	07/18/2022 12:43	WG1896520
tert-Butylbenzene	U		0.000127	0.00100	1	07/18/2022 12:43	WG1896520
Carbon disulfide	U		0.0000962	0.00100	1	07/18/2022 12:43	WG1896520
Carbon tetrachloride	U		0.000128	0.00100	1	07/18/2022 12:43	WG1896520
Chlorobenzene	U		0.000116	0.00100	1	07/18/2022 12:43	WG1896520
Chlorodibromomethane	U		0.000140	0.00100	1	07/18/2022 12:43	WG1896520
Chloroethane	U		0.000192	0.00500	1	07/18/2022 12:43	WG1896520
Chloroform	0.000816	J	0.000111	0.00500	1	07/18/2022 12:43	WG1896520
Chloromethane	U		0.000960	0.00250	1	07/18/2022 12:43	WG1896520
1,2-Dibromoethane	U		0.000126	0.00100	1	07/18/2022 12:43	WG1896520
1,1-Dichloroethane	U		0.000100	0.00100	1	07/18/2022 12:43	WG1896520
1,2-Dichloroethane	U		0.0000819	0.00100	1	07/18/2022 12:43	WG1896520
1,1-Dichloroethene	U		0.000188	0.00100	1	07/18/2022 12:43	WG1896520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	07/18/2022 12:43	WG1896520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	07/18/2022 12:43	WG1896520
1,2-Dichloropropane	U		0.000149	0.00100	1	07/18/2022 12:43	WG1896520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	07/18/2022 12:43	WG1896520
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	07/18/2022 12:43	WG1896520
Ethylbenzene	U		0.000137	0.00100	1	07/18/2022 12:43	WG1896520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	07/18/2022 12:43	WG1896520
2-Hexanone	U		0.000787	0.0100	1	07/18/2022 12:43	WG1896520
Isopropylbenzene	U		0.000105	0.00100	1	07/18/2022 12:43	WG1896520
p-Isopropyltoluene	U		0.000120	0.00100	1	07/18/2022 12:43	WG1896520
2-Butanone (MEK)	U		0.00119	0.0100	1	07/18/2022 12:43	WG1896520
Methylene Chloride	U		0.000430	0.00500	1	07/18/2022 12:43	WG1896520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	07/18/2022 12:43	WG1896520
Methyl tert-butyl ether	U		0.000101	0.00100	1	07/18/2022 12:43	WG1896520
Naphthalene	U		0.00100	0.00500	1	07/18/2022 12:43	WG1896520
n-Propylbenzene	U		0.0000993	0.00100	1	07/18/2022 12:43	WG1896520
Styrene	U		0.000118	0.00100	1	07/18/2022 12:43	WG1896520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	07/18/2022 12:43	WG1896520
Tetrachloroethene	U		0.000300	0.00100	1	07/18/2022 12:43	WG1896520
Toluene	U		0.000278	0.00100	1	07/18/2022 12:43	WG1896520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	07/18/2022 12:43	WG1896520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	07/18/2022 12:43	WG1896520
Trichloroethene	U		0.000190	0.00100	1	07/18/2022 12:43	WG1896520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	07/18/2022 12:43	WG1896520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	07/18/2022 12:43	WG1896520
Vinyl chloride	U		0.000234	0.00100	1	07/18/2022 12:43	WG1896520
Xylenes, Total	U		0.000174	0.00300	1	07/18/2022 12:43	WG1896520
(S) Toluene-d8	*76.1*	J2		*80.0-120*		*07/18/2022 12:43*	WG1896520
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*07/18/2022 12:43*	WG1896520
(S) 1,2-Dichloroethane-d4	*86.8*			*70.0-130*		*07/18/2022 12:43*	WG1896520

DUP-01
Collected date/time: 07/14/22 09:00
L1515221

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0685	B J	0.0247	0.100	1	07/20/2022 21:53	WG1897303
(S) o-Terphenyl	*133*			*31.0-160*		*07/20/2022 21:53*	WG1897303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	07/21/2022 18:31	WG1896881
Acenaphthylene	U		0.0000921	0.00100	1	07/21/2022 18:31	WG1896881
Acetophenone	U		0.000208	0.0100	1	07/21/2022 18:31	WG1896881
Anthracene	U		0.0000804	0.00100	1	07/21/2022 18:31	WG1896881
Atrazine	U		0.000255	0.0100	1	07/21/2022 18:31	WG1896881
Benzo(a)anthracene	U		0.000199	0.00100	1	07/21/2022 18:31	WG1896881
Benzaldehyde	U		0.00169	0.0100	1	07/21/2022 18:31	WG1896881
Benzo(b)fluoranthene	U		0.000130	0.00100	1	07/21/2022 18:31	WG1896881
Benzo(k)fluoranthene	U		0.000120	0.00100	1	07/21/2022 18:31	WG1896881
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	07/21/2022 18:31	WG1896881
Benzo(a)pyrene	U		0.0000381	0.000200	1	07/21/2022 18:31	WG1896881
Biphenyl	U		0.000790	0.0100	1	07/21/2022 18:31	WG1896881
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	07/21/2022 18:31	WG1896881
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	07/21/2022 18:31	WG1896881
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	07/21/2022 18:31	WG1896881
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	07/21/2022 18:31	WG1896881
2-Chloronaphthalene	U		0.0000648	0.00100	1	07/21/2022 18:31	WG1896881
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	07/21/2022 18:31	WG1896881
Caprolactam	0.000359	J	0.000309	0.0100	1	07/21/2022 18:31	WG1896881
Carbazole	U		0.000111	0.0100	1	07/21/2022 18:31	WG1896881
Chrysene	U		0.000130	0.00100	1	07/21/2022 18:31	WG1896881
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	07/21/2022 18:31	WG1896881
Dibenzofuran	U		0.0000970	0.0100	1	07/21/2022 18:31	WG1896881
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	07/21/2022 18:31	WG1896881
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	07/21/2022 18:31	WG1896881
2,6-Dinitrotoluene	U		0.000250	0.0100	1	07/21/2022 18:31	WG1896881
Fluoranthene	U		0.000102	0.00100	1	07/21/2022 18:31	WG1896881
Fluorene	U		0.0000844	0.00100	1	07/21/2022 18:31	WG1896881
Hexachlorobenzene	U		0.0000755	0.00100	1	07/21/2022 18:31	WG1896881
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	07/21/2022 18:31	WG1896881
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	07/21/2022 18:31	WG1896881
Hexachloroethane	U		0.000127	0.0100	1	07/21/2022 18:31	WG1896881
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	07/21/2022 18:31	WG1896881
Isophorone	U		0.000143	0.0100	1	07/21/2022 18:31	WG1896881
1-Methylnaphthalene	U		0.0000790	0.00100	1	07/21/2022 18:31	WG1896881
2-Methylnaphthalene	U		0.000117	0.00100	1	07/21/2022 18:31	WG1896881
Naphthalene	U		0.000159	0.00100	1	07/21/2022 18:31	WG1896881
Nitrobenzene	U		0.000297	0.0100	1	07/21/2022 18:31	WG1896881
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	07/21/2022 18:31	WG1896881
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	07/21/2022 18:31	WG1896881
Phenanthrene	U		0.000112	0.00100	1	07/21/2022 18:31	WG1896881
Benzylbutyl phthalate	U		0.000765	0.00300	1	07/21/2022 18:31	WG1896881
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	07/21/2022 18:31	WG1896881
Di-n-butyl phthalate	U		0.000453	0.00300	1	07/21/2022 18:31	WG1896881
Diethyl phthalate	U		0.000287	0.00300	1	07/21/2022 18:31	WG1896881
Dimethyl phthalate	U		0.000260	0.00300	1	07/21/2022 18:31	WG1896881
Di-n-octyl phthalate	U		0.000932	0.00300	1	07/21/2022 18:31	WG1896881
Pyrene	U		0.000107	0.00100	1	07/21/2022 18:31	WG1896881
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	07/21/2022 18:31	WG1896881
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	07/21/2022 18:31	WG1896881

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	07/21/2022 18:31	WG1896881
2,4-Dichlorophenol	U		0.000102	0.0100	1	07/21/2022 18:31	WG1896881
2,4-Dimethylphenol	U		0.0000636	0.0100	1	07/21/2022 18:31	WG1896881
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	07/21/2022 18:31	WG1896881
2,4-Dinitrophenol	U		0.00593	0.0100	1	07/21/2022 18:31	WG1896881
2-Nitrophenol	U		0.000117	0.0100	1	07/21/2022 18:31	WG1896881
2-Nitroaniline	U		0.000102	0.0100	1	07/21/2022 18:31	WG1896881
2-Methylphenol	U		0.0000929	0.0100	1	07/21/2022 18:31	WG1896881
3&4-Methyl Phenol	U		0.000168	0.0100	1	07/21/2022 18:31	WG1896881
3-Nitroaniline	U		0.0000869	0.0100	1	07/21/2022 18:31	WG1896881
4-Chloroaniline	U		0.000234	0.0100	1	07/21/2022 18:31	WG1896881
4-Nitroaniline	U		0.0000910	0.0100	1	07/21/2022 18:31	WG1896881
4-Nitrophenol	U		0.000143	0.0100	1	07/21/2022 18:31	WG1896881
Pentachlorophenol	U		0.000313	0.0100	1	07/21/2022 18:31	WG1896881
Phenol	U		0.00433	0.0100	1	07/21/2022 18:31	WG1896881
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	07/21/2022 18:31	WG1896881
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	07/21/2022 18:31	WG1896881
(S) 2-Fluorophenol	*15.7*			*10.0-120*		*07/21/2022 18:31*	WG1896881
(S) Phenol-d5	*10.5*			*10.0-120*		*07/21/2022 18:31*	WG1896881
(S) Nitrobenzene-d5	*30.4*			*10.0-127*		*07/21/2022 18:31*	WG1896881
(S) 2-Fluorobiphenyl	*30.5*			*10.0-130*		*07/21/2022 18:31*	WG1896881
(S) 2,4,6-Tribromophenol	*45.3*			*10.0-155*		*07/21/2022 18:31*	WG1896881
(S) p-Terphenyl-d14	*67.7*			*10.0-128*		*07/21/2022 18:31*	WG1896881

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Collected date/time: 07/14/22 00:00
L1515221

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	07/18/2022 10:49	WG1896520
Benzene	U		0.0000941	0.00100	1	07/18/2022 10:49	WG1896520
Bromodichloromethane	U		0.000136	0.00100	1	07/18/2022 10:49	WG1896520
Bromoform	U		0.000129	0.00100	1	07/18/2022 10:49	WG1896520
Bromomethane	U		0.000605	0.00500	1	07/18/2022 10:49	WG1896520
n-Butylbenzene	U		0.000157	0.00100	1	07/18/2022 10:49	WG1896520
sec-Butylbenzene	U		0.000125	0.00100	1	07/18/2022 10:49	WG1896520
tert-Butylbenzene	U		0.000127	0.00100	1	07/18/2022 10:49	WG1896520
Carbon disulfide	U		0.0000962	0.00100	1	07/18/2022 10:49	WG1896520
Carbon tetrachloride	U		0.000128	0.00100	1	07/18/2022 10:49	WG1896520
Chlorobenzene	U		0.000116	0.00100	1	07/18/2022 10:49	WG1896520
Chlorodibromomethane	U		0.000140	0.00100	1	07/18/2022 10:49	WG1896520
Chloroethane	U		0.000192	0.00500	1	07/18/2022 10:49	WG1896520
Chloroform	U		0.000111	0.00500	1	07/18/2022 10:49	WG1896520
Chloromethane	U		0.000960	0.00250	1	07/18/2022 10:49	WG1896520
1,2-Dibromoethane	U		0.000126	0.00100	1	07/18/2022 10:49	WG1896520
1,1-Dichloroethane	U		0.000100	0.00100	1	07/18/2022 10:49	WG1896520
1,2-Dichloroethane	U		0.0000819	0.00100	1	07/18/2022 10:49	WG1896520
1,1-Dichloroethene	U		0.000188	0.00100	1	07/18/2022 10:49	WG1896520
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	07/18/2022 10:49	WG1896520
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	07/18/2022 10:49	WG1896520
1,2-Dichloropropane	U		0.000149	0.00100	1	07/18/2022 10:49	WG1896520
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	07/18/2022 10:49	WG1896520
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	07/18/2022 10:49	WG1896520
Ethylbenzene	U		0.000137	0.00100	1	07/18/2022 10:49	WG1896520
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	07/18/2022 10:49	WG1896520
2-Hexanone	U		0.000787	0.0100	1	07/18/2022 10:49	WG1896520
Isopropylbenzene	U		0.000105	0.00100	1	07/18/2022 10:49	WG1896520
p-Isopropyltoluene	U		0.000120	0.00100	1	07/18/2022 10:49	WG1896520
2-Butanone (MEK)	U		0.00119	0.0100	1	07/18/2022 10:49	WG1896520
Methylene Chloride	U		0.000430	0.00500	1	07/18/2022 10:49	WG1896520
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	07/18/2022 10:49	WG1896520
Methyl tert-butyl ether	U		0.000101	0.00100	1	07/18/2022 10:49	WG1896520
Naphthalene	U		0.00100	0.00500	1	07/18/2022 10:49	WG1896520
n-Propylbenzene	U		0.0000993	0.00100	1	07/18/2022 10:49	WG1896520
Styrene	U		0.000118	0.00100	1	07/18/2022 10:49	WG1896520
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	07/18/2022 10:49	WG1896520
Tetrachloroethene	U		0.000300	0.00100	1	07/18/2022 10:49	WG1896520
Toluene	U		0.000278	0.00100	1	07/18/2022 10:49	WG1896520
1,1,1-Trichloroethane	U		0.000149	0.00100	1	07/18/2022 10:49	WG1896520
1,1,2-Trichloroethane	U		0.000158	0.00100	1	07/18/2022 10:49	WG1896520
Trichloroethene	U		0.000190	0.00100	1	07/18/2022 10:49	WG1896520
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	07/18/2022 10:49	WG1896520
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	07/18/2022 10:49	WG1896520
Vinyl chloride	U		0.000234	0.00100	1	07/18/2022 10:49	WG1896520
Xylenes, Total	U		0.000174	0.00300	1	07/18/2022 10:49	WG1896520
(S) Toluene-d8	*94.4*			*80.0-120*		*07/18/2022 10:49*	WG1896520
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*		*07/18/2022 10:49*	WG1896520
(S) 1,2-Dichloroethane-d4	*86.1*			*70.0-130*		*07/18/2022 10:49*	WG1896520

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3819412-1 07/21/22 17:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1515182-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515182-01 07/21/22 17:54 • (DUP) R3819412-3 07/21/22 17:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1380	1450	1	5.48	J3	5

L1515221-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1515221-02 07/21/22 17:54 • (DUP) R3819412-4 07/21/22 17:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	964	990	1	2.66		5

Laboratory Control Sample (LCS)

(LCS) R3819412-2 07/21/22 17:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7060	80.2	77.3-123	

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Method Blank (MB)

(MB) R3819051-2 07/26/22 05:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1515221-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515221-01 07/26/22 05:43 • (DUP) R3819051-3 07/26/22 05:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	175	176	1	0.292		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1515347-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1515347-07 07/26/22 06:39 • (DUP) R3819051-4 07/26/22 06:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	610	616	1	1.01		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3819051-1 07/26/22 05:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	96.6	96.6	90.0-110	

Sample Narrative:
LCS: Endpoint pH 4.5

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3815757-1 07/15/22 09:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1515182-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1515182-03 07/15/22 13:53 • (DUP) R3815757-3 07/15/22 14:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	34.6	34.4	1	0.725		15
Fluoride	0.614	0.608	1	0.933		15
Nitrate	U	U	1	0.000		15
Nitrite	U	U	1	0.000		15
Sulfate	34.5	34.3	1	0.647		15

L1515220-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1515220-05 07/15/22 20:28 • (DUP) R3815757-8 07/15/22 20:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	14.3	14.1	1	1.53		15
Fluoride	0.988	0.978	1	1.05		15
Nitrate	0.0631	0.0606	1	0.000		15
Nitrite	U	U	1	0.000		15
Sulfate	62.2	61.6	1	0.921		15

Laboratory Control Sample (LCS)

(LCS) R3815757-2 07/15/22 09:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.5	80.0-120	
Fluoride	8.00	8.25	103	80.0-120	
Nitrate	8.00	7.79	97.4	80.0-120	
Nitrite	8.00	8.26	103	80.0-120	

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Laboratory Control Sample (LCS)

(LCS) R3815757-2 07/15/22 09:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	39.4	98.4	80.0-120	

L1515182-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515182-03 07/15/22 13:53 • (MS) R3815757-4 07/15/22 14:44 • (MSD) R3815757-5 07/15/22 14:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	34.6	84.7	84.4	100	99.6	1	80.0-120			0.353	15
Fluoride	5.00	0.614	5.92	5.91	106	106	1	80.0-120			0.233	15
Nitrate	5.00	U	4.83	4.82	96.7	96.5	1	80.0-120			0.180	15
Nitrite	5.00	U	5.36	5.34	107	107	1	80.0-120			0.329	15
Sulfate	50.0	34.5	84.2	84.4	99.4	99.7	1	80.0-120			0.153	15

L1515220-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515220-01 07/15/22 18:08 • (MS) R3815757-6 07/15/22 18:33 • (MSD) R3815757-7 07/15/22 18:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	75.4	122	119	92.6	86.7	1	80.0-120			2.44	15
Fluoride	5.00	1.41	6.63	6.46	104	101	1	80.0-120			2.59	15
Nitrate	5.00	3.06	8.02	7.67	99.3	92.3	1	80.0-120			4.43	15
Nitrite	5.00	0.0496	5.26	5.15	104	102	1	80.0-120			2.17	15
Sulfate	50.0	193	233	227	80.5	68.1	1	80.0-120	E	E J6	2.71	15

Method Blank (MB)

(MB) R3818436-1 07/23/22 10:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3818436-2 07/23/22 10:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00312	104	80.0-120	

L1514736-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1514736-13 07/23/22 10:39 • (MS) R3818436-3 07/23/22 10:41 • (MSD) R3818436-4 07/23/22 10:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00323	0.00326	108	109	1	75.0-125			0.975	20

Method Blank (MB)

(MB) R3819269-1 07/26/22 11:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3819269-2 07/26/22 11:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.946	94.6	80.0-120	

L1515347-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515347-01 07/26/22 11:44 • (MS) R3819269-4 07/26/22 11:50 • (MSD) R3819269-5 07/26/22 11:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.0371	1.02	1.02	98.1	98.0	1	75.0-125			0.0818	20

Method Blank (MB)

(MB) R3820282-1 07/28/22 14:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	0.0304	J	0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3820282-2 07/28/22 14:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	4.79	95.8	80.0-120	
Arsenic,Dissolved	0.0500	0.0478	95.6	80.0-120	
Barium,Dissolved	0.0500	0.0457	91.5	80.0-120	
Cadmium,Dissolved	0.0500	0.0491	98.2	80.0-120	
Chromium,Dissolved	0.0500	0.0493	98.7	80.0-120	
Copper,Dissolved	0.0500	0.0461	92.1	80.0-120	
Cobalt,Dissolved	0.0500	0.0488	97.6	80.0-120	
Iron,Dissolved	5.00	4.81	96.2	80.0-120	
Lead,Dissolved	0.0500	0.0446	89.2	80.0-120	
Manganese,Dissolved	0.0500	0.0489	97.9	80.0-120	
Molybdenum,Dissolved	0.0500	0.0474	94.9	80.0-120	
Nickel,Dissolved	0.0500	0.0491	98.1	80.0-120	
Selenium,Dissolved	0.0500	0.0510	102	80.0-120	
Silver,Dissolved	0.0500	0.0465	92.9	80.0-120	
Uranium,Dissolved	0.0500	0.0468	93.6	80.0-120	
Zinc,Dissolved	0.0500	0.0470	94.0	80.0-120	

L1515386-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515386-02 07/28/22 14:44 • (MS) R3820282-4 07/28/22 14:51 • (MSD) R3820282-5 07/28/22 14:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	4.68	4.67	93.6	93.3	1	75.0-125			0.317	20
Arsenic,Dissolved	0.0500	0.00671	0.0536	0.0552	93.8	97.0	1	75.0-125			2.97	20
Barium,Dissolved	0.0500	0.0344	0.0803	0.0810	91.9	93.1	1	75.0-125			0.785	20
Cadmium,Dissolved	0.0500	U	0.0494	0.0495	98.9	98.9	1	75.0-125			0.00851	20
Chromium,Dissolved	0.0500	U	0.0483	0.0501	96.7	100	1	75.0-125			3.70	20
Copper,Dissolved	0.0500	0.00192	0.0476	0.0466	91.3	89.4	1	75.0-125			2.03	20
Cobalt,Dissolved	0.0500	U	0.0479	0.0493	95.8	98.5	1	75.0-125			2.81	20
Iron,Dissolved	5.00	0.194	4.95	5.10	95.0	98.1	1	75.0-125			3.06	20
Lead,Dissolved	0.0500	U	0.0446	0.0458	89.1	91.6	1	75.0-125			2.76	20
Manganese,Dissolved	0.0500	0.197	0.242	0.246	89.8	97.8	1	75.0-125			1.64	20
Molybdenum,Dissolved	0.0500	0.00419	0.0521	0.0525	95.9	96.6	1	75.0-125			0.660	20
Nickel,Dissolved	0.0500	U	0.0475	0.0492	95.0	98.3	1	75.0-125			3.49	20
Selenium,Dissolved	0.0500	U	0.0504	0.0516	101	103	1	75.0-125			2.23	20
Silver,Dissolved	0.0500	U	0.0475	0.0474	95.0	94.9	1	75.0-125			0.131	20
Uranium,Dissolved	0.0500	U	0.0486	0.0487	97.1	97.4	1	75.0-125			0.228	20
Zinc,Dissolved	0.0500	U	0.0476	0.0492	95.3	98.4	1	75.0-125			3.18	20

Method Blank (MB)

(MB) R3816763-2 07/18/22 17:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.2*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3816763-1 07/18/22 17:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.06	92.0	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*96.6*	*78.0-120*	

Method Blank (MB)

(MB) R3817362-2 07/18/22 10:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	0.000219	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	0.000260	J	0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3817362-2 07/18/22 10:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*82.4*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3817362-1 07/18/22 07:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0223	89.2	19.0-160	
Benzene	0.00500	0.00462	92.4	70.0-123	
Bromodichloromethane	0.00500	0.00409	81.8	75.0-120	
Bromoform	0.00500	0.00383	76.6	68.0-132	
Bromomethane	0.00500	0.00427	85.4	10.0-160	
n-Butylbenzene	0.00500	0.00384	76.8	73.0-125	
sec-Butylbenzene	0.00500	0.00425	85.0	75.0-125	
tert-Butylbenzene	0.00500	0.00436	87.2	76.0-124	
Carbon disulfide	0.00500	0.00354	70.8	61.0-128	
Carbon tetrachloride	0.00500	0.00407	81.4	68.0-126	
Chlorobenzene	0.00500	0.00470	94.0	80.0-121	
Chlorodibromomethane	0.00500	0.00421	84.2	77.0-125	
Chloroethane	0.00500	0.00389	77.8	47.0-150	
Chloroform	0.00500	0.00425	85.0	73.0-120	
Chloromethane	0.00500	0.00392	78.4	41.0-142	
1,2-Dibromoethane	0.00500	0.00429	85.8	80.0-122	
1,1-Dichloroethane	0.00500	0.00429	85.8	70.0-126	
1,2-Dichloroethane	0.00500	0.00388	77.6	70.0-128	
1,1-Dichloroethene	0.00500	0.00417	83.4	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00456	91.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00438	87.6	73.0-120	
1,2-Dichloropropane	0.00500	0.00435	87.0	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00402	80.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00360	72.0	78.0-124	J4

Laboratory Control Sample (LCS)

(LCS) R3817362-1 07/18/22 07:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00454	90.8	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00389	77.8	54.0-138	
2-Hexanone	0.0250	0.0217	86.8	67.0-149	
Isopropylbenzene	0.00500	0.00455	91.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00423	84.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0231	92.4	44.0-160	
Methylene Chloride	0.00500	0.00441	88.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0210	84.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00444	88.8	68.0-125	
Naphthalene	0.00500	0.00292	58.4	54.0-135	
n-Propylbenzene	0.00500	0.00412	82.4	77.0-124	
Styrene	0.00500	0.00442	88.4	73.0-130	
1,1,2,2-Tetrachloroethane	0.00500	0.00394	78.8	65.0-130	
Tetrachloroethene	0.00500	0.00440	88.0	72.0-132	
Toluene	0.00500	0.00433	86.6	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00426	85.2	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00441	88.2	80.0-120	
Trichloroethene	0.00500	0.00495	99.0	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00423	84.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00414	82.8	76.0-122	
Vinyl chloride	0.00500	0.00418	83.6	67.0-131	
Xylenes, Total	0.0150	0.0137	91.3	79.0-123	
(S) Toluene-d8			*103*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*85.4*	*70.0-130*	

Method Blank (MB)

(MB) R3816975-1 07/20/22 00:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0256	J	0.0247	0.100
(S) o-Terphenyl	*124*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3816975-2 07/20/22 00:33 • (LCSD) R3816975-3 07/20/22 01:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.34	1.40	89.3	93.3	50.0-150			4.38	20
(S) o-Terphenyl				*130*	*135*	*31.0-160*				

Method Blank (MB)

(MB) R3818287-3 07/21/22 17:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Method Blank (MB)

(MB) R3818287-3 07/21/22 17:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*30.5*			*10.0-120*
(S) Phenol-d5	*19.4*			*10.0-120*
(S) Nitrobenzene-d5	*63.1*			*10.0-127*
(S) 2-Fluorobiphenyl	*59.6*			*10.0-130*
(S) 2,4,6-Tribromophenol	*60.5*			*10.0-155*
(S) p-Terphenyl-d14	*69.9*			*10.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3818287-1 07/21/22 16:40 • (LCSD) R3818287-2 07/21/22 17:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	0.0253	0.0261	50.6	52.2	41.0-120			3.11	22
Acenaphthylene	0.0500	0.0263	0.0275	52.6	55.0	43.0-120			4.46	22
Acetophenone	0.0500	0.0235	0.0243	47.0	48.6	29.0-120			3.35	28
Anthracene	0.0500	0.0267	0.0281	53.4	56.2	45.0-120			5.11	20
Atrazine	0.0500	0.0318	0.0319	63.6	63.8	39.0-141			0.314	20
Benzo(a)anthracene	0.0500	0.0310	0.0336	62.0	67.2	47.0-120			8.05	20
Benzaldehyde	0.0500	0.0577	0.0598	115	120	10.0-160			3.57	40
Benzo(b)fluoranthene	0.0500	0.0307	0.0336	61.4	67.2	46.0-120			9.02	20
Benzo(k)fluoranthene	0.0500	0.0307	0.0336	61.4	67.2	46.0-120			9.02	21
Benzo(g,h,i)perylene	0.0500	0.0294	0.0279	58.8	55.8	48.0-121			5.24	20
Benzo(a)pyrene	0.0500	0.0327	0.0324	65.4	64.8	47.0-120			0.922	20
Biphenyl	0.0500	0.0241	0.0255	48.2	51.0	38.0-120			5.65	27
Bis(2-chlorethoxy)methane	0.0500	0.0247	0.0251	49.4	50.2	33.0-120			1.61	24
Bis(2-chloroethyl)ether	0.0500	0.0240	0.0238	48.0	47.6	23.0-120			0.837	33
2,2-Oxybis(1-Chloropropane)	0.0500	0.0215	0.0234	43.0	46.8	28.0-120			8.46	31
4-Bromophenyl-phenylether	0.0500	0.0312	0.0339	62.4	67.8	45.0-120			8.29	20
2-Chloronaphthalene	0.0500	0.0239	0.0257	47.8	51.4	37.0-120			7.26	25
4-Chlorophenyl-phenylether	0.0500	0.0318	0.0325	63.6	65.0	44.0-120			2.18	20
Caprolactam	0.0500	0.0104	0.0101	20.8	20.2	10.0-120			2.93	26
Carbazole	0.0500	0.0287	0.0295	57.4	59.0	51.0-122			2.75	20
Chrysene	0.0500	0.0312	0.0330	62.4	66.0	48.0-120			5.61	20
Dibenz(a,h)anthracene	0.0500	0.0293	0.0292	58.6	58.4	47.0-120			0.342	20
Dibenzofuran	0.0500	0.0272	0.0284	54.4	56.8	44.0-120			4.32	22
3,3-Dichlorobenzidine	0.100	0.0645	0.0618	64.5	61.8	44.0-120			4.28	20
2,4-Dinitrotoluene	0.0500	0.0335	0.0341	67.0	68.2	49.0-124			1.78	20
2,6-Dinitrotoluene	0.0500	0.0307	0.0312	61.4	62.4	46.0-120			1.62	21
Fluoranthene	0.0500	0.0308	0.0312	61.6	62.4	51.0-120			1.29	20
Fluorene	0.0500	0.0276	0.0287	55.2	57.4	47.0-120			3.91	20
Hexachlorobenzene	0.0500	0.0309	0.0325	61.8	65.0	44.0-120			5.05	20
Hexachloro-1,3-butadiene	0.0500	0.0271	0.0301	54.2	60.2	19.0-120			10.5	32
Hexachlorocyclopentadiene	0.0500	0.00863	0.0110	17.3	22.0	15.0-120			24.1	31
Hexachloroethane	0.0500	0.0218	0.0244	43.6	48.8	15.0-120			11.3	37
Indeno(1,2,3-cd)pyrene	0.0500	0.0305	0.0299	61.0	59.8	49.0-122			1.99	20
Isophorone	0.0500	0.0261	0.0267	52.2	53.4	36.0-120			2.27	23
1-Methylnaphthalene	0.0500	0.0257	0.0268	51.4	53.6	33.0-120			4.19	24
2-Methylnaphthalene	0.0500	0.0254	0.0262	50.8	52.4	33.0-120			3.10	25
Naphthalene	0.0500	0.0228	0.0236	45.6	47.2	27.0-120			3.45	27
Nitrobenzene	0.0500	0.0270	0.0276	54.0	55.2	27.0-120			2.20	29
n-Nitrosodiphenylamine	0.0500	0.0255	0.0267	51.0	53.4	47.0-120			4.60	20
n-Nitrosodi-n-propylamine	0.0500	0.0262	0.0271	52.4	54.2	31.0-120			3.38	28

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3818287-1 07/21/22 16:40 • (LCSD) R3818287-2 07/21/22 17:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0500	0.0265	0.0279	53.0	55.8	46.0-120			5.15	20
Benzylbutyl phthalate	0.0500	0.0298	0.0340	59.6	68.0	43.0-121			13.2	20
Bis(2-ethylhexyl)phthalate	0.0500	0.0296	0.0322	59.2	64.4	43.0-122			8.41	20
Di-n-butyl phthalate	0.0500	0.0297	0.0313	59.4	62.6	49.0-121			5.25	20
Diethyl phthalate	0.0500	0.0310	0.0313	62.0	62.6	48.0-122			0.963	20
Dimethyl phthalate	0.0500	0.0304	0.0314	60.8	62.8	48.0-120			3.24	20
Di-n-octyl phthalate	0.0500	0.0317	0.0328	63.4	65.6	42.0-125			3.41	20
Pyrene	0.0500	0.0285	0.0337	57.0	67.4	47.0-120			16.7	20
1,2,4-Trichlorobenzene	0.0500	0.0253	0.0279	50.6	55.8	24.0-120			9.77	29
4-Chloro-3-methylphenol	0.0500	0.0305	0.0284	61.0	56.8	40.0-120			7.13	21
2-Chlorophenol	0.0500	0.0206	0.0187	41.2	37.4	25.0-120			9.67	35
2,4-Dichlorophenol	0.0500	0.0256	0.0254	51.2	50.8	36.0-120			0.784	26
2,4-Dimethylphenol	0.0500	0.0267	0.0243	53.4	48.6	33.0-120			9.41	26
4,6-Dinitro-2-methylphenol	0.0500	0.0351	0.0371	70.2	74.2	38.0-138			5.54	25
2,4-Dinitrophenol	0.0500	0.0368	0.0351	73.6	70.2	10.0-120			4.73	39
2-Nitrophenol	0.0500	0.0275	0.0282	55.0	56.4	31.0-120			2.51	29
2-Nitroaniline	0.0500	0.0294	0.0295	58.8	59.0	43.0-120			0.340	22
2-Methylphenol	0.0500	0.0204	0.0171	40.8	34.2	28.0-120			17.6	29
3&4-Methyl Phenol	0.0500	0.0225	0.0180	45.0	36.0	31.0-120			22.2	30
3-Nitroaniline	0.0500	0.0282	0.0265	56.4	53.0	38.0-120			6.22	21
4-Chloroaniline	0.0500	0.0302	0.0262	60.4	52.4	25.0-120			14.2	25
4-Nitroaniline	0.0500	0.0299	0.0288	59.8	57.6	18.0-160			3.75	21
4-Nitrophenol	0.0500	0.0151	0.0144	30.2	28.8	10.0-120			4.75	33
Pentachlorophenol	0.0500	0.0309	0.0326	61.8	65.2	23.0-120			5.35	25
Phenol	0.0500	0.0102	0.00731	20.4	14.6	10.0-120			33.0	36
2,4,5-Trichlorophenol	0.0500	0.0323	0.0339	64.6	67.8	44.0-120			4.83	22
2,4,6-Trichlorophenol	0.0500	0.0301	0.0314	60.2	62.8	42.0-120			4.23	23
(S) 2-Fluorophenol				*30.9*	*21.2*	*10.0-120*				
(S) Phenol-d5				*19.6*	*13.8*	*10.0-120*				
(S) Nitrobenzene-d5				*53.4*	*54.4*	*10.0-127*				
(S) 2-Fluorobiphenyl				*52.6*	*57.2*	*10.0-130*				
(S) 2,4,6-Tribromophenol				*62.5*	*66.0*	*10.0-155*				
(S) p-Terphenyl-d14				*61.4*	*70.8*	*10.0-128*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
TRC Solutions - Austin, TX

505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: Lovington Lea Refinery

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 512-684-3176

Client Project # 377274.0000.0000.

Lab Project # TRCATX-LOVINGTON NAV

Collected by (print): Bryan Bayles + HMT Team

Site/Facility ID #

P.O. # 179110

Collected by (signature): Bryan Bayles

Quote #

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8270TX 100ml Amb NoPres	DROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	HG 250mlHDPE-HNO3	NAVAJOMETALSDISS 250mlHDPE-NoPres (Field Filtered)	NO2NO3 250mlHDPE-H2SO4 cos	V8260 40mlAmb-HCl	V8260-TripBlank 40mlAmb-HCl-Blk	WetChem 500mlHDPE-NoPres *48hr HT		Remarks	Sample # (lab only)
WW-NORTH			GW		7/14/22	835	23	X	X	X	X	X	X	X		X			-01
WW-SOUTH			GW			925	23	X	X	X	X	X	X	X		X			-02
WW-EAST			GW			1015	23	X	X	X	X	X	X	X		X			-03
DUP-01			GW			900	23	X	X	X	X	X	X	X		X			-04
TRIP BLANK -01			GW			—	1								X				-05

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1515221

C047

Acctnum: TRCATX
Template: T118335
Prelogin: ~~P935468~~ cos
PM: 526 - Chris McCord
PB: → P937440

Shipped Via:

Analysis / Container / Preservative

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: WetChem = ALK,CHLORIDE,FLUORIDE,SULFATE,TDS.
Lab filter NAVAJOMETALSDISS.

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: __ UPS ✓ FedEx __ Courier ___

Tracking # 548940313119

Sample Receipt Checklist:
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	
Bryan Bayles	7/14/22	1100			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.0 °C Bottles Received: 49	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7-15-22 Time: 900	Hold: Condition: NCF / OK
			D Ramsey		

ANALYTICAL REPORT

January 05, 2023

Revised Report

TRC Solutions - Austin, TX

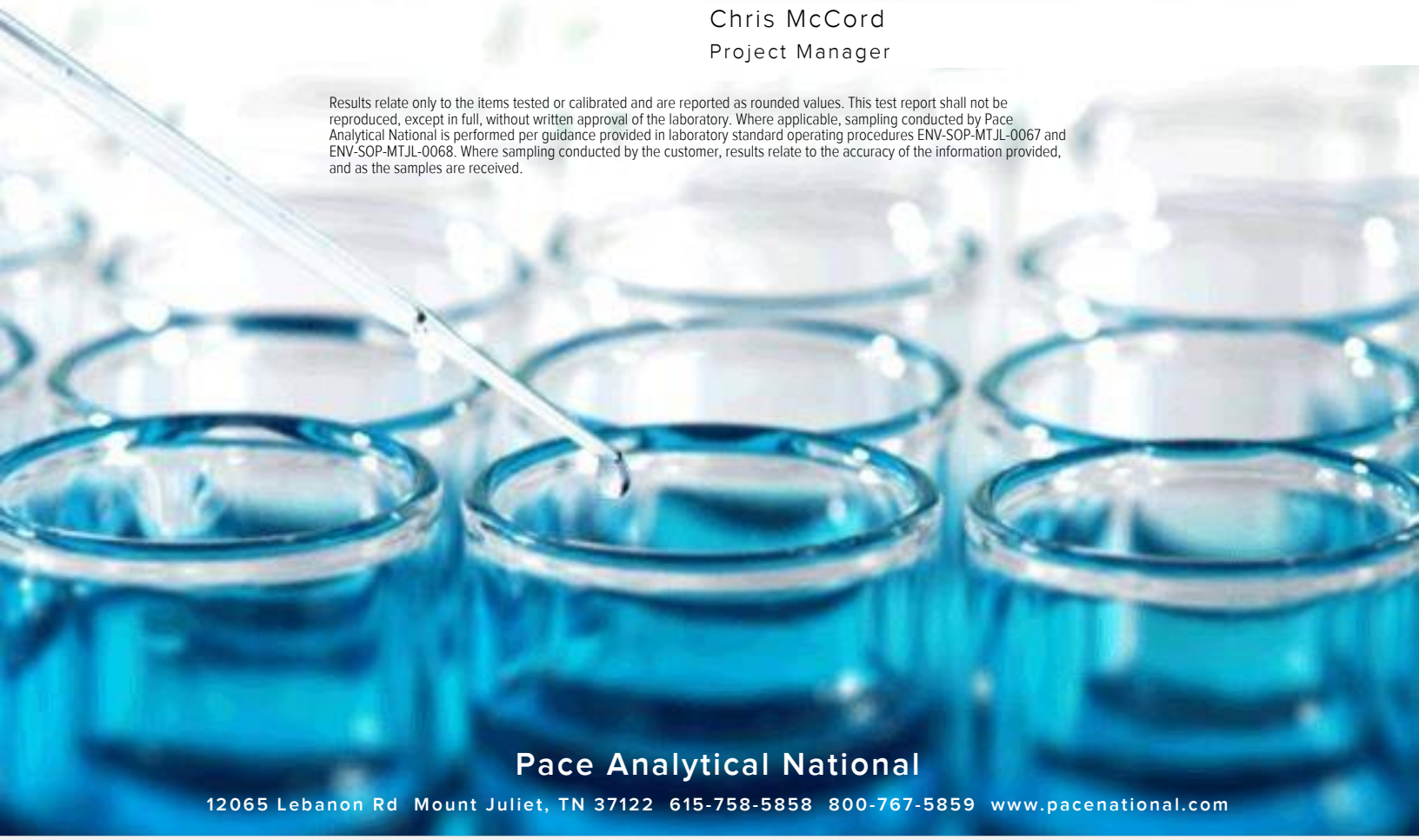
Sample Delivery Group:	L1546506
Samples Received:	10/14/2022
Project Number:	377274.0000.0000.
Description:	Lovington Lea Refinery

Report To: Julie Speer
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 13

Sr: Sample Results 14

MW-1 L1546506-01 14

MW-2 L1546506-02 16

MW-3 L1546506-03 20

MW-4 L1546506-04 21

MW-5 L1546506-05 25

MW-6 L1546506-06 29

MW-8 L1546506-07 33

MW-9 L1546506-08 35

MW-10 L1546506-09 36

MW-11R L1546506-10 37

MW-12R2 L1546506-11 41

MW-13R L1546506-12 45

MW-14R L1546506-13 49

MW-15R L1546506-14 53

MW-16R L1546506-15 57

MW-17R L1546506-16 61

MW-18R L1546506-17 65

MW-19R L1546506-18 69

MW-20R L1546506-19 73

MW-21 L1546506-20 77

MW-22 L1546506-21 79

MW-23R L1546506-22 83

MW-24R L1546506-23 84

MW-26R L1546506-24 88

MW-30 L1546506-26 89

MW-32 L1546506-27 93

MW-33 L1546506-28 97

WW-NORTH L1546506-29 101

WW-SOUTH L1546506-30 105

WW-EAST L1546506-31 109

DUP-01 L1546506-32 113

DUP-02 L1546506-33 117

DUP-03 L1546506-34 121

DUP-04 L1546506-35 125

EB-01 L1546506-36 129

Released to Imaging: 4/14/2023 4:34:58 PM

EB-02 L1546506-37 133
TRIP BLANK-01 L1546506-38 137
TRIP BLANK-02 L1546506-39 138
Qc: Quality Control Summary 139
Gravimetric Analysis by Method 2540 C-2011 139
Wet Chemistry by Method 2320 B-2011 142
Wet Chemistry by Method 9056A 145
Mercury by Method 7470A 152
Metals (ICP) by Method 6010B 155
Metals (ICPMS) by Method 6020 157
Volatile Organic Compounds (GC) by Method 8015D/GRO 167
Volatile Organic Compounds (GC/MS) by Method 8260B 169
Semi-Volatile Organic Compounds (GC) by Method 3511/8015 177
Semi Volatile Organic Compounds (GC/MS) by Method 8270C 179
Gl: Glossary of Terms 203
Al: Accreditations & Locations 204
Sc: Sample Chain of Custody 205

SAMPLE SUMMARY

MW-1 L1546506-01 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:10 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 23:12	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/14/22 21:35	10/14/22 21:35	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 17:08	10/19/22 17:08	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:13	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:00	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947765	1	10/27/22 07:31	10/27/22 22:58	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 15:46	10/16/22 15:46	JAH	Mt. Juliet, TN

MW-2 L1546506-02 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:05 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/14/22 21:50	10/14/22 21:50	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 18:02	10/19/22 18:02	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:15	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:03	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947771	1	10/25/22 20:06	10/29/22 19:40	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 16:06	10/16/22 16:06	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1945123	1	10/20/22 16:40	10/21/22 15:10	JNJ	Mt. Juliet, TN

MW-3 L1546506-03 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:20 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1943083	1	10/14/22 22:05	10/14/22 22:05	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 18:16	10/19/22 18:16	GEB	Mt. Juliet, TN

MW-4 L1546506-04 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:40 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/14/22 22:20	10/14/22 22:20	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 18:29	10/19/22 18:29	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:17	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:05	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947771	1	10/25/22 20:06	10/29/22 19:43	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 16:27	10/16/22 16:27	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944475	1	10/19/22 13:36	10/22/22 14:56	DSH	Mt. Juliet, TN

MW-5 L1546506-05 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:20 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947511	1	10/25/22 06:55	10/25/22 06:55	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/14/22 22:35	10/14/22 22:35	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 19:10	10/19/22 19:10	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:19	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:08	CCE	Mt. Juliet, TN

MW-5 L1546506-05 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 10/13/22 10:20
Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1947771	1	10/25/22 20:06	10/29/22 19:47	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946166	1	10/21/22 09:22	10/21/22 09:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 16:47	10/16/22 16:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945870	1	10/20/22 07:03	10/21/22 16:05	HLJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944475	1	10/19/22 13:36	10/22/22 14:33	DSH	Mt. Juliet, TN

MW-6 L1546506-06 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 10/13/22 12:45
Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 00:05	10/15/22 00:05	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 19:23	10/19/22 19:23	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:28	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:11	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947771	1	10/25/22 20:06	10/29/22 19:50	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 17:07	10/16/22 17:07	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944475	1	10/19/22 13:36	10/22/22 10:32	DSH	Mt. Juliet, TN

MW-8 L1546506-07 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 10/13/22 10:05
Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 00:20	10/15/22 00:20	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 00:34	10/15/22 00:34	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 19:37	10/19/22 19:37	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:30	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947771	1	10/25/22 20:06	10/29/22 19:53	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947771	10	10/25/22 20:06	10/29/22 19:27	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 17:28	10/16/22 17:28	JAH	Mt. Juliet, TN

MW-9 L1546506-08 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 10/13/22 10:50
Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 00:49	10/15/22 00:49	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 01:04	10/15/22 01:04	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 19:50	10/19/22 19:50	GEB	Mt. Juliet, TN

MW-10 L1546506-09 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 10/13/22 11:30
Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 01:19	10/15/22 01:19	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 20:04	10/19/22 20:04	GEB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-11R L1546506-10 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 09:45 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1948383	1	10/25/22 10:14	10/25/22 10:14	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 02:04	10/15/22 02:04	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 02:19	10/15/22 02:19	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 20:17	10/19/22 20:17	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:32	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947771	1	10/25/22 20:06	10/29/22 19:56	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 17:48	10/16/22 17:48	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944475	1	10/19/22 13:36	10/22/22 10:54	DSH	Mt. Juliet, TN

MW-12R2 L1546506-11 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 09:40 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947511	1	10/25/22 09:05	10/25/22 09:05	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 03:04	10/15/22 03:04	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 20:31	10/19/22 20:31	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944379	1	10/26/22 10:04	10/27/22 12:34	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:12	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 18:08	10/16/22 18:08	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944475	1	10/19/22 13:36	10/22/22 11:15	DSH	Mt. Juliet, TN

MW-13R L1546506-12 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 09:25 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 03:18	10/15/22 03:18	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 03:33	10/15/22 03:33	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 20:44	10/19/22 20:44	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1939993	1	10/19/22 07:31	10/19/22 13:34	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 23:28	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:16	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 18:28	10/16/22 18:28	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 17:22	AMG	Mt. Juliet, TN

MW-14R L1546506-13 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:35 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 03:48	10/15/22 03:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 04:03	10/15/22 04:03	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 21:52	10/19/22 21:52	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1939993	1	10/19/22 07:31	10/19/22 13:37	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947742	1	11/01/22 14:13	11/01/22 22:25	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:19	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 18:49	10/16/22 18:49	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 10:33	AMG	Mt. Juliet, TN

MW-15R L1546506-14 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:15 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 12:14	10/25/22 12:14	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 04:18	10/15/22 04:18	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 04:33	10/15/22 04:33	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 22:05	10/19/22 22:05	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1939993	1	10/19/22 07:31	10/19/22 13:39	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:12	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:22	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 19:09	10/16/22 19:09	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 10:55	AMG	Mt. Juliet, TN

MW-16R L1546506-15 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:50 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 23:12	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 04:48	10/15/22 04:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 22:19	10/19/22 22:19	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1939993	1	10/19/22 07:31	10/19/22 13:41	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:15	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947767	1	10/27/22 09:51	10/27/22 19:40	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 19:29	10/16/22 19:29	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 11:16	AMG	Mt. Juliet, TN

MW-17R L1546506-16 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:10 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:06	10/25/22 10:06	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 05:03	10/15/22 05:03	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 22:32	10/19/22 22:32	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1939993	1	10/19/22 07:31	10/19/22 13:44	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:18	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:34	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 19:50	10/16/22 19:50	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 17:43	AMG	Mt. Juliet, TN

MW-18R L1546506-17 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 05:18	10/15/22 05:18	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 22:46	10/19/22 22:46	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1939993	1	10/19/22 07:31	10/19/22 13:46	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:21	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943655	1	10/16/22 20:10	10/16/22 20:10	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 11:38	AMG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-19R L1546506-18 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:55 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 23:12	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:16	10/25/22 10:16	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 06:02	10/15/22 06:02	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	10	10/15/22 06:17	10/15/22 06:17	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 22:59	10/19/22 22:59	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:46	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:29	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:41	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 16:23	10/16/22 16:23	CMJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 11:59	AMG	Mt. Juliet, TN

MW-20R L1546506-19 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 06:32	10/15/22 06:32	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 23:12	10/19/22 23:12	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:48	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:32	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:45	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 16:45	10/16/22 16:45	CMJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 12:21	AMG	Mt. Juliet, TN

MW-21 L1546506-20 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 09:20 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946166	1	10/21/22 09:43	10/21/22 09:43	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945870	1	10/20/22 07:03	10/21/22 16:32	HLJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 18:05	AMG	Mt. Juliet, TN

MW-22 L1546506-21 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1943083	1	10/15/22 06:47	10/15/22 06:47	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1945646	1	10/19/22 23:25	10/19/22 23:25	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:35	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:49	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946166	1	10/21/22 10:05	10/21/22 10:05	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 17:07	10/16/22 17:07	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945870	1	10/20/22 07:03	10/21/22 16:58	HLJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 12:42	AMG	Mt. Juliet, TN

MW-23R L1546506-22 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:20 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1942870	1	10/14/22 22:53	10/14/22 22:53	LBR	Mt. Juliet, TN

MW-24R L1546506-23 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:25 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:21	10/25/22 10:21	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1942870	1	10/14/22 23:06	10/14/22 23:06	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:50	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:38	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:52	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 17:30	10/16/22 17:30	CMJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 13:04	AMG	Mt. Juliet, TN

MW-26R L1546506-24 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:25 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1942870	1	10/14/22 23:44	10/14/22 23:44	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1942870	5	10/14/22 23:57	10/14/22 23:57	LBR	Mt. Juliet, TN

MW-30 L1546506-26 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:50 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:25	10/25/22 10:25	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1942870	1	10/15/22 00:10	10/15/22 00:10	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:52	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:41	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:55	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 17:52	10/16/22 17:52	CMJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 13:25	AMG	Mt. Juliet, TN

MW-32 L1546506-27 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:20 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:36	10/25/22 10:36	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1942870	1	10/15/22 00:23	10/15/22 00:23	LBR	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:54	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:44	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 22:58	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 12:57	10/21/22 12:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 18:14	10/16/22 18:14	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945870	1	10/20/22 07:03	10/21/22 17:25	HLJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 13:47	AMG	Mt. Juliet, TN

MW-33 L1546506-28 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:41	10/25/22 10:41	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/14/22 21:08	10/14/22 21:08	GEB	Mt. Juliet, TN

MW-33 L1546506-28 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:36	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:01	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 21:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 14:06	10/21/22 14:06	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 18:37	10/16/22 18:37	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945870	1	10/20/22 07:03	10/21/22 17:52	HLJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 14:08	AMG	Mt. Juliet, TN

WW-NORTH L1546506-29 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946184	1	10/20/22 12:49	10/20/22 23:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 10:59	10/25/22 10:59	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/14/22 22:02	10/14/22 22:02	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:56	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:47	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:02	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 14:27	10/21/22 14:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 18:59	10/16/22 18:59	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 06:08	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 15:13	AMG	Mt. Juliet, TN

WW-SOUTH L1546506-30 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:45 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:03	10/25/22 11:03	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/14/22 22:15	10/14/22 22:15	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	10	10/14/22 22:56	10/14/22 22:56	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 10:58	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:50	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:06	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 14:49	10/21/22 14:49	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 19:21	10/16/22 19:21	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 06:29	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 15:34	AMG	Mt. Juliet, TN

WW-EAST L1546506-31 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:08	10/25/22 11:08	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/14/22 23:09	10/14/22 23:09	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:00	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:52	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:18	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 15:11	10/21/22 15:11	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 19:44	10/16/22 19:44	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 06:49	DMG	Mt. Juliet, TN

WW-EAST L1546506-31 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 15:56	AMG	Mt. Juliet, TN

DUP-01 L1546506-32 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:12	10/25/22 11:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/14/22 23:23	10/14/22 23:23	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	10	10/14/22 23:36	10/14/22 23:36	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:12	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 20:55	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:22	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 15:32	10/21/22 15:32	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 20:06	10/16/22 20:06	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 07:09	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 16:17	AMG	Mt. Juliet, TN

DUP-02 L1546506-33 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 12:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946178	1	10/20/22 12:44	10/20/22 15:18	DTM	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:17	10/25/22 11:17	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/14/22 23:50	10/14/22 23:50	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:14	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 21:04	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:25	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 15:54	10/21/22 15:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 20:28	10/16/22 20:28	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 07:29	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 16:39	AMG	Mt. Juliet, TN

DUP-03 L1546506-34 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:21	10/25/22 11:21	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/15/22 00:03	10/15/22 00:03	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:16	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 21:07	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:28	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 16:16	10/21/22 16:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 20:51	10/16/22 20:51	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 07:49	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944512	1	10/20/22 07:28	10/22/22 17:00	AMG	Mt. Juliet, TN

DUP-04 L1546506-35 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/15/22 00:17	10/15/22 00:17	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	10	10/15/22 00:30	10/15/22 00:30	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:18	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 21:10	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947773	1	11/01/22 18:52	11/02/22 23:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 21:13	10/16/22 21:13	CMJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944825	1	10/19/22 13:45	10/22/22 11:20	AGW	Mt. Juliet, TN

EB-01 L1546506-36 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 10:40 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:25	10/25/22 11:25	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/15/22 00:44	10/15/22 00:44	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:20	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 21:13	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947774	1	10/31/22 23:33	11/01/22 22:54	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1946880	1	10/21/22 13:44	10/21/22 13:44	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 21:35	10/16/22 21:35	CMJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1945871	1	10/20/22 10:23	10/22/22 08:10	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944825	1	10/19/22 13:45	10/22/22 11:42	AGW	Mt. Juliet, TN

EB-02 L1546506-37 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 11:25 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1946176	1	10/20/22 12:37	10/20/22 15:55	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1947527	1	10/25/22 11:29	10/25/22 11:29	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1943111	1	10/15/22 01:24	10/15/22 01:24	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1944802	1	10/26/22 10:08	10/27/22 11:22	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1947744	1	11/01/22 15:33	11/01/22 21:16	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1947774	1	10/31/22 23:33	11/01/22 23:21	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 21:58	10/16/22 21:58	CMJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1944825	1	10/19/22 13:45	10/22/22 12:03	AGW	Mt. Juliet, TN

TRIP BLANK-01 L1546506-38 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 00:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 14:53	10/16/22 14:53	CMJ	Mt. Juliet, TN

TRIP BLANK-02 L1546506-39 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 10/13/22 00:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1943671	1	10/16/22 15:15	10/16/22 15:15	CMJ	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 11/03/22 19:54

Project Narrative

1/3/23: Revised to remove incorrect qualifier reporting for TDS in the Method Blank for WG1946178.

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1546506-31	WW-EAST	3511/8015

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	448		10.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	61.2		0.379	1.00	1	10/14/2022 21:35	WG1943083
Fluoride	0.937		0.0640	0.150	1	10/19/2022 17:08	WG1945646
Nitrate	4.08		0.0480	0.100	1	10/14/2022 21:35	WG1943083
Nitrite	U		0.0420	0.100	1	10/14/2022 21:35	WG1943083
Sulfate	72.0		0.594	5.00	1	10/14/2022 21:35	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:13	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.181	J	0.0200	0.200	1	11/01/2022 23:00	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0273	B J	0.0185	0.100	1	10/27/2022 22:58	WG1947765
Arsenic,Dissolved	0.00629		0.000180	0.00200	1	10/27/2022 22:58	WG1947765
Barium,Dissolved	0.141		0.000381	0.00200	1	10/27/2022 22:58	WG1947765
Cadmium,Dissolved	U		0.000150	0.00100	1	10/27/2022 22:58	WG1947765
Chromium,Dissolved	U	J4	0.00124	0.00200	1	10/27/2022 22:58	WG1947765
Copper,Dissolved	U		0.00151	0.00500	1	10/27/2022 22:58	WG1947765
Cobalt,Dissolved	U		0.0000596	0.00200	1	10/27/2022 22:58	WG1947765
Iron,Dissolved	U		0.0281	0.100	1	10/27/2022 22:58	WG1947765
Lead,Dissolved	U		0.000849	0.00200	1	10/27/2022 22:58	WG1947765
Manganese,Dissolved	0.000902	J	0.000704	0.00500	1	10/27/2022 22:58	WG1947765
Molybdenum,Dissolved	0.00245	J	0.000348	0.00500	1	10/27/2022 22:58	WG1947765
Nickel,Dissolved	U		0.000816	0.00200	1	10/27/2022 22:58	WG1947765
Selenium,Dissolved	0.00180	J	0.000300	0.00200	1	10/27/2022 22:58	WG1947765
Silver,Dissolved	U		0.0000700	0.00200	1	10/27/2022 22:58	WG1947765
Uranium,Dissolved	0.00173	J	0.0000700	0.0200	1	10/27/2022 22:58	WG1947765
Zinc,Dissolved	0.0135	J	0.00302	0.0250	1	10/27/2022 22:58	WG1947765

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 15:46	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 15:46	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 15:46	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 15:46	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 15:46	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 15:46	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 15:46	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 15:46	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 15:46	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 15:46	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 15:46	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 15:46	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 15:46	WG1943655
Chloroform	0.000455	J	0.000111	0.00500	1	10/16/2022 15:46	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 15:46	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 15:46	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 15:46	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 15:46	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 15:46	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 15:46	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 15:46	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 15:46	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 15:46	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 15:46	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 15:46	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 15:46	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 15:46	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 15:46	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 15:46	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 15:46	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 15:46	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 15:46	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 15:46	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 15:46	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 15:46	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 15:46	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 15:46	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 15:46	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 15:46	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 15:46	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 15:46	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 15:46	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 15:46	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 15:46	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 15:46	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 15:46	WG1943655
(S) Toluene-d8	*109*			*80.0-120*		*10/16/2022 15:46*	WG1943655
(S) 4-Bromofluorobenzene	*89.8*			*77.0-126*		*10/16/2022 15:46*	WG1943655
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2022 15:46*	WG1943655

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	600		13.3	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	133		0.379	1.00	1	10/14/2022 21:50	WG1943083
Fluoride	0.993		0.0640	0.150	1	10/19/2022 18:02	WG1945646
Nitrate	3.74		0.0480	0.100	1	10/14/2022 21:50	WG1943083
Nitrite	U		0.0420	0.100	1	10/14/2022 21:50	WG1943083
Sulfate	71.0		0.594	5.00	1	10/14/2022 21:50	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:15	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.203		0.0200	0.200	1	11/01/2022 23:03	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	10/29/2022 19:40	WG1947771
Arsenic,Dissolved	0.00423		0.000180	0.00200	1	10/29/2022 19:40	WG1947771
Barium,Dissolved	0.0894		0.000381	0.00200	1	10/29/2022 19:40	WG1947771
Cadmium,Dissolved	U		0.000150	0.00100	1	10/29/2022 19:40	WG1947771
Chromium,Dissolved	0.00177	J	0.00124	0.00200	1	10/29/2022 19:40	WG1947771
Copper,Dissolved	0.00522		0.00151	0.00500	1	10/29/2022 19:40	WG1947771
Cobalt,Dissolved	0.0000687	J	0.0000596	0.00200	1	10/29/2022 19:40	WG1947771
Iron,Dissolved	U		0.0281	0.100	1	10/29/2022 19:40	WG1947771
Lead,Dissolved	U		0.000849	0.00200	1	10/29/2022 19:40	WG1947771
Manganese,Dissolved	U		0.000704	0.00500	1	10/29/2022 19:40	WG1947771
Molybdenum,Dissolved	0.00323	J	0.000348	0.00500	1	10/29/2022 19:40	WG1947771
Nickel,Dissolved	0.00173	J	0.000816	0.00200	1	10/29/2022 19:40	WG1947771
Selenium,Dissolved	0.00162	J	0.000300	0.00200	1	10/29/2022 19:40	WG1947771
Silver,Dissolved	U		0.0000700	0.00200	1	10/29/2022 19:40	WG1947771
Uranium,Dissolved	0.00271	J	0.0000700	0.0200	1	10/29/2022 19:40	WG1947771
Zinc,Dissolved	0.0464		0.00302	0.0250	1	10/29/2022 19:40	WG1947771

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 16:06	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 16:06	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 16:06	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 16:06	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 16:06	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 16:06	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 16:06	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 16:06	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 16:06	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 16:06	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 16:06	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 16:06	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 16:06	WG1943655
Chloroform	0.000218	J	0.000111	0.00500	1	10/16/2022 16:06	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 16:06	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 16:06	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 16:06	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 16:06	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 16:06	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 16:06	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 16:06	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 16:06	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 16:06	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 16:06	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 16:06	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 16:06	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 16:06	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 16:06	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 16:06	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 16:06	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 16:06	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 16:06	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 16:06	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 16:06	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 16:06	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 16:06	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 16:06	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 16:06	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 16:06	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 16:06	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 16:06	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 16:06	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 16:06	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 16:06	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 16:06	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 16:06	WG1943655
(S) Toluene-d8	*111*			*80.0-120*		*10/16/2022 16:06*	WG1943655
(S) 4-Bromofluorobenzene	*90.1*			*77.0-126*		*10/16/2022 16:06*	WG1943655
(S) 1,2-Dichloroethane-d4	*127*			*70.0-130*		*10/16/2022 16:06*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/21/2022 15:10	WG1945123
Acenaphthylene	U		0.0000921	0.00100	1	10/21/2022 15:10	WG1945123
Acetophenone	U		0.000208	0.0100	1	10/21/2022 15:10	WG1945123
Anthracene	U		0.0000804	0.00100	1	10/21/2022 15:10	WG1945123
Atrazine	U		0.000255	0.0100	1	10/21/2022 15:10	WG1945123
Benzo(a)anthracene	U		0.000199	0.00100	1	10/21/2022 15:10	WG1945123
Benzaldehyde	U		0.00169	0.0100	1	10/21/2022 15:10	WG1945123
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/21/2022 15:10	WG1945123
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/21/2022 15:10	WG1945123
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/21/2022 15:10	WG1945123
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/21/2022 15:10	WG1945123
Biphenyl	U		0.000790	0.0100	1	10/21/2022 15:10	WG1945123

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/21/2022 15:10	WG1945123
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/21/2022 15:10	WG1945123
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/21/2022 15:10	WG1945123
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/21/2022 15:10	WG1945123
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/21/2022 15:10	WG1945123
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/21/2022 15:10	WG1945123
Caprolactam	0.000593	J	0.000309	0.0100	1	10/21/2022 15:10	WG1945123
Carbazole	U		0.000111	0.0100	1	10/21/2022 15:10	WG1945123
Chrysene	U		0.000130	0.00100	1	10/21/2022 15:10	WG1945123
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/21/2022 15:10	WG1945123
Dibenzofuran	U		0.0000970	0.0100	1	10/21/2022 15:10	WG1945123
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/21/2022 15:10	WG1945123
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/21/2022 15:10	WG1945123
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/21/2022 15:10	WG1945123
Fluoranthene	U		0.000102	0.00100	1	10/21/2022 15:10	WG1945123
Fluorene	U		0.0000844	0.00100	1	10/21/2022 15:10	WG1945123
Hexachlorobenzene	U		0.0000755	0.00100	1	10/21/2022 15:10	WG1945123
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/21/2022 15:10	WG1945123
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/21/2022 15:10	WG1945123
Hexachloroethane	U		0.000127	0.0100	1	10/21/2022 15:10	WG1945123
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/21/2022 15:10	WG1945123
Isophorone	U		0.000143	0.0100	1	10/21/2022 15:10	WG1945123
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/21/2022 15:10	WG1945123
2-Methylnaphthalene	U		0.000117	0.00100	1	10/21/2022 15:10	WG1945123
Naphthalene	U		0.000159	0.00100	1	10/21/2022 15:10	WG1945123
Nitrobenzene	U		0.000297	0.0100	1	10/21/2022 15:10	WG1945123
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/21/2022 15:10	WG1945123
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/21/2022 15:10	WG1945123
Phenanthrene	U		0.000112	0.00100	1	10/21/2022 15:10	WG1945123
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/21/2022 15:10	WG1945123
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/21/2022 15:10	WG1945123
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/21/2022 15:10	WG1945123
Diethyl phthalate	U		0.000287	0.00300	1	10/21/2022 15:10	WG1945123
Dimethyl phthalate	U		0.000260	0.00300	1	10/21/2022 15:10	WG1945123
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/21/2022 15:10	WG1945123
Pyrene	U		0.000107	0.00100	1	10/21/2022 15:10	WG1945123
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/21/2022 15:10	WG1945123
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/21/2022 15:10	WG1945123
2-Chlorophenol	U		0.000133	0.0100	1	10/21/2022 15:10	WG1945123
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/21/2022 15:10	WG1945123
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/21/2022 15:10	WG1945123
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/21/2022 15:10	WG1945123
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/21/2022 15:10	WG1945123
2-Nitrophenol	U		0.000117	0.0100	1	10/21/2022 15:10	WG1945123
2-Nitroaniline	U		0.000102	0.0100	1	10/21/2022 15:10	WG1945123
2-Methylphenol	U		0.0000929	0.0100	1	10/21/2022 15:10	WG1945123
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/21/2022 15:10	WG1945123
3-Nitroaniline	U		0.0000869	0.0100	1	10/21/2022 15:10	WG1945123
4-Chloroaniline	U		0.000234	0.0100	1	10/21/2022 15:10	WG1945123
4-Nitroaniline	U		0.0000910	0.0100	1	10/21/2022 15:10	WG1945123
4-Nitrophenol	U		0.000143	0.0100	1	10/21/2022 15:10	WG1945123
Pentachlorophenol	U		0.000313	0.0100	1	10/21/2022 15:10	WG1945123
Phenol	U		0.00433	0.0100	1	10/21/2022 15:10	WG1945123
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/21/2022 15:10	WG1945123
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/21/2022 15:10	WG1945123
(S) 2-Fluorophenol	*30.3*			*10.0-120*		*10/21/2022 15:10*	WG1945123

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-2
Collected date/time: 10/13/22 12:05
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) Phenol-d5	*22.4*			*10.0-120*		*10/21/2022 15:10*	WG1945123
(S) Nitrobenzene-d5	*60.0*			*10.0-127*		*10/21/2022 15:10*	WG1945123
(S) 2-Fluorobiphenyl	*56.5*			*10.0-130*		*10/21/2022 15:10*	WG1945123
(S) 2,4,6-Tribromophenol	*59.9*			*10.0-155*		*10/21/2022 15:10*	WG1945123
(S) p-Terphenyl-d14	*74.5*			*10.0-128*		*10/21/2022 15:10*	WG1945123

MW-3
Collected date/time: 10/13/22 11:20
L1546506

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	29.4		0.379	1.00	1	10/14/2022 22:05	WG1943083
Fluoride	0.289	B	0.0640	0.150	1	10/19/2022 18:16	WG1945646
Nitrate	1.68		0.0480	0.100	1	10/14/2022 22:05	WG1943083
Nitrite	U		0.0420	0.100	1	10/14/2022 22:05	WG1943083
Sulfate	71.8		0.594	5.00	1	10/14/2022 22:05	WG1943083

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	616		13.3	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	114		0.379	1.00	1	10/14/2022 22:20	WG1943083
Fluoride	0.947		0.0640	0.150	1	10/19/2022 18:29	WG1945646
Nitrate	3.64		0.0480	0.100	1	10/14/2022 22:20	WG1943083
Nitrite	U		0.0420	0.100	1	10/14/2022 22:20	WG1943083
Sulfate	58.6		0.594	5.00	1	10/14/2022 22:20	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:17	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.173	J	0.0200	0.200	1	11/01/2022 23:05	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	10/29/2022 19:43	WG1947771
Arsenic,Dissolved	0.00456		0.000180	0.00200	1	10/29/2022 19:43	WG1947771
Barium,Dissolved	0.110		0.000381	0.00200	1	10/29/2022 19:43	WG1947771
Cadmium,Dissolved	U		0.000150	0.00100	1	10/29/2022 19:43	WG1947771
Chromium,Dissolved	0.00523		0.00124	0.00200	1	10/29/2022 19:43	WG1947771
Copper,Dissolved	0.00191	J	0.00151	0.00500	1	10/29/2022 19:43	WG1947771
Cobalt,Dissolved	U		0.0000596	0.00200	1	10/29/2022 19:43	WG1947771
Iron,Dissolved	U		0.0281	0.100	1	10/29/2022 19:43	WG1947771
Lead,Dissolved	U		0.000849	0.00200	1	10/29/2022 19:43	WG1947771
Manganese,Dissolved	U		0.000704	0.00500	1	10/29/2022 19:43	WG1947771
Molybdenum,Dissolved	0.00283	J	0.000348	0.00500	1	10/29/2022 19:43	WG1947771
Nickel,Dissolved	0.00111	J	0.000816	0.00200	1	10/29/2022 19:43	WG1947771
Selenium,Dissolved	0.00198	J	0.000300	0.00200	1	10/29/2022 19:43	WG1947771
Silver,Dissolved	U		0.0000700	0.00200	1	10/29/2022 19:43	WG1947771
Uranium,Dissolved	0.00173	J	0.0000700	0.0200	1	10/29/2022 19:43	WG1947771
Zinc,Dissolved	0.0352		0.00302	0.0250	1	10/29/2022 19:43	WG1947771

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 16:27	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 16:27	WG1943655
Bromodichloromethane	0.00127		0.000136	0.00100	1	10/16/2022 16:27	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 16:27	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 16:27	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 16:27	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 16:27	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 16:27	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 16:27	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 16:27	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 16:27	WG1943655
Chlorodibromomethane	0.000224	J	0.000140	0.00100	1	10/16/2022 16:27	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 16:27	WG1943655
Chloroform	0.00906		0.000111	0.00500	1	10/16/2022 16:27	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 16:27	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 16:27	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 16:27	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 16:27	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 16:27	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 16:27	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 16:27	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 16:27	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 16:27	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 16:27	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 16:27	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 16:27	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 16:27	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 16:27	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 16:27	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 16:27	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 16:27	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 16:27	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 16:27	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 16:27	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 16:27	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 16:27	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 16:27	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 16:27	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 16:27	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 16:27	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 16:27	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 16:27	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 16:27	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 16:27	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 16:27	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 16:27	WG1943655
(S) Toluene-d8	*108*			*80.0-120*		*10/16/2022 16:27*	WG1943655
(S) 4-Bromofluorobenzene	*90.3*			*77.0-126*		*10/16/2022 16:27*	WG1943655
(S) 1,2-Dichloroethane-d4	*129*			*70.0-130*		*10/16/2022 16:27*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 14:56	WG1944475
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 14:56	WG1944475
Acetophenone	U		0.000208	0.0100	1	10/22/2022 14:56	WG1944475
Anthracene	U		0.0000804	0.00100	1	10/22/2022 14:56	WG1944475
Atrazine	U		0.000255	0.0100	1	10/22/2022 14:56	WG1944475
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 14:56	WG1944475
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 14:56	WG1944475
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 14:56	WG1944475
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 14:56	WG1944475
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 14:56	WG1944475
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 14:56	WG1944475
Biphenyl	U		0.000790	0.0100	1	10/22/2022 14:56	WG1944475

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 14:56	WG1944475
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 14:56	WG1944475
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 14:56	WG1944475
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 14:56	WG1944475
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 14:56	WG1944475
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 14:56	WG1944475
Caprolactam	U		0.000309	0.0100	1	10/22/2022 14:56	WG1944475
Carbazole	U		0.000111	0.0100	1	10/22/2022 14:56	WG1944475
Chrysene	U		0.000130	0.00100	1	10/22/2022 14:56	WG1944475
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 14:56	WG1944475
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 14:56	WG1944475
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 14:56	WG1944475
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 14:56	WG1944475
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 14:56	WG1944475
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 14:56	WG1944475
Fluorene	U		0.0000844	0.00100	1	10/22/2022 14:56	WG1944475
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 14:56	WG1944475
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 14:56	WG1944475
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 14:56	WG1944475
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 14:56	WG1944475
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 14:56	WG1944475
Isophorone	U		0.000143	0.0100	1	10/22/2022 14:56	WG1944475
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 14:56	WG1944475
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 14:56	WG1944475
Naphthalene	U		0.000159	0.00100	1	10/22/2022 14:56	WG1944475
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 14:56	WG1944475
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 14:56	WG1944475
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 14:56	WG1944475
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 14:56	WG1944475
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 14:56	WG1944475
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 14:56	WG1944475
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 14:56	WG1944475
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 14:56	WG1944475
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 14:56	WG1944475
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 14:56	WG1944475
Pyrene	U		0.000107	0.00100	1	10/22/2022 14:56	WG1944475
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 14:56	WG1944475
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 14:56	WG1944475
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 14:56	WG1944475
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 14:56	WG1944475
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 14:56	WG1944475
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 14:56	WG1944475
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 14:56	WG1944475
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 14:56	WG1944475
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 14:56	WG1944475
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 14:56	WG1944475
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 14:56	WG1944475
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 14:56	WG1944475
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 14:56	WG1944475
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 14:56	WG1944475
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 14:56	WG1944475
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 14:56	WG1944475
Phenol	U		0.00433	0.0100	1	10/22/2022 14:56	WG1944475
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 14:56	WG1944475
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 14:56	WG1944475
(S) 2-Fluorophenol	*46.2*			*10.0-120*		*10/22/2022 14:56*	WG1944475

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-4
Collected date/time: 10/13/22 11:40
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) Phenol-d5	*28.6*			*10.0-120*		*10/22/2022 14:56*	WG1944475
(S) Nitrobenzene-d5	*71.0*			*10.0-127*		*10/22/2022 14:56*	WG1944475
(S) 2-Fluorobiphenyl	*65.5*			*10.0-130*		*10/22/2022 14:56*	WG1944475
(S) 2,4,6-Tribromophenol	*72.5*			*10.0-155*		*10/22/2022 14:56*	WG1944475
(S) p-Terphenyl-d14	*66.7*			*10.0-128*		*10/22/2022 14:56*	WG1944475

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	393		10.0	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	290		8.45	20.0	1	10/25/2022 06:55	WG1947511

Sample Narrative:

L1546506-05 WG1947511: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	13.3		0.379	1.00	1	10/14/2022 22:35	WG1943083
Fluoride	0.981		0.0640	0.150	1	10/19/2022 19:10	WG1945646
Nitrate	3.03		0.0480	0.100	1	10/14/2022 22:35	WG1943083
Nitrite	U		0.0420	0.100	1	10/14/2022 22:35	WG1943083
Sulfate	24.5		0.594	5.00	1	10/14/2022 22:35	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:19	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.0743	J	0.0200	0.200	1	11/01/2022 23:08	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0271	J	0.0185	0.100	1	10/29/2022 19:47	WG1947771
Arsenic,Dissolved	0.00251		0.000180	0.00200	1	10/29/2022 19:47	WG1947771
Barium,Dissolved	0.111		0.000381	0.00200	1	10/29/2022 19:47	WG1947771
Cadmium,Dissolved	U		0.000150	0.00100	1	10/29/2022 19:47	WG1947771
Chromium,Dissolved	U		0.00124	0.00200	1	10/29/2022 19:47	WG1947771
Copper,Dissolved	0.00655		0.00151	0.00500	1	10/29/2022 19:47	WG1947771
Cobalt,Dissolved	U		0.0000596	0.00200	1	10/29/2022 19:47	WG1947771
Iron,Dissolved	0.0627	J	0.0281	0.100	1	10/29/2022 19:47	WG1947771
Lead,Dissolved	0.00171	J	0.000849	0.00200	1	10/29/2022 19:47	WG1947771
Manganese,Dissolved	0.00149	J	0.000704	0.00500	1	10/29/2022 19:47	WG1947771
Molybdenum,Dissolved	0.00179	J	0.000348	0.00500	1	10/29/2022 19:47	WG1947771
Nickel,Dissolved	0.00230		0.000816	0.00200	1	10/29/2022 19:47	WG1947771
Selenium,Dissolved	0.000426	J	0.000300	0.00200	1	10/29/2022 19:47	WG1947771
Silver,Dissolved	U		0.0000700	0.00200	1	10/29/2022 19:47	WG1947771
Uranium,Dissolved	0.00239	J	0.0000700	0.0200	1	10/29/2022 19:47	WG1947771
Zinc,Dissolved	0.0448		0.00302	0.0250	1	10/29/2022 19:47	WG1947771

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 09:22	WG1946166
(S) a,a,a-Trifluorotoluene(FID)	*91.1*			*78.0-120*		*10/21/2022 09:22*	WG1946166

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 16:47	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 16:47	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 16:47	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 16:47	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 16:47	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 16:47	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 16:47	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 16:47	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 16:47	WG1943655
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 16:47	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 16:47	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 16:47	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 16:47	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 16:47	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 16:47	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 16:47	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 16:47	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 16:47	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 16:47	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 16:47	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 16:47	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 16:47	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 16:47	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 16:47	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 16:47	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 16:47	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 16:47	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 16:47	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 16:47	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 16:47	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 16:47	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 16:47	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 16:47	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 16:47	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 16:47	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 16:47	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 16:47	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 16:47	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 16:47	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 16:47	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 16:47	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 16:47	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 16:47	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 16:47	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 16:47	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 16:47	WG1943655
(S) Toluene-d8	*110*			*80.0-120*		*10/16/2022 16:47*	WG1943655
(S) 4-Bromofluorobenzene	*88.9*			*77.0-126*		*10/16/2022 16:47*	WG1943655
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2022 16:47*	WG1943655

MW-3
Collected date/time: 10/13/22 10:20
L1546506

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.0918	J	0.0247	0.100	1	10/21/2022 16:05	WG1945870
(S) o-Terphenyl	*93.2*			*31.0-160*		*10/21/2022 16:05*	WG1945870

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 14:33	WG1944475
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 14:33	WG1944475
Acetophenone	U		0.000208	0.0100	1	10/22/2022 14:33	WG1944475
Anthracene	U		0.0000804	0.00100	1	10/22/2022 14:33	WG1944475
Atrazine	U		0.000255	0.0100	1	10/22/2022 14:33	WG1944475
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 14:33	WG1944475
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 14:33	WG1944475
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 14:33	WG1944475
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 14:33	WG1944475
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 14:33	WG1944475
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 14:33	WG1944475
Biphenyl	U		0.000790	0.0100	1	10/22/2022 14:33	WG1944475
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 14:33	WG1944475
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 14:33	WG1944475
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 14:33	WG1944475
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 14:33	WG1944475
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 14:33	WG1944475
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 14:33	WG1944475
Caprolactam	0.000681	J	0.000309	0.0100	1	10/22/2022 14:33	WG1944475
Carbazole	U		0.000111	0.0100	1	10/22/2022 14:33	WG1944475
Chrysene	U		0.000130	0.00100	1	10/22/2022 14:33	WG1944475
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 14:33	WG1944475
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 14:33	WG1944475
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 14:33	WG1944475
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 14:33	WG1944475
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 14:33	WG1944475
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 14:33	WG1944475
Fluorene	U		0.0000844	0.00100	1	10/22/2022 14:33	WG1944475
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 14:33	WG1944475
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 14:33	WG1944475
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 14:33	WG1944475
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 14:33	WG1944475
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 14:33	WG1944475
Isophorone	U		0.000143	0.0100	1	10/22/2022 14:33	WG1944475
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 14:33	WG1944475
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 14:33	WG1944475
Naphthalene	U		0.000159	0.00100	1	10/22/2022 14:33	WG1944475
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 14:33	WG1944475
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 14:33	WG1944475
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 14:33	WG1944475
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 14:33	WG1944475
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 14:33	WG1944475
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 14:33	WG1944475
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 14:33	WG1944475
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 14:33	WG1944475
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 14:33	WG1944475
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 14:33	WG1944475
Pyrene	U		0.000107	0.00100	1	10/22/2022 14:33	WG1944475
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 14:33	WG1944475
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 14:33	WG1944475

MW-3
Collected date/time: 10/13/22 10:20
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 14:33	WG1944475
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 14:33	WG1944475
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 14:33	WG1944475
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 14:33	WG1944475
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 14:33	WG1944475
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 14:33	WG1944475
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 14:33	WG1944475
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 14:33	WG1944475
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 14:33	WG1944475
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 14:33	WG1944475
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 14:33	WG1944475
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 14:33	WG1944475
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 14:33	WG1944475
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 14:33	WG1944475
Phenol	U		0.00433	0.0100	1	10/22/2022 14:33	WG1944475
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 14:33	WG1944475
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 14:33	WG1944475
(S) 2-Fluorophenol	*43.7*			*10.0-120*		*10/22/2022 14:33*	WG1944475
(S) Phenol-d5	*28.7*			*10.0-120*		*10/22/2022 14:33*	WG1944475
(S) Nitrobenzene-d5	*74.7*			*10.0-127*		*10/22/2022 14:33*	WG1944475
(S) 2-Fluorobiphenyl	*67.8*			*10.0-130*		*10/22/2022 14:33*	WG1944475
(S) 2,4,6-Tribromophenol	*71.4*			*10.0-155*		*10/22/2022 14:33*	WG1944475
(S) p-Terphenyl-d14	*69.2*			*10.0-128*		*10/22/2022 14:33*	WG1944475

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	512		13.3	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	84.7		0.379	1.00	1	10/15/2022 00:05	WG1943083
Fluoride	0.849		0.0640	0.150	1	10/19/2022 19:23	WG1945646
Nitrate	5.26		0.0480	0.100	1	10/15/2022 00:05	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 00:05	WG1943083
Sulfate	72.3		0.594	5.00	1	10/15/2022 00:05	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:28	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.178	J	0.0200	0.200	1	11/01/2022 23:11	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	10/29/2022 19:50	WG1947771
Arsenic,Dissolved	0.00628		0.000180	0.00200	1	10/29/2022 19:50	WG1947771
Barium,Dissolved	0.150		0.000381	0.00200	1	10/29/2022 19:50	WG1947771
Cadmium,Dissolved	U		0.000150	0.00100	1	10/29/2022 19:50	WG1947771
Chromium,Dissolved	U		0.00124	0.00200	1	10/29/2022 19:50	WG1947771
Copper,Dissolved	0.00326	J	0.00151	0.00500	1	10/29/2022 19:50	WG1947771
Cobalt,Dissolved	U		0.0000596	0.00200	1	10/29/2022 19:50	WG1947771
Iron,Dissolved	U		0.0281	0.100	1	10/29/2022 19:50	WG1947771
Lead,Dissolved	U		0.000849	0.00200	1	10/29/2022 19:50	WG1947771
Manganese,Dissolved	0.00273	J	0.000704	0.00500	1	10/29/2022 19:50	WG1947771
Molybdenum,Dissolved	0.00210	J	0.000348	0.00500	1	10/29/2022 19:50	WG1947771
Nickel,Dissolved	0.00249		0.000816	0.00200	1	10/29/2022 19:50	WG1947771
Selenium,Dissolved	0.00281		0.000300	0.00200	1	10/29/2022 19:50	WG1947771
Silver,Dissolved	U		0.0000700	0.00200	1	10/29/2022 19:50	WG1947771
Uranium,Dissolved	0.00307	J	0.0000700	0.0200	1	10/29/2022 19:50	WG1947771
Zinc,Dissolved	0.105		0.00302	0.0250	1	10/29/2022 19:50	WG1947771

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 17:07	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 17:07	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 17:07	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 17:07	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 17:07	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 17:07	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 17:07	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 17:07	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 17:07	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 17:07	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 17:07	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 17:07	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 17:07	WG1943655
Chloroform	0.000248	J	0.000111	0.00500	1	10/16/2022 17:07	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 17:07	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 17:07	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 17:07	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 17:07	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 17:07	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 17:07	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 17:07	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 17:07	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 17:07	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 17:07	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 17:07	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 17:07	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 17:07	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 17:07	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 17:07	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 17:07	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 17:07	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 17:07	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 17:07	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 17:07	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 17:07	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 17:07	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 17:07	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 17:07	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 17:07	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 17:07	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 17:07	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 17:07	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 17:07	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 17:07	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 17:07	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 17:07	WG1943655
(S) Toluene-d8	*110*			*80.0-120*		*10/16/2022 17:07*	WG1943655
(S) 4-Bromofluorobenzene	*89.4*			*77.0-126*		*10/16/2022 17:07*	WG1943655
(S) 1,2-Dichloroethane-d4	*129*			*70.0-130*		*10/16/2022 17:07*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 10:32	WG1944475
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 10:32	WG1944475
Acetophenone	U		0.000208	0.0100	1	10/22/2022 10:32	WG1944475
Anthracene	U		0.0000804	0.00100	1	10/22/2022 10:32	WG1944475
Atrazine	U		0.000255	0.0100	1	10/22/2022 10:32	WG1944475
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 10:32	WG1944475
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 10:32	WG1944475
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 10:32	WG1944475
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 10:32	WG1944475
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 10:32	WG1944475
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 10:32	WG1944475
Biphenyl	U		0.000790	0.0100	1	10/22/2022 10:32	WG1944475

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 10:32	WG1944475
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 10:32	WG1944475
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 10:32	WG1944475
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 10:32	WG1944475
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 10:32	WG1944475
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 10:32	WG1944475
Caprolactam	U		0.000309	0.0100	1	10/22/2022 10:32	WG1944475
Carbazole	U		0.000111	0.0100	1	10/22/2022 10:32	WG1944475
Chrysene	U		0.000130	0.00100	1	10/22/2022 10:32	WG1944475
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 10:32	WG1944475
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 10:32	WG1944475
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 10:32	WG1944475
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 10:32	WG1944475
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 10:32	WG1944475
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 10:32	WG1944475
Fluorene	U		0.0000844	0.00100	1	10/22/2022 10:32	WG1944475
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 10:32	WG1944475
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 10:32	WG1944475
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 10:32	WG1944475
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 10:32	WG1944475
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 10:32	WG1944475
Isophorone	U		0.000143	0.0100	1	10/22/2022 10:32	WG1944475
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 10:32	WG1944475
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 10:32	WG1944475
Naphthalene	U		0.000159	0.00100	1	10/22/2022 10:32	WG1944475
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 10:32	WG1944475
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 10:32	WG1944475
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 10:32	WG1944475
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 10:32	WG1944475
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 10:32	WG1944475
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 10:32	WG1944475
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 10:32	WG1944475
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 10:32	WG1944475
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 10:32	WG1944475
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 10:32	WG1944475
Pyrene	U		0.000107	0.00100	1	10/22/2022 10:32	WG1944475
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 10:32	WG1944475
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 10:32	WG1944475
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 10:32	WG1944475
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 10:32	WG1944475
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 10:32	WG1944475
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 10:32	WG1944475
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 10:32	WG1944475
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 10:32	WG1944475
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 10:32	WG1944475
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 10:32	WG1944475
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 10:32	WG1944475
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 10:32	WG1944475
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 10:32	WG1944475
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 10:32	WG1944475
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 10:32	WG1944475
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 10:32	WG1944475
Phenol	U		0.00433	0.0100	1	10/22/2022 10:32	WG1944475
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 10:32	WG1944475
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 10:32	WG1944475
(S) 2-Fluorophenol	*44.6*			*10.0-120*		*10/22/2022 10:32*	WG1944475

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-6
Collected date/time: 10/13/22 12:45
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) Phenol-d5	*27.9*			*10.0-120*		*10/22/2022 10:32*	WG1944475
(S) Nitrobenzene-d5	*67.5*			*10.0-127*		*10/22/2022 10:32*	WG1944475
(S) 2-Fluorobiphenyl	*65.2*			*10.0-130*		*10/22/2022 10:32*	WG1944475
(S) 2,4,6-Tribromophenol	*67.6*			*10.0-155*		*10/22/2022 10:32*	WG1944475
(S) p-Terphenyl-d14	*64.0*			*10.0-128*		*10/22/2022 10:32*	WG1944475

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1260		25.0	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	279		3.79	10.0	10	10/15/2022 00:34	WG1943083
Fluoride	0.570	B	0.0640	0.150	1	10/19/2022 19:37	WG1945646
Nitrate	8.32		0.0480	0.100	1	10/15/2022 00:20	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 00:20	WG1943083
Sulfate	89.8		0.594	5.00	1	10/15/2022 00:20	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:30	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.232		0.0200	0.200	1	11/01/2022 23:14	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0298	J	0.0185	0.100	1	10/29/2022 19:53	WG1947771
Arsenic,Dissolved	0.00698		0.000180	0.00200	1	10/29/2022 19:53	WG1947771
Barium,Dissolved	0.298		0.00381	0.0200	10	10/29/2022 19:27	WG1947771
Cadmium,Dissolved	U		0.000150	0.00100	1	10/29/2022 19:53	WG1947771
Chromium,Dissolved	0.00344		0.00124	0.00200	1	10/29/2022 19:53	WG1947771
Copper,Dissolved	0.00298	J	0.00151	0.00500	1	10/29/2022 19:53	WG1947771
Cobalt,Dissolved	0.000135	J	0.0000596	0.00200	1	10/29/2022 19:53	WG1947771
Iron,Dissolved	0.0377	J	0.0281	0.100	1	10/29/2022 19:53	WG1947771
Lead,Dissolved	U		0.000849	0.00200	1	10/29/2022 19:53	WG1947771
Manganese,Dissolved	0.00351	J	0.000704	0.00500	1	10/29/2022 19:53	WG1947771
Molybdenum,Dissolved	0.000965	J	0.000348	0.00500	1	10/29/2022 19:53	WG1947771
Nickel,Dissolved	0.0184		0.000816	0.00200	1	10/29/2022 19:53	WG1947771
Selenium,Dissolved	0.00126	J	0.000300	0.00200	1	10/29/2022 19:53	WG1947771
Silver,Dissolved	U		0.0000700	0.00200	1	10/29/2022 19:53	WG1947771
Uranium,Dissolved	0.0147	J	0.0000700	0.0200	1	10/29/2022 19:53	WG1947771
Zinc,Dissolved	0.0348		0.00302	0.0250	1	10/29/2022 19:53	WG1947771

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 17:28	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 17:28	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 17:28	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 17:28	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 17:28	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 17:28	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 17:28	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 17:28	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 17:28	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 17:28	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 17:28	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 17:28	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 17:28	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 17:28	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 17:28	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 17:28	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 17:28	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 17:28	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 17:28	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 17:28	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 17:28	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 17:28	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 17:28	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 17:28	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 17:28	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 17:28	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 17:28	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 17:28	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 17:28	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 17:28	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 17:28	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 17:28	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 17:28	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 17:28	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 17:28	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 17:28	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 17:28	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 17:28	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 17:28	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 17:28	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 17:28	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 17:28	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 17:28	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 17:28	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 17:28	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 17:28	WG1943655
(S) Toluene-d8	*109*			*80.0-120*		*10/16/2022 17:28*	WG1943655
(S) 4-Bromofluorobenzene	*89.4*			*77.0-126*		*10/16/2022 17:28*	WG1943655
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2022 17:28*	WG1943655

MW-9
Collected date/time: 10/13/22 10:50
L1546506

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	278		3.79	10.0	10	10/15/2022 01:04	WG1943083
Fluoride	0.289	B	0.0640	0.150	1	10/19/2022 19:50	WG1945646
Nitrate	10.9		0.0480	0.100	1	10/15/2022 00:49	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 00:49	WG1943083
Sulfate	93.6		0.594	5.00	1	10/15/2022 00:49	WG1943083

MW-10
Collected date/time: 10/13/22 11:30
L1546506

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	18.1		0.379	1.00	1	10/15/2022 01:19	WG1943083
Fluoride	1.03		0.0640	0.150	1	10/19/2022 20:04	WG1945646
Nitrate	1.99		0.0480	0.100	1	10/15/2022 01:19	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 01:19	WG1943083
Sulfate	60.9		0.594	5.00	1	10/15/2022 01:19	WG1943083

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1150		25.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	280		8.45	20.0	1	10/25/2022 10:14	WG1948383

Sample Narrative:

L1546506-10 WG1948383: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	305		3.79	10.0	10	10/15/2022 02:19	WG1943083
Fluoride	0.537	B	0.0640	0.150	1	10/19/2022 20:17	WG1945646
Nitrate	3.09		0.0480	0.100	1	10/15/2022 02:04	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 02:04	WG1943083
Sulfate	83.6		0.594	5.00	1	10/15/2022 02:04	WG1943083

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/27/2022 12:32	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.259		0.0200	0.200	1	11/01/2022 23:17	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	10/29/2022 19:56	WG1947771
Arsenic,Dissolved	0.00260		0.000180	0.00200	1	10/29/2022 19:56	WG1947771
Barium,Dissolved	0.187		0.000381	0.00200	1	10/29/2022 19:56	WG1947771
Cadmium,Dissolved	U		0.000150	0.00100	1	10/29/2022 19:56	WG1947771
Chromium,Dissolved	0.00153	J	0.00124	0.00200	1	10/29/2022 19:56	WG1947771
Copper,Dissolved	0.0380		0.00151	0.00500	1	10/29/2022 19:56	WG1947771
Cobalt,Dissolved	0.000116	J	0.0000596	0.00200	1	10/29/2022 19:56	WG1947771
Iron,Dissolved	U		0.0281	0.100	1	10/29/2022 19:56	WG1947771
Lead,Dissolved	0.00143	J	0.000849	0.00200	1	10/29/2022 19:56	WG1947771
Manganese,Dissolved	0.0265		0.000704	0.00500	1	10/29/2022 19:56	WG1947771
Molybdenum,Dissolved	0.00109	J	0.000348	0.00500	1	10/29/2022 19:56	WG1947771
Nickel,Dissolved	0.00276		0.000816	0.00200	1	10/29/2022 19:56	WG1947771
Selenium,Dissolved	0.00115	J	0.000300	0.00200	1	10/29/2022 19:56	WG1947771
Silver,Dissolved	U		0.0000700	0.00200	1	10/29/2022 19:56	WG1947771
Uranium,Dissolved	0.00581	J	0.0000700	0.0200	1	10/29/2022 19:56	WG1947771
Zinc,Dissolved	0.0893		0.00302	0.0250	1	10/29/2022 19:56	WG1947771

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 17:48	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 17:48	WG1943655
Bromodichloromethane	0.000604	J	0.000136	0.00100	1	10/16/2022 17:48	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 17:48	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 17:48	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 17:48	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 17:48	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 17:48	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 17:48	WG1943655
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 17:48	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 17:48	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 17:48	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 17:48	WG1943655
Chloroform	0.00272	J	0.000111	0.00500	1	10/16/2022 17:48	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 17:48	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 17:48	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 17:48	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 17:48	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 17:48	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 17:48	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 17:48	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 17:48	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 17:48	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 17:48	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 17:48	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 17:48	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 17:48	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 17:48	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 17:48	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 17:48	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 17:48	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 17:48	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 17:48	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 17:48	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 17:48	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 17:48	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 17:48	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 17:48	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 17:48	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 17:48	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 17:48	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 17:48	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 17:48	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 17:48	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 17:48	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 17:48	WG1943655
(S) Toluene-d8	*111*			*80.0-120*		*10/16/2022 17:48*	WG1943655
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*		*10/16/2022 17:48*	WG1943655
(S) 1,2-Dichloroethane-d4	*127*			*70.0-130*		*10/16/2022 17:48*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 10:54	WG1944475
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 10:54	WG1944475
Acetophenone	U		0.000208	0.0100	1	10/22/2022 10:54	WG1944475
Anthracene	U		0.0000804	0.00100	1	10/22/2022 10:54	WG1944475
Atrazine	U		0.000255	0.0100	1	10/22/2022 10:54	WG1944475
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 10:54	WG1944475
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 10:54	WG1944475
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 10:54	WG1944475
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 10:54	WG1944475
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 10:54	WG1944475
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 10:54	WG1944475
Biphenyl	U		0.000790	0.0100	1	10/22/2022 10:54	WG1944475
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 10:54	WG1944475
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 10:54	WG1944475
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 10:54	WG1944475
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 10:54	WG1944475
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 10:54	WG1944475
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 10:54	WG1944475
Caprolactam	0.00224	J	0.000309	0.0100	1	10/22/2022 10:54	WG1944475
Carbazole	U		0.000111	0.0100	1	10/22/2022 10:54	WG1944475
Chrysene	U		0.000130	0.00100	1	10/22/2022 10:54	WG1944475
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 10:54	WG1944475
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 10:54	WG1944475
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 10:54	WG1944475
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 10:54	WG1944475
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 10:54	WG1944475
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 10:54	WG1944475
Fluorene	U		0.0000844	0.00100	1	10/22/2022 10:54	WG1944475
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 10:54	WG1944475
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 10:54	WG1944475
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 10:54	WG1944475
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 10:54	WG1944475
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 10:54	WG1944475
Isophorone	U		0.000143	0.0100	1	10/22/2022 10:54	WG1944475
1-Methylnaphthalene	0.0000799	J	0.0000790	0.00100	1	10/22/2022 10:54	WG1944475
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 10:54	WG1944475
Naphthalene	U		0.000159	0.00100	1	10/22/2022 10:54	WG1944475
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 10:54	WG1944475
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 10:54	WG1944475
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 10:54	WG1944475
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 10:54	WG1944475
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 10:54	WG1944475
Bis(2-ethylhexyl)phthalate	0.00450		0.000895	0.00300	1	10/22/2022 10:54	WG1944475
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 10:54	WG1944475
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 10:54	WG1944475
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 10:54	WG1944475
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 10:54	WG1944475
Pyrene	U		0.000107	0.00100	1	10/22/2022 10:54	WG1944475
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 10:54	WG1944475
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 10:54	WG1944475
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 10:54	WG1944475
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 10:54	WG1944475
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 10:54	WG1944475
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 10:54	WG1944475
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 10:54	WG1944475
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 10:54	WG1944475

MW-11R
Collected date/time: 10/13/22 09:45
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 10:54	WG1944475
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 10:54	WG1944475
3&4-Methyl Phenol	0.000379	J	0.000168	0.0100	1	10/22/2022 10:54	WG1944475
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 10:54	WG1944475
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 10:54	WG1944475
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 10:54	WG1944475
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 10:54	WG1944475
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 10:54	WG1944475
Phenol	U		0.00433	0.0100	1	10/22/2022 10:54	WG1944475
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 10:54	WG1944475
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 10:54	WG1944475
(S) 2-Fluorophenol	*45.4*			*10.0-120*		*10/22/2022 10:54*	WG1944475
(S) Phenol-d5	*28.3*			*10.0-120*		*10/22/2022 10:54*	WG1944475
(S) Nitrobenzene-d5	*69.8*			*10.0-127*		*10/22/2022 10:54*	WG1944475
(S) 2-Fluorobiphenyl	*64.9*			*10.0-130*		*10/22/2022 10:54*	WG1944475
(S) 2,4,6-Tribromophenol	*70.3*			*10.0-155*		*10/22/2022 10:54*	WG1944475
(S) p-Terphenyl-d14	*69.2*			*10.0-128*		*10/22/2022 10:54*	WG1944475

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	508		13.3	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	193		8.45	20.0	1	10/25/2022 09:05	WG1947511

Sample Narrative:

L1546506-11 WG1947511: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	95.0		0.379	1.00	1	10/15/2022 03:04	WG1943083
Fluoride	0.920		0.0640	0.150	1	10/19/2022 20:31	WG1945646
Nitrate	4.91		0.0480	0.100	1	10/15/2022 03:04	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 03:04	WG1943083
Sulfate	73.9		0.594	5.00	1	10/15/2022 03:04	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 12:34	WG1944379

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.189	J	0.0200	0.200	1	11/01/2022 23:20	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:12	WG1947773
Arsenic,Dissolved	0.00401		0.000180	0.00200	1	11/02/2022 22:12	WG1947773
Barium,Dissolved	0.120		0.000381	0.00200	1	11/02/2022 22:12	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:12	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 22:12	WG1947773
Copper,Dissolved	0.00356	J	0.00151	0.00500	1	11/02/2022 22:12	WG1947773
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/02/2022 22:12	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:12	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:12	WG1947773
Manganese,Dissolved	U		0.000704	0.00500	1	11/02/2022 22:12	WG1947773
Molybdenum,Dissolved	0.00370	J	0.000348	0.00500	1	11/02/2022 22:12	WG1947773
Nickel,Dissolved	0.00355		0.000816	0.00200	1	11/02/2022 22:12	WG1947773
Selenium,Dissolved	0.00249		0.000300	0.00200	1	11/02/2022 22:12	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:12	WG1947773
Uranium,Dissolved	0.00171	J	0.0000700	0.0200	1	11/02/2022 22:12	WG1947773
Zinc,Dissolved	0.109		0.00302	0.0250	1	11/02/2022 22:12	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 18:08	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 18:08	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 18:08	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 18:08	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 18:08	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 18:08	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 18:08	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 18:08	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 18:08	WG1943655
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 18:08	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 18:08	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 18:08	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 18:08	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 18:08	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 18:08	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 18:08	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 18:08	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 18:08	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 18:08	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 18:08	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 18:08	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 18:08	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 18:08	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 18:08	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 18:08	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 18:08	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 18:08	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 18:08	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 18:08	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 18:08	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 18:08	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 18:08	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 18:08	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 18:08	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 18:08	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 18:08	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 18:08	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 18:08	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 18:08	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 18:08	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 18:08	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 18:08	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 18:08	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 18:08	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 18:08	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 18:08	WG1943655
(S) Toluene-d8	*111*			*80.0-120*		*10/16/2022 18:08*	WG1943655
(S) 4-Bromofluorobenzene	*88.8*			*77.0-126*		*10/16/2022 18:08*	WG1943655
(S) 1,2-Dichloroethane-d4	*129*			*70.0-130*		*10/16/2022 18:08*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 11:15	WG1944475
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 11:15	WG1944475
Acetophenone	U		0.000208	0.0100	1	10/22/2022 11:15	WG1944475
Anthracene	U		0.0000804	0.00100	1	10/22/2022 11:15	WG1944475
Atrazine	U		0.000255	0.0100	1	10/22/2022 11:15	WG1944475
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 11:15	WG1944475
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 11:15	WG1944475
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 11:15	WG1944475
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 11:15	WG1944475
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 11:15	WG1944475
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 11:15	WG1944475
Biphenyl	U		0.000790	0.0100	1	10/22/2022 11:15	WG1944475
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 11:15	WG1944475
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 11:15	WG1944475
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 11:15	WG1944475
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 11:15	WG1944475
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 11:15	WG1944475
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 11:15	WG1944475
Caprolactam	0.00318	J	0.000309	0.0100	1	10/22/2022 11:15	WG1944475
Carbazole	U		0.000111	0.0100	1	10/22/2022 11:15	WG1944475
Chrysene	U		0.000130	0.00100	1	10/22/2022 11:15	WG1944475
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 11:15	WG1944475
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 11:15	WG1944475
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 11:15	WG1944475
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 11:15	WG1944475
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 11:15	WG1944475
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 11:15	WG1944475
Fluorene	U		0.0000844	0.00100	1	10/22/2022 11:15	WG1944475
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 11:15	WG1944475
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 11:15	WG1944475
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 11:15	WG1944475
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 11:15	WG1944475
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 11:15	WG1944475
Isophorone	U		0.000143	0.0100	1	10/22/2022 11:15	WG1944475
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 11:15	WG1944475
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 11:15	WG1944475
Naphthalene	U		0.000159	0.00100	1	10/22/2022 11:15	WG1944475
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 11:15	WG1944475
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 11:15	WG1944475
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 11:15	WG1944475
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 11:15	WG1944475
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 11:15	WG1944475
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 11:15	WG1944475
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 11:15	WG1944475
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 11:15	WG1944475
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 11:15	WG1944475
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 11:15	WG1944475
Pyrene	U		0.000107	0.00100	1	10/22/2022 11:15	WG1944475
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 11:15	WG1944475
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 11:15	WG1944475
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 11:15	WG1944475
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 11:15	WG1944475
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 11:15	WG1944475
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 11:15	WG1944475
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 11:15	WG1944475
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 11:15	WG1944475

MW-12R2
Collected date/time: 10/13/22 09:40
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 11:15	WG1944475
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 11:15	WG1944475
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 11:15	WG1944475
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 11:15	WG1944475
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 11:15	WG1944475
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 11:15	WG1944475
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 11:15	WG1944475
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 11:15	WG1944475
Phenol	0.00662	J	0.00433	0.0100	1	10/22/2022 11:15	WG1944475
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 11:15	WG1944475
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 11:15	WG1944475
(S) 2-Fluorophenol	*48.4*			*10.0-120*		*10/22/2022 11:15*	WG1944475
(S) Phenol-d5	*31.3*			*10.0-120*		*10/22/2022 11:15*	WG1944475
(S) Nitrobenzene-d5	*73.2*			*10.0-127*		*10/22/2022 11:15*	WG1944475
(S) 2-Fluorobiphenyl	*68.6*			*10.0-130*		*10/22/2022 11:15*	WG1944475
(S) 2,4,6-Tribromophenol	*69.2*			*10.0-155*		*10/22/2022 11:15*	WG1944475
(S) p-Terphenyl-d14	*65.7*			*10.0-128*		*10/22/2022 11:15*	WG1944475

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1020		13.3	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	206		3.79	10.0	10	10/15/2022 03:33	WG1943083
Fluoride	0.413	B	0.0640	0.150	1	10/19/2022 20:44	WG1945646
Nitrate	3.08		0.0480	0.100	1	10/15/2022 03:18	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 03:18	WG1943083
Sulfate	110		0.594	5.00	1	10/15/2022 03:18	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/19/2022 13:34	WG1939993

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.263		0.0200	0.200	1	11/01/2022 23:28	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:16	WG1947773
Arsenic,Dissolved	0.00293		0.000180	0.00200	1	11/02/2022 22:16	WG1947773
Barium,Dissolved	0.140		0.000381	0.00200	1	11/02/2022 22:16	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:16	WG1947773
Chromium,Dissolved	0.00183	J	0.00124	0.00200	1	11/02/2022 22:16	WG1947773
Copper,Dissolved	0.00854		0.00151	0.00500	1	11/02/2022 22:16	WG1947773
Cobalt,Dissolved	0.000369	J	0.0000596	0.00200	1	11/02/2022 22:16	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:16	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:16	WG1947773
Manganese,Dissolved	0.0169		0.000704	0.00500	1	11/02/2022 22:16	WG1947773
Molybdenum,Dissolved	0.000618	J	0.000348	0.00500	1	11/02/2022 22:16	WG1947773
Nickel,Dissolved	0.00780		0.000816	0.00200	1	11/02/2022 22:16	WG1947773
Selenium,Dissolved	0.000660	J	0.000300	0.00200	1	11/02/2022 22:16	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:16	WG1947773
Uranium,Dissolved	0.0120	J	0.0000700	0.0200	1	11/02/2022 22:16	WG1947773
Zinc,Dissolved	0.0164	J	0.00302	0.0250	1	11/02/2022 22:16	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 18:28	WG1943655
Benzene	0.0000984	J	0.0000941	0.00100	1	10/16/2022 18:28	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 18:28	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 18:28	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 18:28	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 18:28	WG1943655
sec-Butylbenzene	0.000918	J	0.000125	0.00100	1	10/16/2022 18:28	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 18:28	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 18:28	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 18:28	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 18:28	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 18:28	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 18:28	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 18:28	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 18:28	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 18:28	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 18:28	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 18:28	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 18:28	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 18:28	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 18:28	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 18:28	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 18:28	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 18:28	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 18:28	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 18:28	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 18:28	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 18:28	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 18:28	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 18:28	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 18:28	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 18:28	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 18:28	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 18:28	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 18:28	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 18:28	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 18:28	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 18:28	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 18:28	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 18:28	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 18:28	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 18:28	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 18:28	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 18:28	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 18:28	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 18:28	WG1943655
(S) Toluene-d8	*110*			*80.0-120*		*10/16/2022 18:28*	WG1943655
(S) 4-Bromofluorobenzene	*90.8*			*77.0-126*		*10/16/2022 18:28*	WG1943655
(S) 1,2-Dichloroethane-d4	*125*			*70.0-130*		*10/16/2022 18:28*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 17:22	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 17:22	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 17:22	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 17:22	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 17:22	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 17:22	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 17:22	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 17:22	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 17:22	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 17:22	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 17:22	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 17:22	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 17:22	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 17:22	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 17:22	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 17:22	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 17:22	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 17:22	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 17:22	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 17:22	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 17:22	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 17:22	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 17:22	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 17:22	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 17:22	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 17:22	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 17:22	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 17:22	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 17:22	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 17:22	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 17:22	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 17:22	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 17:22	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 17:22	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 17:22	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 17:22	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 17:22	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 17:22	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 17:22	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 17:22	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 17:22	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 17:22	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 17:22	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 17:22	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 17:22	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 17:22	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 17:22	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 17:22	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 17:22	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 17:22	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 17:22	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 17:22	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 17:22	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 17:22	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 17:22	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 17:22	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 17:22	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 17:22	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 17:22	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 17:22	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 17:22	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 17:22	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 17:22	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 17:22	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 17:22	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 17:22	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 17:22	WG1944512
(S) 2-Fluorophenol	*31.9*			*10.0-120*		*10/22/2022 17:22*	WG1944512

MW-13R
Collected date/time: 10/13/22 09:25
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) Phenol-d5	*23.2*			*10.0-120*		*10/22/2022 17:22*	WG1944512
(S) Nitrobenzene-d5	*62.6*			*10.0-127*		*10/22/2022 17:22*	WG1944512
(S) 2-Fluorobiphenyl	*56.7*			*10.0-130*		*10/22/2022 17:22*	WG1944512
(S) 2,4,6-Tribromophenol	*61.1*			*10.0-155*		*10/22/2022 17:22*	WG1944512
(S) p-Terphenyl-d14	*67.8*			*10.0-128*		*10/22/2022 17:22*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1160		20.0	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	304		3.79	10.0	10	10/15/2022 04:03	WG1943083
Fluoride	0.744		0.0640	0.150	1	10/19/2022 21:52	WG1945646
Nitrate	3.95		0.0480	0.100	1	10/15/2022 03:48	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 03:48	WG1943083
Sulfate	49.1		0.594	5.00	1	10/15/2022 03:48	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/19/2022 13:37	WG1939993

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.209		0.0200	0.200	1	11/01/2022 22:25	WG1947742

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:19	WG1947773
Arsenic,Dissolved	0.00260		0.000180	0.00200	1	11/02/2022 22:19	WG1947773
Barium,Dissolved	0.232		0.000381	0.00200	1	11/02/2022 22:19	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:19	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 22:19	WG1947773
Copper,Dissolved	0.00161	J	0.00151	0.00500	1	11/02/2022 22:19	WG1947773
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/02/2022 22:19	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:19	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:19	WG1947773
Manganese,Dissolved	U		0.000704	0.00500	1	11/02/2022 22:19	WG1947773
Molybdenum,Dissolved	0.00227	J	0.000348	0.00500	1	11/02/2022 22:19	WG1947773
Nickel,Dissolved	U		0.000816	0.00200	1	11/02/2022 22:19	WG1947773
Selenium,Dissolved	0.00184	J	0.000300	0.00200	1	11/02/2022 22:19	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:19	WG1947773
Uranium,Dissolved	0.00598	J	0.0000700	0.0200	1	11/02/2022 22:19	WG1947773
Zinc,Dissolved	0.0119	J	0.00302	0.0250	1	11/02/2022 22:19	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 18:49	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 18:49	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 18:49	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 18:49	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 18:49	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 18:49	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 18:49	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 18:49	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 18:49	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 18:49	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 18:49	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 18:49	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 18:49	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 18:49	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 18:49	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 18:49	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 18:49	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 18:49	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 18:49	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 18:49	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 18:49	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 18:49	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 18:49	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 18:49	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 18:49	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 18:49	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 18:49	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 18:49	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 18:49	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 18:49	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 18:49	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 18:49	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 18:49	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 18:49	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 18:49	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 18:49	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 18:49	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 18:49	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 18:49	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 18:49	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 18:49	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 18:49	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 18:49	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 18:49	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 18:49	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 18:49	WG1943655
(S) Toluene-d8	*110*			*80.0-120*		*10/16/2022 18:49*	WG1943655
(S) 4-Bromofluorobenzene	*88.8*			*77.0-126*		*10/16/2022 18:49*	WG1943655
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2022 18:49*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 10:33	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 10:33	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 10:33	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 10:33	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 10:33	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 10:33	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 10:33	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 10:33	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 10:33	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 10:33	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 10:33	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 10:33	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 10:33	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 10:33	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 10:33	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 10:33	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 10:33	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 10:33	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 10:33	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 10:33	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 10:33	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 10:33	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 10:33	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 10:33	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 10:33	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 10:33	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 10:33	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 10:33	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 10:33	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 10:33	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 10:33	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 10:33	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 10:33	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 10:33	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 10:33	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 10:33	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 10:33	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 10:33	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 10:33	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 10:33	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 10:33	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 10:33	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 10:33	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 10:33	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 10:33	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 10:33	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 10:33	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 10:33	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 10:33	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 10:33	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 10:33	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 10:33	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 10:33	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 10:33	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 10:33	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 10:33	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 10:33	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 10:33	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 10:33	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 10:33	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 10:33	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 10:33	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 10:33	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 10:33	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 10:33	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 10:33	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 10:33	WG1944512
(S) 2-Fluorophenol	*28.3*			*10.0-120*		*10/22/2022 10:33*	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Phenol-d5	*20.1*			*10.0-120*		*10/22/2022 10:33*	WG1944512
(S) Nitrobenzene-d5	*56.8*			*10.0-127*		*10/22/2022 10:33*	WG1944512
(S) 2-Fluorobiphenyl	*53.5*			*10.0-130*		*10/22/2022 10:33*	WG1944512
(S) 2,4,6-Tribromophenol	*54.7*			*10.0-155*		*10/22/2022 10:33*	WG1944512
(S) p-Terphenyl-d14	*66.4*			*10.0-128*		*10/22/2022 10:33*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1440		25.0	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	169		8.45	20.0	1	10/25/2022 12:14	WG1947527

Sample Narrative:

L1546506-14 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	466		3.79	10.0	10	10/15/2022 04:33	WG1943083
Fluoride	0.542	B	0.0640	0.150	1	10/19/2022 22:05	WG1945646
Nitrate	3.41		0.0480	0.100	1	10/15/2022 04:18	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 04:18	WG1943083
Sulfate	103		0.594	5.00	1	10/15/2022 04:18	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/19/2022 13:39	WG1939993

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.170	J	0.0200	0.200	1	11/01/2022 20:12	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:22	WG1947773
Arsenic,Dissolved	0.00269		0.000180	0.00200	1	11/02/2022 22:22	WG1947773
Barium,Dissolved	0.148		0.000381	0.00200	1	11/02/2022 22:22	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:22	WG1947773
Chromium,Dissolved	0.0147		0.00124	0.00200	1	11/02/2022 22:22	WG1947773
Copper,Dissolved	0.00456	J	0.00151	0.00500	1	11/02/2022 22:22	WG1947773
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/02/2022 22:22	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:22	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:22	WG1947773
Manganese,Dissolved	0.000723	J	0.000704	0.00500	1	11/02/2022 22:22	WG1947773
Molybdenum,Dissolved	0.00127	J	0.000348	0.00500	1	11/02/2022 22:22	WG1947773
Nickel,Dissolved	0.00184	J	0.000816	0.00200	1	11/02/2022 22:22	WG1947773
Selenium,Dissolved	0.00194	J	0.000300	0.00200	1	11/02/2022 22:22	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:22	WG1947773
Uranium,Dissolved	0.00260	J	0.0000700	0.0200	1	11/02/2022 22:22	WG1947773
Zinc,Dissolved	0.0469		0.00302	0.0250	1	11/02/2022 22:22	WG1947773

MW-15R
Collected date/time: 10/13/22 11:15
L1546506

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 19:09	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 19:09	WG1943655
Bromodichloromethane	0.00253		0.000136	0.00100	1	10/16/2022 19:09	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 19:09	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 19:09	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 19:09	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 19:09	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 19:09	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 19:09	WG1943655
Carbon tetrachloride	0.000156	J	0.000128	0.00100	1	10/16/2022 19:09	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 19:09	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 19:09	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 19:09	WG1943655
Chloroform	0.0119		0.000111	0.00500	1	10/16/2022 19:09	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 19:09	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 19:09	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 19:09	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 19:09	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 19:09	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 19:09	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 19:09	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 19:09	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 19:09	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 19:09	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 19:09	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 19:09	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 19:09	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 19:09	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 19:09	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 19:09	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 19:09	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 19:09	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 19:09	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 19:09	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 19:09	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 19:09	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 19:09	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 19:09	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 19:09	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 19:09	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 19:09	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 19:09	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 19:09	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 19:09	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 19:09	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 19:09	WG1943655
(S) Toluene-d8	*108*			*80.0-120*		*10/16/2022 19:09*	WG1943655
(S) 4-Bromofluorobenzene	*90.5*			*77.0-126*		*10/16/2022 19:09*	WG1943655
(S) 1,2-Dichloroethane-d4	*132*	J1		*70.0-130*		*10/16/2022 19:09*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 10:55	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 10:55	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 10:55	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 10:55	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 10:55	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 10:55	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 10:55	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 10:55	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 10:55	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 10:55	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 10:55	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 10:55	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 10:55	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 10:55	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 10:55	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 10:55	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 10:55	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 10:55	WG1944512
Caprolactam	0.000648	J	0.000309	0.0100	1	10/22/2022 10:55	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 10:55	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 10:55	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 10:55	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 10:55	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 10:55	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 10:55	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 10:55	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 10:55	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 10:55	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 10:55	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 10:55	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 10:55	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 10:55	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 10:55	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 10:55	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 10:55	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 10:55	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 10:55	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 10:55	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 10:55	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 10:55	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 10:55	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 10:55	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 10:55	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 10:55	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 10:55	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 10:55	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 10:55	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 10:55	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 10:55	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 10:55	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 10:55	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 10:55	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 10:55	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 10:55	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 10:55	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 10:55	WG1944512

MW-15R
Collected date/time: 10/13/22 11:15
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 10:55	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 10:55	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 10:55	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 10:55	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 10:55	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 10:55	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 10:55	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 10:55	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 10:55	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 10:55	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 10:55	WG1944512
(S) 2-Fluorophenol	*32.9*			*10.0-120*		*10/22/2022 10:55*	WG1944512
(S) Phenol-d5	*23.2*			*10.0-120*		*10/22/2022 10:55*	WG1944512
(S) Nitrobenzene-d5	*49.7*			*10.0-127*		*10/22/2022 10:55*	WG1944512
(S) 2-Fluorobiphenyl	*46.7*			*10.0-130*		*10/22/2022 10:55*	WG1944512
(S) 2,4,6-Tribromophenol	*52.5*			*10.0-155*		*10/22/2022 10:55*	WG1944512
(S) p-Terphenyl-d14	*66.8*			*10.0-128*		*10/22/2022 10:55*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	419		10.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	30.0		0.379	1.00	1	10/15/2022 04:48	WG1943083
Fluoride	0.913		0.0640	0.150	1	10/19/2022 22:19	WG1945646
Nitrate	2.63		0.0480	0.100	1	10/15/2022 04:48	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 04:48	WG1943083
Sulfate	62.2		0.594	5.00	1	10/15/2022 04:48	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/19/2022 13:41	WG1939993

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.154	J	0.0200	0.200	1	11/01/2022 20:15	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0192	J	0.0185	0.100	1	10/27/2022 19:40	WG1947767
Arsenic,Dissolved	0.00478		0.000180	0.00200	1	10/27/2022 19:40	WG1947767
Barium,Dissolved	0.0980		0.000381	0.00200	1	10/27/2022 19:40	WG1947767
Cadmium,Dissolved	U		0.000150	0.00100	1	10/27/2022 19:40	WG1947767
Chromium,Dissolved	U		0.00124	0.00200	1	10/27/2022 19:40	WG1947767
Copper,Dissolved	0.00241	J	0.00151	0.00500	1	10/27/2022 19:40	WG1947767
Cobalt,Dissolved	U		0.0000596	0.00200	1	10/27/2022 19:40	WG1947767
Iron,Dissolved	U		0.0281	0.100	1	10/27/2022 19:40	WG1947767
Lead,Dissolved	U		0.000849	0.00200	1	10/27/2022 19:40	WG1947767
Manganese,Dissolved	0.000881	J	0.000704	0.00500	1	10/27/2022 19:40	WG1947767
Molybdenum,Dissolved	0.00243	J	0.000348	0.00500	1	10/27/2022 19:40	WG1947767
Nickel,Dissolved	U		0.000816	0.00200	1	10/27/2022 19:40	WG1947767
Selenium,Dissolved	0.00256		0.000300	0.00200	1	10/27/2022 19:40	WG1947767
Silver,Dissolved	U		0.0000700	0.00200	1	10/27/2022 19:40	WG1947767
Uranium,Dissolved	0.00247	J	0.0000700	0.0200	1	10/27/2022 19:40	WG1947767
Zinc,Dissolved	0.00935	J	0.00302	0.0250	1	10/27/2022 19:40	WG1947767

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 19:29	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 19:29	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 19:29	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 19:29	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 19:29	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 19:29	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 19:29	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 19:29	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 19:29	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 19:29	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 19:29	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 19:29	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 19:29	WG1943655
Chloroform	0.000201	J	0.000111	0.00500	1	10/16/2022 19:29	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 19:29	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 19:29	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 19:29	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 19:29	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 19:29	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 19:29	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 19:29	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 19:29	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 19:29	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 19:29	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 19:29	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 19:29	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 19:29	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 19:29	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 19:29	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 19:29	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 19:29	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 19:29	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 19:29	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 19:29	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 19:29	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 19:29	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 19:29	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 19:29	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 19:29	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 19:29	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 19:29	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 19:29	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 19:29	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 19:29	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 19:29	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 19:29	WG1943655
(S) Toluene-d8	*109*			*80.0-120*		*10/16/2022 19:29*	WG1943655
(S) 4-Bromofluorobenzene	*87.9*			*77.0-126*		*10/16/2022 19:29*	WG1943655
(S) 1,2-Dichloroethane-d4	*130*			*70.0-130*		*10/16/2022 19:29*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 11:16	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 11:16	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 11:16	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 11:16	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 11:16	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 11:16	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 11:16	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 11:16	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 11:16	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 11:16	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 11:16	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 11:16	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 11:16	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 11:16	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 11:16	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 11:16	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 11:16	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 11:16	WG1944512
Caprolactam	0.00151	J	0.000309	0.0100	1	10/22/2022 11:16	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 11:16	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 11:16	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 11:16	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 11:16	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 11:16	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 11:16	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 11:16	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 11:16	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 11:16	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 11:16	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 11:16	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 11:16	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 11:16	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 11:16	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 11:16	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 11:16	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 11:16	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 11:16	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 11:16	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 11:16	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 11:16	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 11:16	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 11:16	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 11:16	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 11:16	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 11:16	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 11:16	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 11:16	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 11:16	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 11:16	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 11:16	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 11:16	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 11:16	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 11:16	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 11:16	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 11:16	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 11:16	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 11:16	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 11:16	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 11:16	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 11:16	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 11:16	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 11:16	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 11:16	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 11:16	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 11:16	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 11:16	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 11:16	WG1944512
(S) 2-Fluorophenol	*23.9*			*10.0-120*		*10/22/2022 11:16*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-10R
Collected date/time: 10/13/22 10:50
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Phenol-d5	*16.5*			*10.0-120*		*10/22/2022 11:16*	WG1944512
(S) Nitrobenzene-d5	*54.0*			*10.0-127*		*10/22/2022 11:16*	WG1944512
(S) 2-Fluorobiphenyl	*48.6*			*10.0-130*		*10/22/2022 11:16*	WG1944512
(S) 2,4,6-Tribromophenol	*37.5*			*10.0-155*		*10/22/2022 11:16*	WG1944512
(S) p-Terphenyl-d14	*56.9*			*10.0-128*		*10/22/2022 11:16*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	663		13.3	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	527		8.45	20.0	1	10/25/2022 10:06	WG1947527

Sample Narrative:

L1546506-16 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	138		0.379	1.00	1	10/15/2022 05:03	WG1943083
Fluoride	0.640		0.0640	0.150	1	10/19/2022 22:32	WG1945646
Nitrate	3.43		0.0480	0.100	1	10/15/2022 05:03	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 05:03	WG1943083
Sulfate	67.8		0.594	5.00	1	10/15/2022 05:03	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/19/2022 13:44	WG1939993

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.133	J	0.0200	0.200	1	11/01/2022 20:18	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0857	J	0.0185	0.100	1	11/02/2022 22:34	WG1947773
Arsenic,Dissolved	0.00372		0.000180	0.00200	1	11/02/2022 22:34	WG1947773
Barium,Dissolved	0.134		0.000381	0.00200	1	11/02/2022 22:34	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:34	WG1947773
Chromium,Dissolved	0.00158	J	0.00124	0.00200	1	11/02/2022 22:34	WG1947773
Copper,Dissolved	0.00255	J	0.00151	0.00500	1	11/02/2022 22:34	WG1947773
Cobalt,Dissolved	0.000117	J	0.0000596	0.00200	1	11/02/2022 22:34	WG1947773
Iron,Dissolved	0.0723	J	0.0281	0.100	1	11/02/2022 22:34	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:34	WG1947773
Manganese,Dissolved	0.00436	J	0.000704	0.00500	1	11/02/2022 22:34	WG1947773
Molybdenum,Dissolved	0.00170	J	0.000348	0.00500	1	11/02/2022 22:34	WG1947773
Nickel,Dissolved	0.00158	J	0.000816	0.00200	1	11/02/2022 22:34	WG1947773
Selenium,Dissolved	0.00154	J	0.000300	0.00200	1	11/02/2022 22:34	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:34	WG1947773
Uranium,Dissolved	0.00230	J	0.0000700	0.0200	1	11/02/2022 22:34	WG1947773
Zinc,Dissolved	0.0155	J	0.00302	0.0250	1	11/02/2022 22:34	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 19:50	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 19:50	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 19:50	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 19:50	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 19:50	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 19:50	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 19:50	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 19:50	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 19:50	WG1943655
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 19:50	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 19:50	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 19:50	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 19:50	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 19:50	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 19:50	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 19:50	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 19:50	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 19:50	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 19:50	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 19:50	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 19:50	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 19:50	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 19:50	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 19:50	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 19:50	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 19:50	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 19:50	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 19:50	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 19:50	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 19:50	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 19:50	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 19:50	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 19:50	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 19:50	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 19:50	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 19:50	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 19:50	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 19:50	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 19:50	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 19:50	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 19:50	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 19:50	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 19:50	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 19:50	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 19:50	WG1943655
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 19:50	WG1943655
(S) Toluene-d8	*111*			*80.0-120*		*10/16/2022 19:50*	WG1943655
(S) 4-Bromofluorobenzene	*89.6*			*77.0-126*		*10/16/2022 19:50*	WG1943655
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2022 19:50*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 17:43	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 17:43	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 17:43	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 17:43	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 17:43	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 17:43	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 17:43	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 17:43	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 17:43	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 17:43	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 17:43	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 17:43	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 17:43	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 17:43	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 17:43	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 17:43	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 17:43	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 17:43	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 17:43	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 17:43	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 17:43	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 17:43	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 17:43	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 17:43	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 17:43	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 17:43	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 17:43	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 17:43	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 17:43	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 17:43	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 17:43	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 17:43	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 17:43	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 17:43	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 17:43	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 17:43	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 17:43	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 17:43	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 17:43	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 17:43	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 17:43	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 17:43	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 17:43	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 17:43	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 17:43	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 17:43	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 17:43	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 17:43	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 17:43	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 17:43	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 17:43	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 17:43	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 17:43	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 17:43	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 17:43	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 17:43	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 17:43	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 17:43	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 17:43	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 17:43	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 17:43	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 17:43	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 17:43	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 17:43	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 17:43	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 17:43	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 17:43	WG1944512
(S) 2-Fluorophenol	*26.0*			*10.0-120*		*10/22/2022 17:43*	WG1944512
(S) Phenol-d5	*18.9*			*10.0-120*		*10/22/2022 17:43*	WG1944512
(S) Nitrobenzene-d5	*48.1*			*10.0-127*		*10/22/2022 17:43*	WG1944512
(S) 2-Fluorobiphenyl	*47.1*			*10.0-130*		*10/22/2022 17:43*	WG1944512
(S) 2,4,6-Tribromophenol	*53.7*			*10.0-155*		*10/22/2022 17:43*	WG1944512
(S) p-Terphenyl-d14	*55.3*			*10.0-128*		*10/22/2022 17:43*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	443		10.0	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	95.0		0.379	1.00	1	10/15/2022 05:18	WG1943083
Fluoride	0.801		0.0640	0.150	1	10/19/2022 22:46	WG1945646
Nitrate	1.89		0.0480	0.100	1	10/15/2022 05:18	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 05:18	WG1943083
Sulfate	33.0		0.594	5.00	1	10/15/2022 05:18	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/19/2022 13:46	WG1939993

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.141	J	0.0200	0.200	1	11/01/2022 20:21	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0268	J	0.0185	0.100	1	11/02/2022 22:37	WG1947773
Arsenic,Dissolved	0.00534		0.000180	0.00200	1	11/02/2022 22:37	WG1947773
Barium,Dissolved	0.114		0.000381	0.00200	1	11/02/2022 22:37	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:37	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 22:37	WG1947773
Copper,Dissolved	0.00317	J	0.00151	0.00500	1	11/02/2022 22:37	WG1947773
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/02/2022 22:37	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:37	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:37	WG1947773
Manganese,Dissolved	0.00171	J	0.000704	0.00500	1	11/02/2022 22:37	WG1947773
Molybdenum,Dissolved	0.00339	J	0.000348	0.00500	1	11/02/2022 22:37	WG1947773
Nickel,Dissolved	U		0.000816	0.00200	1	11/02/2022 22:37	WG1947773
Selenium,Dissolved	0.00143	J	0.000300	0.00200	1	11/02/2022 22:37	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:37	WG1947773
Uranium,Dissolved	0.00141	J	0.0000700	0.0200	1	11/02/2022 22:37	WG1947773
Zinc,Dissolved	0.0841		0.00302	0.0250	1	11/02/2022 22:37	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	1	10/16/2022 20:10	WG1943655
Benzene	U		0.0000941	0.00100	1	10/16/2022 20:10	WG1943655
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 20:10	WG1943655
Bromoform	U		0.000129	0.00100	1	10/16/2022 20:10	WG1943655
Bromomethane	U		0.000605	0.00500	1	10/16/2022 20:10	WG1943655
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 20:10	WG1943655
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 20:10	WG1943655
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 20:10	WG1943655
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 20:10	WG1943655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 20:10	WG1943655
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 20:10	WG1943655
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 20:10	WG1943655
Chloroethane	U		0.000192	0.00500	1	10/16/2022 20:10	WG1943655
Chloroform	U		0.000111	0.00500	1	10/16/2022 20:10	WG1943655
Chloromethane	U		0.000960	0.00250	1	10/16/2022 20:10	WG1943655
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 20:10	WG1943655
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 20:10	WG1943655
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 20:10	WG1943655
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 20:10	WG1943655
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 20:10	WG1943655
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 20:10	WG1943655
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 20:10	WG1943655
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 20:10	WG1943655
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 20:10	WG1943655
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 20:10	WG1943655
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 20:10	WG1943655
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 20:10	WG1943655
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 20:10	WG1943655
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 20:10	WG1943655
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 20:10	WG1943655
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 20:10	WG1943655
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 20:10	WG1943655
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 20:10	WG1943655
Naphthalene	U		0.00100	0.00500	1	10/16/2022 20:10	WG1943655
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 20:10	WG1943655
Styrene	U		0.000118	0.00100	1	10/16/2022 20:10	WG1943655
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 20:10	WG1943655
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 20:10	WG1943655
Toluene	U		0.000278	0.00100	1	10/16/2022 20:10	WG1943655
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 20:10	WG1943655
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 20:10	WG1943655
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 20:10	WG1943655
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 20:10	WG1943655
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 20:10	WG1943655
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 20:10	WG1943655
Xylenes, Total	0.000200	J	0.000174	0.00300	1	10/16/2022 20:10	WG1943655
(S) Toluene-d8	*110*			*80.0-120*		*10/16/2022 20:10*	WG1943655
(S) 4-Bromofluorobenzene	*91.0*			*77.0-126*		*10/16/2022 20:10*	WG1943655
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2022 20:10*	WG1943655

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 11:38	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 11:38	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 11:38	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 11:38	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 11:38	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 11:38	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 11:38	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 11:38	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 11:38	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 11:38	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 11:38	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 11:38	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 11:38	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 11:38	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 11:38	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 11:38	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 11:38	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 11:38	WG1944512
Caprolactam	0.00254	J	0.000309	0.0100	1	10/22/2022 11:38	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 11:38	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 11:38	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 11:38	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 11:38	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 11:38	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 11:38	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 11:38	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 11:38	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 11:38	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 11:38	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 11:38	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 11:38	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 11:38	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 11:38	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 11:38	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 11:38	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 11:38	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 11:38	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 11:38	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 11:38	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 11:38	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 11:38	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 11:38	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 11:38	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 11:38	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 11:38	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 11:38	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 11:38	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 11:38	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 11:38	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 11:38	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 11:38	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 11:38	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 11:38	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 11:38	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 11:38	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 11:38	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 11:38	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 11:38	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 11:38	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 11:38	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 11:38	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 11:38	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 11:38	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 11:38	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 11:38	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 11:38	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 11:38	WG1944512
(S) 2-Fluorophenol	*29.1*			*10.0-120*		*10/22/2022 11:38*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Phenol-d5	*20.1*			*10.0-120*		*10/22/2022 11:38*	WG1944512
(S) Nitrobenzene-d5	*44.7*			*10.0-127*		*10/22/2022 11:38*	WG1944512
(S) 2-Fluorobiphenyl	*41.3*			*10.0-130*		*10/22/2022 11:38*	WG1944512
(S) 2,4,6-Tribromophenol	*41.6*			*10.0-155*		*10/22/2022 11:38*	WG1944512
(S) p-Terphenyl-d14	*55.6*			*10.0-128*		*10/22/2022 11:38*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1420		25.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	182		8.45	20.0	1	10/25/2022 10:16	WG1947527

Sample Narrative:

L1546506-18 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	464		3.79	10.0	10	10/15/2022 06:17	WG1943083
Fluoride	0.537	B	0.0640	0.150	1	10/19/2022 22:59	WG1945646
Nitrate	2.54		0.0480	0.100	1	10/15/2022 06:02	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 06:02	WG1943083
Sulfate	103		0.594	5.00	1	10/15/2022 06:02	WG1943083

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/27/2022 10:46	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.179	J	0.0200	0.200	1	11/01/2022 20:29	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	0.0443	J	0.0185	0.100	1	11/02/2022 22:41	WG1947773
Arsenic,Dissolved	0.00332		0.000180	0.00200	1	11/02/2022 22:41	WG1947773
Barium,Dissolved	0.186		0.000381	0.00200	1	11/02/2022 22:41	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:41	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 22:41	WG1947773
Copper,Dissolved	0.00166	J	0.00151	0.00500	1	11/02/2022 22:41	WG1947773
Cobalt,Dissolved	0.0000855	J	0.0000596	0.00200	1	11/02/2022 22:41	WG1947773
Iron,Dissolved	0.0357	J	0.0281	0.100	1	11/02/2022 22:41	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:41	WG1947773
Manganese,Dissolved	0.00245	J	0.000704	0.00500	1	11/02/2022 22:41	WG1947773
Molybdenum,Dissolved	0.00175	J	0.000348	0.00500	1	11/02/2022 22:41	WG1947773
Nickel,Dissolved	0.000997	J	0.000816	0.00200	1	11/02/2022 22:41	WG1947773
Selenium,Dissolved	0.00129	J	0.000300	0.00200	1	11/02/2022 22:41	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:41	WG1947773
Uranium,Dissolved	0.00323	J	0.0000700	0.0200	1	11/02/2022 22:41	WG1947773
Zinc,Dissolved	0.0192	J	0.00302	0.0250	1	11/02/2022 22:41	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 16:23	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 16:23	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 16:23	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 16:23	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 16:23	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 16:23	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 16:23	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 16:23	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 16:23	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 16:23	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 16:23	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 16:23	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 16:23	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 16:23	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 16:23	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 16:23	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 16:23	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 16:23	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 16:23	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 16:23	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 16:23	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 16:23	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 16:23	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 16:23	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 16:23	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 16:23	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 16:23	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 16:23	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 16:23	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 16:23	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 16:23	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 16:23	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 16:23	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 16:23	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 16:23	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 16:23	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 16:23	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 16:23	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 16:23	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 16:23	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 16:23	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 16:23	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 16:23	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 16:23	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 16:23	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 16:23	WG1943671
(S) Toluene-d8	*102*			*80.0-120*		*10/16/2022 16:23*	WG1943671
(S) 4-Bromofluorobenzene	*95.7*			*77.0-126*		*10/16/2022 16:23*	WG1943671
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*		*10/16/2022 16:23*	WG1943671

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 11:59	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 11:59	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 11:59	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 11:59	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 11:59	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 11:59	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 11:59	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 11:59	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 11:59	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 11:59	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 11:59	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 11:59	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 11:59	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 11:59	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 11:59	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 11:59	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 11:59	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 11:59	WG1944512
Caprolactam	0.000565	J	0.000309	0.0100	1	10/22/2022 11:59	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 11:59	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 11:59	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 11:59	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 11:59	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 11:59	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 11:59	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 11:59	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 11:59	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 11:59	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 11:59	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 11:59	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 11:59	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 11:59	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 11:59	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 11:59	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 11:59	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 11:59	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 11:59	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 11:59	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 11:59	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 11:59	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 11:59	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 11:59	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 11:59	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 11:59	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 11:59	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 11:59	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 11:59	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 11:59	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 11:59	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 11:59	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 11:59	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 11:59	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 11:59	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 11:59	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 11:59	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 11:59	WG1944512

MW-10R
Collected date/time: 10/13/22 12:55
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 11:59	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 11:59	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 11:59	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 11:59	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 11:59	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 11:59	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 11:59	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 11:59	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 11:59	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 11:59	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 11:59	WG1944512
(S) 2-Fluorophenol	*28.5*			*10.0-120*		*10/22/2022 11:59*	WG1944512
(S) Phenol-d5	*19.1*			*10.0-120*		*10/22/2022 11:59*	WG1944512
(S) Nitrobenzene-d5	*51.0*			*10.0-127*		*10/22/2022 11:59*	WG1944512
(S) 2-Fluorobiphenyl	*49.2*			*10.0-130*		*10/22/2022 11:59*	WG1944512
(S) 2,4,6-Tribromophenol	*49.0*			*10.0-155*		*10/22/2022 11:59*	WG1944512
(S) p-Terphenyl-d14	*62.7*			*10.0-128*		*10/22/2022 11:59*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	629		13.3	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	115		0.379	1.00	1	10/15/2022 06:32	WG1943083
Fluoride	0.791		0.0640	0.150	1	10/19/2022 23:12	WG1945646
Nitrate	12.0		0.0480	0.100	1	10/15/2022 06:32	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 06:32	WG1943083
Sulfate	72.6		0.594	5.00	1	10/15/2022 06:32	WG1943083

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 10:48	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.169	J	0.0200	0.200	1	11/01/2022 20:32	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.139		0.0185	0.100	1	11/02/2022 22:45	WG1947773
Arsenic,Dissolved	0.00376		0.000180	0.00200	1	11/02/2022 22:45	WG1947773
Barium,Dissolved	0.120		0.000381	0.00200	1	11/02/2022 22:45	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:45	WG1947773
Chromium,Dissolved	0.00963		0.00124	0.00200	1	11/02/2022 22:45	WG1947773
Copper,Dissolved	0.00462	J	0.00151	0.00500	1	11/02/2022 22:45	WG1947773
Cobalt,Dissolved	0.000277	J	0.0000596	0.00200	1	11/02/2022 22:45	WG1947773
Iron,Dissolved	0.117		0.0281	0.100	1	11/02/2022 22:45	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:45	WG1947773
Manganese,Dissolved	0.00715		0.000704	0.00500	1	11/02/2022 22:45	WG1947773
Molybdenum,Dissolved	0.0147		0.000348	0.00500	1	11/02/2022 22:45	WG1947773
Nickel,Dissolved	0.00779		0.000816	0.00200	1	11/02/2022 22:45	WG1947773
Selenium,Dissolved	0.00181	J	0.000300	0.00200	1	11/02/2022 22:45	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:45	WG1947773
Uranium,Dissolved	0.00275	J	0.0000700	0.0200	1	11/02/2022 22:45	WG1947773
Zinc,Dissolved	0.0931		0.00302	0.0250	1	11/02/2022 22:45	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 16:45	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 16:45	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 16:45	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 16:45	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 16:45	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 16:45	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 16:45	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 16:45	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 16:45	WG1943671

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 16:45	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 16:45	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 16:45	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 16:45	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 16:45	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 16:45	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 16:45	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 16:45	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 16:45	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 16:45	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 16:45	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 16:45	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 16:45	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 16:45	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 16:45	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 16:45	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 16:45	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 16:45	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 16:45	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 16:45	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 16:45	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 16:45	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 16:45	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 16:45	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 16:45	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 16:45	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 16:45	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 16:45	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 16:45	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 16:45	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 16:45	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 16:45	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 16:45	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 16:45	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 16:45	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 16:45	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 16:45	WG1943671
(S) Toluene-d8	*105*			*80.0-120*		*10/16/2022 16:45*	WG1943671
(S) 4-Bromofluorobenzene	*97.9*			*77.0-126*		*10/16/2022 16:45*	WG1943671
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*10/16/2022 16:45*	WG1943671

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 12:21	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 12:21	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 12:21	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 12:21	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 12:21	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 12:21	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 12:21	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 12:21	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 12:21	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 12:21	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 12:21	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 12:21	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 12:21	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 12:21	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 12:21	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 12:21	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 12:21	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 12:21	WG1944512
Caprolactam	0.00153	J	0.000309	0.0100	1	10/22/2022 12:21	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 12:21	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 12:21	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 12:21	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 12:21	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 12:21	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 12:21	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 12:21	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 12:21	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 12:21	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 12:21	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 12:21	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 12:21	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 12:21	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 12:21	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 12:21	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 12:21	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 12:21	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 12:21	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 12:21	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 12:21	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 12:21	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 12:21	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 12:21	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 12:21	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 12:21	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 12:21	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 12:21	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 12:21	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 12:21	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 12:21	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 12:21	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 12:21	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 12:21	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 12:21	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 12:21	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 12:21	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 12:21	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 12:21	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 12:21	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 12:21	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 12:21	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 12:21	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 12:21	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 12:21	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 12:21	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 12:21	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 12:21	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 12:21	WG1944512
(S) 2-Fluorophenol	*31.4*			*10.0-120*		*10/22/2022 12:21*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-20R
Collected date/time: 10/13/22 10:30
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Phenol-d5	*21.4*			*10.0-120*		*10/22/2022 12:21*	WG1944512
(S) Nitrobenzene-d5	*53.6*			*10.0-127*		*10/22/2022 12:21*	WG1944512
(S) 2-Fluorobiphenyl	*53.0*			*10.0-130*		*10/22/2022 12:21*	WG1944512
(S) 2,4,6-Tribromophenol	*54.5*			*10.0-155*		*10/22/2022 12:21*	WG1944512
(S) p-Terphenyl-d14	*65.2*			*10.0-128*		*10/22/2022 12:21*	WG1944512

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 09:43	WG1946166
(S) a,a,a-Trifluorotoluene(FID)	*92.2*			*78.0-120*		*10/21/2022 09:43*	WG1946166

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.136		0.0247	0.100	1	10/21/2022 16:32	WG1945870
(S) o-Terphenyl	*64.2*			*31.0-160*		*10/21/2022 16:32*	WG1945870

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 18:05	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 18:05	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 18:05	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 18:05	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 18:05	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 18:05	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 18:05	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 18:05	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 18:05	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 18:05	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 18:05	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 18:05	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 18:05	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 18:05	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 18:05	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 18:05	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 18:05	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 18:05	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 18:05	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 18:05	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 18:05	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 18:05	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 18:05	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 18:05	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 18:05	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 18:05	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 18:05	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 18:05	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 18:05	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 18:05	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 18:05	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 18:05	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 18:05	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 18:05	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 18:05	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 18:05	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 18:05	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 18:05	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 18:05	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 18:05	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 18:05	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 18:05	WG1944512

MW-21
Collected date/time: 10/13/22 09:20
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-ethylhexyl)phthalate	0.00115	J	0.000895	0.00300	1	10/22/2022 18:05	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 18:05	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 18:05	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 18:05	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 18:05	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 18:05	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 18:05	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 18:05	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 18:05	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 18:05	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 18:05	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 18:05	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 18:05	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 18:05	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 18:05	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 18:05	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 18:05	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 18:05	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 18:05	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 18:05	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 18:05	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 18:05	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 18:05	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 18:05	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 18:05	WG1944512
(S) 2-Fluorophenol	*25.1*			*10.0-120*		*10/22/2022 18:05*	WG1944512
(S) Phenol-d5	*18.3*			*10.0-120*		*10/22/2022 18:05*	WG1944512
(S) Nitrobenzene-d5	*49.1*			*10.0-127*		*10/22/2022 18:05*	WG1944512
(S) 2-Fluorobiphenyl	*46.9*			*10.0-130*		*10/22/2022 18:05*	WG1944512
(S) 2,4,6-Tribromophenol	*52.6*			*10.0-155*		*10/22/2022 18:05*	WG1944512
(S) p-Terphenyl-d14	*50.8*			*10.0-128*		*10/22/2022 18:05*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	121		0.379	1.00	1	10/15/2022 06:47	WG1943083
Fluoride	0.744		0.0640	0.150	1	10/19/2022 23:25	WG1945646
Nitrate	4.98		0.0480	0.100	1	10/15/2022 06:47	WG1943083
Nitrite	U		0.0420	0.100	1	10/15/2022 06:47	WG1943083
Sulfate	83.8		0.594	5.00	1	10/15/2022 06:47	WG1943083

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.172	J	0.0200	0.200	1	11/01/2022 20:35	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:49	WG1947773
Arsenic,Dissolved	0.00203		0.000180	0.00200	1	11/02/2022 22:49	WG1947773
Barium,Dissolved	0.126		0.000381	0.00200	1	11/02/2022 22:49	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:49	WG1947773
Chromium,Dissolved	0.00366		0.00124	0.00200	1	11/02/2022 22:49	WG1947773
Copper,Dissolved	U		0.00151	0.00500	1	11/02/2022 22:49	WG1947773
Cobalt,Dissolved	0.0000707	J	0.0000596	0.00200	1	11/02/2022 22:49	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:49	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:49	WG1947773
Manganese,Dissolved	U		0.000704	0.00500	1	11/02/2022 22:49	WG1947773
Molybdenum,Dissolved	0.00187	J	0.000348	0.00500	1	11/02/2022 22:49	WG1947773
Nickel,Dissolved	0.00439		0.000816	0.00200	1	11/02/2022 22:49	WG1947773
Selenium,Dissolved	0.000647	J	0.000300	0.00200	1	11/02/2022 22:49	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:49	WG1947773
Uranium,Dissolved	0.00757	J	0.0000700	0.0200	1	11/02/2022 22:49	WG1947773
Zinc,Dissolved	0.0164	J	0.00302	0.0250	1	11/02/2022 22:49	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 10:05	WG1946166
(S) a,a,a-Trifluorotoluene(FID)	*91.3*			*78.0-120*		*10/21/2022 10:05*	WG1946166

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 17:07	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 17:07	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 17:07	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 17:07	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 17:07	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 17:07	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 17:07	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 17:07	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 17:07	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 17:07	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 17:07	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 17:07	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 17:07	WG1943671

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.000111	0.00500	1	10/16/2022 17:07	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 17:07	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 17:07	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 17:07	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 17:07	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 17:07	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 17:07	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 17:07	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 17:07	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 17:07	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 17:07	WG1943671
Ethylbenzene	0.000152	J	0.000137	0.00100	1	10/16/2022 17:07	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 17:07	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 17:07	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 17:07	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 17:07	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 17:07	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 17:07	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 17:07	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 17:07	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 17:07	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 17:07	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 17:07	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 17:07	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 17:07	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 17:07	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 17:07	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 17:07	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 17:07	WG1943671
1,2,4-Trimethylbenzene	0.000347	J	0.000322	0.00100	1	10/16/2022 17:07	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 17:07	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 17:07	WG1943671
Xylenes, Total	0.000227	J	0.000174	0.00300	1	10/16/2022 17:07	WG1943671
(S) Toluene-d8	*106*			*80.0-120*		*10/16/2022 17:07*	WG1943671
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*		*10/16/2022 17:07*	WG1943671
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*		*10/16/2022 17:07*	WG1943671

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.450		0.0247	0.100	1	10/21/2022 16:58	WG1945870
(S) o-Terphenyl	*68.9*			*31.0-160*		*10/21/2022 16:58*	WG1945870

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 12:42	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 12:42	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 12:42	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 12:42	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 12:42	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 12:42	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 12:42	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 12:42	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 12:42	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 12:42	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 12:42	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 12:42	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 12:42	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 12:42	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 12:42	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 12:42	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 12:42	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 12:42	WG1944512
Caprolactam	0.00186	J	0.000309	0.0100	1	10/22/2022 12:42	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 12:42	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 12:42	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 12:42	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 12:42	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 12:42	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 12:42	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 12:42	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 12:42	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 12:42	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 12:42	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 12:42	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 12:42	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 12:42	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 12:42	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 12:42	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 12:42	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 12:42	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 12:42	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 12:42	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 12:42	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 12:42	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 12:42	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 12:42	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 12:42	WG1944512
Di-n-butyl phthalate	0.00194	J	0.000453	0.00300	1	10/22/2022 12:42	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 12:42	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 12:42	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 12:42	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 12:42	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 12:42	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 12:42	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 12:42	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 12:42	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 12:42	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 12:42	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 12:42	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 12:42	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 12:42	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 12:42	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 12:42	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 12:42	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 12:42	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 12:42	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 12:42	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 12:42	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 12:42	WG1944512

MW-22
Collected date/time: 10/13/22 11:30
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 12:42	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 12:42	WG1944512
(S) 2-Fluorophenol	*24.2*			*10.0-120*		*10/22/2022 12:42*	WG1944512
(S) Phenol-d5	*18.5*			*10.0-120*		*10/22/2022 12:42*	WG1944512
(S) Nitrobenzene-d5	*51.5*			*10.0-127*		*10/22/2022 12:42*	WG1944512
(S) 2-Fluorobiphenyl	*46.9*			*10.0-130*		*10/22/2022 12:42*	WG1944512
(S) 2,4,6-Tribromophenol	*45.4*			*10.0-155*		*10/22/2022 12:42*	WG1944512
(S) p-Terphenyl-d14	*48.5*			*10.0-128*		*10/22/2022 12:42*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	696		20.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	145		0.379	1.00	1	10/14/2022 22:53	WG1942870
Fluoride	1.26		0.0640	0.150	1	10/14/2022 22:53	WG1942870
Nitrate	3.27		0.0480	0.100	1	10/14/2022 22:53	WG1942870
Nitrite	U		0.0420	0.100	1	10/14/2022 22:53	WG1942870
Sulfate	89.2		0.594	5.00	1	10/14/2022 22:53	WG1942870

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	457		10.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	174		8.45	20.0	1	10/25/2022 10:21	WG1947527

Sample Narrative:

L1546506-23 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	71.0		0.379	1.00	1	10/14/2022 23:06	WG1942870
Fluoride	2.35		0.0640	0.150	1	10/14/2022 23:06	WG1942870
Nitrate	2.60		0.0480	0.100	1	10/14/2022 23:06	WG1942870
Nitrite	U		0.0420	0.100	1	10/14/2022 23:06	WG1942870
Sulfate	75.5		0.594	5.00	1	10/14/2022 23:06	WG1942870

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 10:50	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.126	J	0.0200	0.200	1	11/01/2022 20:38	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:52	WG1947773
Arsenic,Dissolved	0.00576		0.000180	0.00200	1	11/02/2022 22:52	WG1947773
Barium,Dissolved	0.0838		0.000381	0.00200	1	11/02/2022 22:52	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:52	WG1947773
Chromium,Dissolved	0.0148		0.00124	0.00200	1	11/02/2022 22:52	WG1947773
Copper,Dissolved	0.00281	J	0.00151	0.00500	1	11/02/2022 22:52	WG1947773
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/02/2022 22:52	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:52	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:52	WG1947773
Manganese,Dissolved	U		0.000704	0.00500	1	11/02/2022 22:52	WG1947773
Molybdenum,Dissolved	0.00237	J	0.000348	0.00500	1	11/02/2022 22:52	WG1947773
Nickel,Dissolved	0.00167	J	0.000816	0.00200	1	11/02/2022 22:52	WG1947773
Selenium,Dissolved	0.00251		0.000300	0.00200	1	11/02/2022 22:52	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:52	WG1947773
Uranium,Dissolved	0.00221	J	0.0000700	0.0200	1	11/02/2022 22:52	WG1947773
Zinc,Dissolved	0.0321		0.00302	0.0250	1	11/02/2022 22:52	WG1947773

MW-24R
Collected date/time: 10/13/22 12:25
L1546506

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	10/16/2022 17:30	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 17:30	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 17:30	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 17:30	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 17:30	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 17:30	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 17:30	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 17:30	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 17:30	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 17:30	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 17:30	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 17:30	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 17:30	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 17:30	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 17:30	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 17:30	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 17:30	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 17:30	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 17:30	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 17:30	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 17:30	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 17:30	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 17:30	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 17:30	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 17:30	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 17:30	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 17:30	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 17:30	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 17:30	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 17:30	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 17:30	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 17:30	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 17:30	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 17:30	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 17:30	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 17:30	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 17:30	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 17:30	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 17:30	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 17:30	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 17:30	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 17:30	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 17:30	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 17:30	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 17:30	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 17:30	WG1943671
(S) Toluene-d8	*106*			*80.0-120*		*10/16/2022 17:30*	WG1943671
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*10/16/2022 17:30*	WG1943671
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*		*10/16/2022 17:30*	WG1943671

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 13:04	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 13:04	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 13:04	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 13:04	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 13:04	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 13:04	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 13:04	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 13:04	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 13:04	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 13:04	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 13:04	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 13:04	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 13:04	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 13:04	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 13:04	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 13:04	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 13:04	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 13:04	WG1944512
Caprolactam	0.00105	J	0.000309	0.0100	1	10/22/2022 13:04	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 13:04	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 13:04	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 13:04	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 13:04	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 13:04	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 13:04	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 13:04	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 13:04	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 13:04	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 13:04	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 13:04	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 13:04	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 13:04	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 13:04	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 13:04	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 13:04	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 13:04	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 13:04	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 13:04	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 13:04	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 13:04	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 13:04	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 13:04	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 13:04	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 13:04	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 13:04	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 13:04	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 13:04	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 13:04	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 13:04	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 13:04	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 13:04	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 13:04	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 13:04	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 13:04	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 13:04	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 13:04	WG1944512

MW-24R
Collected date/time: 10/13/22 12:25
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 13:04	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 13:04	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 13:04	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 13:04	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 13:04	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 13:04	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 13:04	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 13:04	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 13:04	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 13:04	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 13:04	WG1944512
(S) 2-Fluorophenol	*32.4*			*10.0-120*		*10/22/2022 13:04*	WG1944512
(S) Phenol-d5	*24.0*			*10.0-120*		*10/22/2022 13:04*	WG1944512
(S) Nitrobenzene-d5	*54.7*			*10.0-127*		*10/22/2022 13:04*	WG1944512
(S) 2-Fluorobiphenyl	*48.9*			*10.0-130*		*10/22/2022 13:04*	WG1944512
(S) 2,4,6-Tribromophenol	*52.0*			*10.0-155*		*10/22/2022 13:04*	WG1944512
(S) p-Terphenyl-d14	*65.5*			*10.0-128*		*10/22/2022 13:04*	WG1944512

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-20R
Collected date/time: 10/13/22 10:25
L1546506

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	255		1.90	5.00	5	10/14/2022 23:57	WG1942870
Fluoride	0.543		0.0640	0.150	1	10/14/2022 23:44	WG1942870
Nitrate	6.60		0.0480	0.100	1	10/14/2022 23:44	WG1942870
Nitrite	U		0.0420	0.100	1	10/14/2022 23:44	WG1942870
Sulfate	130		0.594	5.00	1	10/14/2022 23:44	WG1942870

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	548		13.3	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	474		8.45	20.0	1	10/25/2022 10:25	WG1947527

Sample Narrative:

L1546506-26 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	107		0.379	1.00	1	10/15/2022 00:10	WG1942870
Fluoride	0.981		0.0640	0.150	1	10/15/2022 00:10	WG1942870
Nitrate	4.85		0.0480	0.100	1	10/15/2022 00:10	WG1942870
Nitrite	U		0.0420	0.100	1	10/15/2022 00:10	WG1942870
Sulfate	56.5		0.594	5.00	1	10/15/2022 00:10	WG1942870

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 10:52	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.166	J	0.0200	0.200	1	11/01/2022 20:41	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:55	WG1947773
Arsenic,Dissolved	0.00427		0.000180	0.00200	1	11/02/2022 22:55	WG1947773
Barium,Dissolved	0.106		0.000381	0.00200	1	11/02/2022 22:55	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:55	WG1947773
Chromium,Dissolved	0.0279		0.00124	0.00200	1	11/02/2022 22:55	WG1947773
Copper,Dissolved	0.00244	J	0.00151	0.00500	1	11/02/2022 22:55	WG1947773
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/02/2022 22:55	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:55	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:55	WG1947773
Manganese,Dissolved	U		0.000704	0.00500	1	11/02/2022 22:55	WG1947773
Molybdenum,Dissolved	0.00208	J	0.000348	0.00500	1	11/02/2022 22:55	WG1947773
Nickel,Dissolved	0.00358		0.000816	0.00200	1	11/02/2022 22:55	WG1947773
Selenium,Dissolved	0.00175	J	0.000300	0.00200	1	11/02/2022 22:55	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:55	WG1947773
Uranium,Dissolved	0.00216	J	0.0000700	0.0200	1	11/02/2022 22:55	WG1947773
Zinc,Dissolved	0.0258		0.00302	0.0250	1	11/02/2022 22:55	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	10/16/2022 17:52	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 17:52	WG1943671
Bromodichloromethane	0.00738		0.000136	0.00100	1	10/16/2022 17:52	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 17:52	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 17:52	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 17:52	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 17:52	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 17:52	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 17:52	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 17:52	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 17:52	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 17:52	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 17:52	WG1943671
Chloroform	0.0288		0.000111	0.00500	1	10/16/2022 17:52	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 17:52	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 17:52	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 17:52	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 17:52	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 17:52	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 17:52	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 17:52	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 17:52	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 17:52	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 17:52	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 17:52	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 17:52	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 17:52	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 17:52	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 17:52	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 17:52	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 17:52	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 17:52	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 17:52	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 17:52	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 17:52	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 17:52	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 17:52	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 17:52	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 17:52	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 17:52	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 17:52	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 17:52	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 17:52	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 17:52	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 17:52	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 17:52	WG1943671
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2022 17:52*	WG1943671
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*10/16/2022 17:52*	WG1943671
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*10/16/2022 17:52*	WG1943671

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 13:25	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 13:25	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 13:25	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 13:25	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 13:25	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 13:25	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 13:25	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 13:25	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 13:25	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 13:25	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 13:25	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 13:25	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 13:25	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 13:25	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 13:25	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 13:25	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 13:25	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 13:25	WG1944512
Caprolactam	0.00245	J	0.000309	0.0100	1	10/22/2022 13:25	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 13:25	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 13:25	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 13:25	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 13:25	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 13:25	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 13:25	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 13:25	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 13:25	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 13:25	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 13:25	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 13:25	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 13:25	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 13:25	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 13:25	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 13:25	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 13:25	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 13:25	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 13:25	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 13:25	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 13:25	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 13:25	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 13:25	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 13:25	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 13:25	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 13:25	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 13:25	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 13:25	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 13:25	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 13:25	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 13:25	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 13:25	WG1944512
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 13:25	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 13:25	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 13:25	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 13:25	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 13:25	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 13:25	WG1944512

MW-30
Collected date/time: 10/13/22 10:50
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 13:25	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 13:25	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 13:25	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 13:25	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 13:25	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 13:25	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 13:25	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 13:25	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 13:25	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 13:25	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 13:25	WG1944512
(S) 2-Fluorophenol	*22.5*			*10.0-120*		*10/22/2022 13:25*	WG1944512
(S) Phenol-d5	*16.8*			*10.0-120*		*10/22/2022 13:25*	WG1944512
(S) Nitrobenzene-d5	*52.5*			*10.0-127*		*10/22/2022 13:25*	WG1944512
(S) 2-Fluorobiphenyl	*49.0*			*10.0-130*		*10/22/2022 13:25*	WG1944512
(S) 2,4,6-Tribromophenol	*47.2*			*10.0-155*		*10/22/2022 13:25*	WG1944512
(S) p-Terphenyl-d14	*46.6*			*10.0-128*		*10/22/2022 13:25*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	828		20.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	433		8.45	20.0	1	10/25/2022 10:36	WG1947527

Sample Narrative:

L1546506-27 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	34.2		0.379	1.00	1	10/15/2022 00:23	WG1942870
Fluoride	0.412		0.0640	0.150	1	10/15/2022 00:23	WG1942870
Nitrate	12.1		0.0480	0.100	1	10/15/2022 00:23	WG1942870
Nitrite	0.0486	J	0.0420	0.100	1	10/15/2022 00:23	WG1942870
Sulfate	172		0.594	5.00	1	10/15/2022 00:23	WG1942870

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 10:54	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.220		0.0200	0.200	1	11/01/2022 20:44	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 22:58	WG1947773
Arsenic,Dissolved	0.00277		0.000180	0.00200	1	11/02/2022 22:58	WG1947773
Barium,Dissolved	0.310		0.000381	0.00200	1	11/02/2022 22:58	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 22:58	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 22:58	WG1947773
Copper,Dissolved	0.00687		0.00151	0.00500	1	11/02/2022 22:58	WG1947773
Cobalt,Dissolved	0.000459	J	0.0000596	0.00200	1	11/02/2022 22:58	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 22:58	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 22:58	WG1947773
Manganese,Dissolved	0.105		0.000704	0.00500	1	11/02/2022 22:58	WG1947773
Molybdenum,Dissolved	0.00140	J	0.000348	0.00500	1	11/02/2022 22:58	WG1947773
Nickel,Dissolved	0.00248		0.000816	0.00200	1	11/02/2022 22:58	WG1947773
Selenium,Dissolved	0.000444	J	0.000300	0.00200	1	11/02/2022 22:58	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 22:58	WG1947773
Uranium,Dissolved	0.00895	J	0.0000700	0.0200	1	11/02/2022 22:58	WG1947773
Zinc,Dissolved	0.0461		0.00302	0.0250	1	11/02/2022 22:58	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 12:57	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*92.4*			*78.0-120*		*10/21/2022 12:57*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 18:14	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 18:14	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 18:14	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 18:14	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 18:14	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 18:14	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 18:14	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 18:14	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 18:14	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 18:14	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 18:14	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 18:14	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 18:14	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 18:14	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 18:14	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 18:14	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 18:14	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 18:14	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 18:14	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 18:14	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 18:14	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 18:14	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 18:14	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 18:14	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 18:14	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 18:14	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 18:14	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 18:14	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 18:14	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 18:14	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 18:14	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 18:14	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 18:14	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 18:14	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 18:14	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 18:14	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 18:14	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 18:14	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 18:14	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 18:14	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 18:14	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 18:14	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 18:14	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 18:14	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 18:14	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 18:14	WG1943671
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2022 18:14*	WG1943671
(S) 4-Bromofluorobenzene	*96.5*			*77.0-126*		*10/16/2022 18:14*	WG1943671
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*10/16/2022 18:14*	WG1943671

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.382		0.0247	0.100	1	10/21/2022 17:25	WG1945870
(S) o-Terphenyl	*98.4*			*31.0-160*		*10/21/2022 17:25*	WG1945870

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 13:47	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 13:47	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 13:47	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 13:47	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 13:47	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 13:47	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 13:47	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 13:47	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 13:47	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 13:47	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 13:47	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 13:47	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 13:47	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 13:47	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 13:47	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 13:47	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 13:47	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 13:47	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 13:47	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 13:47	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 13:47	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 13:47	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 13:47	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 13:47	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 13:47	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 13:47	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 13:47	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 13:47	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 13:47	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 13:47	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 13:47	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 13:47	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 13:47	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 13:47	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 13:47	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 13:47	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 13:47	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 13:47	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 13:47	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 13:47	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 13:47	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 13:47	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 13:47	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 13:47	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 13:47	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 13:47	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 13:47	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 13:47	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 13:47	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 13:47	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 13:47	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 13:47	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 13:47	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 13:47	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 13:47	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 13:47	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 13:47	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 13:47	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 13:47	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 13:47	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 13:47	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 13:47	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 13:47	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 13:47	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 13:47	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 13:47	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 13:47	WG1944512
(S) 2-Fluorophenol	*28.1*			*10.0-120*		*10/22/2022 13:47*	WG1944512
(S) Phenol-d5	*20.1*			*10.0-120*		*10/22/2022 13:47*	WG1944512
(S) Nitrobenzene-d5	*51.5*			*10.0-127*		*10/22/2022 13:47*	WG1944512
(S) 2-Fluorobiphenyl	*49.7*			*10.0-130*		*10/22/2022 13:47*	WG1944512
(S) 2,4,6-Tribromophenol	*52.5*			*10.0-155*		*10/22/2022 13:47*	WG1944512
(S) p-Terphenyl-d14	*61.6*			*10.0-128*		*10/22/2022 13:47*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1220		25.0	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	968		8.45	20.0	1	10/25/2022 10:41	WG1947527

Sample Narrative:

L1546506-28 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	86.9		0.379	1.00	1	10/14/2022 21:08	WG1943111
Fluoride	0.786		0.0640	0.150	1	10/14/2022 21:08	WG1943111
Nitrate	0.0606	B J	0.0480	0.100	1	10/14/2022 21:08	WG1943111
Nitrite	0.0525	B J	0.0420	0.100	1	10/14/2022 21:08	WG1943111
Sulfate	7.78		0.594	5.00	1	10/14/2022 21:08	WG1943111

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U	J6	0.000100	0.000200	1	10/27/2022 10:36	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron,Dissolved	0.143	J	0.0200	0.200	1	11/01/2022 20:01	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 21:43	WG1947773
Arsenic,Dissolved	0.00677		0.000180	0.00200	1	11/02/2022 21:43	WG1947773
Barium,Dissolved	0.557		0.000381	0.00200	1	11/02/2022 21:43	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 21:43	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 21:43	WG1947773
Copper,Dissolved	U		0.00151	0.00500	1	11/02/2022 21:43	WG1947773
Cobalt,Dissolved	0.0000730	J	0.0000596	0.00200	1	11/02/2022 21:43	WG1947773
Iron,Dissolved	2.01		0.0281	0.100	1	11/02/2022 21:43	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 21:43	WG1947773
Manganese,Dissolved	0.973	V	0.000704	0.00500	1	11/02/2022 21:43	WG1947773
Molybdenum,Dissolved	0.00243	J	0.000348	0.00500	1	11/02/2022 21:43	WG1947773
Nickel,Dissolved	0.00209		0.000816	0.00200	1	11/02/2022 21:43	WG1947773
Selenium,Dissolved	U		0.000300	0.00200	1	11/02/2022 21:43	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 21:43	WG1947773
Uranium,Dissolved	0.0424		0.0000700	0.0200	1	11/02/2022 21:43	WG1947773
Zinc,Dissolved	0.00914	J	0.00302	0.0250	1	11/02/2022 21:43	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0398	J	0.0314	0.100	1	10/21/2022 14:06	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*90.0*			*78.0-120*		*10/21/2022 14:06*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 18:37	WG1943671
Benzene	0.000217	J	0.0000941	0.00100	1	10/16/2022 18:37	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 18:37	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 18:37	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 18:37	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 18:37	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 18:37	WG1943671
tert-Butylbenzene	0.000142	J	0.000127	0.00100	1	10/16/2022 18:37	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 18:37	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 18:37	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 18:37	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 18:37	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 18:37	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 18:37	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 18:37	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 18:37	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 18:37	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 18:37	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 18:37	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 18:37	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 18:37	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 18:37	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 18:37	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 18:37	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 18:37	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 18:37	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 18:37	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 18:37	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 18:37	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 18:37	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 18:37	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 18:37	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 18:37	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 18:37	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 18:37	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 18:37	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 18:37	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 18:37	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 18:37	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 18:37	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 18:37	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 18:37	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 18:37	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 18:37	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 18:37	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 18:37	WG1943671
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2022 18:37*	WG1943671
(S) 4-Bromofluorobenzene	*97.3*			*77.0-126*		*10/16/2022 18:37*	WG1943671
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*10/16/2022 18:37*	WG1943671

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.173		0.0247	0.100	1	10/21/2022 17:52	WG1945870
(S) o-Terphenyl	*98.4*			*31.0-160*		*10/21/2022 17:52*	WG1945870

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 14:08	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 14:08	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 14:08	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 14:08	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 14:08	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 14:08	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 14:08	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 14:08	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 14:08	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 14:08	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 14:08	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 14:08	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 14:08	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 14:08	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 14:08	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 14:08	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 14:08	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 14:08	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 14:08	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 14:08	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 14:08	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 14:08	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 14:08	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 14:08	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 14:08	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 14:08	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 14:08	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 14:08	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 14:08	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 14:08	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 14:08	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 14:08	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 14:08	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 14:08	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 14:08	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 14:08	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 14:08	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 14:08	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 14:08	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 14:08	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 14:08	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 14:08	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 14:08	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 14:08	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 14:08	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 14:08	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 14:08	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 14:08	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 14:08	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 14:08	WG1944512

MW-33
Collected date/time: 10/13/22 11:30
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 14:08	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 14:08	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 14:08	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 14:08	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 14:08	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 14:08	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 14:08	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 14:08	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 14:08	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 14:08	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 14:08	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 14:08	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 14:08	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 14:08	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 14:08	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 14:08	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 14:08	WG1944512
(S) 2-Fluorophenol	*35.3*			*10.0-120*		*10/22/2022 14:08*	WG1944512
(S) Phenol-d5	*24.3*			*10.0-120*		*10/22/2022 14:08*	WG1944512
(S) Nitrobenzene-d5	*54.5*			*10.0-127*		*10/22/2022 14:08*	WG1944512
(S) 2-Fluorobiphenyl	*52.0*			*10.0-130*		*10/22/2022 14:08*	WG1944512
(S) 2,4,6-Tribromophenol	*56.5*			*10.0-155*		*10/22/2022 14:08*	WG1944512
(S) p-Terphenyl-d14	*64.3*			*10.0-128*		*10/22/2022 14:08*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	573		13.3	1	10/20/2022 23:58	WG1946184

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	169		8.45	20.0	1	10/25/2022 10:59	WG1947527

Sample Narrative:

L1546506-29 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	128		0.379	1.00	1	10/14/2022 22:02	WG1943111
Fluoride	0.868		0.0640	0.150	1	10/14/2022 22:02	WG1943111
Nitrate	2.87		0.0480	0.100	1	10/14/2022 22:02	WG1943111
Nitrite	0.0930	B J	0.0420	0.100	1	10/14/2022 22:02	WG1943111
Sulfate	76.3		0.594	5.00	1	10/14/2022 22:02	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 10:56	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.133	J	0.0200	0.200	1	11/01/2022 20:47	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:02	WG1947773
Arsenic,Dissolved	0.00579		0.000180	0.00200	1	11/02/2022 23:02	WG1947773
Barium,Dissolved	0.111		0.000381	0.00200	1	11/02/2022 23:02	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:02	WG1947773
Chromium,Dissolved	0.00182	J	0.00124	0.00200	1	11/02/2022 23:02	WG1947773
Copper,Dissolved	0.00300	J	0.00151	0.00500	1	11/02/2022 23:02	WG1947773
Cobalt,Dissolved	0.000101	J	0.0000596	0.00200	1	11/02/2022 23:02	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 23:02	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:02	WG1947773
Manganese,Dissolved	U		0.000704	0.00500	1	11/02/2022 23:02	WG1947773
Molybdenum,Dissolved	0.00282	J	0.000348	0.00500	1	11/02/2022 23:02	WG1947773
Nickel,Dissolved	0.000828	J	0.000816	0.00200	1	11/02/2022 23:02	WG1947773
Selenium,Dissolved	0.00390		0.000300	0.00200	1	11/02/2022 23:02	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:02	WG1947773
Uranium,Dissolved	0.00164	J	0.0000700	0.0200	1	11/02/2022 23:02	WG1947773
Zinc,Dissolved	0.0203	J	0.00302	0.0250	1	11/02/2022 23:02	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 14:27	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*78.0-120*		*10/21/2022 14:27*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 18:59	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 18:59	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 18:59	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 18:59	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 18:59	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 18:59	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 18:59	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 18:59	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 18:59	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 18:59	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 18:59	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 18:59	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 18:59	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 18:59	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 18:59	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 18:59	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 18:59	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 18:59	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 18:59	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 18:59	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 18:59	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 18:59	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 18:59	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 18:59	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 18:59	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 18:59	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 18:59	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 18:59	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 18:59	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 18:59	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 18:59	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 18:59	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 18:59	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 18:59	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 18:59	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 18:59	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 18:59	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 18:59	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 18:59	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 18:59	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 18:59	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 18:59	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 18:59	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 18:59	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 18:59	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 18:59	WG1943671
(S) Toluene-d8	*108*			*80.0-120*		*10/16/2022 18:59*	WG1943671
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/16/2022 18:59*	WG1943671
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*10/16/2022 18:59*	WG1943671

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0610	J	0.0247	0.100	1	10/22/2022 06:08	WG1945871
(S) o-Terphenyl	*104*			*31.0-160*		*10/22/2022 06:08*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 15:13	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 15:13	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 15:13	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 15:13	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 15:13	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 15:13	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 15:13	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 15:13	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 15:13	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 15:13	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 15:13	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 15:13	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 15:13	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 15:13	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 15:13	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 15:13	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 15:13	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 15:13	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 15:13	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 15:13	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 15:13	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 15:13	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 15:13	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 15:13	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 15:13	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 15:13	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 15:13	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 15:13	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 15:13	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 15:13	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 15:13	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 15:13	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 15:13	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 15:13	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 15:13	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 15:13	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 15:13	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 15:13	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 15:13	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 15:13	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 15:13	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 15:13	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 15:13	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 15:13	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 15:13	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 15:13	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 15:13	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 15:13	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 15:13	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 15:13	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 15:13	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 15:13	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 15:13	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 15:13	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 15:13	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 15:13	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 15:13	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 15:13	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 15:13	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 15:13	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 15:13	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 15:13	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 15:13	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 15:13	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 15:13	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 15:13	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 15:13	WG1944512
(S) 2-Fluorophenol	*30.8*			*10.0-120*		*10/22/2022 15:13*	WG1944512
(S) Phenol-d5	*21.2*			*10.0-120*		*10/22/2022 15:13*	WG1944512
(S) Nitrobenzene-d5	*54.2*			*10.0-127*		*10/22/2022 15:13*	WG1944512
(S) 2-Fluorobiphenyl	*48.0*			*10.0-130*		*10/22/2022 15:13*	WG1944512
(S) 2,4,6-Tribromophenol	*55.3*			*10.0-155*		*10/22/2022 15:13*	WG1944512
(S) p-Terphenyl-d14	*64.6*			*10.0-128*		*10/22/2022 15:13*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	974		20.0	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	188		8.45	20.0	1	10/25/2022 11:03	WG1947527

Sample Narrative:

L1546506-30 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	291		3.79	10.0	10	10/14/2022 22:56	WG1943111
Fluoride	0.682		0.0640	0.150	1	10/14/2022 22:15	WG1943111
Nitrate	2.96		0.0480	0.100	1	10/14/2022 22:15	WG1943111
Nitrite	0.0443	B J	0.0420	0.100	1	10/14/2022 22:15	WG1943111
Sulfate	89.4		0.594	5.00	1	10/14/2022 22:15	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 10:58	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.285		0.0200	0.200	1	11/01/2022 20:50	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:06	WG1947773
Arsenic,Dissolved	0.00455		0.000180	0.00200	1	11/02/2022 23:06	WG1947773
Barium,Dissolved	0.122		0.000381	0.00200	1	11/02/2022 23:06	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:06	WG1947773
Chromium,Dissolved	0.00236		0.00124	0.00200	1	11/02/2022 23:06	WG1947773
Copper,Dissolved	0.00353	J	0.00151	0.00500	1	11/02/2022 23:06	WG1947773
Cobalt,Dissolved	0.0000730	J	0.0000596	0.00200	1	11/02/2022 23:06	WG1947773
Iron,Dissolved	0.0742	J	0.0281	0.100	1	11/02/2022 23:06	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:06	WG1947773
Manganese,Dissolved	0.00636		0.000704	0.00500	1	11/02/2022 23:06	WG1947773
Molybdenum,Dissolved	0.00206	J	0.000348	0.00500	1	11/02/2022 23:06	WG1947773
Nickel,Dissolved	0.000924	J	0.000816	0.00200	1	11/02/2022 23:06	WG1947773
Selenium,Dissolved	0.00354		0.000300	0.00200	1	11/02/2022 23:06	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:06	WG1947773
Uranium,Dissolved	0.00240	J	0.0000700	0.0200	1	11/02/2022 23:06	WG1947773
Zinc,Dissolved	0.0239	J	0.00302	0.0250	1	11/02/2022 23:06	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 14:49	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*92.2*			*78.0-120*		*10/21/2022 14:49*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 19:21	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 19:21	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 19:21	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 19:21	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 19:21	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 19:21	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 19:21	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 19:21	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 19:21	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 19:21	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 19:21	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 19:21	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 19:21	WG1943671
Chloroform	0.000828	J	0.000111	0.00500	1	10/16/2022 19:21	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 19:21	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 19:21	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 19:21	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 19:21	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 19:21	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 19:21	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 19:21	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 19:21	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 19:21	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 19:21	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 19:21	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 19:21	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 19:21	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 19:21	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 19:21	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 19:21	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 19:21	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 19:21	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 19:21	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 19:21	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 19:21	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 19:21	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 19:21	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 19:21	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 19:21	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 19:21	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 19:21	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 19:21	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 19:21	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 19:21	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 19:21	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 19:21	WG1943671
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2022 19:21*	WG1943671
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*		*10/16/2022 19:21*	WG1943671
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*10/16/2022 19:21*	WG1943671

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0932	J	0.0247	0.100	1	10/22/2022 06:29	WG1945871
(S) o-Terphenyl	*101*			*31.0-160*		*10/22/2022 06:29*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 15:34	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 15:34	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 15:34	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 15:34	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 15:34	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 15:34	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 15:34	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 15:34	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 15:34	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 15:34	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 15:34	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 15:34	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 15:34	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 15:34	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 15:34	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 15:34	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 15:34	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 15:34	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 15:34	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 15:34	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 15:34	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 15:34	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 15:34	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 15:34	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 15:34	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 15:34	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 15:34	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 15:34	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 15:34	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 15:34	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 15:34	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 15:34	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 15:34	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 15:34	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 15:34	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 15:34	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 15:34	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 15:34	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 15:34	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 15:34	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 15:34	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 15:34	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 15:34	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 15:34	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 15:34	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 15:34	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 15:34	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 15:34	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 15:34	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 15:34	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 15:34	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 15:34	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 15:34	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 15:34	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 15:34	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 15:34	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 15:34	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 15:34	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 15:34	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 15:34	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 15:34	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 15:34	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 15:34	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 15:34	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 15:34	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 15:34	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 15:34	WG1944512
(S) 2-Fluorophenol	*26.6*			*10.0-120*		*10/22/2022 15:34*	WG1944512
(S) Phenol-d5	*19.2*			*10.0-120*		*10/22/2022 15:34*	WG1944512
(S) Nitrobenzene-d5	*53.0*			*10.0-127*		*10/22/2022 15:34*	WG1944512
(S) 2-Fluorobiphenyl	*48.6*			*10.0-130*		*10/22/2022 15:34*	WG1944512
(S) 2,4,6-Tribromophenol	*47.8*			*10.0-155*		*10/22/2022 15:34*	WG1944512
(S) p-Terphenyl-d14	*62.9*			*10.0-128*		*10/22/2022 15:34*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	477	J3	13.3	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	167		8.45	20.0	1	10/25/2022 11:08	WG1947527

Sample Narrative:

L1546506-31 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	107		0.379	1.00	1	10/14/2022 23:09	WG1943111
Fluoride	1.04		0.0640	0.150	1	10/14/2022 23:09	WG1943111
Nitrate	2.89		0.0480	0.100	1	10/14/2022 23:09	WG1943111
Nitrite	0.0803	B J	0.0420	0.100	1	10/14/2022 23:09	WG1943111
Sulfate	84.9		0.594	5.00	1	10/14/2022 23:09	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:00	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.136	J	0.0200	0.200	1	11/01/2022 20:52	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:18	WG1947773
Arsenic,Dissolved	0.00529		0.000180	0.00200	1	11/02/2022 23:18	WG1947773
Barium,Dissolved	0.0883		0.000381	0.00200	1	11/02/2022 23:18	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:18	WG1947773
Chromium,Dissolved	0.00364		0.00124	0.00200	1	11/02/2022 23:18	WG1947773
Copper,Dissolved	U		0.00151	0.00500	1	11/02/2022 23:18	WG1947773
Cobalt,Dissolved	0.000135	J	0.0000596	0.00200	1	11/02/2022 23:18	WG1947773
Iron,Dissolved	0.0510	J	0.0281	0.100	1	11/02/2022 23:18	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:18	WG1947773
Manganese,Dissolved	0.00114	J	0.000704	0.00500	1	11/02/2022 23:18	WG1947773
Molybdenum,Dissolved	0.00267	J	0.000348	0.00500	1	11/02/2022 23:18	WG1947773
Nickel,Dissolved	0.00196	J	0.000816	0.00200	1	11/02/2022 23:18	WG1947773
Selenium,Dissolved	0.00418		0.000300	0.00200	1	11/02/2022 23:18	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:18	WG1947773
Uranium,Dissolved	0.00184	J	0.0000700	0.0200	1	11/02/2022 23:18	WG1947773
Zinc,Dissolved	0.0167	J	0.00302	0.0250	1	11/02/2022 23:18	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 15:11	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*78.0-120*		*10/21/2022 15:11*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 19:44	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 19:44	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 19:44	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 19:44	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 19:44	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 19:44	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 19:44	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 19:44	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 19:44	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 19:44	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 19:44	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 19:44	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 19:44	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 19:44	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 19:44	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 19:44	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 19:44	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 19:44	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 19:44	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 19:44	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 19:44	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 19:44	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 19:44	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 19:44	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 19:44	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 19:44	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 19:44	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 19:44	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 19:44	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 19:44	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 19:44	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 19:44	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 19:44	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 19:44	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 19:44	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 19:44	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 19:44	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 19:44	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 19:44	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 19:44	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 19:44	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 19:44	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 19:44	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 19:44	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 19:44	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 19:44	WG1943671
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2022 19:44*	WG1943671
(S) 4-Bromofluorobenzene	*95.9*			*77.0-126*		*10/16/2022 19:44*	WG1943671
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*10/16/2022 19:44*	WG1943671

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0496	J	0.0247	0.100	1	10/22/2022 06:49	WG1945871
(S) o-Terphenyl	*99.5*			*31.0-160*		*10/22/2022 06:49*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 15:56	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 15:56	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 15:56	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 15:56	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 15:56	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 15:56	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 15:56	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 15:56	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 15:56	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 15:56	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 15:56	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 15:56	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 15:56	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 15:56	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 15:56	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 15:56	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 15:56	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 15:56	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 15:56	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 15:56	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 15:56	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 15:56	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 15:56	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 15:56	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 15:56	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 15:56	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 15:56	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 15:56	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 15:56	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 15:56	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 15:56	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 15:56	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 15:56	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 15:56	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 15:56	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 15:56	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 15:56	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 15:56	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 15:56	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 15:56	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 15:56	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 15:56	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 15:56	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 15:56	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 15:56	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 15:56	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 15:56	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 15:56	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 15:56	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 15:56	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 15:56	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 15:56	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 15:56	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 15:56	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 15:56	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 15:56	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 15:56	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 15:56	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 15:56	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 15:56	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 15:56	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 15:56	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 15:56	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 15:56	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 15:56	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 15:56	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 15:56	WG1944512
(S) 2-Fluorophenol	*28.4*			*10.0-120*		*10/22/2022 15:56*	WG1944512
(S) Phenol-d5	*19.8*			*10.0-120*		*10/22/2022 15:56*	WG1944512
(S) Nitrobenzene-d5	*54.2*			*10.0-127*		*10/22/2022 15:56*	WG1944512
(S) 2-Fluorobiphenyl	*55.1*			*10.0-130*		*10/22/2022 15:56*	WG1944512
(S) 2,4,6-Tribromophenol	*55.3*			*10.0-155*		*10/22/2022 15:56*	WG1944512
(S) p-Terphenyl-d14	*69.2*			*10.0-128*		*10/22/2022 15:56*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	926		20.0	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	190		8.45	20.0	1	10/25/2022 11:12	WG1947527

Sample Narrative:

L1546506-32 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	287		3.79	10.0	10	10/14/2022 23:36	WG1943111
Fluoride	0.680		0.0640	0.150	1	10/14/2022 23:23	WG1943111
Nitrate	2.96		0.0480	0.100	1	10/14/2022 23:23	WG1943111
Nitrite	0.0610	B J	0.0420	0.100	1	10/14/2022 23:23	WG1943111
Sulfate	89.7		0.594	5.00	1	10/14/2022 23:23	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:12	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.274		0.0200	0.200	1	11/01/2022 20:55	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:22	WG1947773
Arsenic,Dissolved	0.00447		0.000180	0.00200	1	11/02/2022 23:22	WG1947773
Barium,Dissolved	0.119		0.000381	0.00200	1	11/02/2022 23:22	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:22	WG1947773
Chromium,Dissolved	0.00126	J	0.00124	0.00200	1	11/02/2022 23:22	WG1947773
Copper,Dissolved	U		0.00151	0.00500	1	11/02/2022 23:22	WG1947773
Cobalt,Dissolved	0.0000609	J	0.0000596	0.00200	1	11/02/2022 23:22	WG1947773
Iron,Dissolved	0.0501	J	0.0281	0.100	1	11/02/2022 23:22	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:22	WG1947773
Manganese,Dissolved	0.00459	J	0.000704	0.00500	1	11/02/2022 23:22	WG1947773
Molybdenum,Dissolved	0.00200	J	0.000348	0.00500	1	11/02/2022 23:22	WG1947773
Nickel,Dissolved	U		0.000816	0.00200	1	11/02/2022 23:22	WG1947773
Selenium,Dissolved	0.00371		0.000300	0.00200	1	11/02/2022 23:22	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:22	WG1947773
Uranium,Dissolved	0.00228	J	0.0000700	0.0200	1	11/02/2022 23:22	WG1947773
Zinc,Dissolved	0.0216	J	0.00302	0.0250	1	11/02/2022 23:22	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 15:32	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*91.6*			*78.0-120*		*10/21/2022 15:32*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 20:06	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 20:06	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 20:06	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 20:06	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 20:06	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 20:06	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 20:06	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 20:06	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 20:06	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 20:06	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 20:06	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 20:06	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 20:06	WG1943671
Chloroform	0.000883	J	0.000111	0.00500	1	10/16/2022 20:06	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 20:06	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 20:06	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 20:06	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 20:06	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 20:06	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 20:06	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 20:06	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 20:06	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 20:06	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 20:06	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 20:06	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 20:06	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 20:06	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 20:06	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 20:06	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 20:06	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 20:06	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 20:06	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 20:06	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 20:06	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 20:06	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 20:06	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 20:06	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 20:06	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 20:06	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 20:06	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 20:06	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 20:06	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 20:06	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 20:06	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 20:06	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 20:06	WG1943671
(S) Toluene-d8	*105*			*80.0-120*		*10/16/2022 20:06*	WG1943671
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*10/16/2022 20:06*	WG1943671
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*		*10/16/2022 20:06*	WG1943671

DUP-01
Collected date/time: 10/13/22 12:00
L1546506

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0754	J	0.0247	0.100	1	10/22/2022 07:09	WG1945871
(S) o-Terphenyl	*96.8*			*31.0-160*		*10/22/2022 07:09*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 16:17	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 16:17	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 16:17	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 16:17	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 16:17	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 16:17	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 16:17	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 16:17	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 16:17	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 16:17	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 16:17	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 16:17	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 16:17	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 16:17	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 16:17	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 16:17	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 16:17	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 16:17	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 16:17	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 16:17	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 16:17	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 16:17	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 16:17	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 16:17	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 16:17	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 16:17	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 16:17	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 16:17	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 16:17	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 16:17	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 16:17	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 16:17	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 16:17	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 16:17	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 16:17	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 16:17	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 16:17	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 16:17	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 16:17	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 16:17	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 16:17	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 16:17	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 16:17	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 16:17	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 16:17	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 16:17	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 16:17	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 16:17	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 16:17	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 16:17	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 16:17	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 16:17	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 16:17	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 16:17	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 16:17	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 16:17	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 16:17	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 16:17	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 16:17	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 16:17	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 16:17	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 16:17	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 16:17	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 16:17	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 16:17	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 16:17	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 16:17	WG1944512
(S) 2-Fluorophenol	*27.7*			*10.0-120*		*10/22/2022 16:17*	WG1944512
(S) Phenol-d5	*19.5*			*10.0-120*		*10/22/2022 16:17*	WG1944512
(S) Nitrobenzene-d5	*54.1*			*10.0-127*		*10/22/2022 16:17*	WG1944512
(S) 2-Fluorobiphenyl	*53.3*			*10.0-130*		*10/22/2022 16:17*	WG1944512
(S) 2,4,6-Tribromophenol	*51.6*			*10.0-155*		*10/22/2022 16:17*	WG1944512
(S) p-Terphenyl-d14	*60.5*			*10.0-128*		*10/22/2022 16:17*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	822		20.0	1	10/20/2022 15:18	WG1946178

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	426		8.45	20.0	1	10/25/2022 11:17	WG1947527

Sample Narrative:

L1546506-33 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	34.5		0.379	1.00	1	10/14/2022 23:50	WG1943111
Fluoride	0.395	B	0.0640	0.150	1	10/14/2022 23:50	WG1943111
Nitrate	12.9		0.0480	0.100	1	10/14/2022 23:50	WG1943111
Nitrite	0.0901	B J	0.0420	0.100	1	10/14/2022 23:50	WG1943111
Sulfate	179		0.594	5.00	1	10/14/2022 23:50	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:14	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.220		0.0200	0.200	1	11/01/2022 21:04	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:25	WG1947773
Arsenic,Dissolved	0.00284		0.000180	0.00200	1	11/02/2022 23:25	WG1947773
Barium,Dissolved	0.312		0.000381	0.00200	1	11/02/2022 23:25	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:25	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 23:25	WG1947773
Copper,Dissolved	0.00710		0.00151	0.00500	1	11/02/2022 23:25	WG1947773
Cobalt,Dissolved	0.000476	J	0.0000596	0.00200	1	11/02/2022 23:25	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 23:25	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:25	WG1947773
Manganese,Dissolved	0.108		0.000704	0.00500	1	11/02/2022 23:25	WG1947773
Molybdenum,Dissolved	0.00136	J	0.000348	0.00500	1	11/02/2022 23:25	WG1947773
Nickel,Dissolved	0.00240		0.000816	0.00200	1	11/02/2022 23:25	WG1947773
Selenium,Dissolved	0.000632	J	0.000300	0.00200	1	11/02/2022 23:25	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:25	WG1947773
Uranium,Dissolved	0.00910	J	0.0000700	0.0200	1	11/02/2022 23:25	WG1947773
Zinc,Dissolved	0.0483		0.00302	0.0250	1	11/02/2022 23:25	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 15:54	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*78.0-120*		*10/21/2022 15:54*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 20:28	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 20:28	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 20:28	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 20:28	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 20:28	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 20:28	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 20:28	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 20:28	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 20:28	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 20:28	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 20:28	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 20:28	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 20:28	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 20:28	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 20:28	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 20:28	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 20:28	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 20:28	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 20:28	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 20:28	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 20:28	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 20:28	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 20:28	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 20:28	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 20:28	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 20:28	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 20:28	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 20:28	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 20:28	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 20:28	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 20:28	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 20:28	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 20:28	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 20:28	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 20:28	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 20:28	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 20:28	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 20:28	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 20:28	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 20:28	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 20:28	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 20:28	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 20:28	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 20:28	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 20:28	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 20:28	WG1943671
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2022 20:28*	WG1943671
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*10/16/2022 20:28*	WG1943671
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*		*10/16/2022 20:28*	WG1943671

DUP-02
Collected date/time: 10/13/22 12:00
L1546506

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.353		0.0247	0.100	1	10/22/2022 07:29	WG1945871
(S) o-Terphenyl	*99.5*			*31.0-160*		*10/22/2022 07:29*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 16:39	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 16:39	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 16:39	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 16:39	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 16:39	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 16:39	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 16:39	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 16:39	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 16:39	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 16:39	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 16:39	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 16:39	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 16:39	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 16:39	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 16:39	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 16:39	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 16:39	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 16:39	WG1944512
Caprolactam	0.00102	J	0.000309	0.0100	1	10/22/2022 16:39	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 16:39	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 16:39	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 16:39	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 16:39	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 16:39	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 16:39	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 16:39	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 16:39	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 16:39	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 16:39	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 16:39	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 16:39	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 16:39	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 16:39	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 16:39	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 16:39	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 16:39	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 16:39	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 16:39	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 16:39	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 16:39	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 16:39	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 16:39	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 16:39	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 16:39	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 16:39	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 16:39	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 16:39	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 16:39	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 16:39	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 16:39	WG1944512

DUP-02
Collected date/time: 10/13/22 12:00
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 16:39	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 16:39	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 16:39	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 16:39	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 16:39	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 16:39	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 16:39	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 16:39	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 16:39	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 16:39	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 16:39	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 16:39	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 16:39	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 16:39	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 16:39	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 16:39	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 16:39	WG1944512
(S) 2-Fluorophenol	*31.8*			*10.0-120*		*10/22/2022 16:39*	WG1944512
(S) Phenol-d5	*21.9*			*10.0-120*		*10/22/2022 16:39*	WG1944512
(S) Nitrobenzene-d5	*50.9*			*10.0-127*		*10/22/2022 16:39*	WG1944512
(S) 2-Fluorobiphenyl	*51.9*			*10.0-130*		*10/22/2022 16:39*	WG1944512
(S) 2,4,6-Tribromophenol	*47.1*			*10.0-155*		*10/22/2022 16:39*	WG1944512
(S) p-Terphenyl-d14	*62.6*			*10.0-128*		*10/22/2022 16:39*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1160		25.0	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	971		8.45	20.0	1	10/25/2022 11:21	WG1947527

Sample Narrative:

L1546506-34 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	88.0		0.379	1.00	1	10/15/2022 00:03	WG1943111
Fluoride	0.791		0.0640	0.150	1	10/15/2022 00:03	WG1943111
Nitrate	0.0602	B J	0.0480	0.100	1	10/15/2022 00:03	WG1943111
Nitrite	0.0498	B J	0.0420	0.100	1	10/15/2022 00:03	WG1943111
Sulfate	8.10		0.594	5.00	1	10/15/2022 00:03	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:16	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.151	J	0.0200	0.200	1	11/01/2022 21:07	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:28	WG1947773
Arsenic,Dissolved	0.00675		0.000180	0.00200	1	11/02/2022 23:28	WG1947773
Barium,Dissolved	0.547		0.000381	0.00200	1	11/02/2022 23:28	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:28	WG1947773
Chromium,Dissolved	U		0.00124	0.00200	1	11/02/2022 23:28	WG1947773
Copper,Dissolved	U		0.00151	0.00500	1	11/02/2022 23:28	WG1947773
Cobalt,Dissolved	0.0000802	J	0.0000596	0.00200	1	11/02/2022 23:28	WG1947773
Iron,Dissolved	2.02		0.0281	0.100	1	11/02/2022 23:28	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:28	WG1947773
Manganese,Dissolved	0.973		0.000704	0.00500	1	11/02/2022 23:28	WG1947773
Molybdenum,Dissolved	0.00237	J	0.000348	0.00500	1	11/02/2022 23:28	WG1947773
Nickel,Dissolved	0.00219		0.000816	0.00200	1	11/02/2022 23:28	WG1947773
Selenium,Dissolved	U		0.000300	0.00200	1	11/02/2022 23:28	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:28	WG1947773
Uranium,Dissolved	0.0438		0.0000700	0.0200	1	11/02/2022 23:28	WG1947773
Zinc,Dissolved	0.0133	J	0.00302	0.0250	1	11/02/2022 23:28	WG1947773

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 16:16	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*89.3*			*78.0-120*		*10/21/2022 16:16*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 20:51	WG1943671
Benzene	0.000216	J	0.0000941	0.00100	1	10/16/2022 20:51	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 20:51	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 20:51	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 20:51	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 20:51	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 20:51	WG1943671
tert-Butylbenzene	0.000140	J	0.000127	0.00100	1	10/16/2022 20:51	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 20:51	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 20:51	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 20:51	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 20:51	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 20:51	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 20:51	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 20:51	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 20:51	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 20:51	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 20:51	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 20:51	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 20:51	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 20:51	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 20:51	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 20:51	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 20:51	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 20:51	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 20:51	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 20:51	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 20:51	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 20:51	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 20:51	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 20:51	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 20:51	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 20:51	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 20:51	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 20:51	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 20:51	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 20:51	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 20:51	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 20:51	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 20:51	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 20:51	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 20:51	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 20:51	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 20:51	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 20:51	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 20:51	WG1943671
(S) Toluene-d8	*106*			*80.0-120*		*10/16/2022 20:51*	WG1943671
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*10/16/2022 20:51*	WG1943671
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*10/16/2022 20:51*	WG1943671

DUP-03
Collected date/time: 10/13/22 10:00
L1546506

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.177		0.0247	0.100	1	10/22/2022 07:49	WG1945871
(S) o-Terphenyl	*101*			*31.0-160*		*10/22/2022 07:49*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 17:00	WG1944512
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 17:00	WG1944512
Acetophenone	U		0.000208	0.0100	1	10/22/2022 17:00	WG1944512
Anthracene	U		0.0000804	0.00100	1	10/22/2022 17:00	WG1944512
Atrazine	U		0.000255	0.0100	1	10/22/2022 17:00	WG1944512
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 17:00	WG1944512
Benzaldehyde	U		0.00169	0.0100	1	10/22/2022 17:00	WG1944512
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 17:00	WG1944512
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 17:00	WG1944512
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 17:00	WG1944512
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 17:00	WG1944512
Biphenyl	U		0.000790	0.0100	1	10/22/2022 17:00	WG1944512
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 17:00	WG1944512
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 17:00	WG1944512
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 17:00	WG1944512
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 17:00	WG1944512
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 17:00	WG1944512
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 17:00	WG1944512
Caprolactam	U		0.000309	0.0100	1	10/22/2022 17:00	WG1944512
Carbazole	U		0.000111	0.0100	1	10/22/2022 17:00	WG1944512
Chrysene	U		0.000130	0.00100	1	10/22/2022 17:00	WG1944512
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 17:00	WG1944512
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 17:00	WG1944512
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 17:00	WG1944512
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 17:00	WG1944512
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 17:00	WG1944512
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 17:00	WG1944512
Fluorene	U		0.0000844	0.00100	1	10/22/2022 17:00	WG1944512
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 17:00	WG1944512
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 17:00	WG1944512
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 17:00	WG1944512
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 17:00	WG1944512
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 17:00	WG1944512
Isophorone	U		0.000143	0.0100	1	10/22/2022 17:00	WG1944512
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 17:00	WG1944512
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 17:00	WG1944512
Naphthalene	U		0.000159	0.00100	1	10/22/2022 17:00	WG1944512
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 17:00	WG1944512
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 17:00	WG1944512
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 17:00	WG1944512
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 17:00	WG1944512
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 17:00	WG1944512
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 17:00	WG1944512
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 17:00	WG1944512
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 17:00	WG1944512
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 17:00	WG1944512
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 17:00	WG1944512
Pyrene	U		0.000107	0.00100	1	10/22/2022 17:00	WG1944512
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 17:00	WG1944512
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 17:00	WG1944512

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 17:00	WG1944512
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 17:00	WG1944512
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 17:00	WG1944512
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 17:00	WG1944512
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 17:00	WG1944512
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 17:00	WG1944512
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 17:00	WG1944512
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 17:00	WG1944512
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 17:00	WG1944512
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 17:00	WG1944512
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 17:00	WG1944512
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 17:00	WG1944512
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 17:00	WG1944512
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 17:00	WG1944512
Phenol	U		0.00433	0.0100	1	10/22/2022 17:00	WG1944512
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 17:00	WG1944512
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 17:00	WG1944512
(S) 2-Fluorophenol	*30.3*			*10.0-120*		*10/22/2022 17:00*	WG1944512
(S) Phenol-d5	*20.8*			*10.0-120*		*10/22/2022 17:00*	WG1944512
(S) Nitrobenzene-d5	*56.6*			*10.0-127*		*10/22/2022 17:00*	WG1944512
(S) 2-Fluorobiphenyl	*53.3*			*10.0-130*		*10/22/2022 17:00*	WG1944512
(S) 2,4,6-Tribromophenol	*56.0*			*10.0-155*		*10/22/2022 17:00*	WG1944512
(S) p-Terphenyl-d14	*67.3*			*10.0-128*		*10/22/2022 17:00*	WG1944512

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	993		25.0	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	206		3.79	10.0	10	10/15/2022 00:30	WG1943111
Fluoride	0.421	B	0.0640	0.150	1	10/15/2022 00:17	WG1943111
Nitrate	3.11		0.0480	0.100	1	10/15/2022 00:17	WG1943111
Nitrite	0.0829	B J	0.0420	0.100	1	10/15/2022 00:17	WG1943111
Sulfate	111		0.594	5.00	1	10/15/2022 00:17	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:18	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	0.239		0.0200	0.200	1	11/01/2022 21:10	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/02/2022 23:32	WG1947773
Arsenic,Dissolved	0.00286		0.000180	0.00200	1	11/02/2022 23:32	WG1947773
Barium,Dissolved	0.144		0.000381	0.00200	1	11/02/2022 23:32	WG1947773
Cadmium,Dissolved	U		0.000150	0.00100	1	11/02/2022 23:32	WG1947773
Chromium,Dissolved	0.00175	J	0.00124	0.00200	1	11/02/2022 23:32	WG1947773
Copper,Dissolved	0.00847		0.00151	0.00500	1	11/02/2022 23:32	WG1947773
Cobalt,Dissolved	0.000369	J	0.0000596	0.00200	1	11/02/2022 23:32	WG1947773
Iron,Dissolved	U		0.0281	0.100	1	11/02/2022 23:32	WG1947773
Lead,Dissolved	U		0.000849	0.00200	1	11/02/2022 23:32	WG1947773
Manganese,Dissolved	0.0167		0.000704	0.00500	1	11/02/2022 23:32	WG1947773
Molybdenum,Dissolved	0.000653	J	0.000348	0.00500	1	11/02/2022 23:32	WG1947773
Nickel,Dissolved	0.00729		0.000816	0.00200	1	11/02/2022 23:32	WG1947773
Selenium,Dissolved	0.000656	J	0.000300	0.00200	1	11/02/2022 23:32	WG1947773
Silver,Dissolved	U		0.0000700	0.00200	1	11/02/2022 23:32	WG1947773
Uranium,Dissolved	0.0115	J	0.0000700	0.0200	1	11/02/2022 23:32	WG1947773
Zinc,Dissolved	0.0179	J	0.00302	0.0250	1	11/02/2022 23:32	WG1947773

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 21:13	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 21:13	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 21:13	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 21:13	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 21:13	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 21:13	WG1943671
sec-Butylbenzene	0.000947	J	0.000125	0.00100	1	10/16/2022 21:13	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 21:13	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 21:13	WG1943671

DUP-04
Collected date/time: 10/13/22 10:00
L1546506

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 21:13	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 21:13	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 21:13	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 21:13	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 21:13	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 21:13	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 21:13	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 21:13	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 21:13	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 21:13	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 21:13	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 21:13	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 21:13	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 21:13	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 21:13	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 21:13	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 21:13	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 21:13	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 21:13	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 21:13	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 21:13	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 21:13	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 21:13	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 21:13	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 21:13	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 21:13	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 21:13	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 21:13	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 21:13	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 21:13	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 21:13	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 21:13	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 21:13	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 21:13	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 21:13	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 21:13	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 21:13	WG1943671
(S) Toluene-d8	*105*			*80.0-120*		*10/16/2022 21:13*	WG1943671
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*10/16/2022 21:13*	WG1943671
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*10/16/2022 21:13*	WG1943671

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 11:20	WG1944825
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 11:20	WG1944825
Acetophenone	U		0.000208	0.0100	1	10/22/2022 11:20	WG1944825
Anthracene	U		0.0000804	0.00100	1	10/22/2022 11:20	WG1944825
Atrazine	U		0.000255	0.0100	1	10/22/2022 11:20	WG1944825
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 11:20	WG1944825
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 11:20	WG1944825
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 11:20	WG1944825
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 11:20	WG1944825
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 11:20	WG1944825
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 11:20	WG1944825
Biphenyl	U		0.000790	0.0100	1	10/22/2022 11:20	WG1944825

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 11:20	WG1944825
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 11:20	WG1944825
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 11:20	WG1944825
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 11:20	WG1944825
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 11:20	WG1944825
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 11:20	WG1944825
Caprolactam	0.00192	J	0.000309	0.0100	1	10/22/2022 11:20	WG1944825
Carbazole	U		0.000111	0.0100	1	10/22/2022 11:20	WG1944825
Chrysene	U		0.000130	0.00100	1	10/22/2022 11:20	WG1944825
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 11:20	WG1944825
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 11:20	WG1944825
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 11:20	WG1944825
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 11:20	WG1944825
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 11:20	WG1944825
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 11:20	WG1944825
Fluorene	U		0.0000844	0.00100	1	10/22/2022 11:20	WG1944825
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 11:20	WG1944825
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 11:20	WG1944825
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 11:20	WG1944825
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 11:20	WG1944825
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 11:20	WG1944825
Isophorone	U		0.000143	0.0100	1	10/22/2022 11:20	WG1944825
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 11:20	WG1944825
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 11:20	WG1944825
Naphthalene	U		0.000159	0.00100	1	10/22/2022 11:20	WG1944825
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 11:20	WG1944825
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 11:20	WG1944825
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 11:20	WG1944825
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 11:20	WG1944825
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 11:20	WG1944825
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 11:20	WG1944825
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 11:20	WG1944825
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 11:20	WG1944825
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 11:20	WG1944825
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 11:20	WG1944825
Pyrene	U		0.000107	0.00100	1	10/22/2022 11:20	WG1944825
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 11:20	WG1944825
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 11:20	WG1944825
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 11:20	WG1944825
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 11:20	WG1944825
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 11:20	WG1944825
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 11:20	WG1944825
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 11:20	WG1944825
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 11:20	WG1944825
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 11:20	WG1944825
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 11:20	WG1944825
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 11:20	WG1944825
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 11:20	WG1944825
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 11:20	WG1944825
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 11:20	WG1944825
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 11:20	WG1944825
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 11:20	WG1944825
Phenol	U		0.00433	0.0100	1	10/22/2022 11:20	WG1944825
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 11:20	WG1944825
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 11:20	WG1944825
(S) 2-Fluorophenol	*35.0*			*10.0-120*		*10/22/2022 11:20*	WG1944825

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

DUP-04
Collected date/time: 10/13/22 10:00
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) Phenol-d5	*26.4*			*10.0-120*		*10/22/2022 11:20*	WG1944825
(S) Nitrobenzene-d5	*58.1*			*10.0-127*		*10/22/2022 11:20*	WG1944825
(S) 2-Fluorobiphenyl	*55.3*			*10.0-130*		*10/22/2022 11:20*	WG1944825
(S) 2,4,6-Tribromophenol	*81.9*			*10.0-155*		*10/22/2022 11:20*	WG1944825
(S) p-Terphenyl-d14	*67.9*			*10.0-128*		*10/22/2022 11:20*	WG1944825

LB-01
Collected date/time: 10/13/22 10:40
L1546506

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10.0		10.0	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	U		8.45	20.0	1	10/25/2022 11:25	WG1947527

Sample Narrative:
L1546506-36 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.403	J	0.379	1.00	1	10/15/2022 00:44	WG1943111
Fluoride	U		0.0640	0.150	1	10/15/2022 00:44	WG1943111
Nitrate	0.0643	B J	0.0480	0.100	1	10/15/2022 00:44	WG1943111
Nitrite	U		0.0420	0.100	1	10/15/2022 00:44	WG1943111
Sulfate	U		0.594	5.00	1	10/15/2022 00:44	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:20	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	U		0.0200	0.200	1	11/01/2022 21:13	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	0.0284	J	0.0185	0.100	1	11/01/2022 22:54	WG1947774
Arsenic,Dissolved	U		0.000180	0.00200	1	11/01/2022 22:54	WG1947774
Barium,Dissolved	0.00310		0.000381	0.00200	1	11/01/2022 22:54	WG1947774
Cadmium,Dissolved	U		0.000150	0.00100	1	11/01/2022 22:54	WG1947774
Chromium,Dissolved	0.00168	J	0.00124	0.00200	1	11/01/2022 22:54	WG1947774
Copper,Dissolved	U		0.00151	0.00500	1	11/01/2022 22:54	WG1947774
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/01/2022 22:54	WG1947774
Iron,Dissolved	0.704		0.0281	0.100	1	11/01/2022 22:54	WG1947774
Lead,Dissolved	U		0.000849	0.00200	1	11/01/2022 22:54	WG1947774
Manganese,Dissolved	0.00441	J	0.000704	0.00500	1	11/01/2022 22:54	WG1947774
Molybdenum,Dissolved	U		0.000348	0.00500	1	11/01/2022 22:54	WG1947774
Nickel,Dissolved	U		0.000816	0.00200	1	11/01/2022 22:54	WG1947774
Selenium,Dissolved	U		0.000300	0.00200	1	11/01/2022 22:54	WG1947774
Silver,Dissolved	U		0.0000700	0.00200	1	11/01/2022 22:54	WG1947774
Uranium,Dissolved	U		0.0000700	0.0200	1	11/01/2022 22:54	WG1947774
Zinc,Dissolved	U		0.00302	0.0250	1	11/01/2022 22:54	WG1947774

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/21/2022 13:44	WG1946880
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*78.0-120*		*10/21/2022 13:44*	WG1946880

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 21:35	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 21:35	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 21:35	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 21:35	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 21:35	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 21:35	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 21:35	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 21:35	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 21:35	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 21:35	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 21:35	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 21:35	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 21:35	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 21:35	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 21:35	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 21:35	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 21:35	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 21:35	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 21:35	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 21:35	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 21:35	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 21:35	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 21:35	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 21:35	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 21:35	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 21:35	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 21:35	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 21:35	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 21:35	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 21:35	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 21:35	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 21:35	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 21:35	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 21:35	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 21:35	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 21:35	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 21:35	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 21:35	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 21:35	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 21:35	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 21:35	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 21:35	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 21:35	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 21:35	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 21:35	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 21:35	WG1943671
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2022 21:35*	WG1943671
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/16/2022 21:35*	WG1943671
(S) 1,2-Dichloroethane-d4	*98.5*			*70.0-130*		*10/16/2022 21:35*	WG1943671

LB-01
Collected date/time: 10/13/22 10:40
L1546506

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/22/2022 08:10	WG1945871
(S) o-Terphenyl	*105*			*31.0-160*		*10/22/2022 08:10*	WG1945871

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 11:42	WG1944825
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 11:42	WG1944825
Acetophenone	U		0.000208	0.0100	1	10/22/2022 11:42	WG1944825
Anthracene	U		0.0000804	0.00100	1	10/22/2022 11:42	WG1944825
Atrazine	U		0.000255	0.0100	1	10/22/2022 11:42	WG1944825
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 11:42	WG1944825
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 11:42	WG1944825
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 11:42	WG1944825
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 11:42	WG1944825
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 11:42	WG1944825
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 11:42	WG1944825
Biphenyl	U		0.000790	0.0100	1	10/22/2022 11:42	WG1944825
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 11:42	WG1944825
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 11:42	WG1944825
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 11:42	WG1944825
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 11:42	WG1944825
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 11:42	WG1944825
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 11:42	WG1944825
Caprolactam	0.00102	J	0.000309	0.0100	1	10/22/2022 11:42	WG1944825
Carbazole	U		0.000111	0.0100	1	10/22/2022 11:42	WG1944825
Chrysene	U		0.000130	0.00100	1	10/22/2022 11:42	WG1944825
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 11:42	WG1944825
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 11:42	WG1944825
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 11:42	WG1944825
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 11:42	WG1944825
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 11:42	WG1944825
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 11:42	WG1944825
Fluorene	U		0.0000844	0.00100	1	10/22/2022 11:42	WG1944825
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 11:42	WG1944825
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 11:42	WG1944825
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 11:42	WG1944825
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 11:42	WG1944825
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 11:42	WG1944825
Isophorone	U		0.000143	0.0100	1	10/22/2022 11:42	WG1944825
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 11:42	WG1944825
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 11:42	WG1944825
Naphthalene	U		0.000159	0.00100	1	10/22/2022 11:42	WG1944825
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 11:42	WG1944825
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 11:42	WG1944825
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 11:42	WG1944825
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 11:42	WG1944825
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 11:42	WG1944825
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 11:42	WG1944825
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 11:42	WG1944825
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 11:42	WG1944825
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 11:42	WG1944825
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 11:42	WG1944825
Pyrene	U		0.000107	0.00100	1	10/22/2022 11:42	WG1944825
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 11:42	WG1944825
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 11:42	WG1944825

LB-01
Collected date/time: 10/13/22 10:40
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 11:42	WG1944825
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 11:42	WG1944825
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 11:42	WG1944825
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 11:42	WG1944825
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 11:42	WG1944825
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 11:42	WG1944825
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 11:42	WG1944825
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 11:42	WG1944825
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 11:42	WG1944825
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 11:42	WG1944825
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 11:42	WG1944825
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 11:42	WG1944825
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 11:42	WG1944825
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 11:42	WG1944825
Phenol	U		0.00433	0.0100	1	10/22/2022 11:42	WG1944825
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 11:42	WG1944825
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 11:42	WG1944825
(S) 2-Fluorophenol	*35.4*			*10.0-120*		*10/22/2022 11:42*	WG1944825
(S) Phenol-d5	*24.6*			*10.0-120*		*10/22/2022 11:42*	WG1944825
(S) Nitrobenzene-d5	*62.2*			*10.0-127*		*10/22/2022 11:42*	WG1944825
(S) 2-Fluorobiphenyl	*58.5*			*10.0-130*		*10/22/2022 11:42*	WG1944825
(S) 2,4,6-Tribromophenol	*80.8*			*10.0-155*		*10/22/2022 11:42*	WG1944825
(S) p-Terphenyl-d14	*69.8*			*10.0-128*		*10/22/2022 11:42*	WG1944825

LB-02
Collected date/time: 10/13/22 11:25
L1546506

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	10/20/2022 15:55	WG1946176

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	U		8.45	20.0	1	10/25/2022 11:29	WG1947527

Sample Narrative:
L1546506-37 WG1947527: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	10/15/2022 01:24	WG1943111
Fluoride	U		0.0640	0.150	1	10/15/2022 01:24	WG1943111
Nitrate	0.0688	B J	0.0480	0.100	1	10/15/2022 01:24	WG1943111
Nitrite	U		0.0420	0.100	1	10/15/2022 01:24	WG1943111
Sulfate	U		0.594	5.00	1	10/15/2022 01:24	WG1943111

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/27/2022 11:22	WG1944802

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron,Dissolved	U		0.0200	0.200	1	11/01/2022 21:16	WG1947744

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		0.0185	0.100	1	11/01/2022 23:21	WG1947774
Arsenic,Dissolved	U		0.000180	0.00200	1	11/01/2022 23:21	WG1947774
Barium,Dissolved	0.000980	J	0.000381	0.00200	1	11/01/2022 23:21	WG1947774
Cadmium,Dissolved	U		0.000150	0.00100	1	11/01/2022 23:21	WG1947774
Chromium,Dissolved	U		0.00124	0.00200	1	11/01/2022 23:21	WG1947774
Copper,Dissolved	U		0.00151	0.00500	1	11/01/2022 23:21	WG1947774
Cobalt,Dissolved	U		0.0000596	0.00200	1	11/01/2022 23:21	WG1947774
Iron,Dissolved	0.0602	J	0.0281	0.100	1	11/01/2022 23:21	WG1947774
Lead,Dissolved	U		0.000849	0.00200	1	11/01/2022 23:21	WG1947774
Manganese,Dissolved	U		0.000704	0.00500	1	11/01/2022 23:21	WG1947774
Molybdenum,Dissolved	U		0.000348	0.00500	1	11/01/2022 23:21	WG1947774
Nickel,Dissolved	U		0.000816	0.00200	1	11/01/2022 23:21	WG1947774
Selenium,Dissolved	U		0.000300	0.00200	1	11/01/2022 23:21	WG1947774
Silver,Dissolved	0.0000884	J	0.0000700	0.00200	1	11/01/2022 23:21	WG1947774
Uranium,Dissolved	U		0.0000700	0.0200	1	11/01/2022 23:21	WG1947774
Zinc,Dissolved	U		0.00302	0.0250	1	11/01/2022 23:21	WG1947774

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	10/16/2022 21:58	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 21:58	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 21:58	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 21:58	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 21:58	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 21:58	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 21:58	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 21:58	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 21:58	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 21:58	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 21:58	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 21:58	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 21:58	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 21:58	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 21:58	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 21:58	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 21:58	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 21:58	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 21:58	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 21:58	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 21:58	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 21:58	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 21:58	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 21:58	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 21:58	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 21:58	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 21:58	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 21:58	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 21:58	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 21:58	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 21:58	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 21:58	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 21:58	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 21:58	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 21:58	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 21:58	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 21:58	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 21:58	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 21:58	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 21:58	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 21:58	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 21:58	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 21:58	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 21:58	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 21:58	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 21:58	WG1943671
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2022 21:58*	WG1943671
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*		*10/16/2022 21:58*	WG1943671
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*10/16/2022 21:58*	WG1943671

LB-02
Collected date/time: 10/13/22 11:25
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0000886	0.00100	1	10/22/2022 12:03	WG1944825
Acenaphthylene	U		0.0000921	0.00100	1	10/22/2022 12:03	WG1944825
Acetophenone	U		0.000208	0.0100	1	10/22/2022 12:03	WG1944825
Anthracene	U		0.0000804	0.00100	1	10/22/2022 12:03	WG1944825
Atrazine	U		0.000255	0.0100	1	10/22/2022 12:03	WG1944825
Benzo(a)anthracene	U		0.000199	0.00100	1	10/22/2022 12:03	WG1944825
Benzaldehyde	U	J4	0.00169	0.0100	1	10/22/2022 12:03	WG1944825
Benzo(b)fluoranthene	U		0.000130	0.00100	1	10/22/2022 12:03	WG1944825
Benzo(k)fluoranthene	U		0.000120	0.00100	1	10/22/2022 12:03	WG1944825
Benzo(g,h,i)perylene	U		0.000121	0.00100	1	10/22/2022 12:03	WG1944825
Benzo(a)pyrene	U		0.0000381	0.000200	1	10/22/2022 12:03	WG1944825
Biphenyl	U		0.000790	0.0100	1	10/22/2022 12:03	WG1944825
Bis(2-chlorethoxy)methane	U		0.000116	0.0100	1	10/22/2022 12:03	WG1944825
Bis(2-chloroethyl)ether	U		0.000137	0.0100	1	10/22/2022 12:03	WG1944825
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100	1	10/22/2022 12:03	WG1944825
4-Bromophenyl-phenylether	U		0.0000877	0.0100	1	10/22/2022 12:03	WG1944825
2-Chloronaphthalene	U		0.0000648	0.00100	1	10/22/2022 12:03	WG1944825
4-Chlorophenyl-phenylether	U		0.0000926	0.0100	1	10/22/2022 12:03	WG1944825
Caprolactam	0.00138	J	0.000309	0.0100	1	10/22/2022 12:03	WG1944825
Carbazole	U		0.000111	0.0100	1	10/22/2022 12:03	WG1944825
Chrysene	U		0.000130	0.00100	1	10/22/2022 12:03	WG1944825
Dibenz(a,h)anthracene	U		0.0000644	0.000200	1	10/22/2022 12:03	WG1944825
Dibenzofuran	U		0.0000970	0.0100	1	10/22/2022 12:03	WG1944825
3,3-Dichlorobenzidine	U		0.000212	0.0100	1	10/22/2022 12:03	WG1944825
2,4-Dinitrotoluene	U		0.0000983	0.0100	1	10/22/2022 12:03	WG1944825
2,6-Dinitrotoluene	U		0.000250	0.0100	1	10/22/2022 12:03	WG1944825
Fluoranthene	U		0.000102	0.00100	1	10/22/2022 12:03	WG1944825
Fluorene	U		0.0000844	0.00100	1	10/22/2022 12:03	WG1944825
Hexachlorobenzene	U		0.0000755	0.00100	1	10/22/2022 12:03	WG1944825
Hexachloro-1,3-butadiene	U		0.0000968	0.0100	1	10/22/2022 12:03	WG1944825
Hexachlorocyclopentadiene	U		0.0000598	0.0100	1	10/22/2022 12:03	WG1944825
Hexachloroethane	U		0.000127	0.0100	1	10/22/2022 12:03	WG1944825
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100	1	10/22/2022 12:03	WG1944825
Isophorone	U		0.000143	0.0100	1	10/22/2022 12:03	WG1944825
1-Methylnaphthalene	U		0.0000790	0.00100	1	10/22/2022 12:03	WG1944825
2-Methylnaphthalene	U		0.000117	0.00100	1	10/22/2022 12:03	WG1944825
Naphthalene	U		0.000159	0.00100	1	10/22/2022 12:03	WG1944825
Nitrobenzene	U		0.000297	0.0100	1	10/22/2022 12:03	WG1944825
n-Nitrosodiphenylamine	U		0.00237	0.0100	1	10/22/2022 12:03	WG1944825
n-Nitrosodi-n-propylamine	U		0.000261	0.0100	1	10/22/2022 12:03	WG1944825
Phenanthrene	U		0.000112	0.00100	1	10/22/2022 12:03	WG1944825
Benzylbutyl phthalate	U		0.000765	0.00300	1	10/22/2022 12:03	WG1944825
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300	1	10/22/2022 12:03	WG1944825
Di-n-butyl phthalate	U		0.000453	0.00300	1	10/22/2022 12:03	WG1944825
Diethyl phthalate	U		0.000287	0.00300	1	10/22/2022 12:03	WG1944825
Dimethyl phthalate	U		0.000260	0.00300	1	10/22/2022 12:03	WG1944825
Di-n-octyl phthalate	U		0.000932	0.00300	1	10/22/2022 12:03	WG1944825
Pyrene	U		0.000107	0.00100	1	10/22/2022 12:03	WG1944825
1,2,4-Trichlorobenzene	U		0.0000698	0.0100	1	10/22/2022 12:03	WG1944825
4-Chloro-3-methylphenol	U		0.000131	0.0100	1	10/22/2022 12:03	WG1944825
2-Chlorophenol	U		0.000133	0.0100	1	10/22/2022 12:03	WG1944825
2,4-Dichlorophenol	U		0.000102	0.0100	1	10/22/2022 12:03	WG1944825
2,4-Dimethylphenol	U		0.0000636	0.0100	1	10/22/2022 12:03	WG1944825
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100	1	10/22/2022 12:03	WG1944825
2,4-Dinitrophenol	U		0.00593	0.0100	1	10/22/2022 12:03	WG1944825
2-Nitrophenol	U		0.000117	0.0100	1	10/22/2022 12:03	WG1944825

LB-02
Collected date/time: 10/13/22 11:25
L1546506

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000102	0.0100	1	10/22/2022 12:03	WG1944825
2-Methylphenol	U		0.0000929	0.0100	1	10/22/2022 12:03	WG1944825
3&4-Methyl Phenol	U		0.000168	0.0100	1	10/22/2022 12:03	WG1944825
3-Nitroaniline	U		0.0000869	0.0100	1	10/22/2022 12:03	WG1944825
4-Chloroaniline	U		0.000234	0.0100	1	10/22/2022 12:03	WG1944825
4-Nitroaniline	U		0.0000910	0.0100	1	10/22/2022 12:03	WG1944825
4-Nitrophenol	U		0.000143	0.0100	1	10/22/2022 12:03	WG1944825
Pentachlorophenol	U		0.000313	0.0100	1	10/22/2022 12:03	WG1944825
Phenol	U		0.00433	0.0100	1	10/22/2022 12:03	WG1944825
2,4,5-Trichlorophenol	U		0.000109	0.0100	1	10/22/2022 12:03	WG1944825
2,4,6-Trichlorophenol	U		0.000100	0.0100	1	10/22/2022 12:03	WG1944825
(S) 2-Fluorophenol	*25.7*			*10.0-120*		*10/22/2022 12:03*	WG1944825
(S) Phenol-d5	*17.3*			*10.0-120*		*10/22/2022 12:03*	WG1944825
(S) Nitrobenzene-d5	*42.9*			*10.0-127*		*10/22/2022 12:03*	WG1944825
(S) 2-Fluorobiphenyl	*44.2*			*10.0-130*		*10/22/2022 12:03*	WG1944825
(S) 2,4,6-Tribromophenol	*73.1*			*10.0-155*		*10/22/2022 12:03*	WG1944825
(S) p-Terphenyl-d14	*64.7*			*10.0-128*		*10/22/2022 12:03*	WG1944825

TRIP BLANK-01
Collected date/time: 10/13/22 00:00
L1546506

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 14:53	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 14:53	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 14:53	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 14:53	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 14:53	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 14:53	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 14:53	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 14:53	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 14:53	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 14:53	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 14:53	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 14:53	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 14:53	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 14:53	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 14:53	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 14:53	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 14:53	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 14:53	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 14:53	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 14:53	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 14:53	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 14:53	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 14:53	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 14:53	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 14:53	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 14:53	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 14:53	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 14:53	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 14:53	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 14:53	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 14:53	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 14:53	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 14:53	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 14:53	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 14:53	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 14:53	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 14:53	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 14:53	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 14:53	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 14:53	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 14:53	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 14:53	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 14:53	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 14:53	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 14:53	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 14:53	WG1943671
(S) Toluene-d8	*108*			*80.0-120*		*10/16/2022 14:53*	WG1943671
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*		*10/16/2022 14:53*	WG1943671
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*10/16/2022 14:53*	WG1943671

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2022 15:15	WG1943671
Benzene	U		0.0000941	0.00100	1	10/16/2022 15:15	WG1943671
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2022 15:15	WG1943671
Bromoform	U		0.000129	0.00100	1	10/16/2022 15:15	WG1943671
Bromomethane	U		0.000605	0.00500	1	10/16/2022 15:15	WG1943671
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2022 15:15	WG1943671
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2022 15:15	WG1943671
tert-Butylbenzene	U		0.000127	0.00100	1	10/16/2022 15:15	WG1943671
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2022 15:15	WG1943671
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2022 15:15	WG1943671
Chlorobenzene	U		0.000116	0.00100	1	10/16/2022 15:15	WG1943671
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2022 15:15	WG1943671
Chloroethane	U		0.000192	0.00500	1	10/16/2022 15:15	WG1943671
Chloroform	U		0.000111	0.00500	1	10/16/2022 15:15	WG1943671
Chloromethane	U		0.000960	0.00250	1	10/16/2022 15:15	WG1943671
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2022 15:15	WG1943671
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2022 15:15	WG1943671
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2022 15:15	WG1943671
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2022 15:15	WG1943671
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2022 15:15	WG1943671
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2022 15:15	WG1943671
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2022 15:15	WG1943671
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2022 15:15	WG1943671
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2022 15:15	WG1943671
Ethylbenzene	U		0.000137	0.00100	1	10/16/2022 15:15	WG1943671
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	10/16/2022 15:15	WG1943671
2-Hexanone	U		0.000787	0.0100	1	10/16/2022 15:15	WG1943671
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2022 15:15	WG1943671
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2022 15:15	WG1943671
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2022 15:15	WG1943671
Methylene Chloride	U		0.000430	0.00500	1	10/16/2022 15:15	WG1943671
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2022 15:15	WG1943671
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2022 15:15	WG1943671
Naphthalene	U		0.00100	0.00500	1	10/16/2022 15:15	WG1943671
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2022 15:15	WG1943671
Styrene	U		0.000118	0.00100	1	10/16/2022 15:15	WG1943671
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2022 15:15	WG1943671
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2022 15:15	WG1943671
Toluene	U		0.000278	0.00100	1	10/16/2022 15:15	WG1943671
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2022 15:15	WG1943671
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2022 15:15	WG1943671
Trichloroethene	U		0.000190	0.00100	1	10/16/2022 15:15	WG1943671
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2022 15:15	WG1943671
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2022 15:15	WG1943671
Vinyl chloride	U		0.000234	0.00100	1	10/16/2022 15:15	WG1943671
Xylenes, Total	U		0.000174	0.00300	1	10/16/2022 15:15	WG1943671
(S) Toluene-d8	*101*			*80.0-120*		*10/16/2022 15:15*	WG1943671
(S) 4-Bromofluorobenzene	*95.7*			*77.0-126*		*10/16/2022 15:15*	WG1943671
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*10/16/2022 15:15*	WG1943671

Method Blank (MB)

(MB) R3855086-1 10/20/22 15:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1546506-30 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-30 10/20/22 15:55 • (DUP) R3855086-3 10/20/22 15:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	974	938	1	3.77		5

L1546506-31 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-31 10/20/22 15:55 • (DUP) R3855086-4 10/20/22 15:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	477	504	1	5.44	J3	5

Laboratory Control Sample (LCS)

(LCS) R3855086-2 10/20/22 15:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7110	80.8	77.3-123	

Method Blank (MB)

(MB) R3854559-1 10/20/22 15:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1546506-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-06 10/20/22 15:18 • (DUP) R3854559-3 10/20/22 15:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	512	517	1	1.04		5

L1546506-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-07 10/20/22 15:18 • (DUP) R3854559-4 10/20/22 15:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1260	1260	1	0.397		5

Laboratory Control Sample (LCS)

(LCS) R3854559-2 10/20/22 15:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8070	91.7	77.3-123	

Method Blank (MB)

(MB) R3855148-1 10/20/22 23:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1545935-31 Original Sample (OS) • Duplicate (DUP)

(OS) L1545935-31 10/20/22 23:58 • (DUP) R3855148-3 10/20/22 23:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	740	736	1	0.542		5

L1546506-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-29 10/20/22 23:58 • (DUP) R3855148-4 10/20/22 23:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	573	572	1	0.232		5

Laboratory Control Sample (LCS)

(LCS) R3855148-2 10/20/22 23:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8400	95.5	77.3-123	

Method Blank (MB)

(MB) R3853743-2 10/25/22 06:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1546506-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-05 10/25/22 06:55 • (DUP) R3853743-4 10/25/22 07:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	290	293	1	0.901		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1546506-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-11 10/25/22 09:05 • (DUP) R3853743-6 10/25/22 09:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	193	192	1	0.698		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3853743-1 10/25/22 06:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	99.2	99.2	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3853745-2 10/25/22 09:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1546506-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-28 10/25/22 10:41 • (DUP) R3853745-3 10/25/22 10:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	968	972	1	0.445		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1546648-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1546648-03 10/25/22 11:53 • (DUP) R3853745-4 10/25/22 11:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	1530	1520	1	0.966		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3853745-1 10/25/22 09:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	101	101	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3853177-2 10/25/22 10:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1546506-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-10 10/25/22 10:14 • (DUP) R3853177-3 10/25/22 10:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	280	270	1	3.56		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1547036-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1547036-21 10/25/22 11:43 • (DUP) R3853177-4 10/25/22 11:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	433	439	1	1.40		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3853177-1 10/25/22 09:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	101	101	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3848868-1 10/14/22 17:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1545935-32 Original Sample (OS) • Duplicate (DUP)

(OS) L1545935-32 10/14/22 17:58 • (DUP) R3848868-3 10/14/22 18:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	69.3	66.4	1	4.27		15
Nitrate	U	U	1	0.000		15

L1546506-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-23 10/14/22 23:06 • (DUP) R3848868-6 10/14/22 23:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	71.0	72.3	1	1.86		15
Fluoride	2.35	2.41	1	2.66		15
Nitrate	2.60	2.65	1	1.99		15
Nitrite	U	U	1	0.000		15
Sulfate	75.5	77.6	1	2.80		15

Laboratory Control Sample (LCS)

(LCS) R3848868-2 10/14/22 17:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.5	101	80.0-120	
Fluoride	8.00	8.34	104	80.0-120	
Nitrate	8.00	8.01	100	80.0-120	
Nitrite	8.00	8.29	104	80.0-120	
Sulfate	40.0	41.0	103	80.0-120	

L1545935-32 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1545935-32 10/14/22 17:58 • (MS) R3848868-4 10/14/22 18:24 • (MSD) R3848868-5 10/14/22 18:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	69.3	113	117	87.9	96.1	1	80.0-120			3.56	15
Nitrate	5.00	U	4.80	4.99	96.1	99.7	1	80.0-120			3.72	15

L1546506-23 Original Sample (OS) • Matrix Spike (MS)

(OS) L1546506-23 10/14/22 23:06 • (MS) R3848868-7 10/14/22 23:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	71.0	121	101	1	80.0-120	
Fluoride	5.00	2.35	7.57	104	1	80.0-120	
Nitrate	5.00	2.60	7.56	99.1	1	80.0-120	
Nitrite	5.00	U	5.33	107	1	80.0-120	
Sulfate	50.0	75.5	126	102	1	80.0-120	

Method Blank (MB)

(MB) R3850441-1 10/14/22 21:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1546506-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-05 10/14/22 22:35 • (DUP) R3850441-3 10/14/22 22:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.3	13.4	1	0.0832		15
Nitrate	3.03	3.03	1	0.00331		15
Nitrite	U	U	1	0.000		15
Sulfate	24.5	24.5	1	0.0580		15

L1546506-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-09 10/15/22 01:19 • (DUP) R3850441-6 10/15/22 01:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	18.1	18.1	1	0.0408		15
Nitrate	1.99	1.97	1	0.656		15
Nitrite	U	U	1	0.000		15
Sulfate	60.9	60.8	1	0.221		15

Laboratory Control Sample (LCS)

(LCS) R3850441-2 10/14/22 21:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.0	99.9	80.0-120	
Nitrate	8.00	7.78	97.2	80.0-120	
Nitrite	8.00	8.32	104	80.0-120	
Sulfate	40.0	40.7	102	80.0-120	

L1546506-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-05 10/14/22 22:35 • (MS) R3850441-4 10/14/22 23:05 • (MSD) R3850441-5 10/14/22 23:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	13.3	63.3	63.3	99.8	99.9	1	80.0-120			0.0879	15
Nitrate	5.00	3.03	7.85	7.86	96.5	96.7	1	80.0-120			0.102	15
Nitrite	5.00	U	5.29	5.30	106	106	1	80.0-120			0.213	15
Sulfate	50.0	24.5	74.1	74.2	99.2	99.4	1	80.0-120			0.138	15

L1546506-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1546506-09 10/15/22 01:19 • (MS) R3850441-7 10/15/22 01:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	18.1	67.7	99.2	1	80.0-120	
Nitrate	5.00	1.99	7.01	101	1	80.0-120	
Nitrite	5.00	U	5.29	106	1	80.0-120	
Sulfate	50.0	60.9	110	97.9	1	80.0-120	

Method Blank (MB)

(MB) R3850070-1 10/14/22 17:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	0.0664	J	0.0640	0.150
Nitrate	0.0687	J	0.0480	0.100
Nitrite	0.0434	J	0.0420	0.100
Sulfate	U		0.594	5.00

L1546506-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-28 10/14/22 21:08 • (DUP) R3850070-3 10/14/22 21:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	86.9	87.7	1	0.922		15
Fluoride	0.786	0.790	1	0.508		15
Nitrate	0.0606	0.0600	1	0.995	J	15
Nitrite	0.0525	0.0500	1	4.88	J	15
Sulfate	7.78	8.02	1	2.96		15

L1546648-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1546648-03 10/15/22 02:32 • (DUP) R3850070-6 10/15/22 02:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.929	0.922	1	0.681		15
Nitrate	0.0627	0.0626	1	0.160	J	15
Nitrite	0.0574	0.0580	1	1.04	J	15
Sulfate	73.6	74.0	1	0.582		15

Laboratory Control Sample (LCS)

(LCS) R3850070-2 10/14/22 18:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.9	99.8	80.0-120	
Fluoride	8.00	8.19	102	80.0-120	
Nitrate	8.00	7.93	99.1	80.0-120	
Nitrite	8.00	8.25	103	80.0-120	
Sulfate	40.0	40.1	100	80.0-120	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/14/22 21:08 • (MS) R3850070-4 10/14/22 21:35 • (MSD) R3850070-5 10/14/22 21:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	86.9	134	135	94.5	96.7	1	80.0-120			0.823	15
Fluoride	5.00	0.786	6.06	5.99	106	104	1	80.0-120			1.18	15
Nitrate	5.00	0.0606	4.73	4.73	93.3	93.3	1	80.0-120			0.0550	15
Nitrite	5.00	0.0525	5.11	5.14	101	102	1	80.0-120			0.560	15
Sulfate	50.0	7.78	58.0	58.0	100	100	1	80.0-120			0.0716	15

L1546648-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546648-03 10/15/22 02:32 • (MS) R3850070-7 10/15/22 02:59 • (MSD) R3850070-8 10/15/22 03:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1280	1280	1260	0.000	0.000	1	80.0-120	E V	E V	1.26	15
Fluoride	5.00	0.929	6.17	6.15	105	104	1	80.0-120			0.362	15
Nitrate	5.00	0.0627	4.73	4.69	93.4	92.5	1	80.0-120			0.908	15
Nitrite	5.00	0.0574	5.11	5.09	101	101	1	80.0-120			0.367	15
Sulfate	50.0	73.6	121	122	95.6	97.2	1	80.0-120			0.624	15

Method Blank (MB)

(MB) R3850796-1 10/19/22 10:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	0.0640	J	0.0640	0.150

L1546506-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-01 10/19/22 17:08 • (DUP) R3850796-3 10/19/22 17:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.937	0.932	1	0.546		15

L1546506-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1546506-12 10/19/22 20:44 • (DUP) R3850796-6 10/19/22 20:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.413	0.415	1	0.531		15

Laboratory Control Sample (LCS)

(LCS) R3850796-2 10/19/22 10:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.51	106	80.0-120	

L1546506-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-01 10/19/22 17:08 • (MS) R3850796-4 10/19/22 17:35 • (MSD) R3850796-5 10/19/22 17:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	0.937	6.25	6.20	106	105	1	80.0-120			0.764	15

L1546506-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1546506-12 10/19/22 20:44 • (MS) R3850796-7 10/19/22 21:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	0.413	5.57	103	1	80.0-120	

Method Blank (MB)

(MB) R3850417-1 10/19/22 12:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3850417-2 10/19/22 12:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00258	86.0	80.0-120	

L1543567-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1543567-07 10/19/22 12:48 • (MS) R3850417-4 10/19/22 13:58 • (MSD) R3850417-3 10/19/22 12:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00295	0.00295	98.5	98.2	1	75.0-125			0.326	20

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3853742-1 10/27/22 11:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3853742-2 10/27/22 11:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00348	116	80.0-120	

L1545935-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1545935-26 10/27/22 11:43 • (MS) R3853742-3 10/27/22 11:45 • (MSD) R3853742-4 10/27/22 11:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00354	0.00346	118	115	1	75.0-125			2.21	20

Released to Imaging: 4/14/2023 4:34:58 PM

Method Blank (MB)

(MB) R3853837-1 10/27/22 10:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3853837-2 10/27/22 10:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00343	114	80.0-120	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/27/22 10:36 • (MS) R3853837-3 10/27/22 10:42 • (MSD) R3853837-4 10/27/22 10:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00234	0.00214	78.1	71.3	1	75.0-125		J6	9.03	20

Method Blank (MB)

(MB) R3855786-1 11/01/22 22:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3855786-2 11/01/22 22:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.982	98.2	80.0-120	

L1546506-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-13 11/01/22 22:25 • (MS) R3855786-4 11/01/22 22:31 • (MSD) R3855786-5 11/01/22 22:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.209	1.22	1.23	101	102	1	75.0-125			0.987	20

Method Blank (MB)

(MB) R3855760-1 11/01/22 19:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3855760-2 11/01/22 19:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.944	94.4	80.0-120	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 11/01/22 20:01 • (MS) R3855760-4 11/01/22 20:06 • (MSD) R3855760-5 11/01/22 20:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.143	1.10	1.10	95.7	95.9	1	75.0-125			0.144	20

Method Blank (MB)

(MB) R3854038-1 10/27/22 21:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	0.0305	J	0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	0.000495	J	0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3854038-6 10/27/22 22:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	4.77	95.3	80.0-120	
Arsenic,Dissolved	0.0500	0.0479	95.8	80.0-120	
Barium,Dissolved	0.0500	0.0477	95.4	80.0-120	
Cadmium,Dissolved	0.0500	0.0486	97.1	80.0-120	
Chromium,Dissolved	0.0500	0.0606	121	80.0-120	J4
Copper,Dissolved	0.0500	0.0482	96.3	80.0-120	
Cobalt,Dissolved	0.0500	0.0485	97.0	80.0-120	
Iron,Dissolved	5.00	4.90	98.1	80.0-120	
Lead,Dissolved	0.0500	0.0461	92.3	80.0-120	
Manganese,Dissolved	0.0500	0.0491	98.2	80.0-120	
Molybdenum,Dissolved	0.0500	0.0467	93.3	80.0-120	
Nickel,Dissolved	0.0500	0.0546	109	80.0-120	
Selenium,Dissolved	0.0500	0.0491	98.1	80.0-120	
Silver,Dissolved	0.0500	0.0501	100	80.0-120	
Uranium,Dissolved	0.0500	0.0450	90.1	80.0-120	
Zinc,Dissolved	0.500	0.471	94.1	80.0-120	

L1545568-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1545568-12 10/27/22 21:16 • (MS) R3854038-4 10/27/22 21:22 • (MSD) R3854038-5 10/27/22 21:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	4.54	4.59	90.8	91.9	1	75.0-125			1.19	20
Arsenic,Dissolved	0.0500	0.0123	0.0612	0.0604	97.7	96.3	1	75.0-125			1.21	20
Barium,Dissolved	0.0500	0.0242	0.0710	0.0715	93.6	94.8	1	75.0-125			0.816	20
Cadmium,Dissolved	0.0500	U	0.0486	0.0484	97.1	96.8	1	75.0-125			0.321	20
Chromium,Dissolved	0.0500	U	0.0482	0.0481	96.4	96.2	1	75.0-125			0.199	20
Copper,Dissolved	0.0500	0.00361	0.0498	0.0490	92.3	90.8	1	75.0-125			1.49	20
Cobalt,Dissolved	0.0500	0.000225	0.0476	0.0479	94.8	95.4	1	75.0-125			0.669	20
Iron,Dissolved	5.00	U	4.68	4.69	93.5	93.8	1	75.0-125			0.221	20
Lead,Dissolved	0.0500	U	0.0476	0.0475	95.2	94.9	1	75.0-125			0.301	20
Manganese,Dissolved	0.0500	0.106	0.152	0.150	90.7	87.4	1	75.0-125			1.08	20
Molybdenum,Dissolved	0.0500	0.00234	0.0508	0.0505	96.8	96.4	1	75.0-125			0.435	20
Nickel,Dissolved	0.0500	0.00396	0.0515	0.0512	95.0	94.4	1	75.0-125			0.631	20
Selenium,Dissolved	0.0500	U	0.0506	0.0504	101	101	1	75.0-125			0.507	20
Silver,Dissolved	0.0500	U	0.0488	0.0492	97.5	98.3	1	75.0-125			0.809	20
Uranium,Dissolved	0.0500	0.00349	0.0515	0.0510	96.0	95.0	1	75.0-125			0.968	20
Zinc,Dissolved	0.500	0.0111	0.481	0.478	93.9	93.3	1	75.0-125			0.616	20

Method Blank (MB)

(MB) R3854022-1 10/27/22 17:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3854022-2 10/27/22 17:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	4.86	97.2	80.0-120	
Arsenic,Dissolved	0.0500	0.0490	98.0	80.0-120	
Barium,Dissolved	0.0500	0.0466	93.1	80.0-120	
Cadmium,Dissolved	0.0500	0.0527	105	80.0-120	
Chromium,Dissolved	0.0500	0.0519	104	80.0-120	
Copper,Dissolved	0.0500	0.0483	96.6	80.0-120	
Cobalt,Dissolved	0.0500	0.0520	104	80.0-120	
Iron,Dissolved	5.00	5.07	101	80.0-120	
Lead,Dissolved	0.0500	0.0469	93.8	80.0-120	
Manganese,Dissolved	0.0500	0.0501	100	80.0-120	
Molybdenum,Dissolved	0.0500	0.0486	97.3	80.0-120	
Nickel,Dissolved	0.0500	0.0520	104	80.0-120	
Selenium,Dissolved	0.0500	0.0528	106	80.0-120	
Silver,Dissolved	0.0500	0.0499	99.7	80.0-120	
Uranium,Dissolved	0.0500	0.0465	93.1	80.0-120	
Zinc,Dissolved	0.500	0.485	96.9	80.0-120	

L1545639-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1545639-01 10/27/22 18:00 • (MS) R3854022-4 10/27/22 18:06 • (MSD) R3854022-5 10/27/22 18:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	0.0385	4.79	4.67	95.0	92.7	1	75.0-125			2.43	20
Arsenic,Dissolved	0.0500	0.000342	0.0501	0.0498	99.5	99.0	1	75.0-125			0.482	20
Barium,Dissolved	0.0500	0.0332	0.0795	0.0803	92.5	94.0	1	75.0-125			0.964	20
Cadmium,Dissolved	0.0500	U	0.0535	0.0531	107	106	1	75.0-125			0.849	20
Chromium,Dissolved	0.0500	U	0.0525	0.0511	105	102	1	75.0-125			2.81	20
Copper,Dissolved	0.0500	U	0.0480	0.0479	95.9	95.8	1	75.0-125			0.147	20
Cobalt,Dissolved	0.0500	0.00109	0.0519	0.0518	102	101	1	75.0-125			0.304	20
Iron,Dissolved	5.00	0.234	5.48	5.49	105	105	1	75.0-125			0.0670	20
Lead,Dissolved	0.0500	U	0.0477	0.0478	95.4	95.6	1	75.0-125			0.183	20
Manganese,Dissolved	0.0500	0.794	0.850	0.833	112	76.8	1	75.0-125			2.08	20
Molybdenum,Dissolved	0.0500	0.00246	0.0533	0.0535	102	102	1	75.0-125			0.303	20
Nickel,Dissolved	0.0500	0.00308	0.0539	0.0531	102	100	1	75.0-125			1.49	20
Selenium,Dissolved	0.0500	U	0.0540	0.0534	108	107	1	75.0-125			1.21	20
Silver,Dissolved	0.0500	U	0.0506	0.0507	101	101	1	75.0-125			0.223	20
Uranium,Dissolved	0.0500	0.00128	0.0497	0.0489	96.9	95.2	1	75.0-125			1.69	20
Zinc,Dissolved	0.500	0.00536	0.493	0.487	97.5	96.3	1	75.0-125			1.24	20

Method Blank (MB)

(MB) R3854619-2 10/29/22 17:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3854619-3 10/29/22 17:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	4.96	99.2	80.0-120	
Arsenic,Dissolved	0.0500	0.0499	99.7	80.0-120	
Barium,Dissolved	0.0500	0.0483	96.5	80.0-120	
Cadmium,Dissolved	0.0500	0.0559	112	80.0-120	
Chromium,Dissolved	0.0500	0.0523	105	80.0-120	
Copper,Dissolved	0.0500	0.0491	98.2	80.0-120	
Cobalt,Dissolved	0.0500	0.0528	106	80.0-120	
Iron,Dissolved	5.00	5.23	105	80.0-120	
Lead,Dissolved	0.0500	0.0494	98.8	80.0-120	
Manganese,Dissolved	0.0500	0.0501	100	80.0-120	
Molybdenum,Dissolved	0.0500	0.0497	99.4	80.0-120	
Nickel,Dissolved	0.0500	0.0530	106	80.0-120	
Selenium,Dissolved	0.0500	0.0533	107	80.0-120	
Silver,Dissolved	0.0500	0.0507	101	80.0-120	
Uranium,Dissolved	0.0500	0.0496	99.2	80.0-120	
Zinc,Dissolved	0.500	0.495	98.9	80.0-120	

L1545932-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1545932-04 10/29/22 17:42 • (MS) R3854619-5 10/29/22 17:48 • (MSD) R3854619-6 10/29/22 17:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	4.84	4.96	96.7	99.1	1	75.0-125			2.44	20
Arsenic,Dissolved	0.0500	0.00395	0.0550	0.0558	102	104	1	75.0-125			1.33	20
Barium,Dissolved	0.0500	0.00310	0.0518	0.0542	97.4	102	1	75.0-125			4.44	20
Cadmium,Dissolved	0.0500	U	0.0557	0.0567	111	113	1	75.0-125			1.67	20
Chromium,Dissolved	0.0500	0.00295	0.0531	0.0543	100	103	1	75.0-125			2.27	20
Copper,Dissolved	0.0500	0.00245	0.0508	0.0519	96.7	98.9	1	75.0-125			2.14	20
Cobalt,Dissolved	0.0500	U	0.0534	0.0539	107	108	1	75.0-125			0.835	20
Iron,Dissolved	5.00	0.0316	5.22	5.31	104	106	1	75.0-125			1.63	20
Lead,Dissolved	0.0500	U	0.0497	0.0511	99.4	102	1	75.0-125			2.75	20
Manganese,Dissolved	0.0500	0.0111	0.0611	0.0622	99.9	102	1	75.0-125			1.84	20
Molybdenum,Dissolved	0.0500	0.000494	0.0517	0.0514	102	102	1	75.0-125			0.683	20
Nickel,Dissolved	0.0500	0.00203	0.0538	0.0542	104	104	1	75.0-125			0.650	20
Selenium,Dissolved	0.0500	U	0.0527	0.0541	105	108	1	75.0-125			2.64	20
Silver,Dissolved	0.0500	U	0.0508	0.0520	102	104	1	75.0-125			2.33	20
Uranium,Dissolved	0.0500	0.000102	0.0508	0.0526	101	105	1	75.0-125			3.35	20
Zinc,Dissolved	0.500	0.0208	0.513	0.520	98.4	99.9	1	75.0-125			1.47	20

Method Blank (MB)

(MB) R3856290-1 11/02/22 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3856290-2 11/02/22 21:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	5.09	102	80.0-120	
Arsenic,Dissolved	0.0500	0.0514	103	80.0-120	
Barium,Dissolved	0.0500	0.0498	99.7	80.0-120	
Cadmium,Dissolved	0.0500	0.0524	105	80.0-120	
Chromium,Dissolved	0.0500	0.0518	104	80.0-120	
Copper,Dissolved	0.0500	0.0531	106	80.0-120	
Cobalt,Dissolved	0.0500	0.0521	104	80.0-120	
Iron,Dissolved	5.00	5.10	102	80.0-120	
Lead,Dissolved	0.0500	0.0497	99.4	80.0-120	
Manganese,Dissolved	0.0500	0.0522	104	80.0-120	
Molybdenum,Dissolved	0.0500	0.0518	104	80.0-120	
Nickel,Dissolved	0.0500	0.0525	105	80.0-120	
Selenium,Dissolved	0.0500	0.0504	101	80.0-120	
Silver,Dissolved	0.0500	0.0508	102	80.0-120	
Uranium,Dissolved	0.0500	0.0493	98.7	80.0-120	
Zinc,Dissolved	0.500	0.494	98.8	80.0-120	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 11/02/22 21:43 • (MS) R3856290-4 11/02/22 21:50 • (MSD) R3856290-5 11/02/22 21:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	U	5.11	4.36	102	87.2	1	75.0-125			15.8	20
Arsenic,Dissolved	0.0500	0.00677	0.0593	0.0514	105	89.3	1	75.0-125			14.3	20
Barium,Dissolved	0.0500	0.557	0.614	0.596	116	78.9	1	75.0-125			3.04	20
Cadmium,Dissolved	0.0500	U	0.0536	0.0463	107	92.6	1	75.0-125			14.5	20
Chromium,Dissolved	0.0500	U	0.0530	0.0456	106	91.2	1	75.0-125			15.1	20
Copper,Dissolved	0.0500	U	0.0538	0.0465	108	92.9	1	75.0-125			14.5	20
Cobalt,Dissolved	0.0500	0.0000730	0.0522	0.0447	104	89.2	1	75.0-125			15.6	20
Iron,Dissolved	5.00	2.01	7.28	6.37	105	87.3	1	75.0-125			13.2	20
Lead,Dissolved	0.0500	U	0.0514	0.0440	103	88.0	1	75.0-125			15.6	20
Manganese,Dissolved	0.0500	0.973	1.03	0.993	107	39.9	1	75.0-125		V	3.33	20
Molybdenum,Dissolved	0.0500	0.00243	0.0580	0.0575	111	110	1	75.0-125			0.892	20
Nickel,Dissolved	0.0500	0.00209	0.0537	0.0470	103	89.8	1	75.0-125			13.4	20
Selenium,Dissolved	0.0500	U	0.0542	0.0470	108	94.1	1	75.0-125			14.1	20
Silver,Dissolved	0.0500	U	0.0519	0.0447	104	89.5	1	75.0-125			14.7	20
Uranium,Dissolved	0.0500	0.0424	0.0979	0.0886	111	92.6	1	75.0-125			9.91	20
Zinc,Dissolved	0.500	0.00914	0.509	0.441	100	86.3	1	75.0-125			14.4	20

Method Blank (MB)

(MB) R3855776-1 11/01/22 22:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum,Dissolved	U		0.0185	0.100
Arsenic,Dissolved	U		0.000180	0.00200
Barium,Dissolved	U		0.000381	0.00200
Cadmium,Dissolved	U		0.000150	0.00100
Chromium,Dissolved	U		0.00124	0.00200
Copper,Dissolved	U		0.00151	0.00500
Cobalt,Dissolved	U		0.0000596	0.00200
Iron,Dissolved	U		0.0281	0.100
Lead,Dissolved	U		0.000849	0.00200
Manganese,Dissolved	U		0.000704	0.00500
Molybdenum,Dissolved	U		0.000348	0.00500
Nickel,Dissolved	U		0.000816	0.00200
Selenium,Dissolved	U		0.000300	0.00200
Silver,Dissolved	U		0.0000700	0.00200
Uranium,Dissolved	U		0.0000700	0.0200
Zinc,Dissolved	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3855776-2 11/01/22 22:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	5.00	4.84	96.7	80.0-120	
Arsenic,Dissolved	0.0500	0.0504	101	80.0-120	
Barium,Dissolved	0.0500	0.0475	95.1	80.0-120	
Cadmium,Dissolved	0.0500	0.0509	102	80.0-120	
Chromium,Dissolved	0.0500	0.0511	102	80.0-120	
Copper,Dissolved	0.0500	0.0486	97.2	80.0-120	
Cobalt,Dissolved	0.0500	0.0518	104	80.0-120	
Iron,Dissolved	5.00	5.13	103	80.0-120	
Lead,Dissolved	0.0500	0.0486	97.3	80.0-120	
Manganese,Dissolved	0.0500	0.0502	100	80.0-120	
Molybdenum,Dissolved	0.0500	0.0478	95.5	80.0-120	
Nickel,Dissolved	0.0500	0.0513	103	80.0-120	
Selenium,Dissolved	0.0500	0.0521	104	80.0-120	
Silver,Dissolved	0.0500	0.0493	98.6	80.0-120	
Uranium,Dissolved	0.0500	0.0492	98.5	80.0-120	
Zinc,Dissolved	0.500	0.494	98.8	80.0-120	

L1546506-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-36 11/01/22 22:54 • (MS) R3855776-4 11/01/22 22:57 • (MSD) R3855776-5 11/01/22 23:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	5.00	0.0284	4.80	4.79	95.4	95.3	1	75.0-125			0.0457	20
Arsenic,Dissolved	0.0500	U	0.0503	0.0507	101	101	1	75.0-125			0.930	20
Barium,Dissolved	0.0500	0.00310	0.0499	0.0501	93.5	94.1	1	75.0-125			0.578	20
Cadmium,Dissolved	0.0500	U	0.0500	0.0509	100	102	1	75.0-125			1.69	20
Chromium,Dissolved	0.0500	0.00168	0.0513	0.0518	99.2	100	1	75.0-125			1.04	20
Copper,Dissolved	0.0500	U	0.0476	0.0496	95.3	99.1	1	75.0-125			3.97	20
Cobalt,Dissolved	0.0500	U	0.0510	0.0505	102	101	1	75.0-125			0.919	20
Iron,Dissolved	5.00	0.704	5.20	5.13	89.9	88.4	1	75.0-125			1.42	20
Lead,Dissolved	0.0500	U	0.0486	0.0491	97.3	98.2	1	75.0-125			0.971	20
Manganese,Dissolved	0.0500	0.00441	0.0507	0.0509	92.5	92.9	1	75.0-125			0.451	20
Molybdenum,Dissolved	0.0500	U	0.0484	0.0490	96.8	97.9	1	75.0-125			1.21	20
Nickel,Dissolved	0.0500	U	0.0501	0.0507	100	101	1	75.0-125			1.07	20
Selenium,Dissolved	0.0500	U	0.0513	0.0504	103	101	1	75.0-125			1.88	20
Silver,Dissolved	0.0500	U	0.0497	0.0504	99.5	101	1	75.0-125			1.35	20
Uranium,Dissolved	0.0500	U	0.0488	0.0491	97.6	98.2	1	75.0-125			0.587	20
Zinc,Dissolved	0.500	U	0.493	0.492	98.6	98.3	1	75.0-125			0.324	20

Method Blank (MB)

(MB) R3851536-2 10/20/22 23:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*91.2*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3851536-1 10/20/22 22:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.25	95.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3852850-2 10/21/22 12:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*90.6*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3852850-1 10/21/22 11:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.22	94.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*78.0-120*	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/21/22 14:06 • (MS) R3852850-3 10/21/22 20:35 • (MSD) R3852850-4 10/21/22 20:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.0398	2.81	3.23	50.4	58.0	1	10.0-160			13.9	22
(S) a,a,a-Trifluorotoluene(FID)					*98.4*	*99.5*		*78.0-120*				

Method Blank (MB)

(MB) R3853029-2 10/16/22 11:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3853029-2 10/16/22 11:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*92.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*125*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3853029-1 10/16/22 10:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0476	190	19.0-160	J4
Benzene	0.00500	0.00473	94.6	70.0-123	
Bromodichloromethane	0.00500	0.00449	89.8	75.0-120	
Bromoform	0.00500	0.00413	82.6	68.0-132	
Bromomethane	0.00500	0.00338	67.6	10.0-160	
n-Butylbenzene	0.00500	0.00473	94.6	73.0-125	
sec-Butylbenzene	0.00500	0.00441	88.2	75.0-125	
tert-Butylbenzene	0.00500	0.00417	83.4	76.0-124	
Carbon disulfide	0.00500	0.00422	84.4	61.0-128	
Carbon tetrachloride	0.00500	0.00458	91.6	68.0-126	
Chlorobenzene	0.00500	0.00466	93.2	80.0-121	
Chlorodibromomethane	0.00500	0.00426	85.2	77.0-125	
Chloroethane	0.00500	0.00429	85.8	47.0-150	
Chloroform	0.00500	0.00471	94.2	73.0-120	
Chloromethane	0.00500	0.00604	121	41.0-142	
1,2-Dibromoethane	0.00500	0.00455	91.0	80.0-122	
1,1-Dichloroethane	0.00500	0.00548	110	70.0-126	
1,2-Dichloroethane	0.00500	0.00568	114	70.0-128	
1,1-Dichloroethene	0.00500	0.00414	82.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00464	92.8	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00436	87.2	73.0-120	
1,2-Dichloropropane	0.00500	0.00580	116	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00434	86.8	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00421	84.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3853029-1 10/16/22 10:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00438	87.6	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00406	81.2	54.0-138	
2-Hexanone	0.0250	0.0301	120	67.0-149	
Isopropylbenzene	0.00500	0.00445	89.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00430	86.0	76.0-125	
2-Butanone (MEK)	0.0250	0.0347	139	44.0-160	
Methylene Chloride	0.00500	0.00443	88.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0316	126	68.0-142	
Methyl tert-butyl ether	0.00500	0.00480	96.0	68.0-125	
Naphthalene	0.00500	0.00399	79.8	54.0-135	
n-Propylbenzene	0.00500	0.00431	86.2	77.0-124	
Styrene	0.00500	0.00420	84.0	73.0-130	
1,1,2,2-Tetrachloroethane	0.00500	0.00443	88.6	65.0-130	
Tetrachloroethene	0.00500	0.00453	90.6	72.0-132	
Toluene	0.00500	0.00463	92.6	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00463	92.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00464	92.8	80.0-120	
Trichloroethene	0.00500	0.00473	94.6	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00421	84.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00428	85.6	76.0-122	
Vinyl chloride	0.00500	0.00463	92.6	67.0-131	
Xylenes, Total	0.0150	0.0135	90.0	79.0-123	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*94.8*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*125*	*70.0-130*	

Method Blank (MB)

(MB) R3851317-3 10/16/22 12:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100

Method Blank (MB)

(MB) R3851317-3 10/16/22 12:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3851317-1 10/16/22 11:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0252	101	19.0-160	
Benzene	0.00500	0.00468	93.6	70.0-123	
Bromodichloromethane	0.00500	0.00476	95.2	75.0-120	
Bromoform	0.00500	0.00407	81.4	68.0-132	
Bromomethane	0.00500	0.00283	56.6	10.0-160	
n-Butylbenzene	0.00500	0.00438	87.6	73.0-125	
sec-Butylbenzene	0.00500	0.00440	88.0	75.0-125	
tert-Butylbenzene	0.00500	0.00411	82.2	76.0-124	
Carbon disulfide	0.00500	0.00433	86.6	61.0-128	
Carbon tetrachloride	0.00500	0.00434	86.8	68.0-126	
Chlorobenzene	0.00500	0.00462	92.4	80.0-121	
Chlorodibromomethane	0.00500	0.00431	86.2	77.0-125	
Chloroethane	0.00500	0.00525	105	47.0-150	
Chloroform	0.00500	0.00456	91.2	73.0-120	
Chloromethane	0.00500	0.00371	74.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00463	92.6	80.0-122	
1,1-Dichloroethane	0.00500	0.00475	95.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00473	94.6	70.0-128	
1,1-Dichloroethene	0.00500	0.00460	92.0	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00463	92.6	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00453	90.6	73.0-120	
1,2-Dichloropropane	0.00500	0.00499	99.8	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00437	87.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00440	88.0	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3851317-1 10/16/22 11:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00452	90.4	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00413	82.6	54.0-138	
2-Hexanone	0.0250	0.0247	98.8	67.0-149	
Isopropylbenzene	0.00500	0.00445	89.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00421	84.2	76.0-125	
2-Butanone (MEK)	0.0250	0.0235	94.0	44.0-160	
Methylene Chloride	0.00500	0.00472	94.4	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0248	99.2	68.0-142	
Methyl tert-butyl ether	0.00500	0.00434	86.8	68.0-125	
Naphthalene	0.00500	0.00355	71.0	54.0-135	
n-Propylbenzene	0.00500	0.00449	89.8	77.0-124	
Styrene	0.00500	0.00423	84.6	73.0-130	
1,1,2,2-Tetrachloroethane	0.00500	0.00445	89.0	65.0-130	
Tetrachloroethene	0.00500	0.00487	97.4	72.0-132	
Toluene	0.00500	0.00467	93.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00460	92.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00445	89.0	80.0-120	
Trichloroethene	0.00500	0.00463	92.6	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00440	88.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00417	83.4	76.0-122	
Vinyl chloride	0.00500	0.00564	113	67.0-131	
Xylenes, Total	0.0150	0.0134	89.3	79.0-123	
(S) Toluene-d8			*103*	*80.0-120*	
(S) 4-Bromofluorobenzene			*99.2*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*98.9*	*70.0-130*	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/16/22 18:37 • (MS) R3851317-4 10/16/22 22:20 • (MSD) R3851317-5 10/16/22 22:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	U	0.0206	0.0205	82.4	82.0	1	10.0-160			0.487	35
Benzene	0.00500	0.000217	0.00448	0.00443	85.3	84.3	1	17.0-158			1.12	27
Bromodichloromethane	0.00500	U	0.00446	0.00451	89.2	90.2	1	31.0-150			1.11	27
Bromoform	0.00500	U	0.00399	0.00395	79.8	79.0	1	29.0-150			1.01	29
Bromomethane	0.00500	U	0.00187	0.00166	37.4	33.2	1	10.0-160			11.9	38
n-Butylbenzene	0.00500	U	0.00434	0.00443	86.8	88.6	1	31.0-150			2.05	30
sec-Butylbenzene	0.00500	U	0.00455	0.00447	91.0	89.4	1	33.0-155			1.77	29
tert-Butylbenzene	0.00500	0.000142	0.00451	0.00507	87.4	98.6	1	34.0-153			11.7	28

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/16/22 18:37 • (MS) R3851317-4 10/16/22 22:20 • (MSD) R3851317-5 10/16/22 22:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon disulfide	0.00500	U	0.00218	0.00213	43.6	42.6	1	10.0-156			2.32	28
Carbon tetrachloride	0.00500	U	0.00412	0.00418	82.4	83.6	1	23.0-159			1.45	28
Chlorobenzene	0.00500	U	0.00444	0.00448	88.8	89.6	1	33.0-152			0.897	27
Chlorodibromomethane	0.00500	U	0.00446	0.00421	89.2	84.2	1	37.0-149			5.77	27
Chloroethane	0.00500	U	0.00401	0.00399	80.2	79.8	1	10.0-160			0.500	30
Chloroform	0.00500	U	0.00445	0.00432	89.0	86.4	1	29.0-154			2.96	28
Chloromethane	0.00500	U	0.00259	0.00246	51.8	49.2	1	10.0-160			5.15	29
1,2-Dibromoethane	0.00500	U	0.00410	0.00418	82.0	83.6	1	34.0-147			1.93	27
1,1-Dichloroethane	0.00500	U	0.00465	0.00452	93.0	90.4	1	25.0-158			2.84	27
1,2-Dichloroethane	0.00500	U	0.00431	0.00441	86.2	88.2	1	29.0-151			2.29	27
1,1-Dichloroethene	0.00500	U	0.00381	0.00395	76.2	79.0	1	11.0-160			3.61	29
cis-1,2-Dichloroethene	0.00500	U	0.00422	0.00435	84.4	87.0	1	10.0-160			3.03	27
trans-1,2-Dichloroethene	0.00500	U	0.00372	0.00362	74.4	72.4	1	17.0-153			2.72	27
1,2-Dichloropropane	0.00500	U	0.00434	0.00464	86.8	92.8	1	30.0-156			6.68	27
cis-1,3-Dichloropropene	0.00500	U	0.00425	0.00433	85.0	86.6	1	34.0-149			1.86	28
trans-1,3-Dichloropropene	0.00500	U	0.00428	0.00414	85.6	82.8	1	32.0-149			3.33	28
Ethylbenzene	0.00500	U	0.00436	0.00424	87.2	84.8	1	30.0-155			2.79	27
Hexachloro-1,3-butadiene	0.00500	U	0.00418	0.00439	83.6	87.8	1	20.0-154			4.90	34
2-Hexanone	0.0250	U	0.0214	0.0222	85.6	88.8	1	21.0-160			3.67	29
Isopropylbenzene	0.00500	U	0.00452	0.00444	90.4	88.8	1	28.0-157			1.79	27
p-Isopropyltoluene	0.00500	U	0.00438	0.00425	87.6	85.0	1	30.0-154			3.01	29
2-Butanone (MEK)	0.0250	U	0.0238	0.0251	95.2	100	1	10.0-160			5.32	32
Methylene Chloride	0.00500	U	0.00411	0.00434	82.2	86.8	1	23.0-144			5.44	28
4-Methyl-2-pentanone (MIBK)	0.0250	U	0.0229	0.0230	91.6	92.0	1	29.0-160			0.436	29
Methyl tert-butyl ether	0.00500	U	0.00432	0.00411	86.4	82.2	1	28.0-150			4.98	29
Naphthalene	0.00500	U	0.00289	0.00327	57.8	65.4	1	12.0-156			12.3	35
n-Propylbenzene	0.00500	U	0.00442	0.00450	88.4	90.0	1	31.0-154			1.79	28
Styrene	0.00500	U	0.00424	0.00408	84.8	81.6	1	33.0-155			3.85	28
1,1,2,2-Tetrachloroethane	0.00500	U	0.00456	0.00462	91.2	92.4	1	33.0-150			1.31	28
Tetrachloroethene	0.00500	U	0.00445	0.00441	89.0	88.2	1	10.0-160			0.903	27
Toluene	0.00500	U	0.00426	0.00433	85.2	86.6	1	26.0-154			1.63	28
1,1,1-Trichloroethane	0.00500	U	0.00483	0.00469	96.6	93.8	1	23.0-160			2.94	28
1,1,2-Trichloroethane	0.00500	U	0.00466	0.00494	93.2	98.8	1	35.0-147			5.83	27
Trichloroethene	0.00500	U	0.00425	0.00423	85.0	84.6	1	10.0-160			0.472	25
1,2,4-Trimethylbenzene	0.00500	U	0.00420	0.00412	84.0	82.4	1	26.0-154			1.92	27
1,3,5-Trimethylbenzene	0.00500	U	0.00442	0.00427	88.4	85.4	1	28.0-153			3.45	27
Vinyl chloride	0.00500	U	0.00402	0.00381	80.4	76.2	1	10.0-160			5.36	27
Xylenes, Total	0.0150	U	0.0130	0.0125	86.7	83.3	1	29.0-154			3.92	28
(S) Toluene-d8					*102*	*100*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.8*	*97.3*		*77.0-126*				

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/16/22 18:37 • (MS) R3851317-4 10/16/22 22:20 • (MSD) R3851317-5 10/16/22 22:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 1,2-Dichloroethane-d4					*98.9*	*101*		*70.0-130*				

Method Blank (MB)

(MB) R3851772-1 10/21/22 08:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*93.5*			*31.0-160*

Laboratory Control Sample (LCS)

(LCS) R3851772-2 10/21/22 08:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	1.50	1.68	112	50.0-150	
(S) o-Terphenyl			*92.0*	*31.0-160*	

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/21/22 17:52 • (MS) R3851772-3 10/21/22 18:18 • (MSD) R3851772-4 10/21/22 18:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.43	0.173	1.76	1.62	111	101	1	50.0-150			8.28	20
(S) o-Terphenyl					*96.8*	*84.7*		*31.0-160*				

Method Blank (MB)

(MB) R3851780-1 10/22/22 02:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*95.5*			*31.0-160*

Laboratory Control Sample (LCS)

(LCS) R3851780-2 10/22/22 02:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	1.50	1.62	108	50.0-150	
(S) o-Terphenyl			*88.0*	*31.0-160*	

L1546640-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546640-03 10/22/22 04:27 • (MS) R3851780-3 10/22/22 04:50 • (MSD) R3851780-4 10/22/22 05:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.43	U	2.10	2.11	147	148	1	50.0-150			0.475	20
(S) o-Terphenyl					*83.2*	*90.0*		*31.0-160*				

Method Blank (MB)

(MB) R3852134-2 10/22/22 10:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3852134-2 10/22/22 10:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*42.9*			*10.0-120*
(S) Phenol-d5	*27.1*			*10.0-120*
(S) Nitrobenzene-d5	*70.2*			*10.0-127*
(S) 2-Fluorobiphenyl	*64.1*			*10.0-130*
(S) 2,4,6-Tribromophenol	*69.5*			*10.0-155*
(S) p-Terphenyl-d14	*67.0*			*10.0-128*

Released to Imaging: 4/14/2023 4:34:58 PM

Received by OCD: 4/14/2023 3:51:30 PM

Laboratory Control Sample (LCS)

(LCS) R3852134-1 10/22/22 09:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0386	77.2	41.0-120	
Acenaphthylene	0.0500	0.0409	81.8	43.0-120	
Acetophenone	0.0500	0.0374	74.8	29.0-120	
Anthracene	0.0500	0.0367	73.4	45.0-120	
Atrazine	0.0500	0.0393	78.6	39.0-141	
Benzo(a)anthracene	0.0500	0.0389	77.8	47.0-120	
Benzaldehyde	0.0500	0.0868	174	10.0-160	J4
Benzo(b)fluoranthene	0.0500	0.0399	79.8	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0389	77.8	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0402	80.4	48.0-121	
Benzo(a)pyrene	0.0500	0.0420	84.0	47.0-120	
Biphenyl	0.0500	0.0348	69.6	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0365	73.0	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0375	75.0	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0356	71.2	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0398	79.6	45.0-120	
2-Chloronaphthalene	0.0500	0.0376	75.2	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0387	77.4	44.0-120	
Caprolactam	0.0500	0.0153	30.6	10.0-120	
Carbazole	0.0500	0.0406	81.2	51.0-122	
Chrysene	0.0500	0.0396	79.2	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0420	84.0	47.0-120	
Dibenzofuran	0.0500	0.0387	77.4	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0600	60.0	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0451	90.2	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0433	86.6	46.0-120	
Fluoranthene	0.0500	0.0420	84.0	51.0-120	
Fluorene	0.0500	0.0394	78.8	47.0-120	
Hexachlorobenzene	0.0500	0.0360	72.0	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0341	68.2	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0259	51.8	15.0-120	
Hexachloroethane	0.0500	0.0368	73.6	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0384	76.8	49.0-122	
Isophorone	0.0500	0.0368	73.6	36.0-120	
1-Methylnaphthalene	0.0500	0.0338	67.6	33.0-120	
2-Methylnaphthalene	0.0500	0.0319	63.8	33.0-120	
Naphthalene	0.0500	0.0318	63.6	27.0-120	
Nitrobenzene	0.0500	0.0370	74.0	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0295	59.0	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0403	80.6	31.0-120	

Released to Imaging: 4/14/2023 4:34:58 PM

Laboratory Control Sample (LCS)

(LCS) R3852134-1 10/22/22 09:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	0.0500	0.0380	76.0	46.0-120	
Benzylbutyl phthalate	0.0500	0.0436	87.2	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0431	86.2	43.0-122	
Di-n-butyl phthalate	0.0500	0.0440	88.0	49.0-121	
Diethyl phthalate	0.0500	0.0420	84.0	48.0-122	
Dimethyl phthalate	0.0500	0.0406	81.2	48.0-120	
Di-n-octyl phthalate	0.0500	0.0438	87.6	42.0-125	
Pyrene	0.0500	0.0377	75.4	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0333	66.6	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0368	73.6	40.0-120	
2-Chlorophenol	0.0500	0.0346	69.2	25.0-120	
2,4-Dichlorophenol	0.0500	0.0354	70.8	36.0-120	
2,4-Dimethylphenol	0.0500	0.0336	67.2	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0409	81.8	38.0-138	
2,4-Dinitrophenol	0.0500	0.0363	72.6	10.0-120	
2-Nitrophenol	0.0500	0.0367	73.4	31.0-120	
2-Nitroaniline	0.0500	0.0460	92.0	43.0-120	
2-Methylphenol	0.0500	0.0317	63.4	28.0-120	
3&4-Methyl Phenol	0.0500	0.0309	61.8	31.0-120	
3-Nitroaniline	0.0500	0.0418	83.6	38.0-120	
4-Chloroaniline	0.0500	0.0289	57.8	25.0-120	
4-Nitroaniline	0.0500	0.0455	91.0	18.0-160	
4-Nitrophenol	0.0500	0.0206	41.2	10.0-120	
Pentachlorophenol	0.0500	0.0363	72.6	23.0-120	
Phenol	0.0500	0.0178	35.6	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0424	84.8	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0399	79.8	42.0-120	
(S) 2-Fluorophenol			*47.6*	*10.0-120*	
(S) Phenol-d5			*31.0*	*10.0-120*	
(S) Nitrobenzene-d5			*69.7*	*10.0-127*	
(S) 2-Fluorobiphenyl			*71.1*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*76.5*	*10.0-155*	
(S) p-Terphenyl-d14			*70.6*	*10.0-128*	

L1547019-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1547019-01 10/22/22 17:06 • (MS) R3852134-3 10/22/22 17:27 • (MSD) R3852134-4 10/22/22 17:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0373	0.0378	74.6	75.6	1	28.0-120			1.33	25
Acenaphthylene	0.0500	U	0.0392	0.0408	78.4	81.6	1	31.0-121			4.00	25
Acetophenone	0.0500	0.000231	0.0357	0.0359	70.9	71.3	1	20.0-120			0.559	35
Anthracene	0.0500	U	0.0356	0.0363	71.2	72.6	1	36.0-120			1.95	23
Atrazine	0.0500	U	0.0376	0.0404	75.2	80.8	1	39.0-130			7.18	23
Benzo(a)anthracene	0.0500	U	0.0386	0.0389	77.2	77.8	1	39.0-120			0.774	23
Benzaldehyde	0.0500	U	0.0878	0.0838	176	168	1	10.0-160	J5	J5	4.66	40
Benzo(b)fluoranthene	0.0500	U	0.0415	0.0416	83.0	83.2	1	37.0-120			0.241	23
Benzo(k)fluoranthene	0.0500	U	0.0391	0.0400	78.2	80.0	1	37.0-120			2.28	26
Benzo(g,h,i)perylene	0.0500	U	0.0383	0.0391	76.6	78.2	1	37.0-123			2.07	25
Benzo(a)pyrene	0.0500	U	0.0423	0.0428	84.6	85.6	1	37.0-120			1.18	24
Biphenyl	0.0500	U	0.0335	0.0342	67.0	68.4	1	29.0-120			2.07	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0353	0.0346	70.6	69.2	1	17.0-120			2.00	31
Bis(2-chloroethyl)ether	0.0500	U	0.0383	0.0374	76.6	74.8	1	14.0-120			2.38	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0339	0.0342	67.8	68.4	1	18.0-120			0.881	34
4-Bromophenyl-phenylether	0.0500	U	0.0396	0.0397	79.2	79.4	1	37.0-120			0.252	24
2-Chloronaphthalene	0.0500	U	0.0357	0.0369	71.4	73.8	1	29.0-120			3.31	28
4-Chlorophenyl-phenylether	0.0500	U	0.0376	0.0385	75.2	77.0	1	36.0-120			2.37	23
Caprolactam	0.0500	U	0.0170	0.0163	34.0	32.6	1	10.0-120			4.20	40
Carbazole	0.0500	U	0.0402	0.0411	80.4	82.2	1	38.0-127			2.21	21
Chrysene	0.0500	U	0.0390	0.0393	78.0	78.6	1	38.0-120			0.766	23
Dibenz(a,h)anthracene	0.0500	U	0.0394	0.0401	78.8	80.2	1	36.0-121			1.76	24
Dibenzofuran	0.0500	U	0.0370	0.0384	74.0	76.8	1	32.0-120			3.71	26
3,3-Dichlorobenzidine	0.100	U	0.0111	0.0114	11.1	11.4	1	10.0-134			2.67	30
2,4-Dinitrotoluene	0.0500	U	0.0414	0.0435	82.8	87.0	1	39.0-125			4.95	25
2,6-Dinitrotoluene	0.0500	U	0.0414	0.0418	82.8	83.6	1	36.0-120			0.962	27
Fluoranthene	0.0500	U	0.0407	0.0424	81.4	84.8	1	41.0-121			4.09	22
Fluorene	0.0500	U	0.0377	0.0392	75.4	78.4	1	37.0-120			3.90	24
Hexachlorobenzene	0.0500	U	0.0356	0.0358	71.2	71.6	1	35.0-122			0.560	24
Hexachloro-1,3-butadiene	0.0500	U	0.0341	0.0322	68.2	64.4	1	12.0-120			5.73	34
Hexachlorocyclopentadiene	0.0500	U	0.0266	0.0261	53.2	52.2	1	10.0-120			1.90	33
Hexachloroethane	0.0500	U	0.0373	0.0338	74.6	67.6	1	10.0-120			9.85	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0356	0.0368	71.2	73.6	1	38.0-125			3.31	24
Isophorone	0.0500	U	0.0352	0.0347	70.4	69.4	1	21.0-120			1.43	27
1-Methylnaphthalene	0.0500	U	0.0331	0.0328	66.2	65.6	1	11.0-120			0.910	27
2-Methylnaphthalene	0.0500	U	0.0315	0.0313	63.0	62.6	1	17.0-120			0.637	28
Naphthalene	0.0500	U	0.0318	0.0304	63.6	60.8	1	10.0-120			4.50	31
Nitrobenzene	0.0500	U	0.0367	0.0351	73.4	70.2	1	12.0-120			4.46	30
n-Nitrosodiphenylamine	0.0500	U	0.0313	0.0325	62.6	65.0	1	37.0-120			3.76	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0376	0.0383	75.2	76.6	1	16.0-120			1.84	30

L1547019-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1547019-01 10/22/22 17:06 • (MS) R3852134-3 10/22/22 17:27 • (MSD) R3852134-4 10/22/22 17:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0500	U	0.0375	0.0385	75.0	77.0	1	33.0-120			2.63	22
Benzylbutyl phthalate	0.0500	0.00394	0.0445	0.0446	81.1	81.3	1	34.0-126			0.224	24
Bis(2-ethylhexyl)phthalate	0.0500	0.00379	0.0444	0.0442	81.2	80.8	1	33.0-126			0.451	25
Di-n-butyl phthalate	0.0500	U	0.0437	0.0449	87.4	89.8	1	35.0-128			2.71	23
Diethyl phthalate	0.0500	U	0.0401	0.0410	80.2	82.0	1	39.0-125			2.22	24
Dimethyl phthalate	0.0500	U	0.0384	0.0394	76.8	78.8	1	37.0-120			2.57	24
Di-n-octyl phthalate	0.0500	U	0.0441	0.0442	88.2	88.4	1	25.0-135			0.226	26
Pyrene	0.0500	U	0.0390	0.0385	78.0	77.0	1	39.0-120			1.29	22
1,2,4-Trichlorobenzene	0.0500	U	0.0330	0.0311	66.0	62.2	1	15.0-120			5.93	31
4-Chloro-3-methylphenol	0.0500	U	0.0378	0.0378	75.6	75.6	1	26.0-120			0.000	27
2-Chlorophenol	0.0500	U	0.0339	0.0317	67.8	63.4	1	18.0-120			6.71	34
2,4-Dichlorophenol	0.0500	U	0.0350	0.0344	70.0	68.8	1	19.0-120			1.73	27
2,4-Dimethylphenol	0.0500	U	0.0349	0.0342	69.8	68.4	1	15.0-120			2.03	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.0385	0.0397	77.0	79.4	1	10.0-144			3.07	39
2,4-Dinitrophenol	0.0500	U	0.0370	0.0376	74.0	75.2	1	10.0-120			1.61	40
2-Nitrophenol	0.0500	U	0.0365	0.0351	73.0	70.2	1	20.0-120			3.91	30
2-Nitroaniline	0.0500	U	0.0430	0.0444	86.0	88.8	1	33.0-120			3.20	27
2-Methylphenol	0.0500	U	0.0312	0.0310	62.4	62.0	1	10.0-120			0.643	30
3&4-Methyl Phenol	0.0500	0.000288	0.0303	0.0309	60.0	61.2	1	10.0-120			1.96	36
3-Nitroaniline	0.0500	U	0.0280	0.0288	56.0	57.6	1	20.0-120			2.82	27
4-Chloroaniline	0.0500	U	0.0169	0.0159	33.8	31.8	1	10.0-120			6.10	31
4-Nitroaniline	0.0500	U	0.0284	0.0286	56.8	57.2	1	10.0-160			0.702	26
4-Nitrophenol	0.0500	U	0.0213	0.0226	42.6	45.2	1	10.0-120			5.92	40
Pentachlorophenol	0.0500	U	0.0380	0.0404	76.0	80.8	1	10.0-128			6.12	37
Phenol	0.0500	U	0.0178	0.0177	35.6	35.4	1	10.0-120			0.563	40
2,4,5-Trichlorophenol	0.0500	U	0.0422	0.0439	84.4	87.8	1	33.0-120			3.95	31
2,4,6-Trichlorophenol	0.0500	U	0.0381	0.0396	76.2	79.2	1	26.0-120			3.86	31
(S) 2-Fluorophenol					*47.3*	*44.4*		*10.0-120*				
(S) Phenol-d5					*31.1*	*30.1*		*10.0-120*				
(S) Nitrobenzene-d5					*67.9*	*63.3*		*10.0-127*				
(S) 2-Fluorobiphenyl					*68.7*	*70.2*		*10.0-130*				
(S) 2,4,6-Tribromophenol					*76.5*	*81.0*		*10.0-155*				
(S) p-Terphenyl-d14					*75.1*	*71.7*		*10.0-128*				

Method Blank (MB)

(MB) R3852319-2 10/22/22 10:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Method Blank (MB)

(MB) R3852319-2 10/22/22 10:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*23.9*			*10.0-120*
(S) Phenol-d5	*15.9*			*10.0-120*
(S) Nitrobenzene-d5	*45.4*			*10.0-127*
(S) 2-Fluorobiphenyl	*39.7*			*10.0-130*
(S) 2,4,6-Tribromophenol	*40.3*			*10.0-155*
(S) p-Terphenyl-d14	*55.9*			*10.0-128*

Laboratory Control Sample (LCS)

(LCS) R3852319-1 10/22/22 09:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0300	60.0	41.0-120	
Acenaphthylene	0.0500	0.0337	67.4	43.0-120	
Acetophenone	0.0500	0.0329	65.8	29.0-120	
Anthracene	0.0500	0.0311	62.2	45.0-120	
Atrazine	0.0500	0.0399	79.8	39.0-141	
Benzo(a)anthracene	0.0500	0.0343	68.6	47.0-120	
Benzaldehyde	0.0500	0.0756	151	10.0-160	
Benzo(b)fluoranthene	0.0500	0.0338	67.6	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0332	66.4	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0319	63.8	48.0-121	
Benzo(a)pyrene	0.0500	0.0353	70.6	47.0-120	
Biphenyl	0.0500	0.0277	55.4	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0311	62.2	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0349	69.8	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0306	61.2	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0320	64.0	45.0-120	
2-Chloronaphthalene	0.0500	0.0286	57.2	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0330	66.0	44.0-120	
Caprolactam	0.0500	0.0172	34.4	10.0-120	
Carbazole	0.0500	0.0352	70.4	51.0-122	
Chrysene	0.0500	0.0341	68.2	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0333	66.6	47.0-120	
Dibenzofuran	0.0500	0.0316	63.2	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0562	56.2	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0401	80.2	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0377	75.4	46.0-120	
Fluoranthene	0.0500	0.0372	74.4	51.0-120	
Fluorene	0.0500	0.0331	66.2	47.0-120	
Hexachlorobenzene	0.0500	0.0296	59.2	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0228	45.6	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0146	29.2	15.0-120	
Hexachloroethane	0.0500	0.0254	50.8	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0298	59.6	49.0-122	
Isophorone	0.0500	0.0316	63.2	36.0-120	
1-Methylnaphthalene	0.0500	0.0290	58.0	33.0-120	
2-Methylnaphthalene	0.0500	0.0269	53.8	33.0-120	
Naphthalene	0.0500	0.0258	51.6	27.0-120	
Nitrobenzene	0.0500	0.0283	56.6	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0271	54.2	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0363	72.6	31.0-120	

Received by OCD: 4/14/2023 3:51:30 PM

Semi Volatile Organic Compounds (GC/MS) by Method 8270C L1546506-12,13,14,15,16,17,18,19,20,21,23,26,27,28,29,30,31,32,33,34

Laboratory Control Sample (LCS)

(LCS) R3852319-1 10/22/22 09:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	0.0500	0.0324	64.8	46.0-120	
Benzylbutyl phthalate	0.0500	0.0348	69.6	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0352	70.4	43.0-122	
Di-n-butyl phthalate	0.0500	0.0396	79.2	49.0-121	
Diethyl phthalate	0.0500	0.0390	78.0	48.0-122	
Dimethyl phthalate	0.0500	0.0365	73.0	48.0-120	
Di-n-octyl phthalate	0.0500	0.0348	69.6	42.0-125	
Pyrene	0.0500	0.0326	65.2	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0244	48.8	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0304	60.8	40.0-120	
2-Chlorophenol	0.0500	0.0266	53.2	25.0-120	
2,4-Dichlorophenol	0.0500	0.0281	56.2	36.0-120	
2,4-Dimethylphenol	0.0500	0.0264	52.8	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0362	72.4	38.0-138	
2,4-Dinitrophenol	0.0500	0.0363	72.6	10.0-120	
2-Nitrophenol	0.0500	0.0296	59.2	31.0-120	
2-Nitroaniline	0.0500	0.0368	73.6	43.0-120	
2-Methylphenol	0.0500	0.0242	48.4	28.0-120	
3&4-Methyl Phenol	0.0500	0.0237	47.4	31.0-120	
3-Nitroaniline	0.0500	0.0353	70.6	38.0-120	
4-Chloroaniline	0.0500	0.0198	39.6	25.0-120	
4-Nitroaniline	0.0500	0.0383	76.6	18.0-160	
4-Nitrophenol	0.0500	0.0178	35.6	10.0-120	
Pentachlorophenol	0.0500	0.0352	70.4	23.0-120	
Phenol	0.0500	0.0138	27.6	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0346	69.2	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0313	62.6	42.0-120	
(S) 2-Fluorophenol			*34.4*	*10.0-120*	
(S) Phenol-d5			*25.1*	*10.0-120*	
(S) Nitrobenzene-d5			*54.4*	*10.0-127*	
(S) 2-Fluorobiphenyl			*53.9*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*56.5*	*10.0-155*	
(S) p-Terphenyl-d14			*63.7*	*10.0-128*	

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C L1546506-12,13,14,15,16,17,18,19,20,21,23,26,27,28,29,30,31,32,33,34

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/22/22 14:08 • (MS) R3852319-3 10/22/22 14:30 • (MSD) R3852319-4 10/22/22 14:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0264	0.0283	52.8	56.6	1	28.0-120			6.95	25
Acenaphthylene	0.0500	U	0.0284	0.0307	56.8	61.4	1	31.0-121			7.78	25
Acetophenone	0.0500	U	0.0276	0.0298	55.2	59.6	1	20.0-120			7.67	35
Anthracene	0.0500	U	0.0294	0.0310	58.8	62.0	1	36.0-120			5.30	23
Atrazine	0.0500	U	0.0389	0.0409	77.8	81.8	1	39.0-130			5.01	23
Benzo(a)anthracene	0.0500	U	0.0341	0.0346	68.2	69.2	1	39.0-120			1.46	23
Benzaldehyde	0.0500	U	0.0593	0.0655	119	131	1	10.0-160			9.94	40
Benzo(b)fluoranthene	0.0500	U	0.0345	0.0345	69.0	69.0	1	37.0-120			0.000	23
Benzo(k)fluoranthene	0.0500	U	0.0337	0.0338	67.4	67.6	1	37.0-120			0.296	26
Benzo(g,h,i)perylene	0.0500	U	0.0307	0.0306	61.4	61.2	1	37.0-123			0.326	25
Benzo(a)pyrene	0.0500	U	0.0355	0.0359	71.0	71.8	1	37.0-120			1.12	24
Biphenyl	0.0500	U	0.0232	0.0254	46.4	50.8	1	29.0-120			9.05	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0269	0.0288	53.8	57.6	1	17.0-120			6.82	31
Bis(2-chloroethyl)ether	0.0500	U	0.0279	0.0303	55.8	60.6	1	14.0-120			8.25	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0255	0.0277	51.0	55.4	1	18.0-120			8.27	34
4-Bromophenyl-phenylether	0.0500	U	0.0301	0.0321	60.2	64.2	1	37.0-120			6.43	24
2-Chloronaphthalene	0.0500	U	0.0238	0.0257	47.6	51.4	1	29.0-120			7.68	28
4-Chlorophenyl-phenylether	0.0500	U	0.0306	0.0325	61.2	65.0	1	36.0-120			6.02	23
Caprolactam	0.0500	U	0.0193	0.0191	38.6	38.2	1	10.0-120			1.04	40
Carbazole	0.0500	U	0.0330	0.0353	66.0	70.6	1	38.0-127			6.73	21
Chrysene	0.0500	U	0.0345	0.0347	69.0	69.4	1	38.0-120			0.578	23
Dibenz(a,h)anthracene	0.0500	U	0.0319	0.0316	63.8	63.2	1	36.0-121			0.945	24
Dibenzofuran	0.0500	U	0.0280	0.0297	56.0	59.4	1	32.0-120			5.89	26
3,3-Dichlorobenzidine	0.100	U	0.0582	0.0601	58.2	60.1	1	10.0-134			3.21	30
2,4-Dinitrotoluene	0.0500	U	0.0371	0.0403	74.2	80.6	1	39.0-125			8.27	25
2,6-Dinitrotoluene	0.0500	U	0.0343	0.0366	68.6	73.2	1	36.0-120			6.49	27
Fluoranthene	0.0500	U	0.0360	0.0373	72.0	74.6	1	41.0-121			3.55	22
Fluorene	0.0500	U	0.0301	0.0321	60.2	64.2	1	37.0-120			6.43	24
Hexachlorobenzene	0.0500	U	0.0292	0.0293	58.4	58.6	1	35.0-122			0.342	24
Hexachloro-1,3-butadiene	0.0500	U	0.0201	0.0217	40.2	43.4	1	12.0-120			7.66	34
Hexachlorocyclopentadiene	0.0500	U	0.0123	0.0144	24.6	28.8	1	10.0-120			15.7	33
Hexachloroethane	0.0500	U	0.0208	0.0231	41.6	46.2	1	10.0-120			10.5	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0293	0.0294	58.6	58.8	1	38.0-125			0.341	24
Isophorone	0.0500	U	0.0271	0.0296	54.2	59.2	1	21.0-120			8.82	27
1-Methylnaphthalene	0.0500	U	0.0245	0.0266	49.0	53.2	1	11.0-120			8.22	27
2-Methylnaphthalene	0.0500	U	0.0232	0.0251	46.4	50.2	1	17.0-120			7.87	28
Naphthalene	0.0500	U	0.0212	0.0229	42.4	45.8	1	10.0-120			7.71	31
Nitrobenzene	0.0500	U	0.0228	0.0249	45.6	49.8	1	12.0-120			8.81	30
n-Nitrosodiphenylamine	0.0500	U	0.0246	0.0265	49.2	53.0	1	37.0-120			7.44	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0307	0.0336	61.4	67.2	1	16.0-120			9.02	30

Semi Volatile Organic Compounds (GC/MS) by Method 8270C L1546506-12,13,14,15,16,17,18,19,20,21,23,26,27,28,29,30,31,32,33,34

L1546506-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546506-28 10/22/22 14:08 • (MS) R3852319-3 10/22/22 14:30 • (MSD) R3852319-4 10/22/22 14:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0500	U	0.0301	0.0317	60.2	63.4	1	33.0-120			5.18	22
Benzylbutyl phthalate	0.0500	U	0.0336	0.0362	67.2	72.4	1	34.0-126			7.45	24
Bis(2-ethylhexyl)phthalate	0.0500	U	0.0358	0.0362	71.6	72.4	1	33.0-126			1.11	25
Di-n-butyl phthalate	0.0500	U	0.0376	0.0397	75.2	79.4	1	35.0-128			5.43	23
Diethyl phthalate	0.0500	U	0.0361	0.0386	72.2	77.2	1	39.0-125			6.69	24
Dimethyl phthalate	0.0500	U	0.0337	0.0361	67.4	72.2	1	37.0-120			6.88	24
Di-n-octyl phthalate	0.0500	U	0.0354	0.0362	70.8	72.4	1	25.0-135			2.23	26
Pyrene	0.0500	U	0.0318	0.0330	63.6	66.0	1	39.0-120			3.70	22
1,2,4-Trichlorobenzene	0.0500	U	0.0203	0.0221	40.6	44.2	1	15.0-120			8.49	31
4-Chloro-3-methylphenol	0.0500	U	0.0276	0.0298	55.2	59.6	1	26.0-120			7.67	27
2-Chlorophenol	0.0500	U	0.0211	0.0231	42.2	46.2	1	18.0-120			9.05	34
2,4-Dichlorophenol	0.0500	U	0.0236	0.0252	47.2	50.4	1	19.0-120			6.56	27
2,4-Dimethylphenol	0.0500	U	0.0224	0.0245	44.8	49.0	1	15.0-120			8.96	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.0320	0.0355	64.0	71.0	1	10.0-144			10.4	39
2,4-Dinitrophenol	0.0500	U	0.0324	0.0363	64.8	72.6	1	10.0-120			11.4	40
2-Nitrophenol	0.0500	U	0.0248	0.0264	49.6	52.8	1	20.0-120			6.25	30
2-Nitroaniline	0.0500	U	0.0337	0.0364	67.4	72.8	1	33.0-120			7.70	27
2-Methylphenol	0.0500	U	0.0198	0.0216	39.6	43.2	1	10.0-120			8.70	30
3&4-Methyl Phenol	0.0500	U	0.0201	0.0217	40.2	43.4	1	10.0-120			7.66	36
3-Nitroaniline	0.0500	U	0.0358	0.0354	71.6	70.8	1	20.0-120			1.12	27
4-Chloroaniline	0.0500	U	0.0291	0.0271	58.2	54.2	1	10.0-120			7.12	31
4-Nitroaniline	0.0500	U	0.0377	0.0390	75.4	78.0	1	10.0-160			3.39	26
4-Nitrophenol	0.0500	U	0.0154	0.0165	30.8	33.0	1	10.0-120			6.90	40
Pentachlorophenol	0.0500	U	0.0316	0.0352	63.2	70.4	1	10.0-128			10.8	37
Phenol	0.0500	U	0.0117	0.0126	23.4	25.2	1	10.0-120			7.41	40
2,4,5-Trichlorophenol	0.0500	U	0.0303	0.0330	60.6	66.0	1	33.0-120			8.53	31
2,4,6-Trichlorophenol	0.0500	U	0.0266	0.0288	53.2	57.6	1	26.0-120			7.94	31
(S) 2-Fluorophenol					*27.3*	*29.8*		*10.0-120*				
(S) Phenol-d5					*19.8*	*22.2*		*10.0-120*				
(S) Nitrobenzene-d5					*37.0*	*41.3*		*10.0-127*				
(S) 2-Fluorobiphenyl					*44.7*	*50.2*		*10.0-130*				
(S) 2,4,6-Tribromophenol					*51.0*	*57.5*		*10.0-155*				
(S) p-Terphenyl-d14					*64.7*	*65.9*		*10.0-128*				

Method Blank (MB)

(MB) R3852307-2 10/22/22 10:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Received by OCD: 4/14/2023 3:51:30 PM

Method Blank (MB)

(MB) R3852307-2 10/22/22 10:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*42.9*			*10.0-120*
(S) Phenol-d5	*28.0*			*10.0-120*
(S) Nitrobenzene-d5	*70.0*			*10.0-127*
(S) 2-Fluorobiphenyl	*67.3*			*10.0-130*
(S) 2,4,6-Tribromophenol	*85.0*			*10.0-155*
(S) p-Terphenyl-d14	*69.4*			*10.0-128*

Released to Imaging: 4/14/2023 4:34:58 PM

Laboratory Control Sample (LCS)

(LCS) R3852307-1 10/22/22 09:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0349	69.8	41.0-120	
Acenaphthylene	0.0500	0.0380	76.0	43.0-120	
Acetophenone	0.0500	0.0345	69.0	29.0-120	
Anthracene	0.0500	0.0353	70.6	45.0-120	
Atrazine	0.0500	0.0430	86.0	39.0-141	
Benzo(a)anthracene	0.0500	0.0368	73.6	47.0-120	
Benzaldehyde	0.0500	0.0850	170	10.0-160	J4
Benzo(b)fluoranthene	0.0500	0.0358	71.6	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0356	71.2	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0411	82.2	48.0-121	
Benzo(a)pyrene	0.0500	0.0407	81.4	47.0-120	
Biphenyl	0.0500	0.0328	65.6	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0310	62.0	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0308	61.6	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0296	59.2	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0405	81.0	45.0-120	
2-Chloronaphthalene	0.0500	0.0335	67.0	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0403	80.6	44.0-120	
Caprolactam	0.0500	0.0130	26.0	10.0-120	
Carbazole	0.0500	0.0382	76.4	51.0-122	
Chrysene	0.0500	0.0364	72.8	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0431	86.2	47.0-120	
Dibenzofuran	0.0500	0.0372	74.4	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0665	66.5	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0449	89.8	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0405	81.0	46.0-120	
Fluoranthene	0.0500	0.0417	83.4	51.0-120	
Fluorene	0.0500	0.0396	79.2	47.0-120	
Hexachlorobenzene	0.0500	0.0392	78.4	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0313	62.6	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0250	50.0	15.0-120	
Hexachloroethane	0.0500	0.0292	58.4	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0410	82.0	49.0-122	
Isophorone	0.0500	0.0328	65.6	36.0-120	
1-Methylnaphthalene	0.0500	0.0331	66.2	33.0-120	
2-Methylnaphthalene	0.0500	0.0317	63.4	33.0-120	
Naphthalene	0.0500	0.0295	59.0	27.0-120	
Nitrobenzene	0.0500	0.0326	65.2	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0301	60.2	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0353	70.6	31.0-120	

Laboratory Control Sample (LCS)

(LCS) R3852307-1 10/22/22 09:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	0.0500	0.0366	73.2	46.0-120	
Benzylbutyl phthalate	0.0500	0.0360	72.0	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0357	71.4	43.0-122	
Di-n-butyl phthalate	0.0500	0.0409	81.8	49.0-121	
Diethyl phthalate	0.0500	0.0405	81.0	48.0-122	
Dimethyl phthalate	0.0500	0.0395	79.0	48.0-120	
Di-n-octyl phthalate	0.0500	0.0363	72.6	42.0-125	
Pyrene	0.0500	0.0333	66.6	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0302	60.4	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0351	70.2	40.0-120	
2-Chlorophenol	0.0500	0.0278	55.6	25.0-120	
2,4-Dichlorophenol	0.0500	0.0338	67.6	36.0-120	
2,4-Dimethylphenol	0.0500	0.0309	61.8	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0467	93.4	38.0-138	
2,4-Dinitrophenol	0.0500	0.0462	92.4	10.0-120	
2-Nitrophenol	0.0500	0.0343	68.6	31.0-120	
2-Nitroaniline	0.0500	0.0390	78.0	43.0-120	
2-Methylphenol	0.0500	0.0258	51.6	28.0-120	
3&4-Methyl Phenol	0.0500	0.0257	51.4	31.0-120	
3-Nitroaniline	0.0500	0.0363	72.6	38.0-120	
4-Chloroaniline	0.0500	0.0286	57.2	25.0-120	
4-Nitroaniline	0.0500	0.0381	76.2	18.0-160	
4-Nitrophenol	0.0500	0.0199	39.8	10.0-120	
Pentachlorophenol	0.0500	0.0466	93.2	23.0-120	
Phenol	0.0500	0.0139	27.8	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0412	82.4	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0386	77.2	42.0-120	
(S) 2-Fluorophenol			*37.9*	*10.0-120*	
(S) Phenol-d5			*25.9*	*10.0-120*	
(S) Nitrobenzene-d5			*62.4*	*10.0-127*	
(S) 2-Fluorobiphenyl			*68.7*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*90.0*	*10.0-155*	
(S) p-Terphenyl-d14			*68.1*	*10.0-128*	

L1546609-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546609-01 10/22/22 19:33 • (MS) R3852307-3 10/22/22 19:54 • (MSD) R3852307-4 10/22/22 20:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0366	0.0312	73.2	62.4	20	28.0-120			15.9	25
Acenaphthylene	0.0500	U	0.0352	0.0318	70.4	63.6	20	31.0-121			10.1	25
Acetophenone	0.0500	0.0125	0.0416	0.0410	58.2	57.0	20	20.0-120			1.45	35
Anthracene	0.0500	U	0.0359	0.0301	71.8	60.2	20	36.0-120			17.6	23
Atrazine	0.0500	U	0.0880	0.0896	176	179	20	39.0-130	J5	J5	1.80	23
Benzo(a)anthracene	0.0500	U	0.0340	0.0310	68.0	62.0	20	39.0-120			9.23	23
Benzaldehyde	0.0500	U	0.147	0.135	294	270	20	10.0-160	J5	J5	8.51	40
Benzo(b)fluoranthene	0.0500	U	0.0321	0.0273	64.2	54.6	20	37.0-120			16.2	23
Benzo(k)fluoranthene	0.0500	U	0.0317	0.0275	63.4	55.0	20	37.0-120			14.2	26
Benzo(g,h,i)perylene	0.0500	U	0.0368	0.0275	73.6	55.0	20	37.0-123		J3	28.9	25
Benzo(a)pyrene	0.0500	U	0.0360	0.0294	72.0	58.8	20	37.0-120			20.2	24
Biphenyl	0.0500	U	0.0554	0.0497	111	99.4	20	29.0-120			10.8	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0335	0.0336	67.0	67.2	20	17.0-120			0.298	31
Bis(2-chloroethyl)ether	0.0500	U	0.0301	0.0280	60.2	56.0	20	14.0-120			7.23	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0283	0.0292	56.6	58.4	20	18.0-120			3.13	34
4-Bromophenyl-phenylether	0.0500	U	0.0419	0.0363	83.8	72.6	20	37.0-120			14.3	24
2-Chloronaphthalene	0.0500	U	0.0329	0.0276	65.8	55.2	20	29.0-120			17.5	28
4-Chlorophenyl-phenylether	0.0500	U	0.0450	0.0447	90.0	89.4	20	36.0-120			0.669	23
Caprolactam	0.0500	U	0.0204	0.0172	40.8	34.4	20	10.0-120			17.0	40
Carbazole	0.0500	U	0.0409	0.0334	81.8	66.8	20	38.0-127			20.2	21
Chrysene	0.0500	U	0.0349	0.0293	69.8	58.6	20	38.0-120			17.4	23
Dibenz(a,h)anthracene	0.0500	U	0.0380	0.0291	76.0	58.2	20	36.0-121		J3	26.5	24
Dibenzofuran	0.0500	U	0.0351	0.0295	70.2	59.0	20	32.0-120			17.3	26
3,3-Dichlorobenzidine	0.100	U	U	U	0.000	0.000	20	10.0-134	J6	J6	0.000	30
2,4-Dinitrotoluene	0.0500	U	0.0424	0.0458	84.8	91.6	20	39.0-125			7.71	25
2,6-Dinitrotoluene	0.0500	U	0.0370	0.0346	74.0	69.2	20	36.0-120			6.70	27
Fluoranthene	0.0500	U	0.0410	0.0345	82.0	69.0	20	41.0-121			17.2	22
Fluorene	0.0500	U	0.0481	0.0429	96.2	85.8	20	37.0-120			11.4	24
Hexachlorobenzene	0.0500	U	0.0364	0.0311	72.8	62.2	20	35.0-122			15.7	24
Hexachloro-1,3-butadiene	0.0500	U	0.0340	0.0293	68.0	58.6	20	12.0-120			14.8	34
Hexachlorocyclopentadiene	0.0500	U	0.0101	0.00643	20.2	12.9	20	10.0-120		J3	44.4	33
Hexachloroethane	0.0500	U	0.0401	0.0336	80.2	67.2	20	10.0-120			17.6	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0365	0.0285	73.0	57.0	20	38.0-125		J3	24.6	24
Isophorone	0.0500	U	0.0333	0.0321	66.6	64.2	20	21.0-120			3.67	27
1-Methylnaphthalene	0.0500	U	0.0394	0.0373	78.8	74.6	20	11.0-120			5.48	27
2-Methylnaphthalene	0.0500	U	0.0475	0.0434	95.0	86.8	20	17.0-120			9.02	28
Naphthalene	0.0500	U	0.0796	0.0733	159	147	20	10.0-120	J5	J5	8.24	31
Nitrobenzene	0.0500	U	0.0309	0.0298	61.8	59.6	20	12.0-120			3.62	30
n-Nitrosodiphenylamine	0.0500	U	U	U	0.000	0.000	20	37.0-120	J6	J6	0.000	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0352	0.0350	70.4	70.0	20	16.0-120			0.570	30

Received by OCD: 4/14/2023 3:51:30 PM

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

L1546506-35,36,37

L1546609-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546609-01 10/22/22 19:33 • (MS) R3852307-3 10/22/22 19:54 • (MSD) R3852307-4 10/22/22 20:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0500	U	0.0583	0.0485	117	97.0	20	33.0-120			18.4	22
Benzylbutyl phthalate	0.0500	U	0.0340	0.0299	68.0	59.8	20	34.0-126			12.8	24
Bis(2-ethylhexyl)phthalate	0.0500	U	0.0334	0.0303	66.8	60.6	20	33.0-126			9.73	25
Di-n-butyl phthalate	0.0500	U	0.0380	0.0359	76.0	71.8	20	35.0-128			5.68	23
Diethyl phthalate	0.0500	0.0126	0.0395	0.0348	53.8	44.4	20	39.0-125			12.7	24
Dimethyl phthalate	0.0500	U	0.0379	0.0353	75.8	70.6	20	37.0-120			7.10	24
Di-n-octyl phthalate	0.0500	U	0.0436	0.0390	87.2	78.0	20	25.0-135			11.1	26
Pyrene	0.0500	U	0.0332	0.0288	66.4	57.6	20	39.0-120			14.2	22
1,2,4-Trichlorobenzene	0.0500	U	0.0302	0.0277	60.4	55.4	20	15.0-120			8.64	31
4-Chloro-3-methylphenol	0.0500	U	0.0553	0.0520	111	104	20	26.0-120			6.15	27
2-Chlorophenol	0.0500	U	0.0276	0.0249	55.2	49.8	20	18.0-120			10.3	34
2,4-Dichlorophenol	0.0500	U	0.0398	0.0343	79.6	68.6	20	19.0-120			14.8	27
2,4-Dimethylphenol	0.0500	U	0.0884	0.0685	177	137	20	15.0-120	J5	J5	25.4	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.0431	0.0380	86.2	76.0	20	10.0-144			12.6	39
2,4-Dinitrophenol	0.0500	U	0.149	0.144	298	288	20	10.0-120	J5	J5	3.41	40
2-Nitrophenol	0.0500	U	0.0320	0.0316	64.0	63.2	20	20.0-120			1.26	30
2-Nitroaniline	0.0500	U	0.0363	0.0346	72.6	69.2	20	33.0-120			4.80	27
2-Methylphenol	0.0500	U	0.0459	0.0429	91.8	85.8	20	10.0-120			6.76	30
3&4-Methyl Phenol	0.0500	0.0266	0.107	0.0916	161	130	20	10.0-120	J5	J5	15.5	36
3-Nitroaniline	0.0500	U	U	U	0.000	0.000	20	20.0-120	J6	J6	0.000	27
4-Chloroaniline	0.0500	U	U	U	0.000	0.000	20	10.0-120	J6	J6	0.000	31
4-Nitroaniline	0.0500	U	0.0247	U	49.4	0.000	20	10.0-160		J3 J6	200	26
4-Nitrophenol	0.0500	U	0.0236	0.0253	47.2	50.6	20	10.0-120			6.95	40
Pentachlorophenol	0.0500	U	0.0625	0.0475	125	95.0	20	10.0-128			27.3	37
Phenol	0.0500	U	0.124	0.0891	248	178	20	10.0-120	J5	J5	32.8	40
2,4,5-Trichlorophenol	0.0500	U	0.0424	0.0371	84.8	74.2	20	33.0-120			13.3	31
2,4,6-Trichlorophenol	0.0500	U	0.0365	0.0338	73.0	67.6	20	26.0-120			7.68	31
(S) 2-Fluorophenol					*39.8*	*39.1*		*10.0-120*	J7	J7		
(S) Phenol-d5					*44.6*	*33.0*		*10.0-120*	J7	J7		
(S) Nitrobenzene-d5					*74.5*	*69.9*		*10.0-127*	J7	J7		
(S) 2-Fluorobiphenyl					*65.7*	*57.8*		*10.0-130*	J7	J7		
(S) 2,4,6-Tribromophenol					*98.5*	*66.5*		*10.0-155*	J7	J7		
(S) p-Terphenyl-d14					*66.3*	*58.3*		*10.0-128*	J7	J7		

Sample Narrative:

OS: Dilution due to matrix.

Released to Imaging: 4/14/2023 4:34:58 PM

Method Blank (MB)

(MB) R3851552-2 10/21/22 13:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzaldehyde	U		0.00169	0.0100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100

Method Blank (MB)

(MB) R3851552-2 10/21/22 13:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
2-Nitroaniline	U		0.000102	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
3-Nitroaniline	U		0.0000869	0.0100
4-Chloroaniline	U		0.000234	0.0100
4-Nitroaniline	U		0.0000910	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) 2-Fluorophenol	*30.3*			*10.0-120*
(S) Phenol-d5	*20.3*			*10.0-120*
(S) Nitrobenzene-d5	*50.0*			*10.0-127*
(S) 2-Fluorobiphenyl	*49.4*			*10.0-130*
(S) 2,4,6-Tribromophenol	*47.1*			*10.0-155*
(S) p-Terphenyl-d14	*62.3*			*10.0-128*

Laboratory Control Sample (LCS)

(LCS) R3851552-1 10/21/22 13:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0359	71.8	41.0-120	
Acenaphthylene	0.0500	0.0391	78.2	43.0-120	
Acetophenone	0.0500	0.0348	69.6	29.0-120	
Anthracene	0.0500	0.0357	71.4	45.0-120	
Atrazine	0.0500	0.0369	73.8	39.0-141	
Benzo(a)anthracene	0.0500	0.0397	79.4	47.0-120	
Benzaldehyde	0.0500	0.0798	160	10.0-160	
Benzo(b)fluoranthene	0.0500	0.0399	79.8	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0383	76.6	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0353	70.6	48.0-121	
Benzo(a)pyrene	0.0500	0.0438	87.6	47.0-120	
Biphenyl	0.0500	0.0346	69.2	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0373	74.6	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0343	68.6	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0317	63.4	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0404	80.8	45.0-120	
2-Chloronaphthalene	0.0500	0.0359	71.8	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0368	73.6	44.0-120	
Caprolactam	0.0500	0.0102	20.4	10.0-120	
Carbazole	0.0500	0.0376	75.2	51.0-122	
Chrysene	0.0500	0.0393	78.6	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0364	72.8	47.0-120	
Dibenzofuran	0.0500	0.0372	74.4	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0768	76.8	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0379	75.8	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0371	74.2	46.0-120	
Fluoranthene	0.0500	0.0428	85.6	51.0-120	
Fluorene	0.0500	0.0367	73.4	47.0-120	
Hexachlorobenzene	0.0500	0.0356	71.2	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0348	69.6	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0330	66.0	15.0-120	
Hexachloroethane	0.0500	0.0320	64.0	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0352	70.4	49.0-122	
Isophorone	0.0500	0.0382	76.4	36.0-120	
1-Methylnaphthalene	0.0500	0.0345	69.0	33.0-120	
2-Methylnaphthalene	0.0500	0.0338	67.6	33.0-120	
Naphthalene	0.0500	0.0310	62.0	27.0-120	
Nitrobenzene	0.0500	0.0398	79.6	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0308	61.6	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0407	81.4	31.0-120	

Laboratory Control Sample (LCS)

(LCS) R3851552-1 10/21/22 13:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	0.0500	0.0388	77.6	46.0-120	
Benzylbutyl phthalate	0.0500	0.0422	84.4	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0412	82.4	43.0-122	
Di-n-butyl phthalate	0.0500	0.0407	81.4	49.0-121	
Diethyl phthalate	0.0500	0.0381	76.2	48.0-122	
Dimethyl phthalate	0.0500	0.0371	74.2	48.0-120	
Di-n-octyl phthalate	0.0500	0.0402	80.4	42.0-125	
Pyrene	0.0500	0.0405	81.0	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0313	62.6	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0369	73.8	40.0-120	
2-Chlorophenol	0.0500	0.0285	57.0	25.0-120	
2,4-Dichlorophenol	0.0500	0.0325	65.0	36.0-120	
2,4-Dimethylphenol	0.0500	0.0321	64.2	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0405	81.0	38.0-138	
2,4-Dinitrophenol	0.0500	0.0409	81.8	10.0-120	
2-Nitrophenol	0.0500	0.0320	64.0	31.0-120	
2-Nitroaniline	0.0500	0.0366	73.2	43.0-120	
2-Methylphenol	0.0500	0.0287	57.4	28.0-120	
3&4-Methyl Phenol	0.0500	0.0265	53.0	31.0-120	
3-Nitroaniline	0.0500	0.0355	71.0	38.0-120	
4-Chloroaniline	0.0500	0.0399	79.8	25.0-120	
4-Nitroaniline	0.0500	0.0349	69.8	18.0-160	
4-Nitrophenol	0.0500	0.0177	35.4	10.0-120	
Pentachlorophenol	0.0500	0.0435	87.0	23.0-120	
Phenol	0.0500	0.0159	31.8	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0389	77.8	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0396	79.2	42.0-120	
(S) 2-Fluorophenol			*43.1*	*10.0-120*	
(S) Phenol-d5			*29.1*	*10.0-120*	
(S) Nitrobenzene-d5			*62.1*	*10.0-127*	
(S) 2-Fluorobiphenyl			*74.8*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*69.5*	*10.0-155*	
(S) p-Terphenyl-d14			*76.0*	*10.0-128*	

L1547563-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1547563-01 10/24/22 23:11 • (MS) R3852560-1 10/24/22 23:33 • (MSD) R3852560-2 10/24/22 23:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0142	0.0136	28.4	27.2	1	28.0-120		J6	4.32	25
Acenaphthylene	0.0500	U	0.0144	0.0140	28.8	28.0	1	31.0-121	J6	J6	2.82	25
Acetophenone	0.0500	U	0.0149	0.0152	29.8	30.4	1	20.0-120			1.99	35
Anthracene	0.0500	U	0.0157	0.0156	31.4	31.2	1	36.0-120	J6	J6	0.639	23
Atrazine	0.0500	U	0.0215	0.0223	43.0	44.6	1	39.0-130			3.65	23
Benzo(a)anthracene	0.0500	U	0.0173	0.0172	34.6	34.4	1	39.0-120	J6	J6	0.580	23
Benzaldehyde	0.0500	U	0.0166	0.0148	33.2	29.6	1	10.0-160			11.5	40
Benzo(b)fluoranthene	0.0500	U	0.0179	0.0181	35.8	36.2	1	37.0-120	J6	J6	1.11	23
Benzo(k)fluoranthene	0.0500	U	0.0171	0.0173	34.2	34.6	1	37.0-120	J6	J6	1.16	26
Benzo(g,h,i)perylene	0.0500	U	0.0186	0.0190	37.2	38.0	1	37.0-123			2.13	25
Benzo(a)pyrene	0.0500	U	0.0195	0.0199	39.0	39.8	1	37.0-120			2.03	24
Biphenyl	0.0500	U	0.0129	0.0124	25.8	24.8	1	29.0-120	J6	J6	3.95	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0137	0.0139	27.4	27.8	1	17.0-120			1.45	31
Bis(2-chloroethyl)ether	0.0500	U	0.0142	0.0144	28.4	28.8	1	14.0-120			1.40	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0129	0.0124	25.8	24.8	1	18.0-120			3.95	34
4-Bromophenyl-phenylether	0.0500	U	0.0177	0.0173	35.4	34.6	1	37.0-120	J6	J6	2.29	24
2-Chloronaphthalene	0.0500	U	0.0131	0.0125	26.2	25.0	1	29.0-120	J6	J6	4.69	28
4-Chlorophenyl-phenylether	0.0500	U	0.0167	0.0162	33.4	32.4	1	36.0-120	J6	J6	3.04	23
Caprolactam	0.0500	U	0.00896	0.0101	17.9	20.2	1	10.0-120			12.0	40
Carbazole	0.0500	U	0.0188	0.0192	37.6	38.4	1	38.0-127	J6		2.11	21
Chrysene	0.0500	U	0.0175	0.0174	35.0	34.8	1	38.0-120	J6	J6	0.573	23
Dibenz(a,h)anthracene	0.0500	U	0.0188	0.0193	37.6	38.6	1	36.0-121			2.62	24
Dibenzofuran	0.0500	U	0.0153	0.0145	30.6	29.0	1	32.0-120	J6	J6	5.37	26
3,3-Dichlorobenzidine	0.100	U	0.0273	0.0311	27.3	31.1	1	10.0-134			13.0	30
2,4-Dinitrotoluene	0.0500	U	0.0207	0.0188	41.4	37.6	1	39.0-125		J6	9.62	25
2,6-Dinitrotoluene	0.0500	U	0.0178	0.0172	35.6	34.4	1	36.0-120	J6	J6	3.43	27
Fluoranthene	0.0500	U	0.0184	0.0182	36.8	36.4	1	41.0-121	J6	J6	1.09	22
Fluorene	0.0500	U	0.0162	0.0157	32.4	31.4	1	37.0-120	J6	J6	3.13	24
Hexachlorobenzene	0.0500	U	0.0174	0.0168	34.8	33.6	1	35.0-122	J6	J6	3.51	24
Hexachloro-1,3-butadiene	0.0500	U	0.0126	0.0128	25.2	25.6	1	12.0-120			1.57	34
Hexachlorocyclopentadiene	0.0500	U	U	U	0.000	0.000	1	10.0-120	J6	J6	0.000	33
Hexachloroethane	0.0500	U	0.0112	0.0116	22.4	23.2	1	10.0-120			3.51	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0188	0.0194	37.6	38.8	1	38.0-125	J6		3.14	24
Isophorone	0.0500	U	0.0137	0.0138	27.4	27.6	1	21.0-120			0.727	27
1-Methylnaphthalene	0.0500	U	0.0125	0.0124	25.0	24.8	1	11.0-120			0.803	27
2-Methylnaphthalene	0.0500	U	0.0122	0.0120	24.4	24.0	1	17.0-120			1.65	28
Naphthalene	0.0500	U	0.0117	0.0119	23.4	23.8	1	10.0-120			1.69	31
Nitrobenzene	0.0500	U	0.0150	0.0149	30.0	29.8	1	12.0-120			0.669	30
n-Nitrosodiphenylamine	0.0500	U	0.0145	0.0141	29.0	28.2	1	37.0-120	J6	J6	2.80	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0158	0.0155	31.6	31.0	1	16.0-120			1.92	30

L1547563-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1547563-01 10/24/22 23:11 • (MS) R3852560-1 10/24/22 23:33 • (MSD) R3852560-2 10/24/22 23:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phenanthrene	0.0500	U	0.0168	0.0163	33.6	32.6	1	33.0-120		J6	3.02	22
Benzylbutyl phthalate	0.0500	U	0.0178	0.0182	35.6	36.4	1	34.0-126			2.22	24
Bis(2-ethylhexyl)phthalate	0.0500	U	0.0183	0.0183	36.6	36.6	1	33.0-126			0.000	25
Di-n-butyl phthalate	0.0500	U	0.0191	0.0193	38.2	38.6	1	35.0-128			1.04	23
Diethyl phthalate	0.0500	0.00123	0.0190	0.0181	35.5	33.7	1	39.0-125	J6	J6	4.85	24
Dimethyl phthalate	0.0500	U	0.0175	0.0173	35.0	34.6	1	37.0-120	J6	J6	1.15	24
Di-n-octyl phthalate	0.0500	U	0.0172	0.0173	34.4	34.6	1	25.0-135			0.580	26
Pyrene	0.0500	U	0.0170	0.0174	34.0	34.8	1	39.0-120	J6	J6	2.33	22
1,2,4-Trichlorobenzene	0.0500	U	0.0124	0.0124	24.8	24.8	1	15.0-120			0.000	31
4-Chloro-3-methylphenol	0.0500	U	0.0203	0.0206	40.6	41.2	1	26.0-120			1.47	27
2-Chlorophenol	0.0500	U	0.0126	0.0126	25.2	25.2	1	18.0-120			0.000	34
2,4-Dichlorophenol	0.0500	U	0.0164	0.0160	32.8	32.0	1	19.0-120			2.47	27
2,4-Dimethylphenol	0.0500	U	0.0155	0.0159	31.0	31.8	1	15.0-120			2.55	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.00515	0.00369	10.3	7.38	1	10.0-144		J6	33.0	39
2,4-Dinitrophenol	0.0500	U	0.0101	0.00891	20.2	17.8	1	10.0-120			12.5	40
2-Nitrophenol	0.0500	U	0.0139	0.0139	27.8	27.8	1	20.0-120			0.000	30
2-Nitroaniline	0.0500	U	0.0217	0.0218	43.4	43.6	1	33.0-120			0.460	27
2-Methylphenol	0.0500	U	0.0118	0.0121	23.6	24.2	1	10.0-120			2.51	30
3&4-Methyl Phenol	0.0500	0.0199	0.0299	0.0300	20.0	20.2	1	10.0-120			0.334	36
3-Nitroaniline	0.0500	U	0.0217	0.0223	43.4	44.6	1	20.0-120			2.73	27
4-Chloroaniline	0.0500	U	0.0124	0.0136	24.8	27.2	1	10.0-120			9.23	31
4-Nitroaniline	0.0500	U	0.0241	0.0253	48.2	50.6	1	10.0-160			4.86	26
4-Nitrophenol	0.0500	U	0.0102	0.0104	20.4	20.8	1	10.0-120			1.94	40
Pentachlorophenol	0.0500	U	0.0210	0.0214	42.0	42.8	1	10.0-128			1.89	37
Phenol	0.0500	0.00511	0.0114	0.0113	12.6	12.4	1	10.0-120			0.881	40
2,4,5-Trichlorophenol	0.0500	U	0.0213	0.0210	42.6	42.0	1	33.0-120			1.42	31
2,4,6-Trichlorophenol	0.0500	U	0.0171	0.0178	34.2	35.6	1	26.0-120			4.01	31
(S) 2-Fluorophenol					*16.8*	*16.9*		*10.0-120*				
(S) Phenol-d5					*12.8*	*13.2*		*10.0-120*				
(S) Nitrobenzene-d5					*28.5*	*31.0*		*10.0-127*				
(S) 2-Fluorobiphenyl					*26.4*	*24.8*		*10.0-130*				
(S) 2,4,6-Tribromophenol					*41.8*	*44.7*		*10.0-155*				
(S) p-Terphenyl-d14					*34.9*	*35.0*		*10.0-128*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

TRC Solutions - Austin, TX

505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: Lovington Lea Refinery

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 512-684-3176

Client Project # 377274.0000.0000.

Lab Project # TRCATX-LOVINGTON NAV

Collected by (print): Scott Ude + Hmu Team

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**WetChem-48hr HT** 125mlHDPE-NoPres	8270TX 100ml Amb NoPres	ALK,TDS 500mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	Dissolved Metals-FF 250mlHDPE HNO3	GRO 40mlAmb HCl	TDS 500mlHDPE-NoPres	Total Mercury 250mlHDPE-HNO3	V8260 40mlAmb-HCl	V8260-Trip Blank 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-1	G	GW		10/13/22	1210	7	X				X		X	X	X			-01
MW-2		GW			1205	9	X	X			X		X	X	X			-02
MW-3		GW			1120	1	X											-03
MW-4		GW			1140	9	X	X			X		X	X	X			-04
MW-5		GW			1020	13	X	X	X	X	X	X		X	X			-05
MW-6		GW			1245	9	X	X			X		X	X	X			-06
MW-8		GW			1005	7	X				X		X	X	X			-07
MW-9		GW			1050	1	X											-08
MW-10		GW			1130	1	X											-09
MW-11R	↓	GW		↓	945	9	X	X	X		X			X	X			-10

Chain of Custody Page 1 of 3

Pace
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SDG # L1546506

D105

Acctnum: TRCATX
Template: T217047
Prelogin: P953981
PM: 526 - Chris McCord
PB: Bf 9/27/22

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: **WetChem-48HT** needs to analyze NITRATE, NITRITE, includes Chloride, Fluoride, Sulfate
FF - All diss. metals are Field Filtered per TRC.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS ✓FedEx __Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/13/22	1400		✓	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 396	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) D. Ramsey	Date: 10/14/22 Time: 0900	Hold: Condition: NCF / OK

Company Name/Address:
TRC Solutions - Austin, TX
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: Lovington Lea Refinery

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 512-684-3176

Client Project # 377274.0000.0000.

Lab Project # TRCATX-LOVINGTON NAV

Collected by (print): Scott Ude + HMI Team

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**WetChem-48hr HT** 125mlHDPE-NoPres	8270TX 100ml Amb NoPres	ALK,TDS 500mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	Dissolved Metals-FF 250mlHDPE HNO3 (V)	GRO 40mlAmb HCl	TDS 500mlHDPE-NoPres	Total Mercury 250mlHDPE-HNO3 (2)	V8260 40mlAmb-HCl	V8260-Trip Blank 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-12R2	G	GW		10/13/22	940	9	X	X	X		X			X	X			-11
MW-13R		GW			925	9	X	X			X		X	X	X			-12
MW-14R		GW			1235	9	X	X			X		X	X	X			-13
MW-15R		GW			1115	9	X	X	X		X			X	X			-14
MW-16R		GW			1650	9	X	X			X		X	X	X			-15
MW-17R		GW			1210	9	X	X	X		X			X	X			-16
MW-18R		GW			1030	9	X	X			X		X	X	X			-17
MW-19R		GW			1255	9	X	X	X		X			X	X			-18
MW-20R		GW			1030	9	X	X			X		X	X	X			-19
MW-21	↓	GW		↓	920	6		X		X		X						-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:**WetChem-48HT** needs to analyze NITRATE, NITRITE. +p.1 notes

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	10/13/22	1400	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			D. Ramsey

Trip Blank Received: Yes / No (2) HCl / MeoH TBR

Temp: °C Bottles Received: 396

Date: 10/14/22 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Chain of Custody

Pace PEOPLE ADVANCING SCIENCE

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SDG # L1546806

Table #

Acctnum: TRCATX
Template:T217047
Prelogin: P953981
PM: 526 - Chris McCord
PB: BF 9/27/22

Shipped Via: FedEx Ground

Company Name/Address:
TRC Solutions - Austin, TX

505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: **Julie Speer**

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: **Lovington Lea Refinery**

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: **512-684-3176**

Client Project # **377274.0000.0000.**

Lab Project # **TRCATX-LOVINGTON NAV**

Collected by (print): Scott Ude + HMI Team

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

Pace
PEOPLE ADVANCING SCIENCE

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SDG # L1546506

Table #

Acctnum: TRCATX
Template: T217047
Prelogin: P953981
PM: 526 - Chris McCord
PB: BF 9/27/22

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**WetChem-48hr HT** 125mlHDPE-NoPres	8270TX 100ml Amb NoPres	ALK,TDS 500mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	Dissolved Metals-FF 250mlHDPE HNO3	GRO 40mlAmb HCl	TDS 500mlHDPE-NoPres	Total Mercury 250mlHDPE-HNO3	V8260 40mlAmb-HCl	V8260-Trip Blank 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-22	G	GW		10/13/22	1130	13	X	X		X	X	X	~~X~~	~~X~~	X		Vol not available to provide TDS, Total Hg	-22
MW-23R	↓	GW		↓	1120	2	X						X					-23
MW-24R		GW			1225	9	X	X	X		X			X	X			-24
MW-26R		GW			1025	1	X											
~~MW-27~~		~~GW~~				~~5~~		~~X~~							~~X~~	(DRY)		
~~MW-28~~		~~GW~~				~~9~~	~~X~~	~~X~~	~~X~~		~~X~~			~~X~~	~~X~~	(DRY)		
~~MW-29~~		~~GW~~				~~9~~	~~X~~	~~X~~			~~X~~		~~X~~	~~X~~	~~X~~	(DRY)		
MW-30	↓	GW		↓	1050	9	X	X	X		X			X	X			-26
~~MW-31~~		~~GW~~				~~13~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~	~~X~~	No sample;	LNAPL recovery	
MW-32	G	GW		10/13/22	1020	13	X	X	X	X	X	X		X	X			-27

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:**WetChem-48HT** needs to analyze NITRATE, NITRITE. + p.1 notes

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __UPS ✓FedEx __Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/13/22	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) D.Ramsey	Date: 10-14-22 Time: 0900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX

505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: Lovington Lea Refinery

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 512-684-3176

Client Project # 377274.0000.0000.

Lab Project # TRCATX-LOVINGTON NAV

Collected by (print): Scott Ude + Hmi Team

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude
Immediately
Packed on Ice N ___ Y ✓

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**WetChem-48hr HT** 125mlHDPE-NoPres	8270TX 100ml Amb NoPres	ALK,TDS 500mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	Dissolved Metals-FF 250mlHDPE HNO3	GRO 40mlAmb HCl	TDS 500mlHDPE-NoPres	Total Mercury 250mlHDPE-HNO3	V8260 40mlAmb-HCl	V8260-Trip Blank 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-33	G	GW		10/13/22	1130	13	X	X	X	X	X	X		X	X			-28 -27
WW-NORTH		GW			1130	13	X	X	X	X	X	X		X	X			-29 -28
WW-SOUTH		GW			1045	13	X	X	X	X	X	X		X	X			-30 -29
WW-EAST		GW			1230	13	X	X	X	X	X	X		X	X			-31 -30
DUP-01		GW			1200	13	X	X	X	X	X	X		X	X			-32 -31
DUP-02		GW			1200	13	X	X	X	X	X	X		X	X			-33 -32
DUP-03		GW			1000	13	X	X	X	X	X	X		X	X			-34 -33
DUP-04		GW			1000	9	X	X			X		X	X	X			-35 -34
EB-01		GW			1040	13	X	X	X	X	X	X		X	X			-36 -35
EB-02		GW			1125	9	X	X	X		X			X	X			-37 -36

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: **WetChem-48HT** needs to analyze NITRATE, NITRITE. + p-1 notes

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/13/22	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			D. Ramsey	10-14-22 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Chain of Custody Page 1 of 5

Pace PEOPLE ADVANCING SCIENCE

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SDG # L1546506

Table #

Acctnum: TRCATX
Template: T217047
Prelogin: P953981
PM: 526 - Chris McCord
PB: BF 9/27/22
Shipped Via: FedEx Ground

Company Name/Address:
TRC Solutions - Austin, TX

505 E. Huntland Drive, Suite 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095

Pres Chk

Report to: **Julie Speer**

Email To: jspeer@trccompanies.com;aeljuri@trccompanie

Project Description: **Lovington Lea Refinery**

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: **512-684-3176**

Client Project # **377274.0000.0000.**

Lab Project # **TRCATX-LOVINGTON NAV**

Collected by (print): Scott Ude + HMI Team

Site/Facility ID #

P.O. #

Collected by (signature): Scott Ude

Immediately Packed on Ice N___ Y✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**WetChem-48hr HT** 125mlHDPE-NoPres	8270TX 100ml Amb NoPres	ALK,TDS 500mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	Dissolved Metals-FF 250mlHDPE HNO3	GRO 40mlAmb HCl	TDS 500mlHDPE-NoPres	Total Mercury 250mlHDPE-HNO3	V8260 40mlAmb-HCl	V8260-Trip Blank 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MS/MSD @ MW-33	G	GW		10/13/22	1130	22 ~~21~~ SCM	X	X	X	X	X	X		X	X			-27 ~~37~~ 70
~~EXTRAS~~		~~GW~~				~~13~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~	~~X~~		SCM	
TRIP BLANK-01	G	GW		10/13/22	—	1										X		-38
TRIP BLANK-02	G	GW		10/13/22	—	1										X		-39 ~~38~~

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # L1546506

Table #

Acctnum: **TRCATX**
Template: **T217047**
Prelogin: **P953981**
PM: **526 - Chris McCord**
PB: Bf 9/27/22

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: **WetChem-48HT** needs to analyze NITRATE, NITRITE. +p. 1 notes

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/13/22	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) D.Ramsey	Date: 10-14-22 Time: 0900	Hold: Condition: NCF / OK

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

L15/6596

Tracking Numbers	Temperature
6053 3811 2989	GBA7 2.0+.0=2.0
6053 3811 2990	GBA7 4.1+.0=4.1
6053 3811 3058	GBA7 2.3+.0=2.3
6053 3811 3041	GBA7 1.6+.0=1.6
6053 3811 3058	GBA7 3.6+.0=3.6

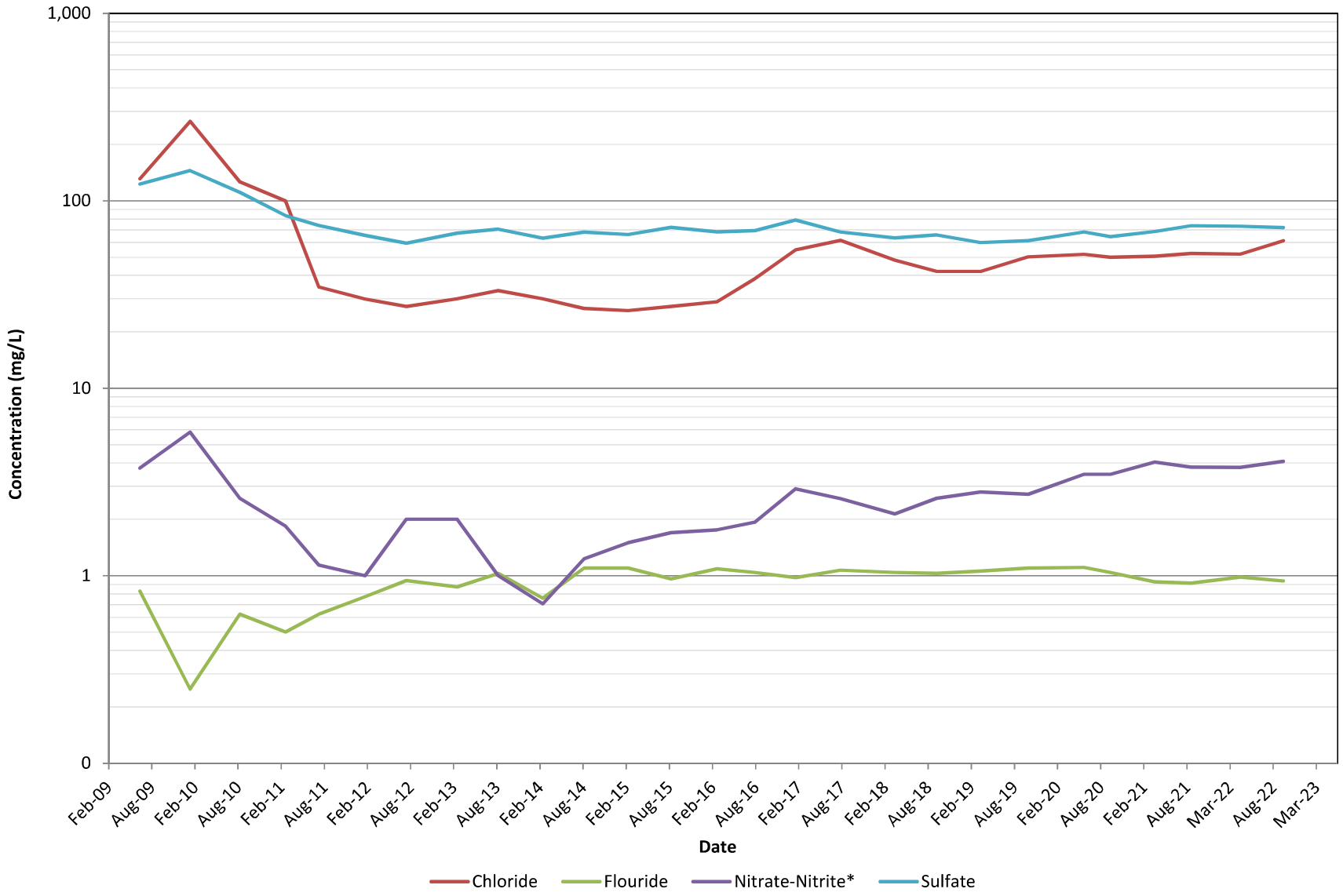
APPENDIX C

PLOTS OF GROUNDWATER CONCENTRATIONS OVER TIME

Released to Imaging: 4/14/2023 4:34:58 PM

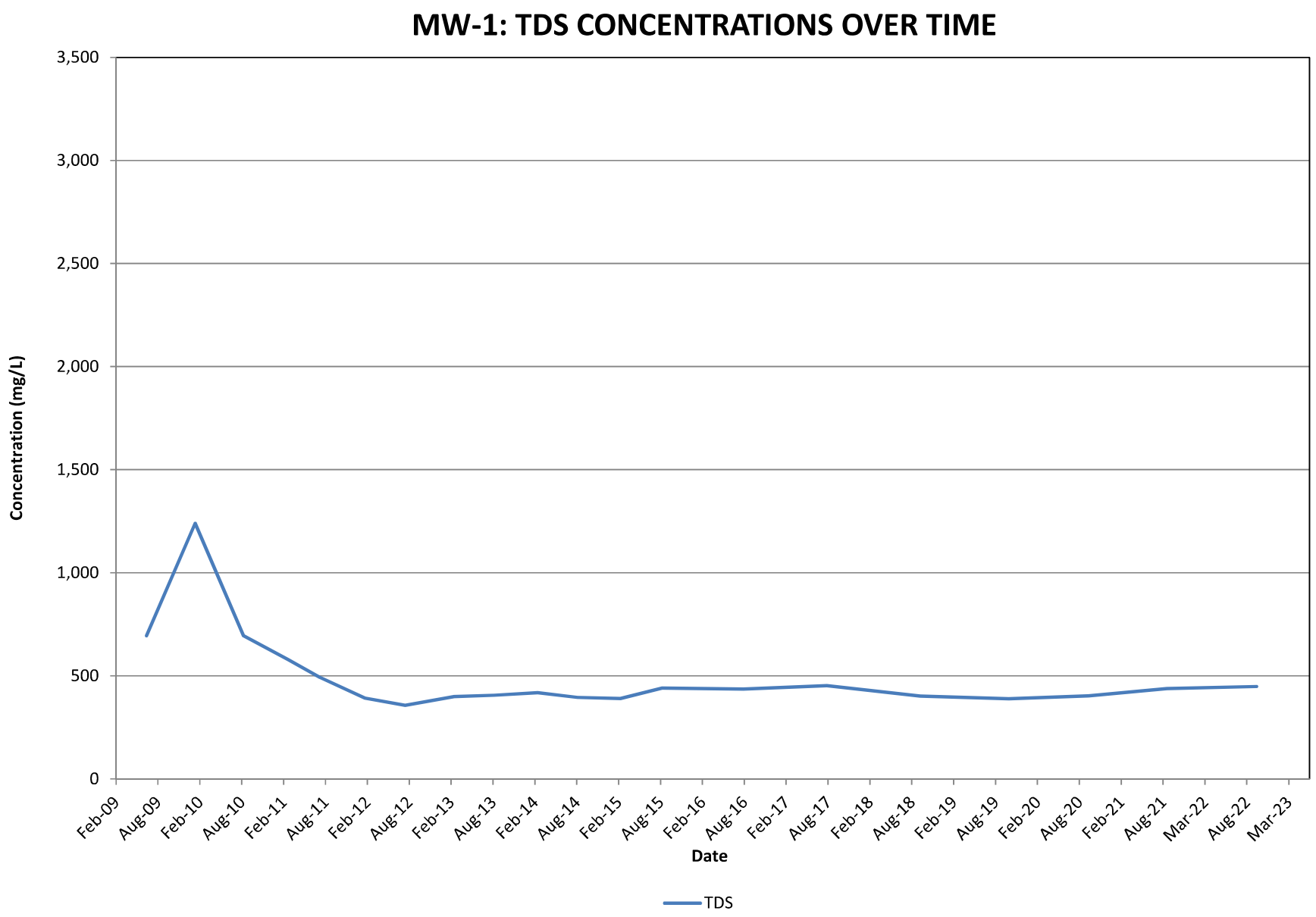
Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

MW-1: ANION CONCENTRATIONS OVER TIME

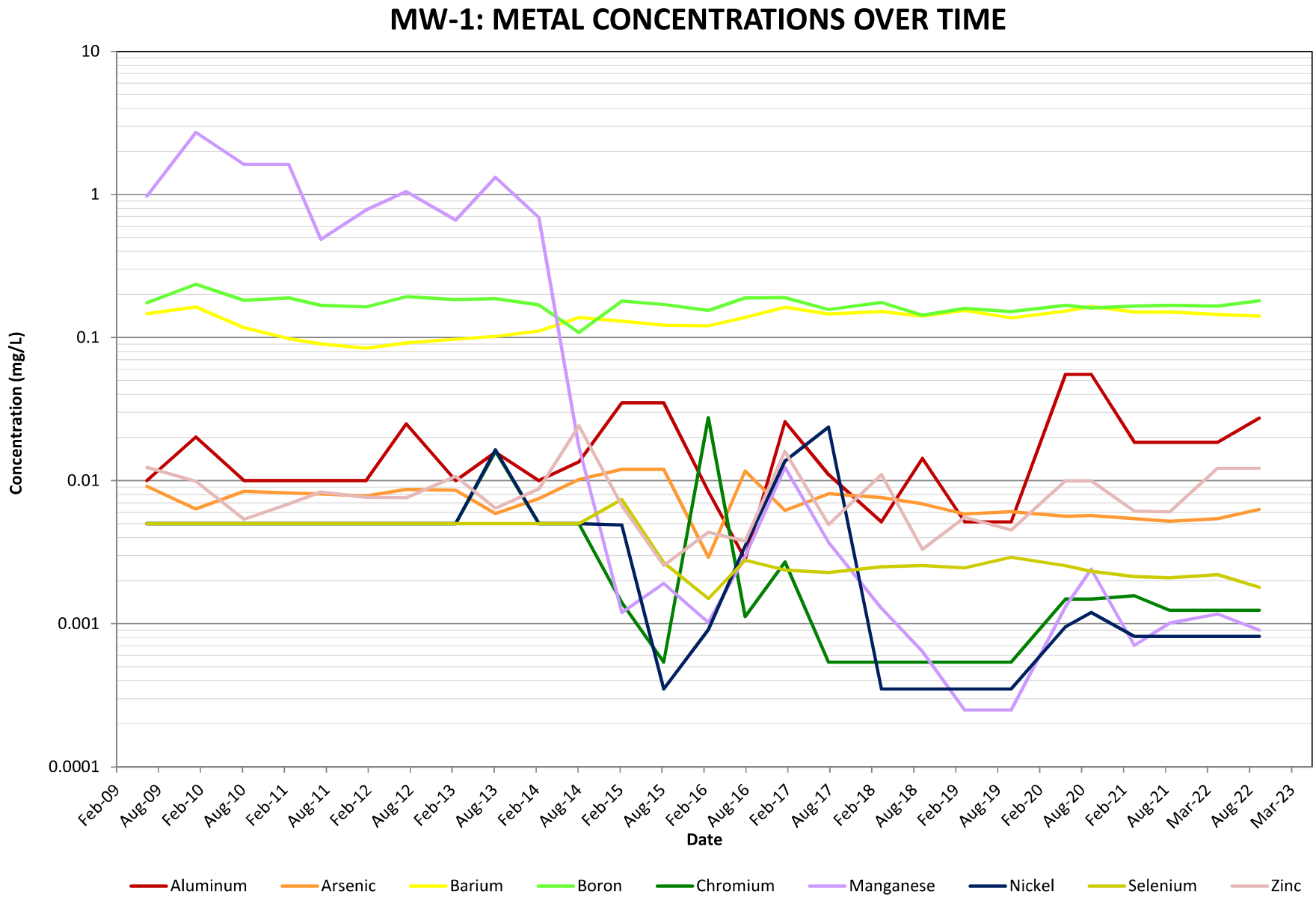


*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

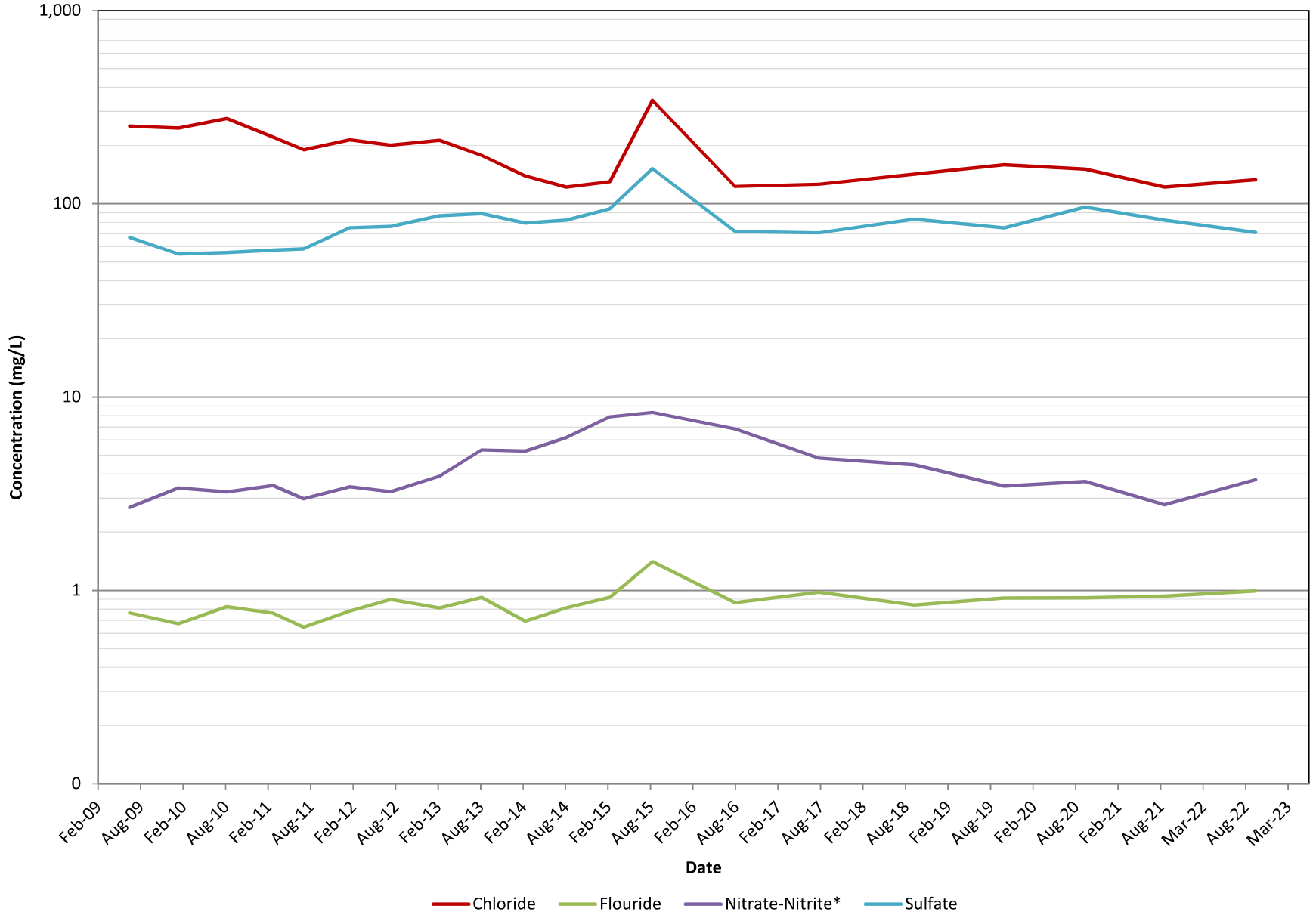


Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM



Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

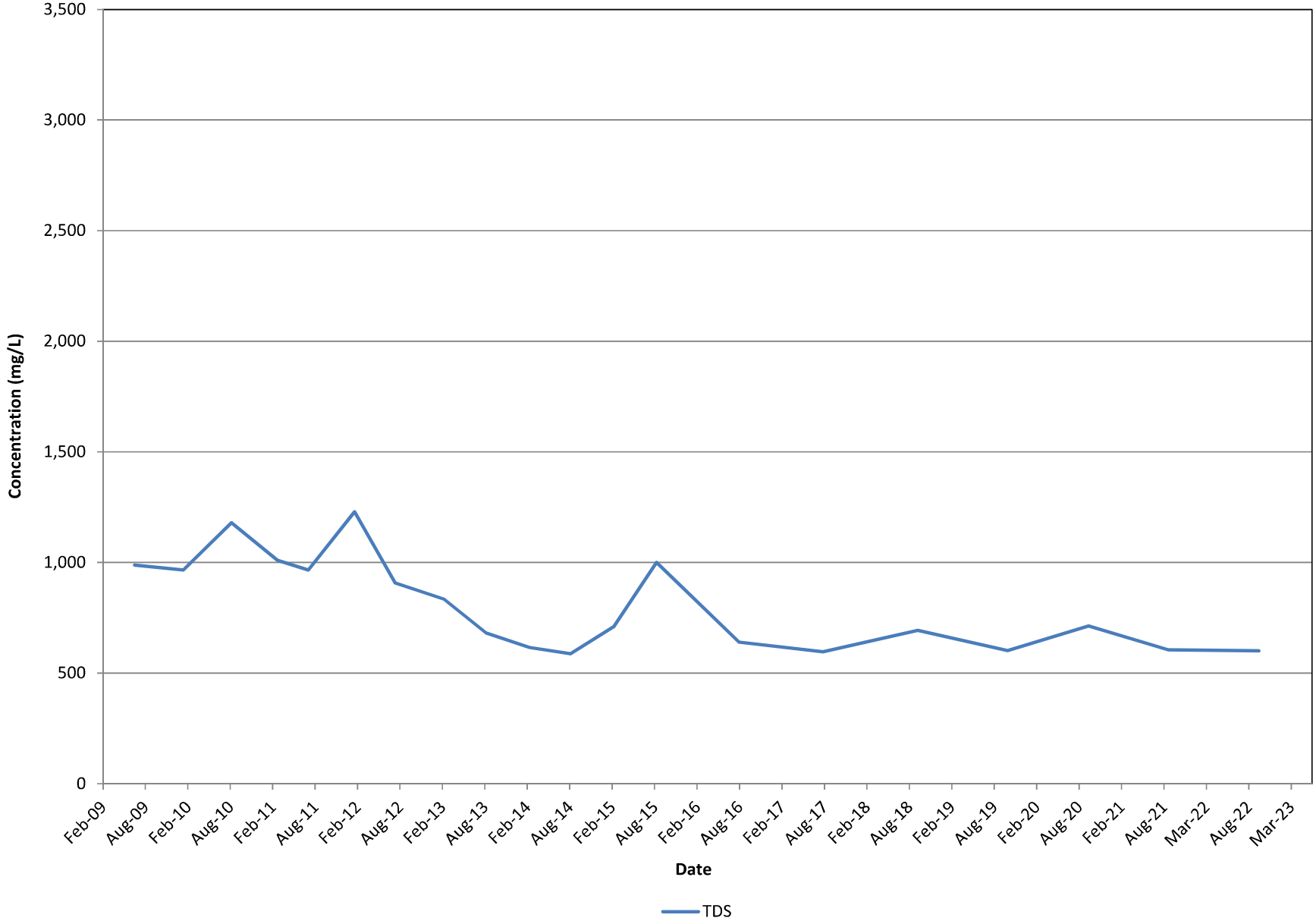
MW-2: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

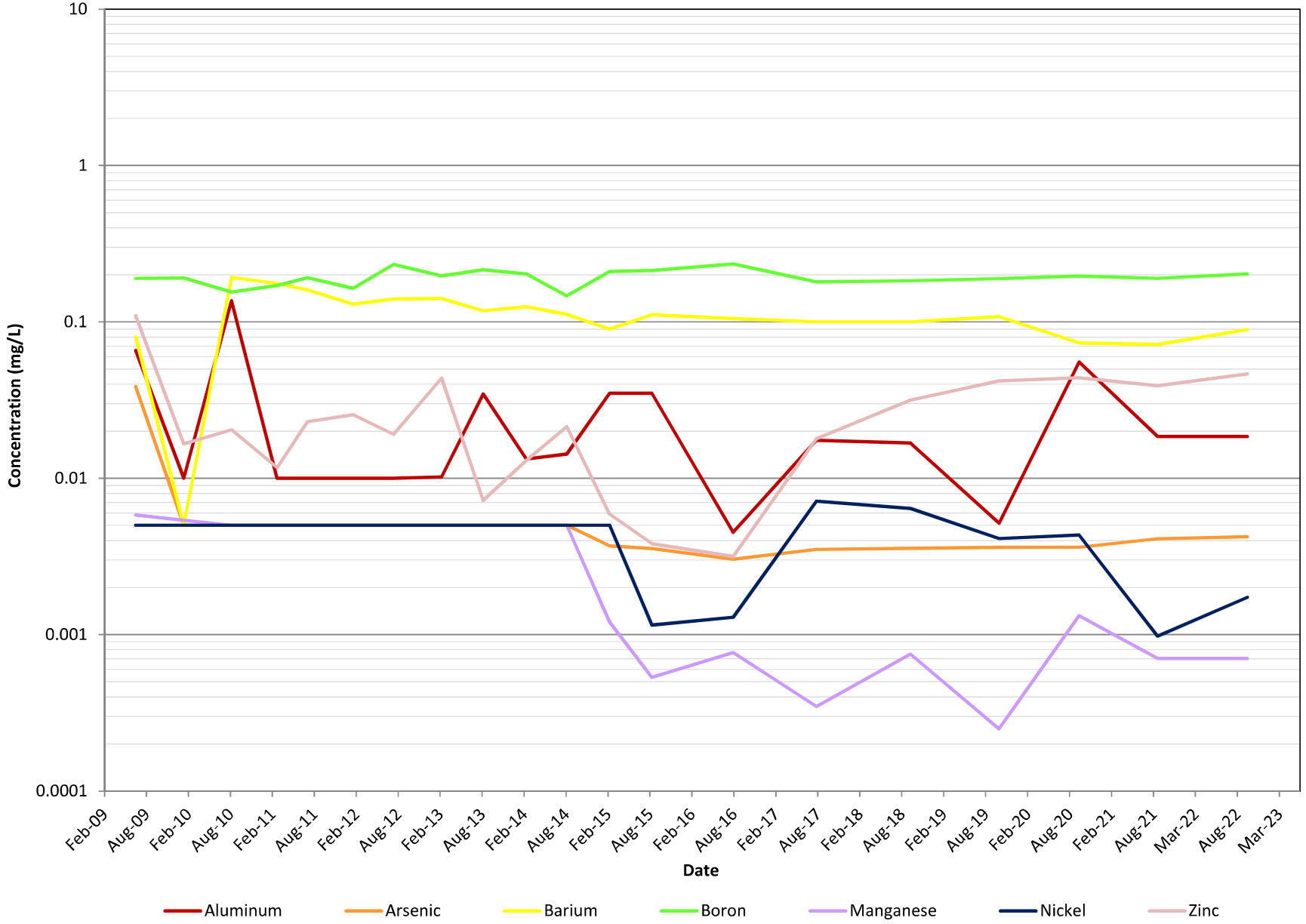
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Received by OCD: 4/14/2023 3:51:30 PM

MW-2: TDS CONCENTRATIONS OVER TIME



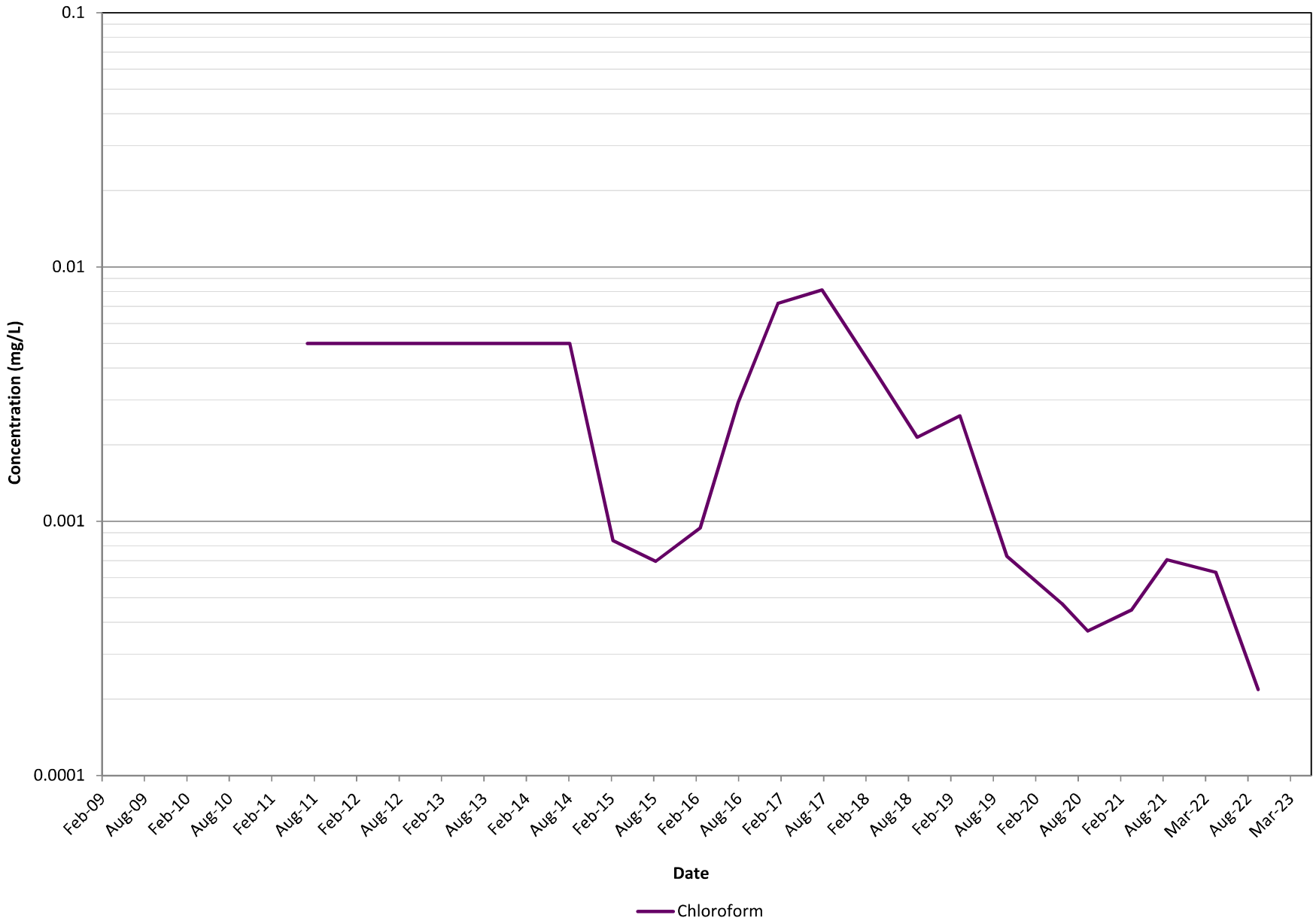
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MW-2: METAL CONCENTRATIONS OVER TIME



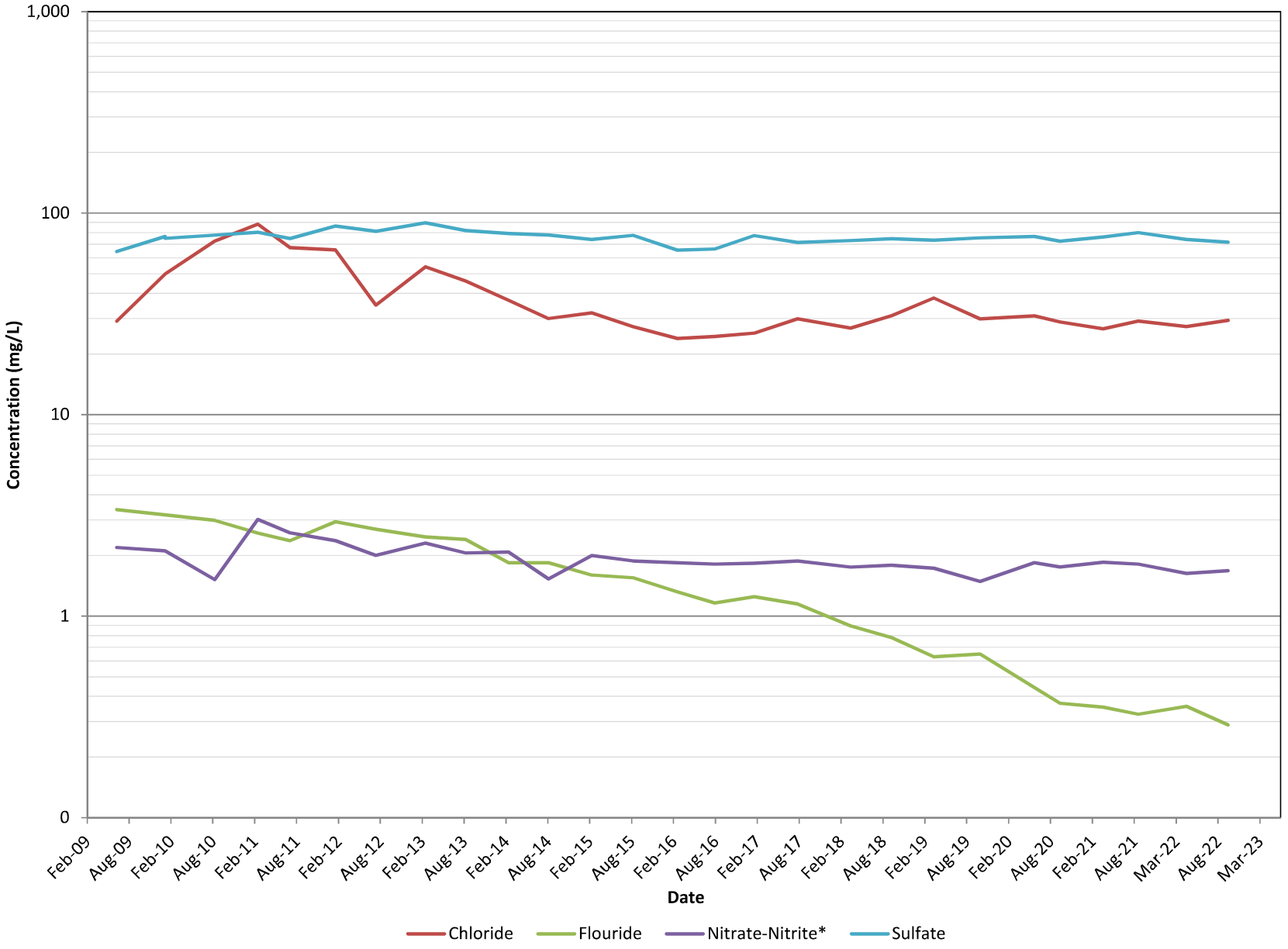
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MW-2: VOC CONCENTRATIONS OVER TIME



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Received by OCD: 4/14/2023 3:51:30 PM

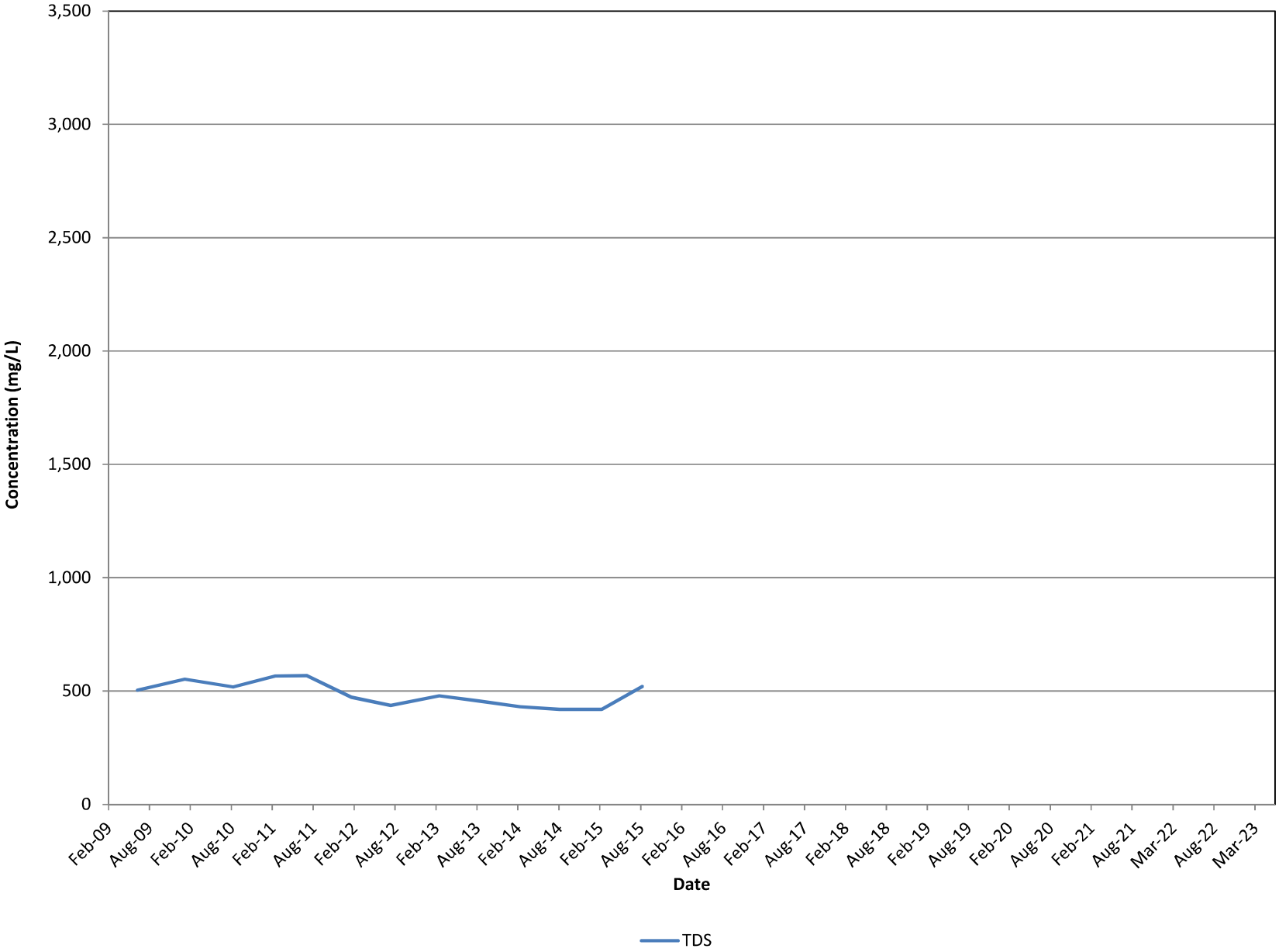
MW-3: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

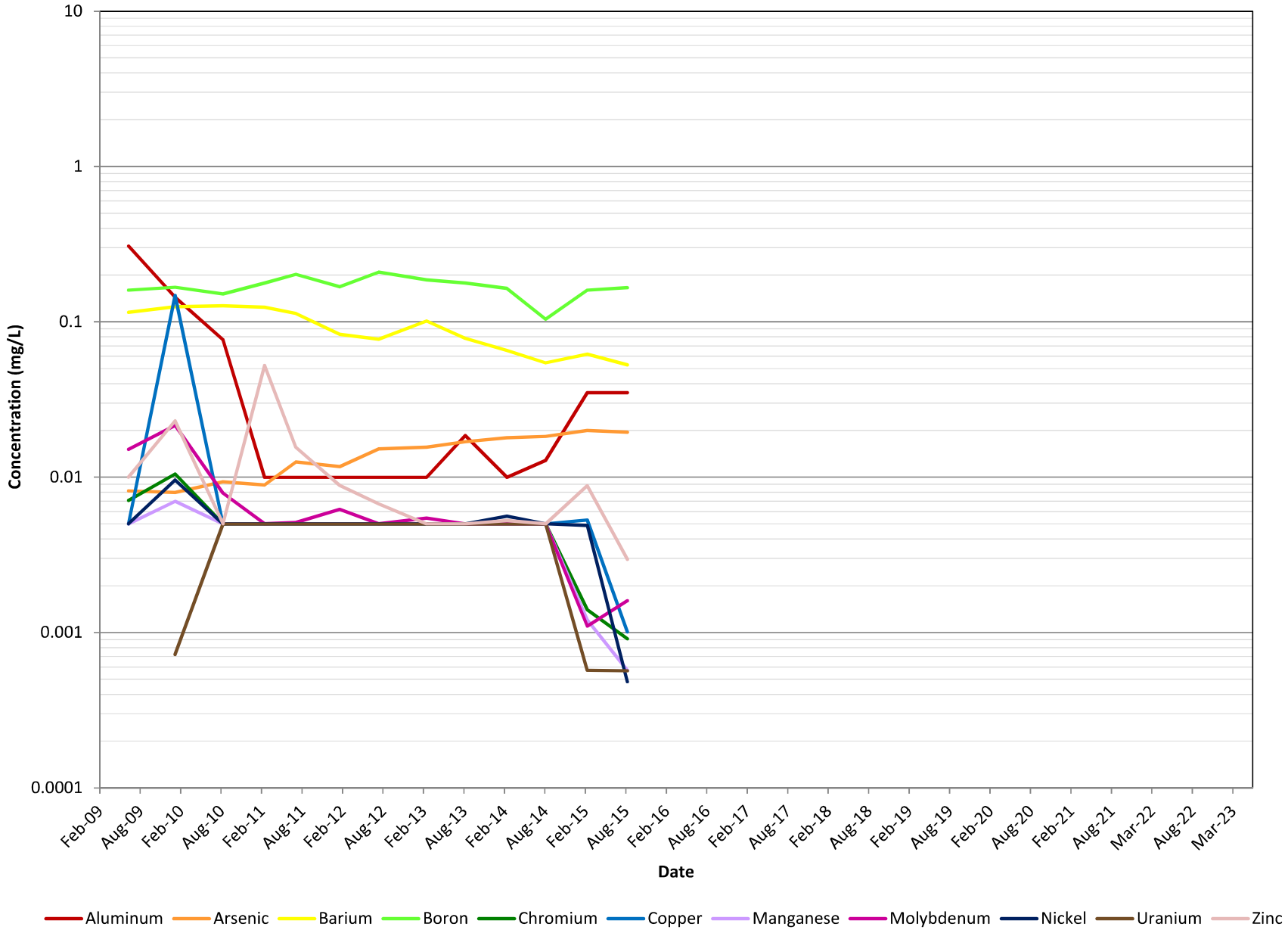
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MW-3: TDS CONCENTRATIONS OVER TIME



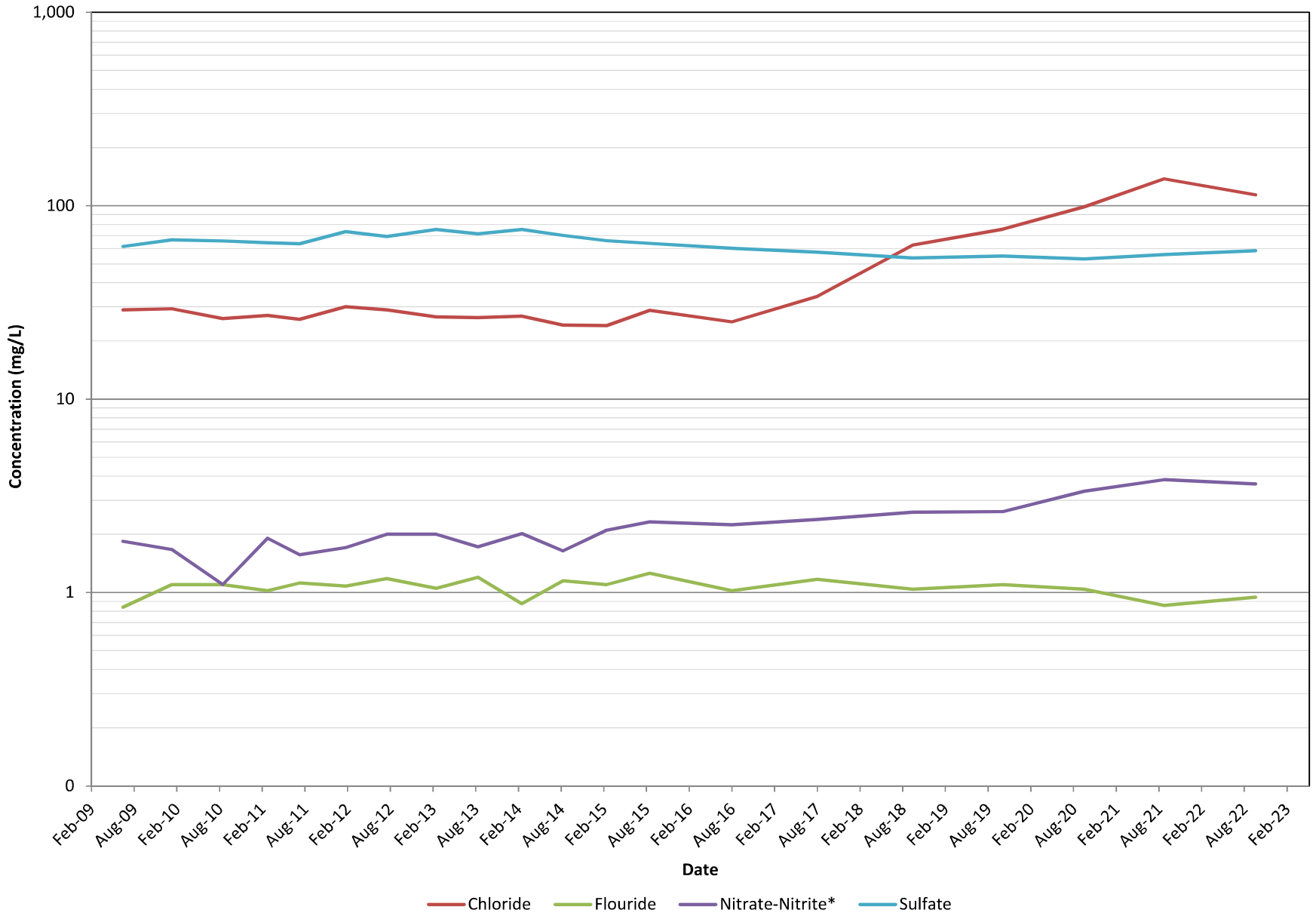
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Received by OCD: 4/14/2023 3:51:30 PM

MW-3: METAL CONCENTRATIONS OVER TIME



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Received by OCD: 4/14/2023 3:51:30 PM

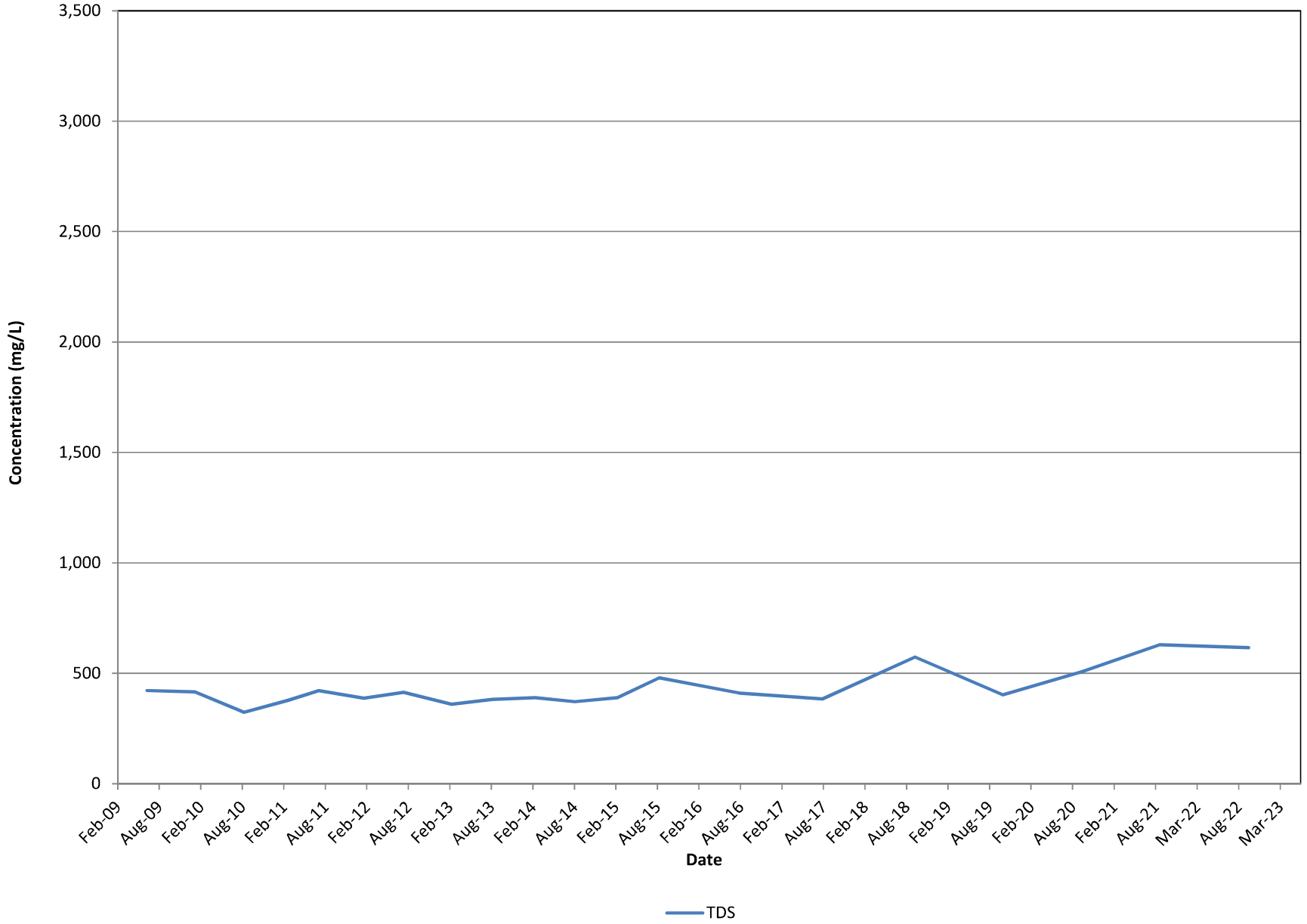
MW-4: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

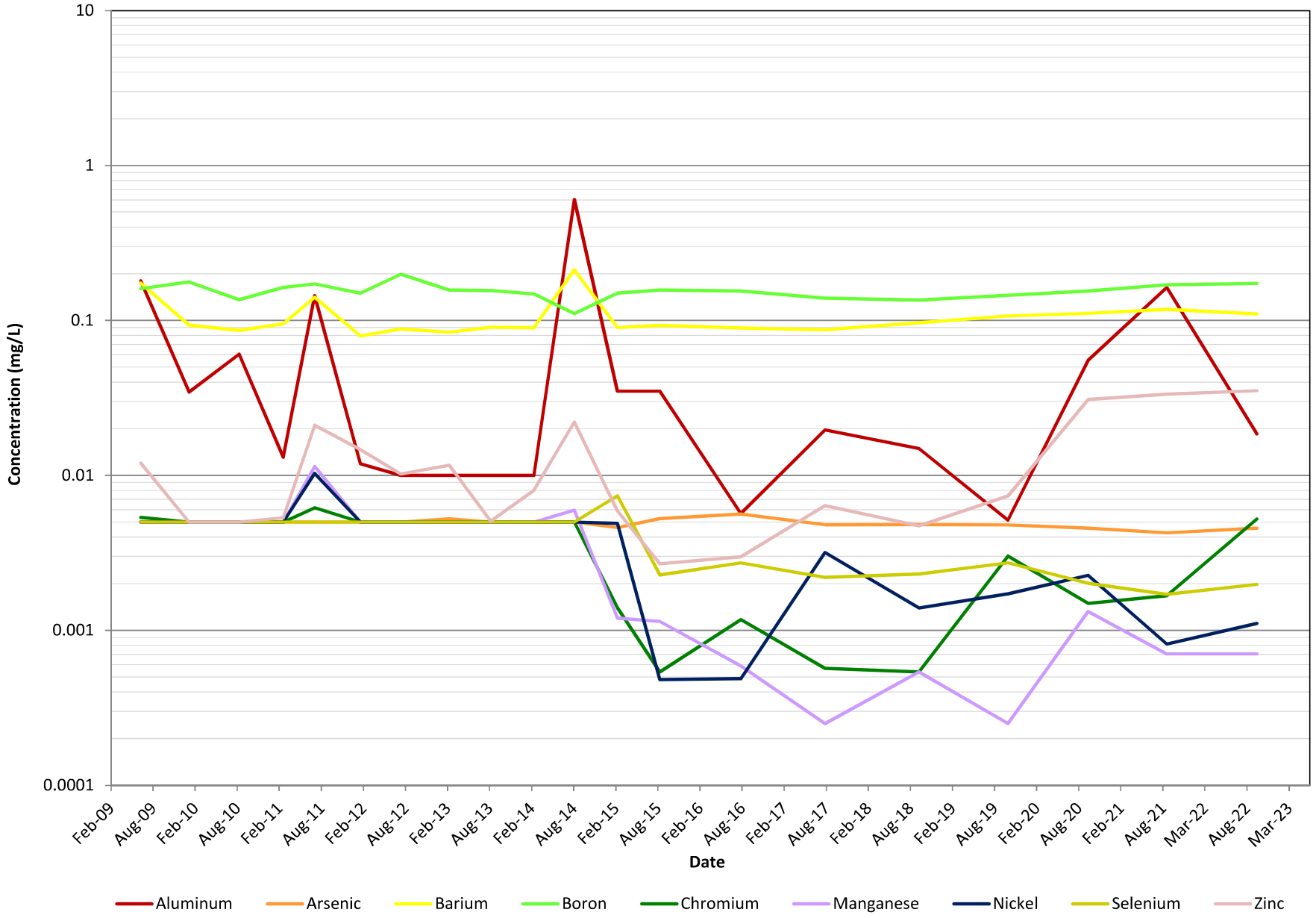
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MW-4: TDS CONCENTRATIONS OVER TIME



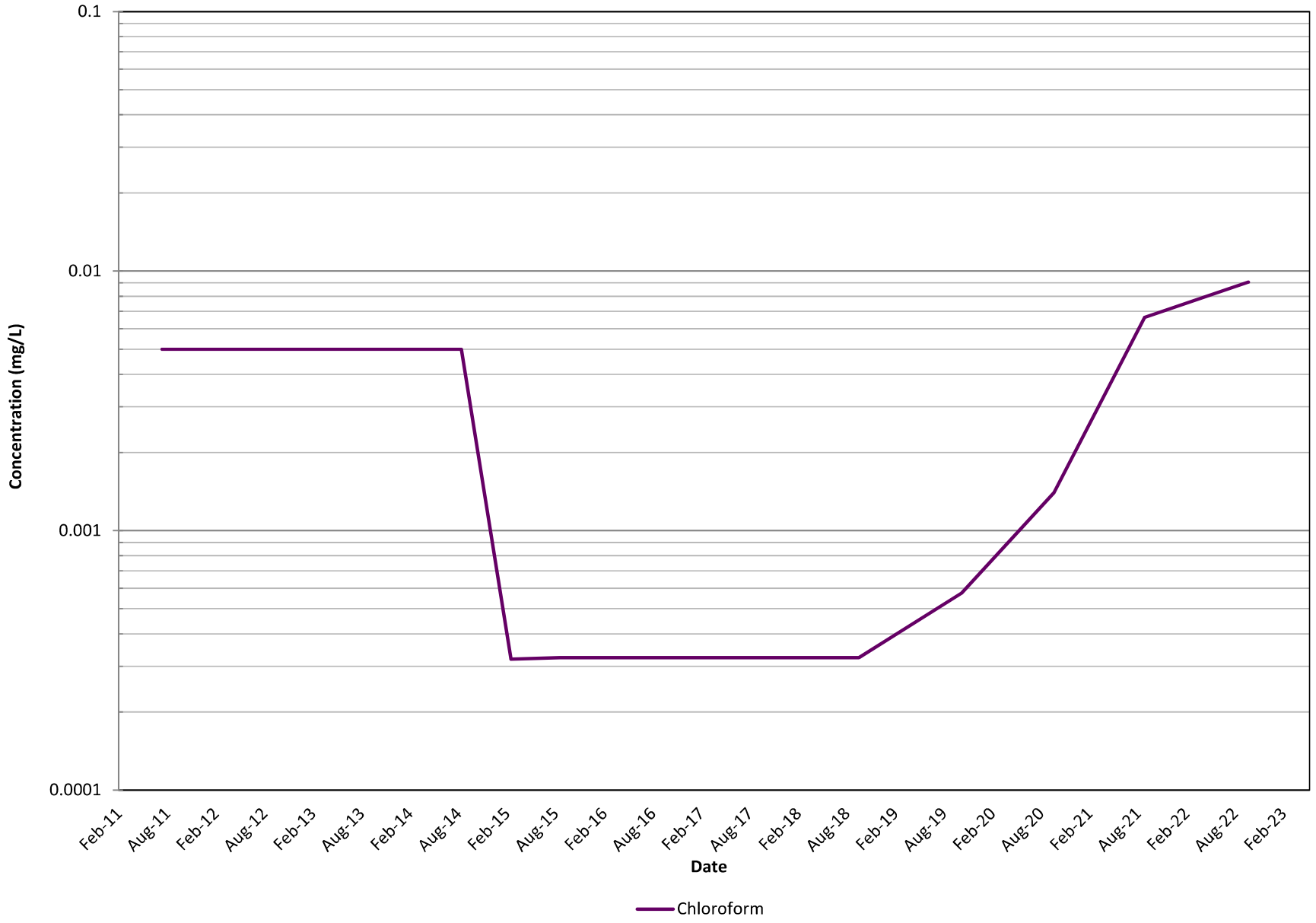
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MW-4: METAL CONCENTRATIONS OVER TIME



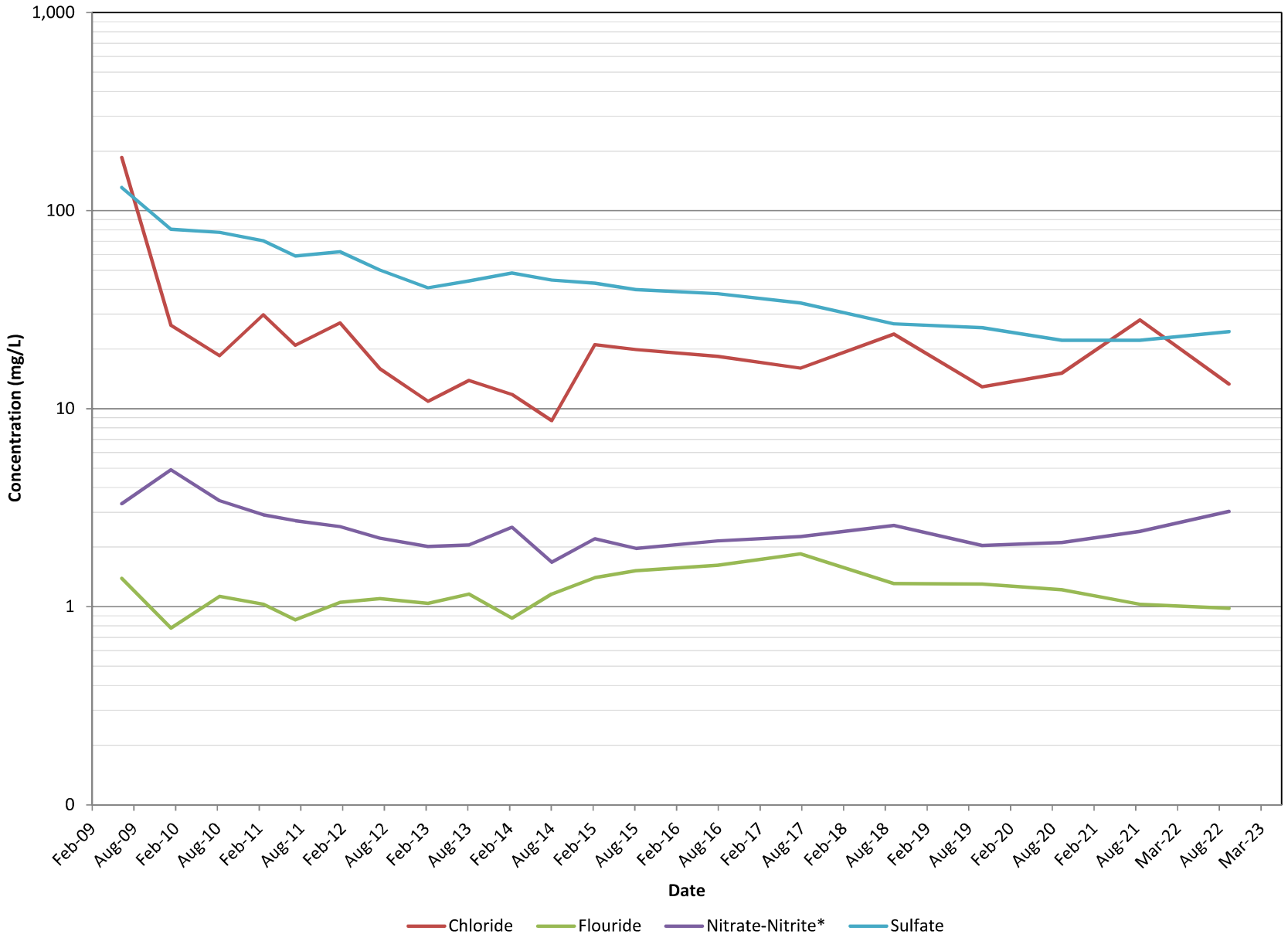
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MW-4: CHLOROFORM CONCENTRATIONS OVER TIME



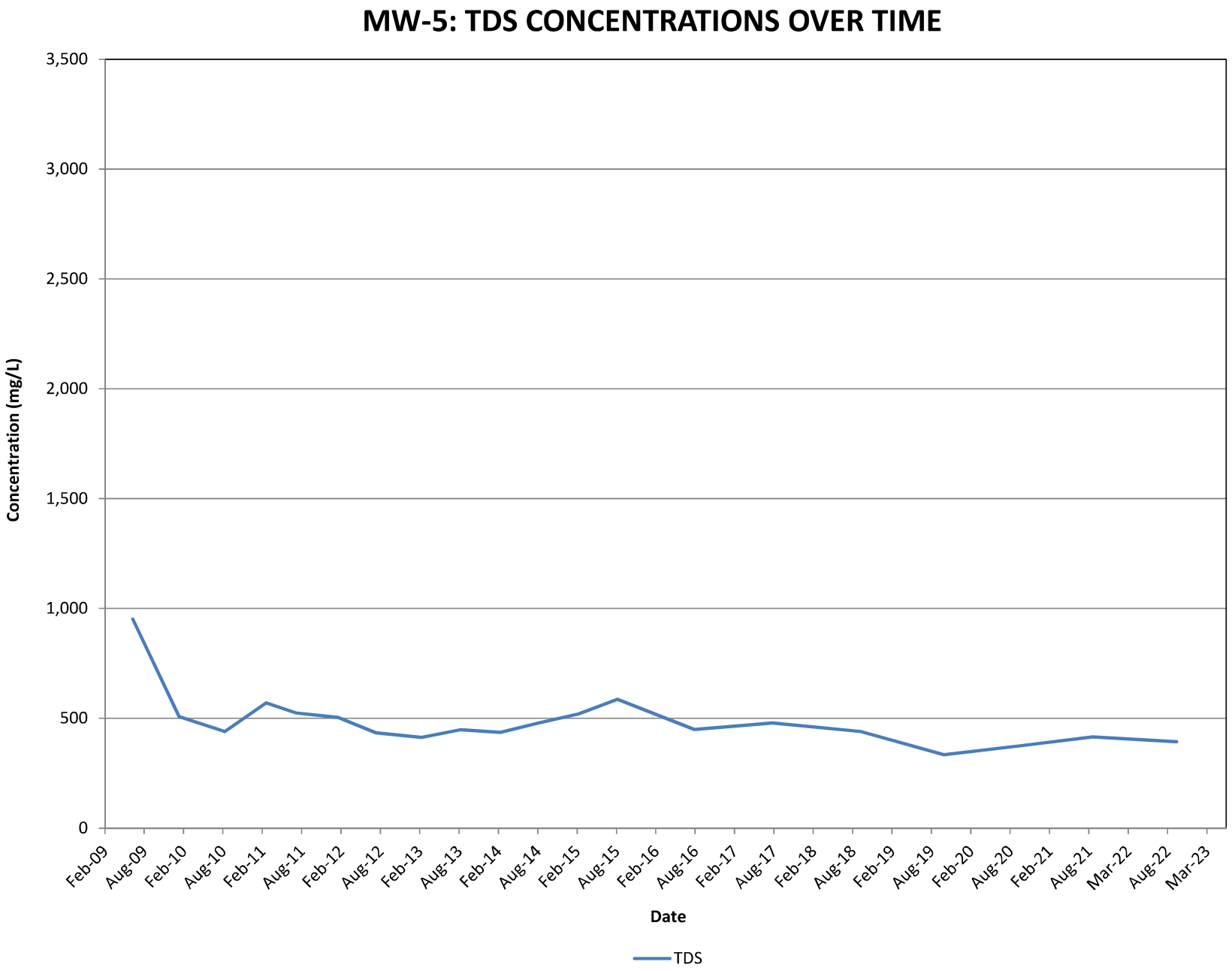
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MW-5: ANION CONCENTRATIONS OVER TIME



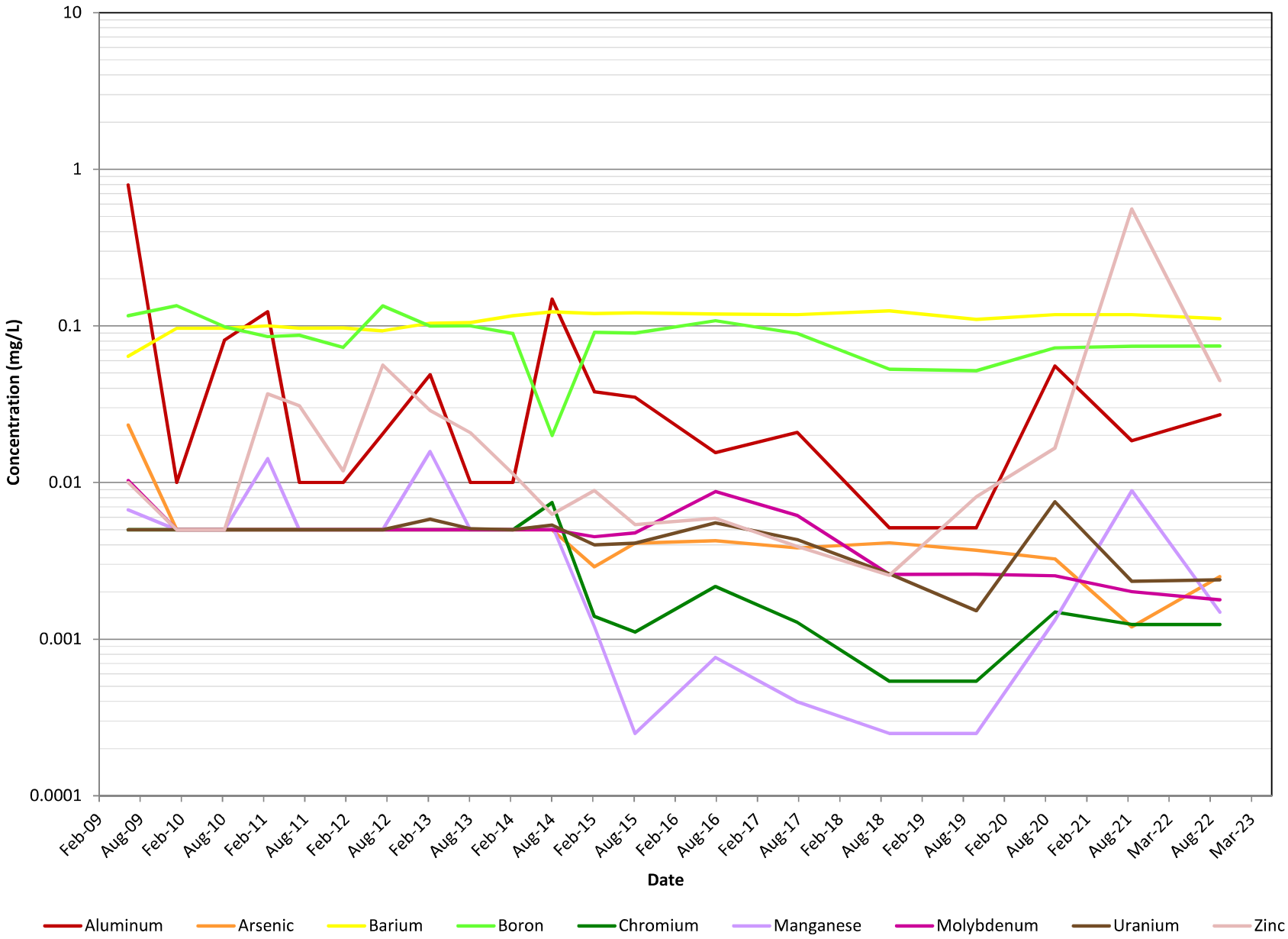
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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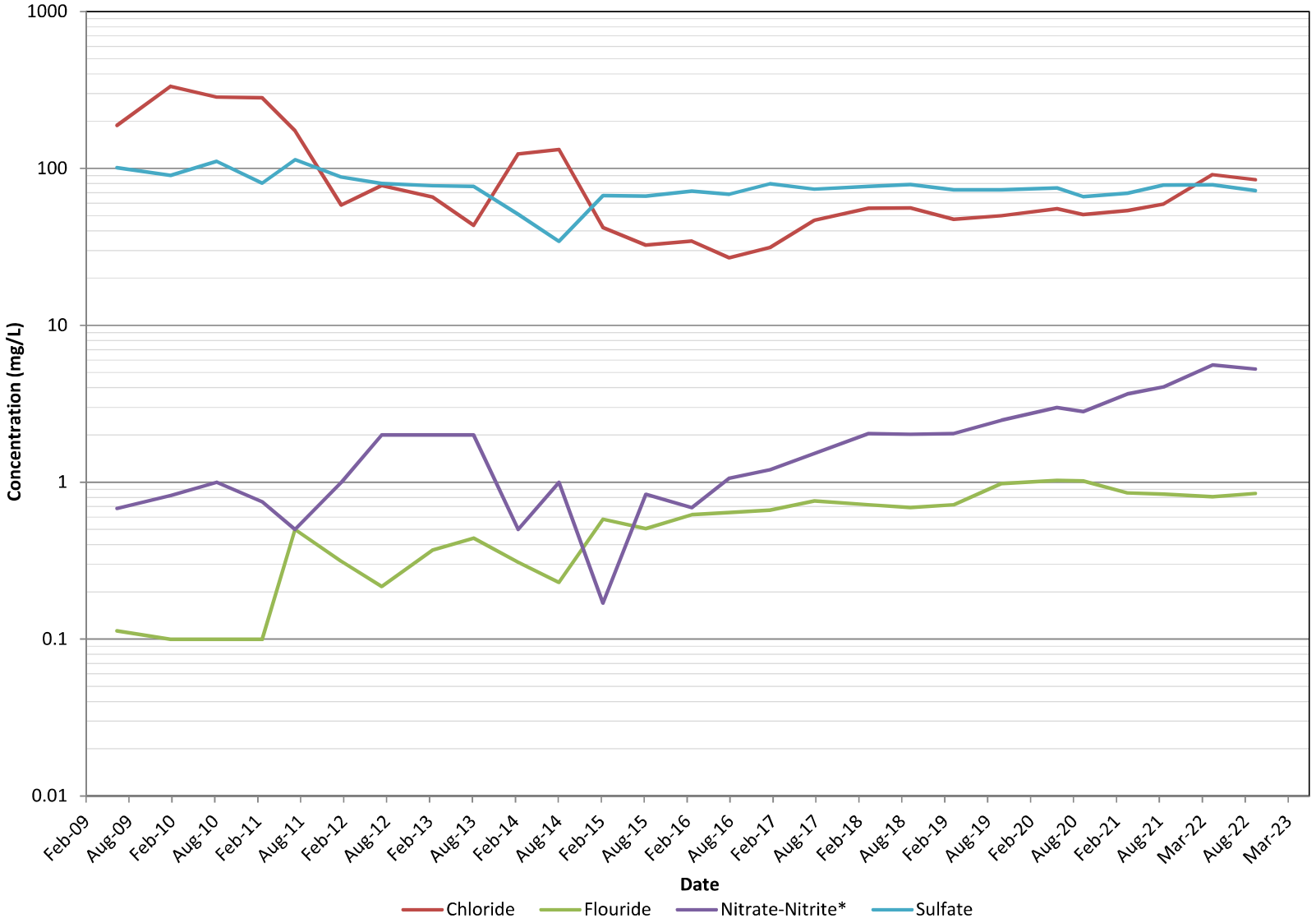
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MW-5: METAL CONCENTRATIONS OVER TIME



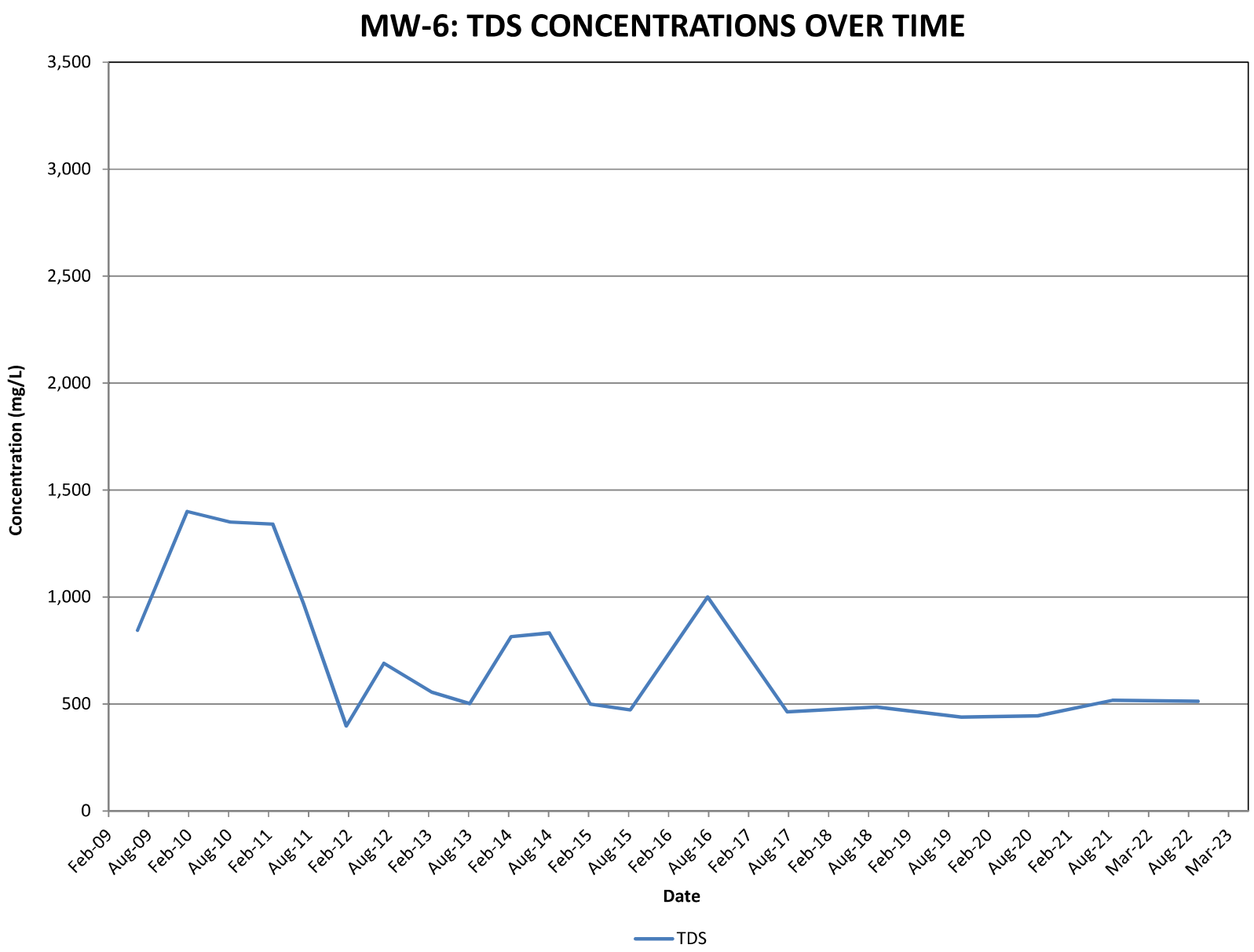
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Received by OCD: 4/14/2023 3:51:30 PM

MW-6: ANION CONCENTRATIONS OVER TIME



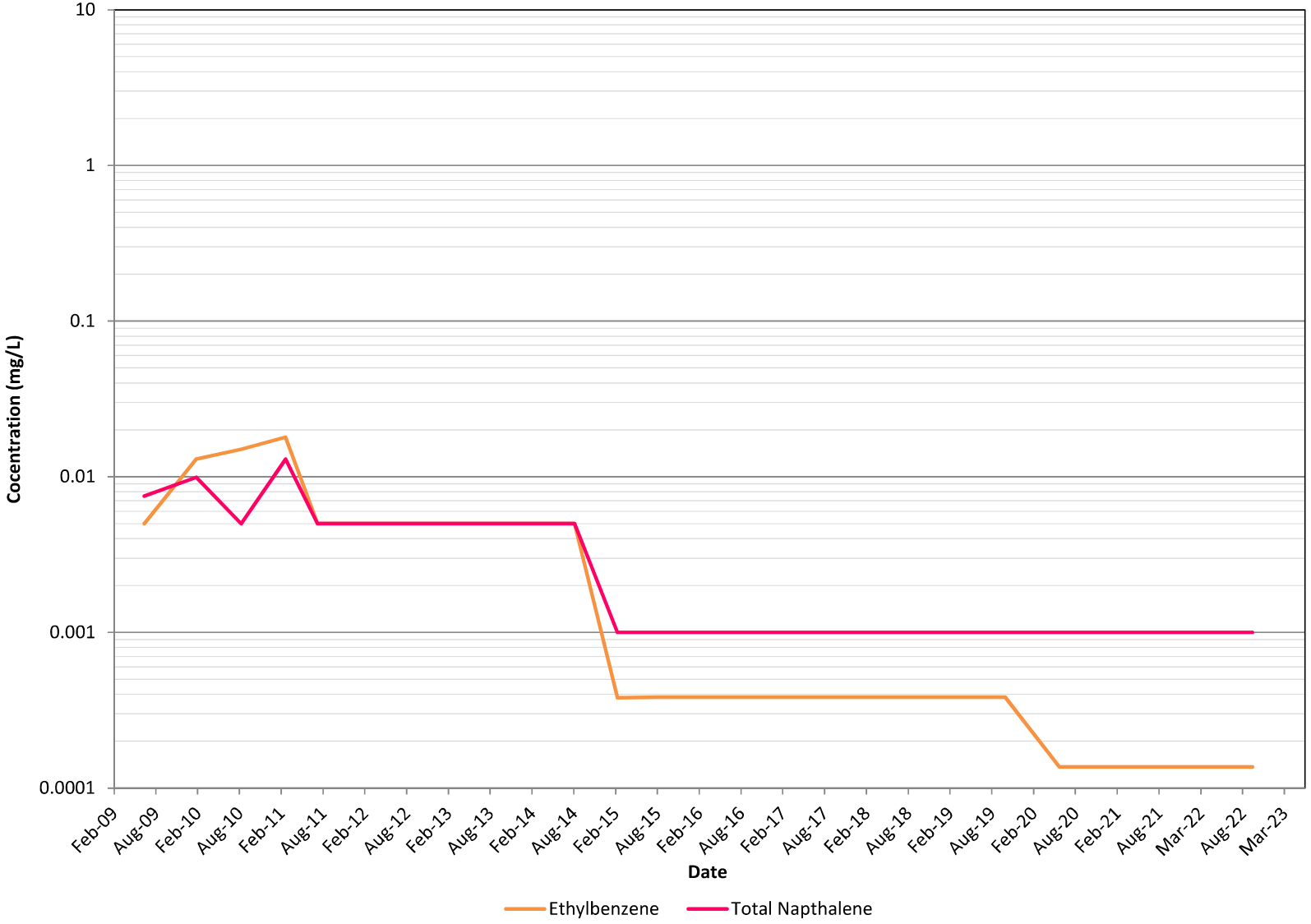
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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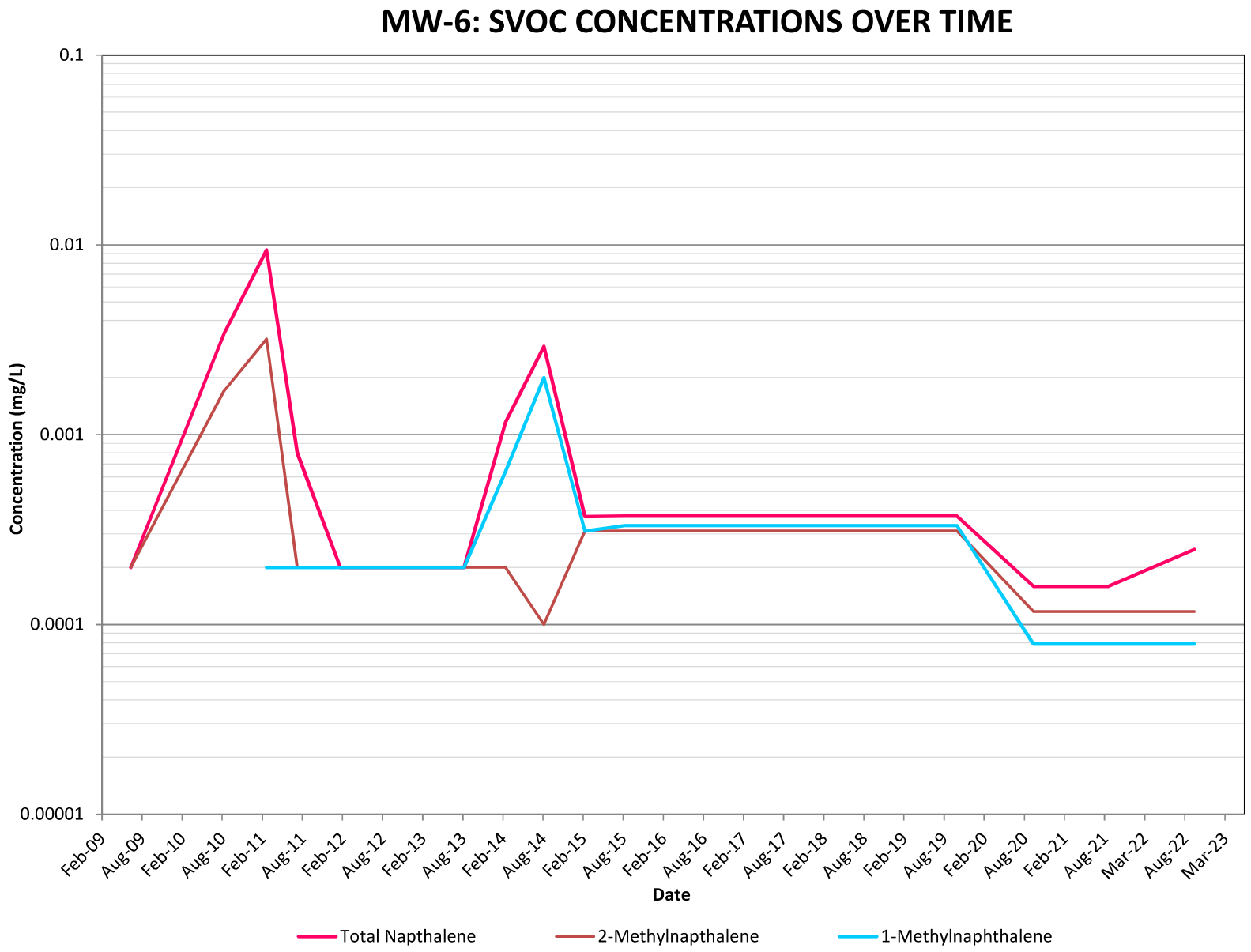


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MW-6: VOC CONCENTRATIONS OVER TIME

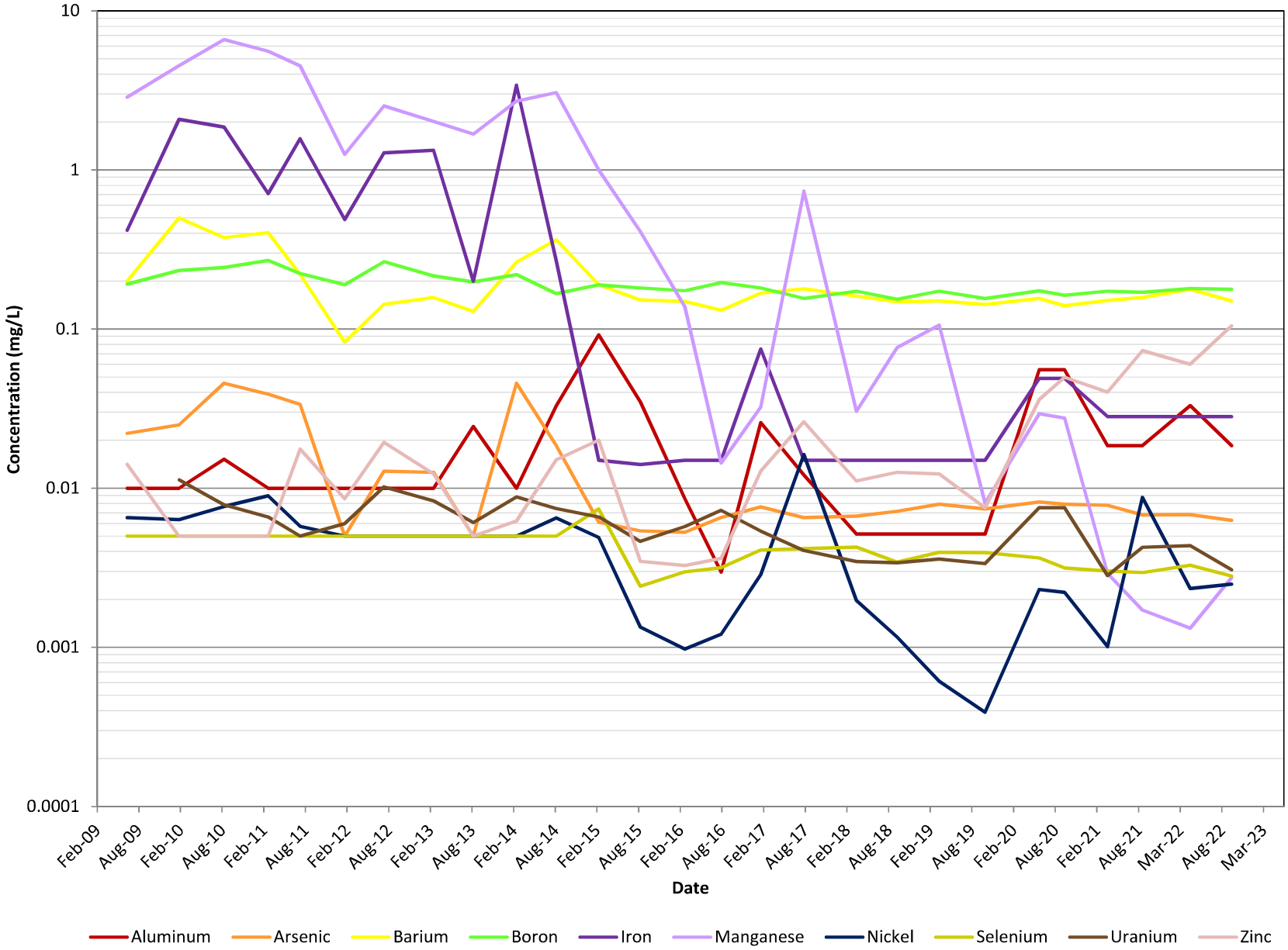


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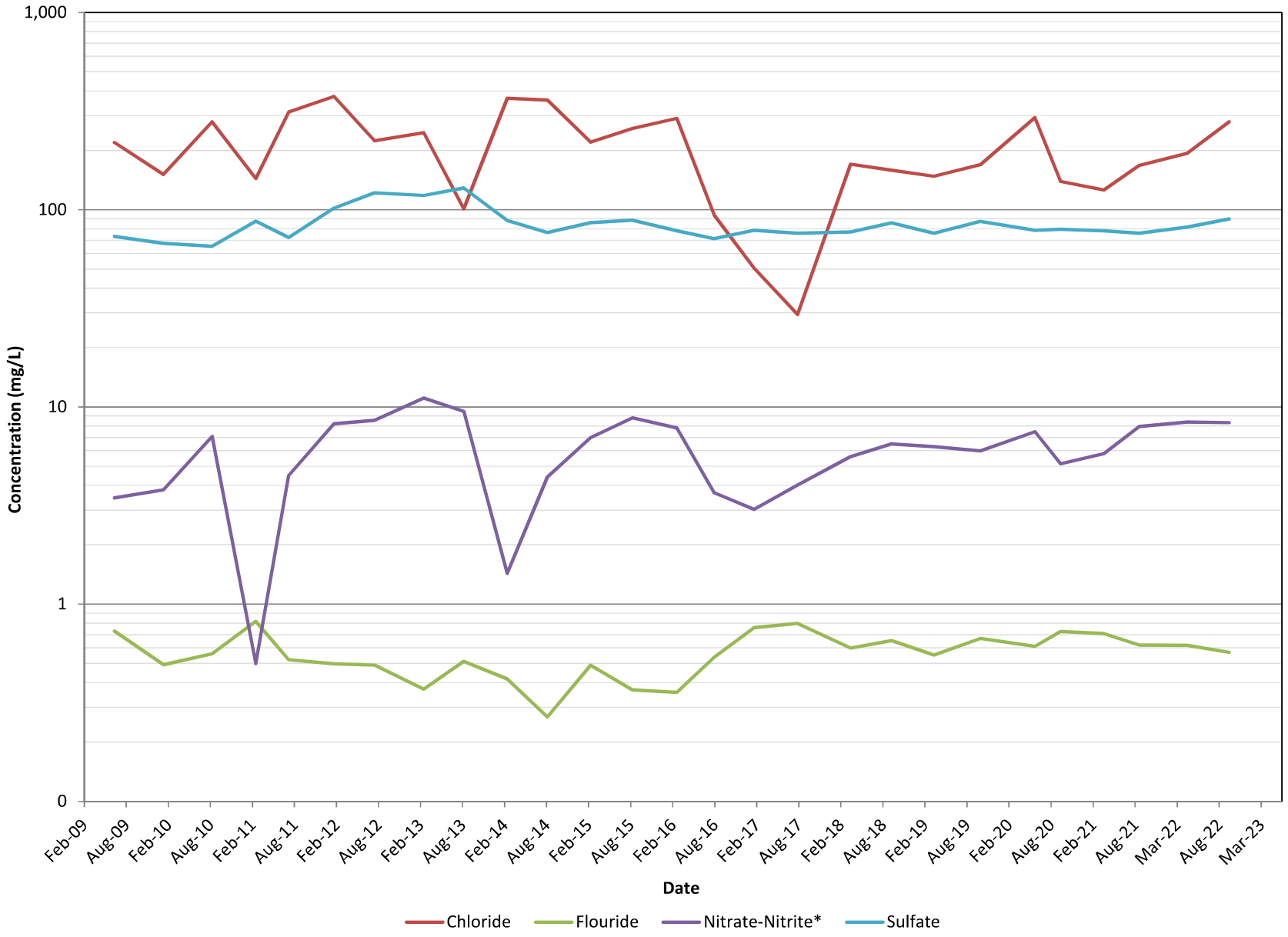
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MW-6: METAL CONCENTRATIONS OVER TIME



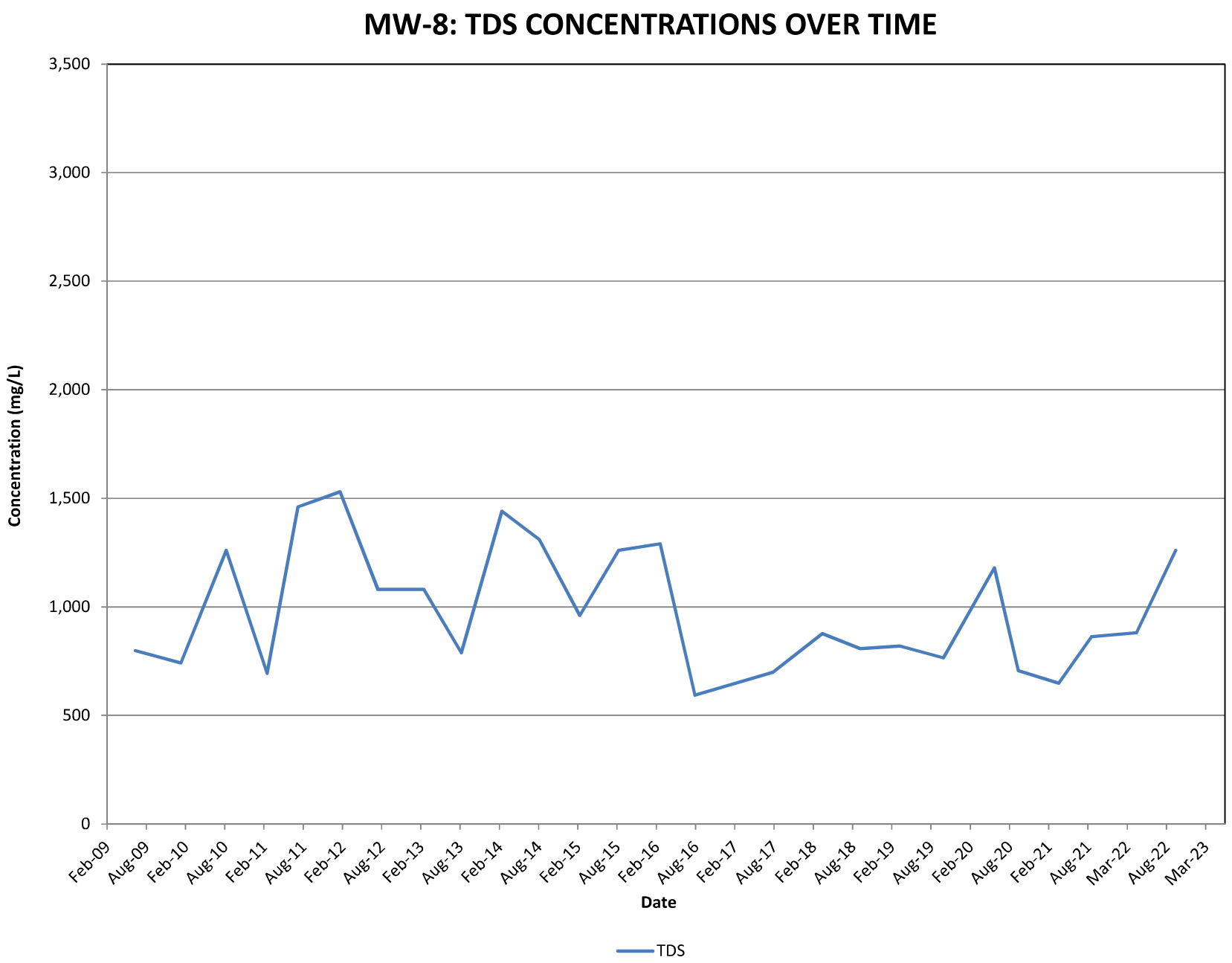
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MW-8: ANION CONCENTRATIONS OVER TIME



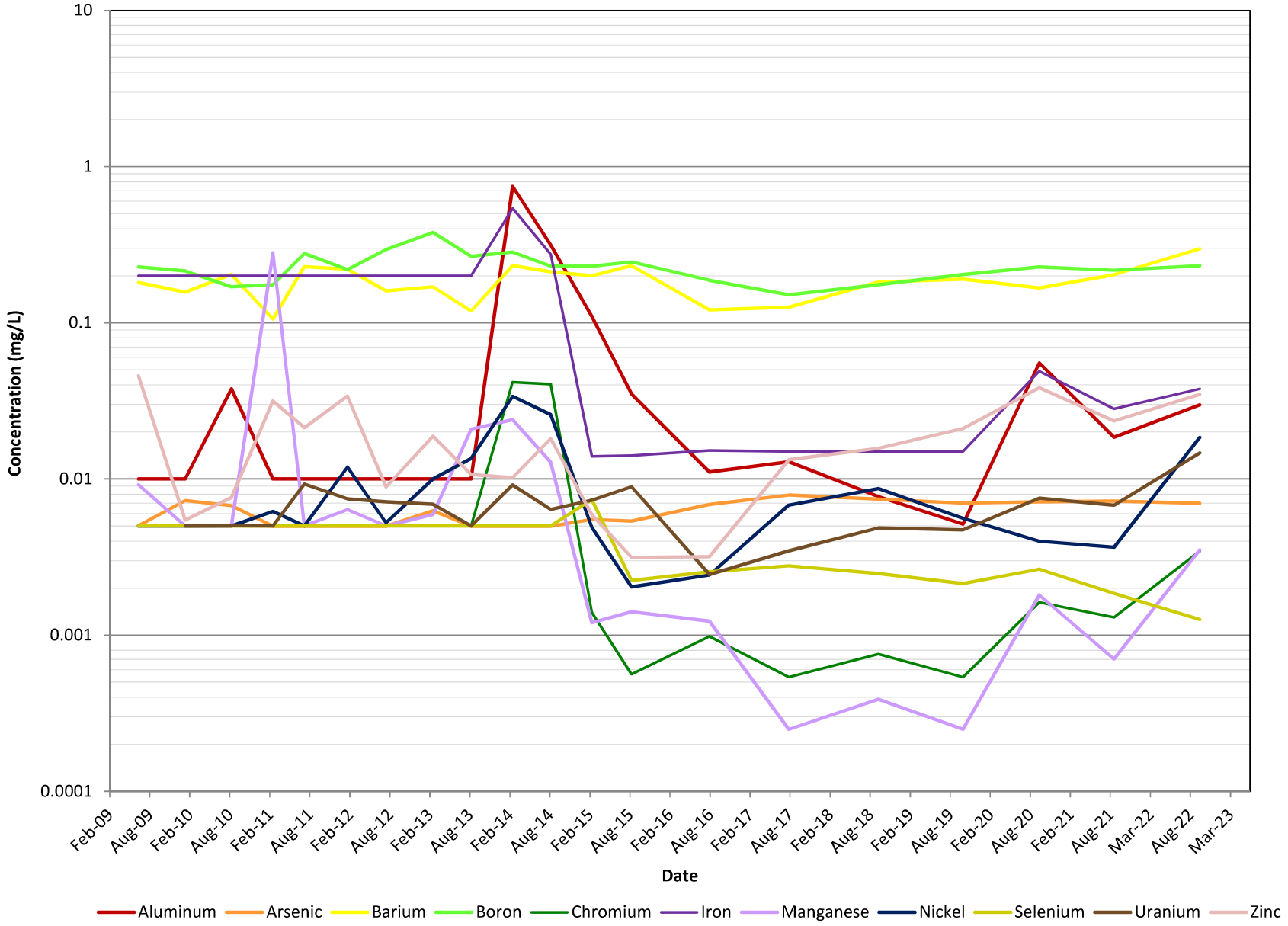
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM



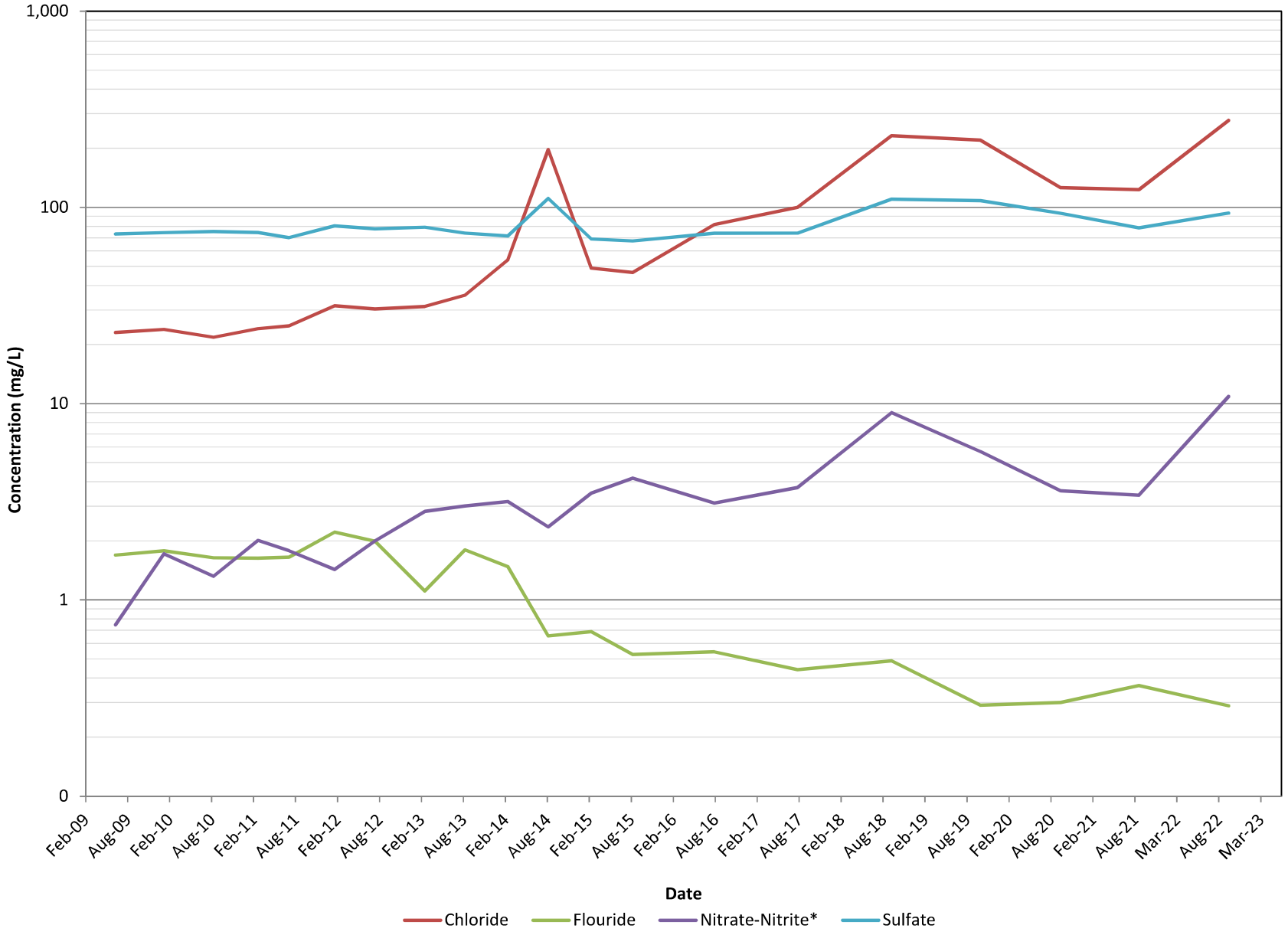
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MW-8: METAL CONCENTRATIONS OVER TIME



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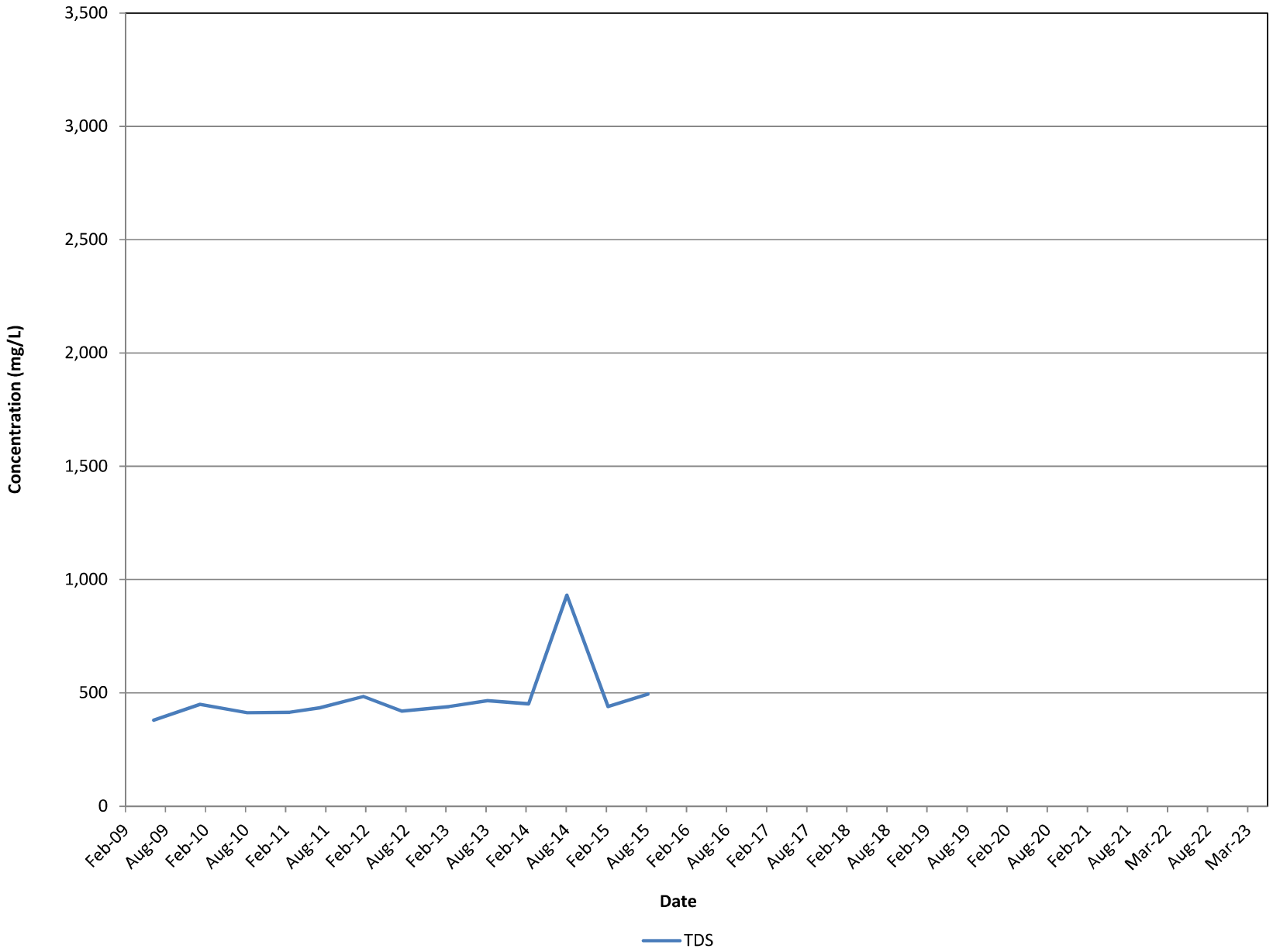
MW-9: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

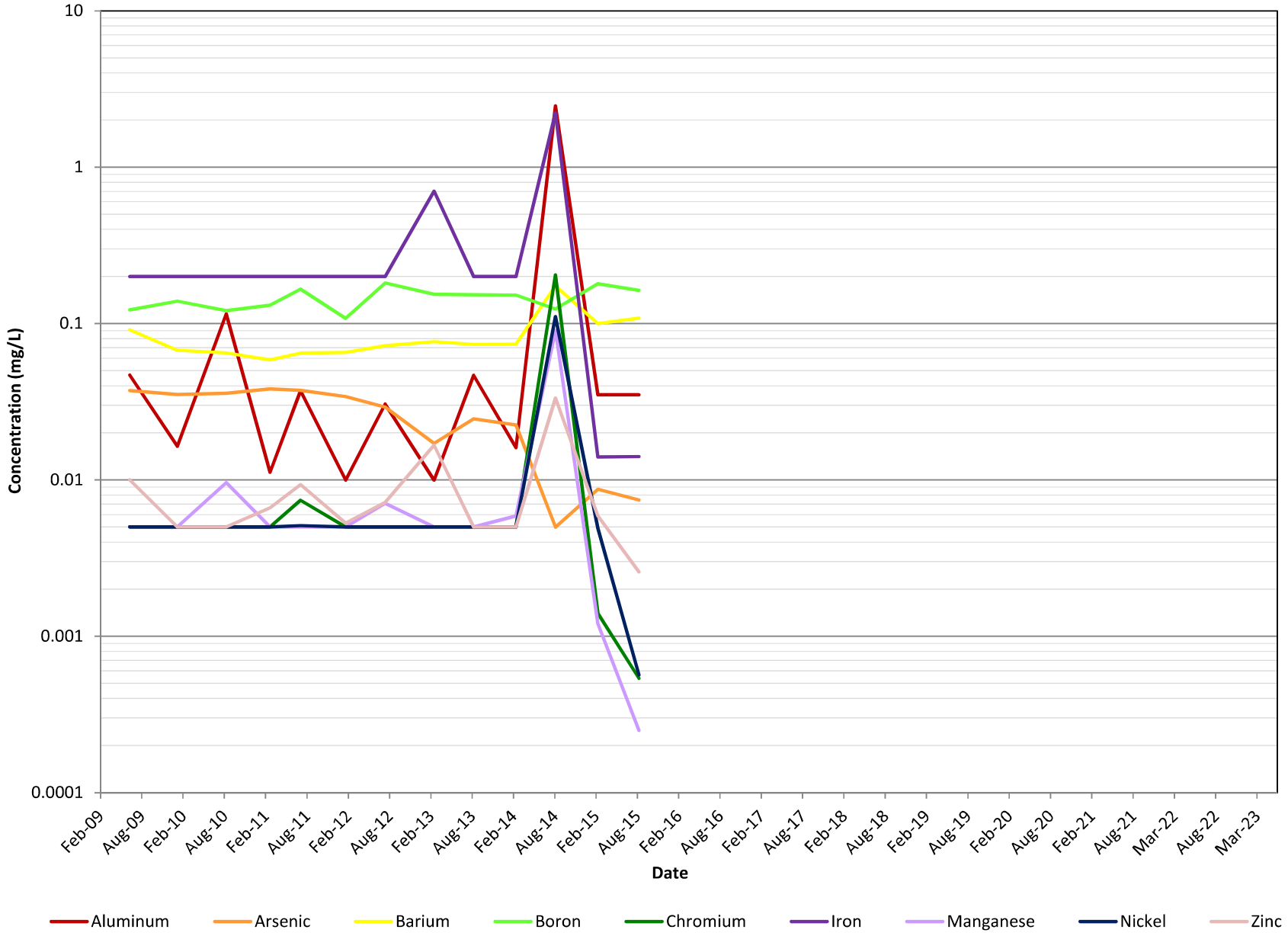
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MW-9: TDS CONCENTRATIONS OVER TIME



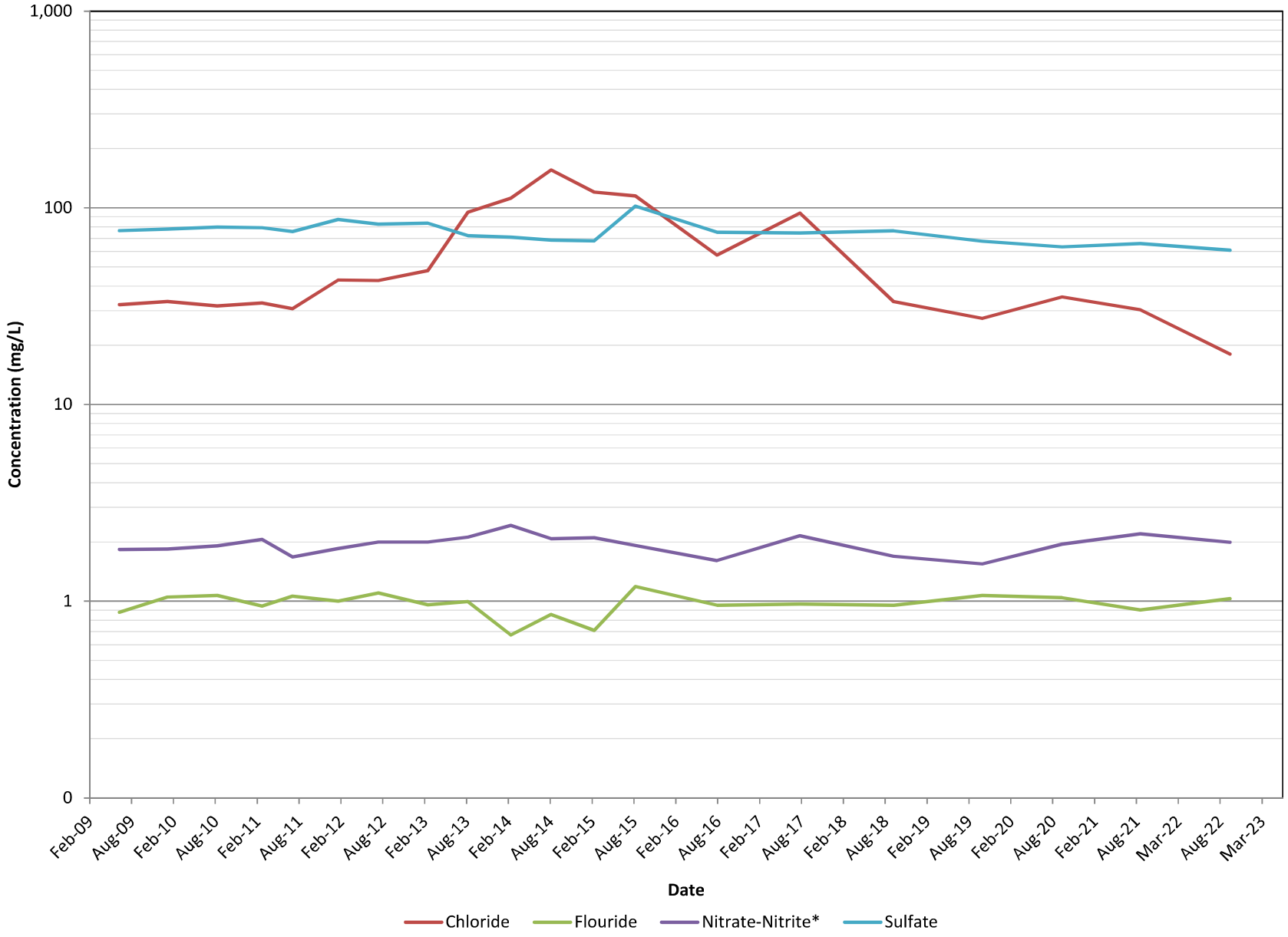
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MW-9: METAL CONCENTRATIONS OVER TIME



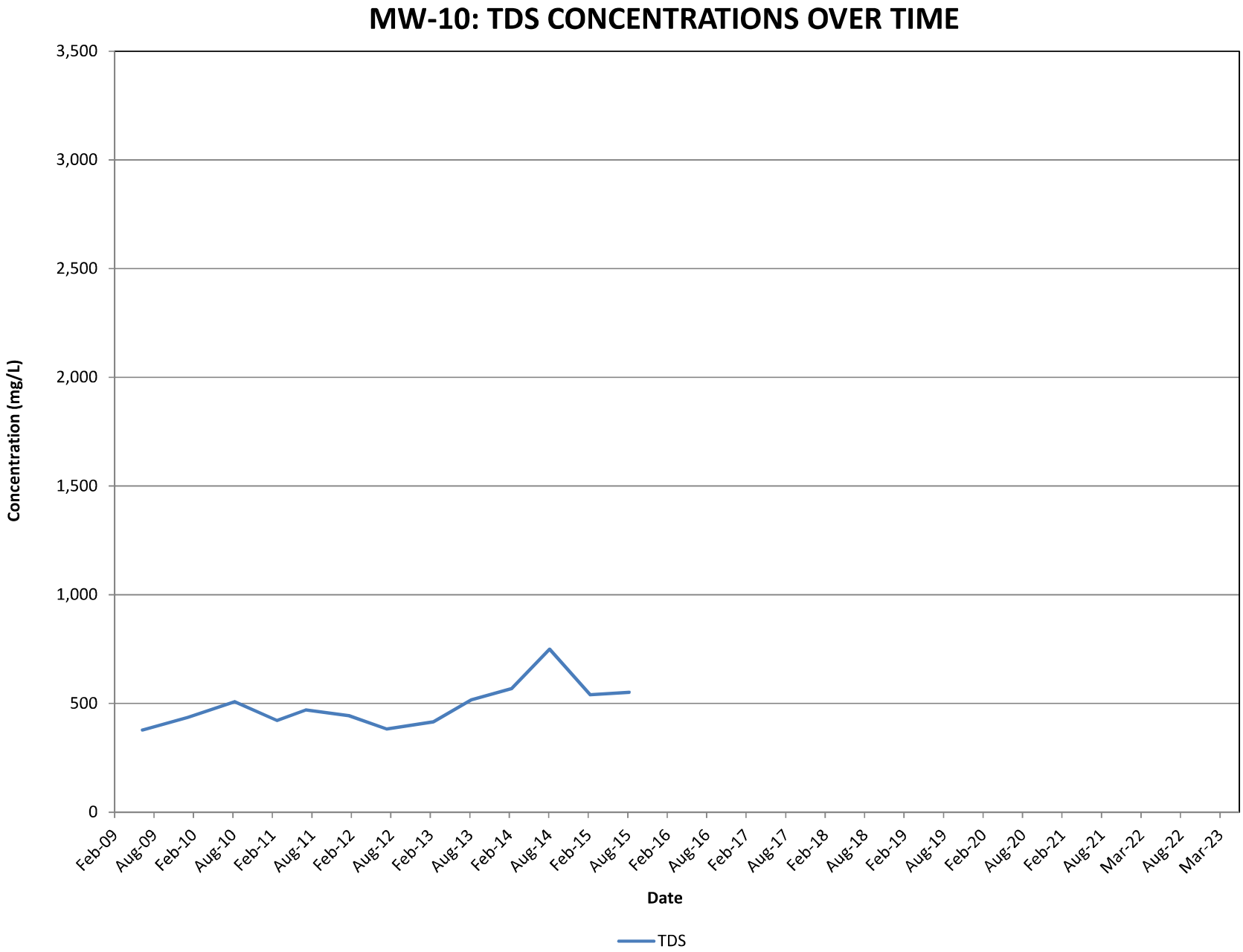
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MW-10: ANION CONCENTRATIONS OVER TIME



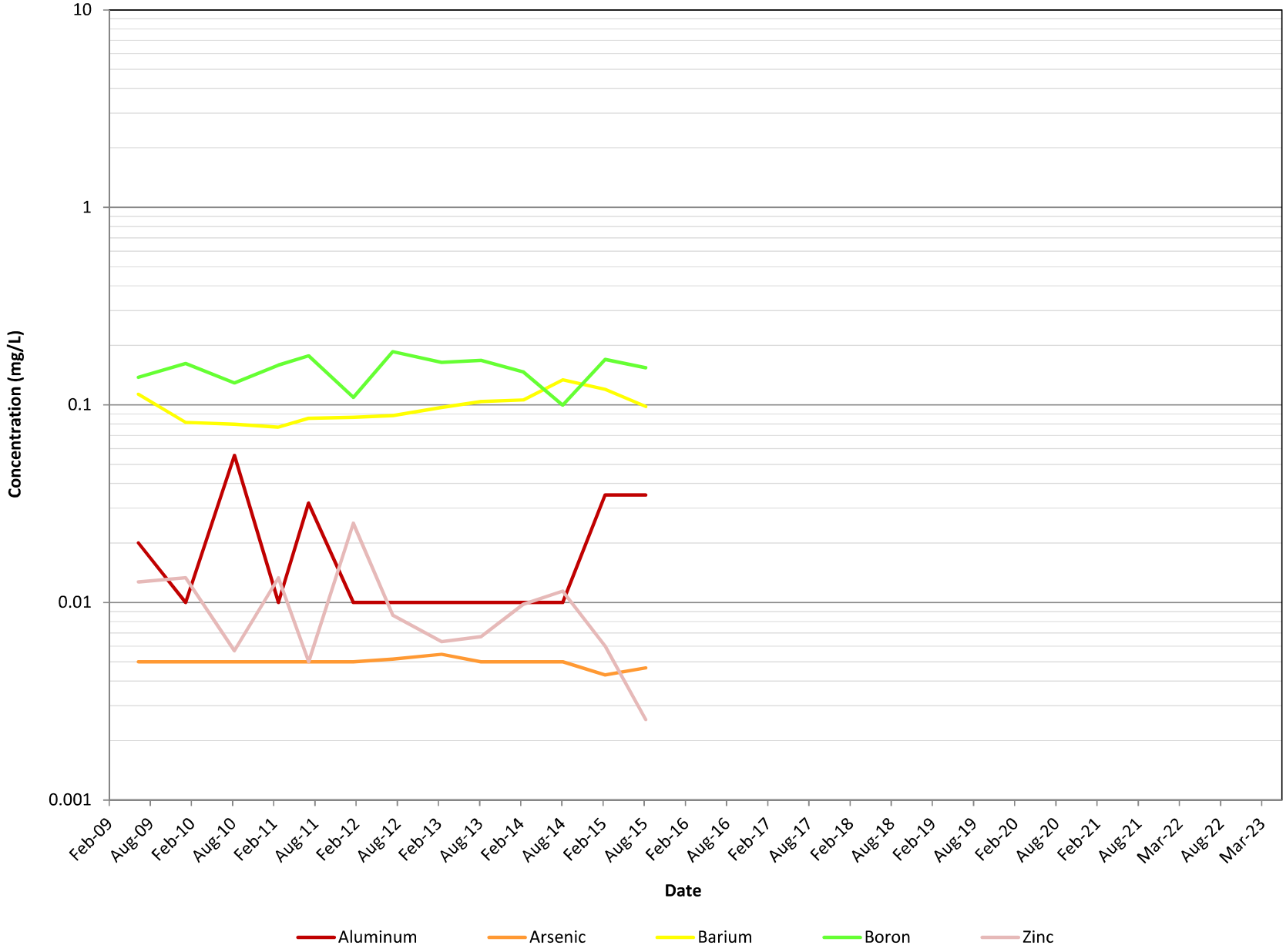
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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Received by OCD: 4/14/2023 3:51:30 PM



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Received by OCD: 4/14/2023 3:51:30 PM

MW-10: METAL CONCENTRATIONS OVER TIME



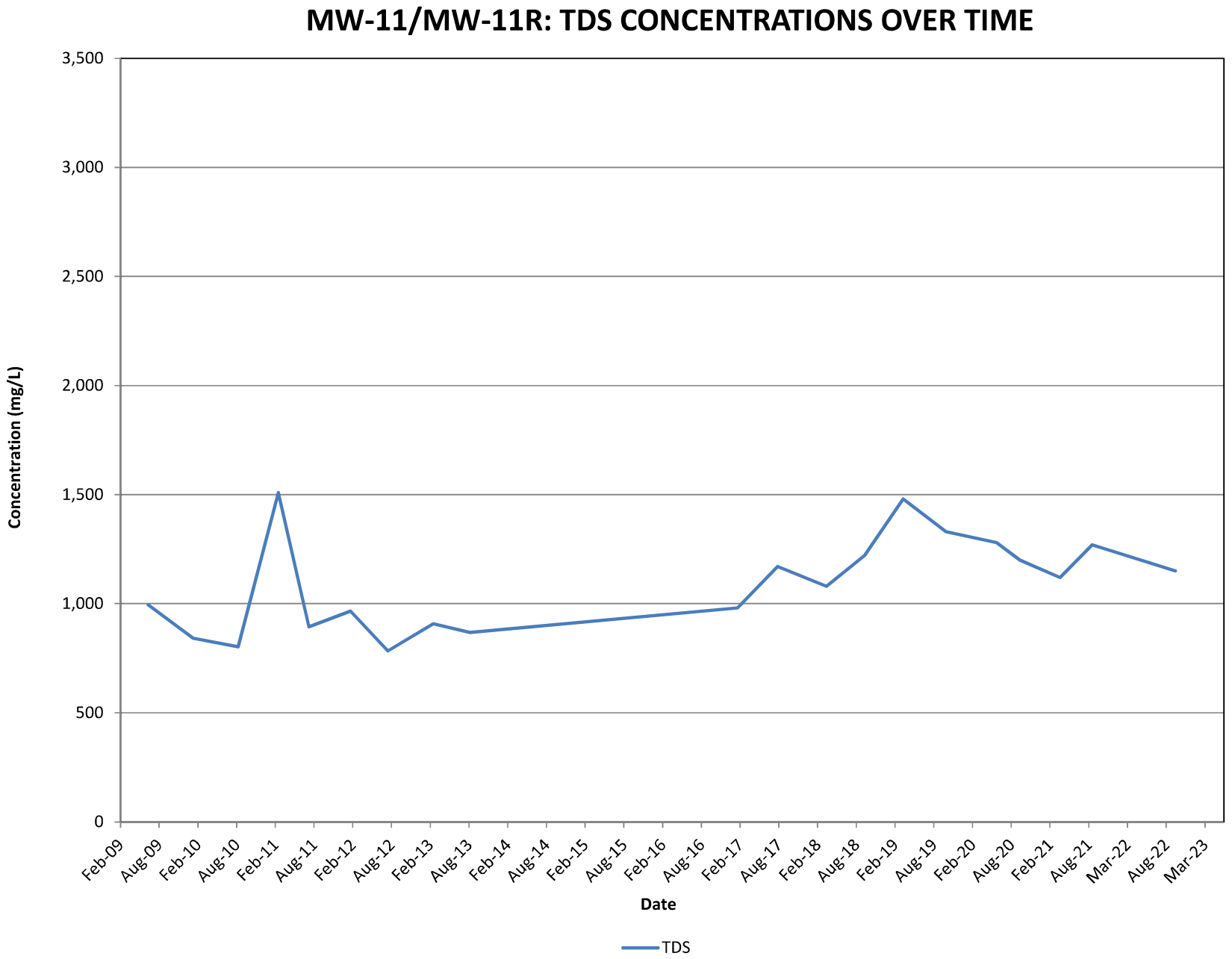
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Received by OCD: 4/14/2023 3:51:30 PM

MW-11/MW-11R: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

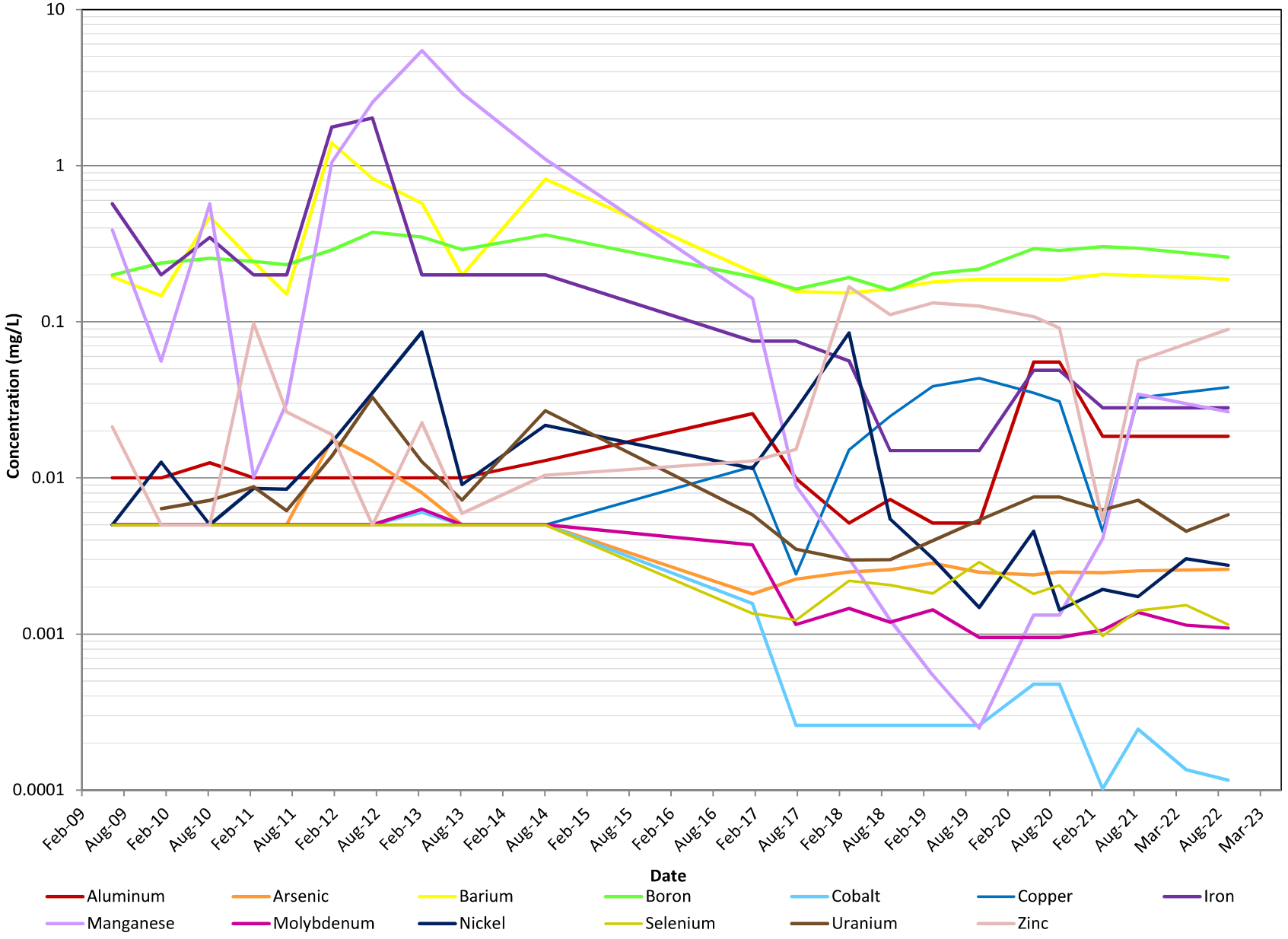
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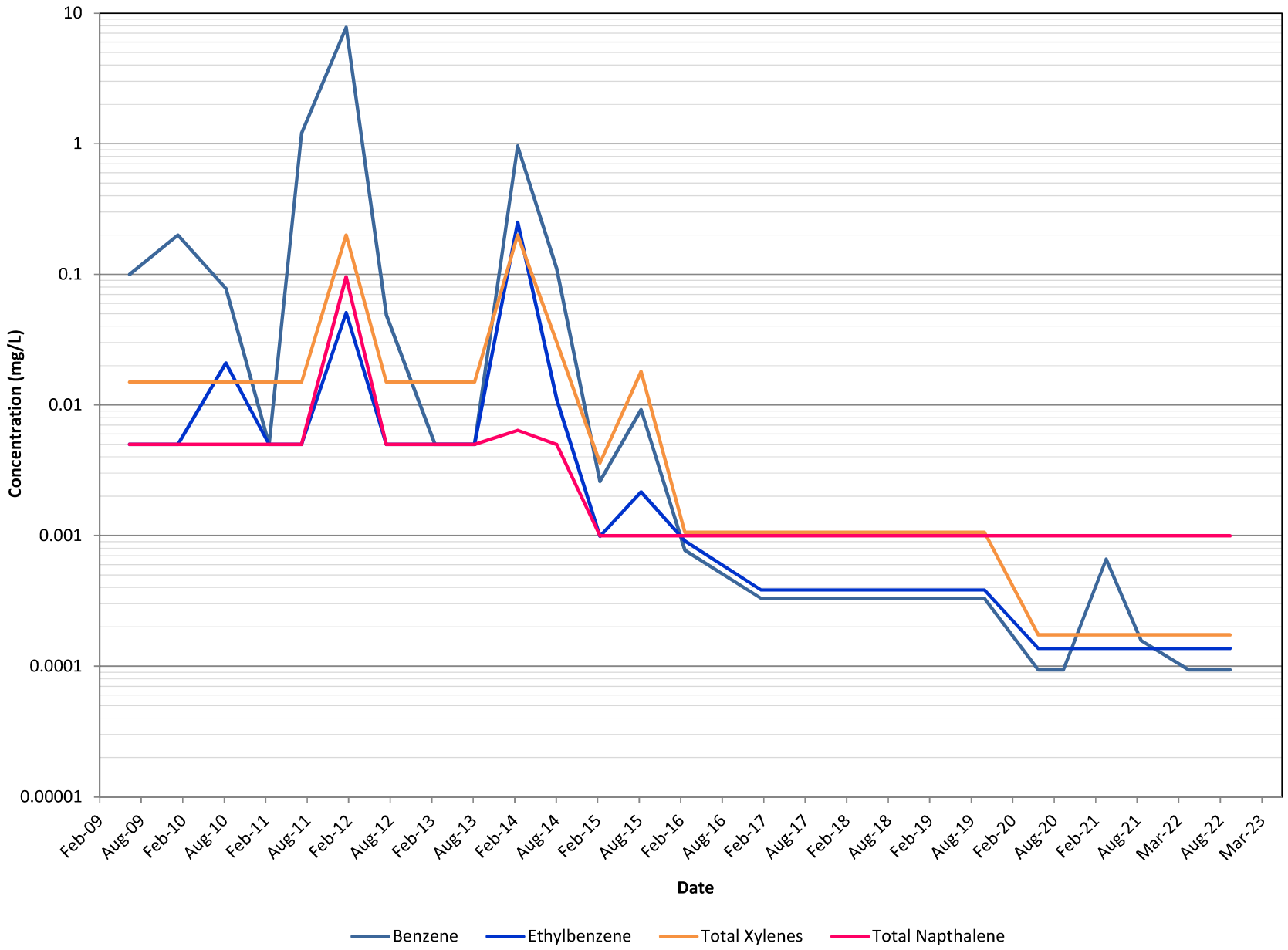
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MW-11/MW-11R: METAL CONCENTRATIONS OVER TIME

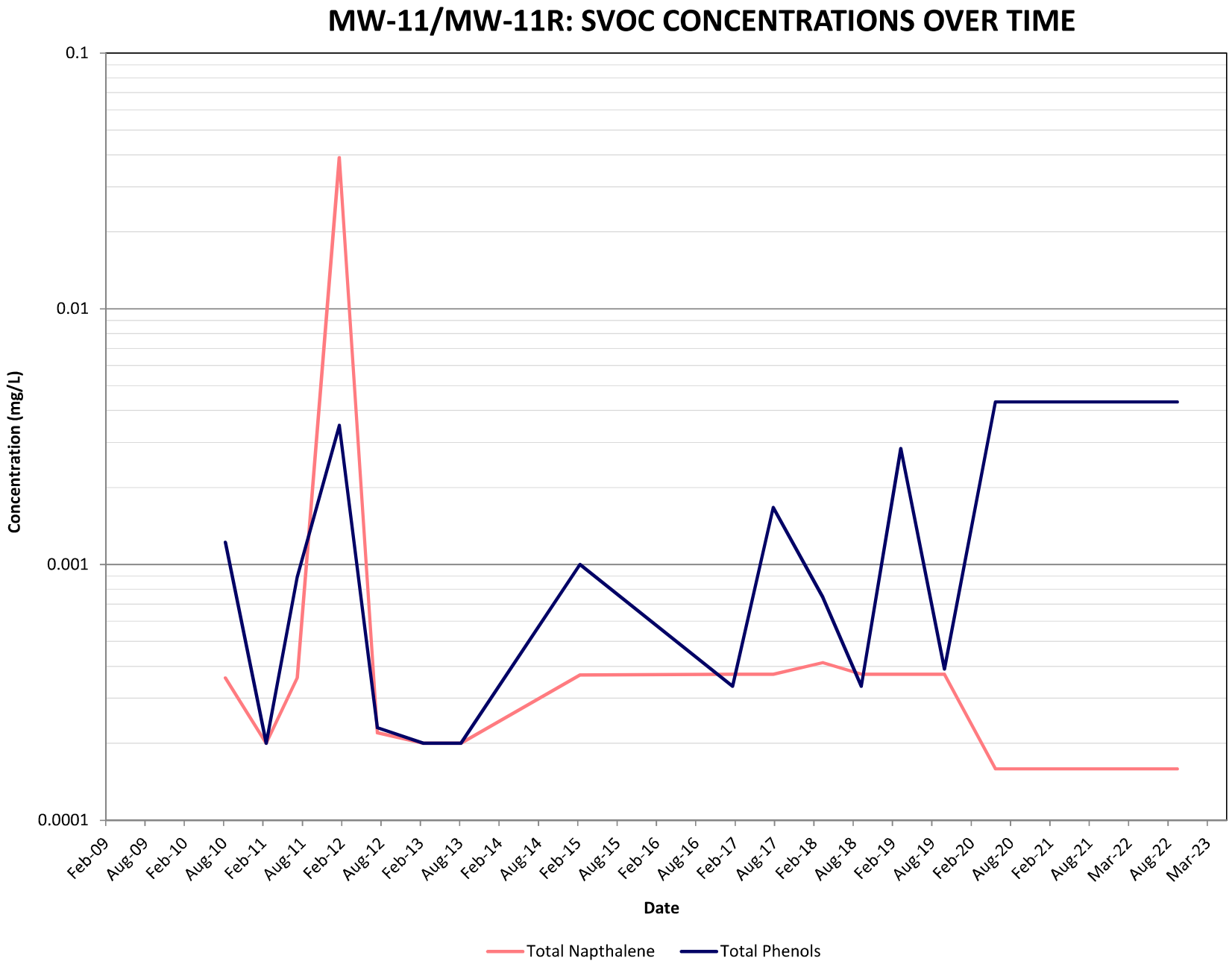


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Received by OCD: 4/14/2023 3:51:30 PM

MW-11/MW-11R: VOC CONCENTRATIONS OVER TIME

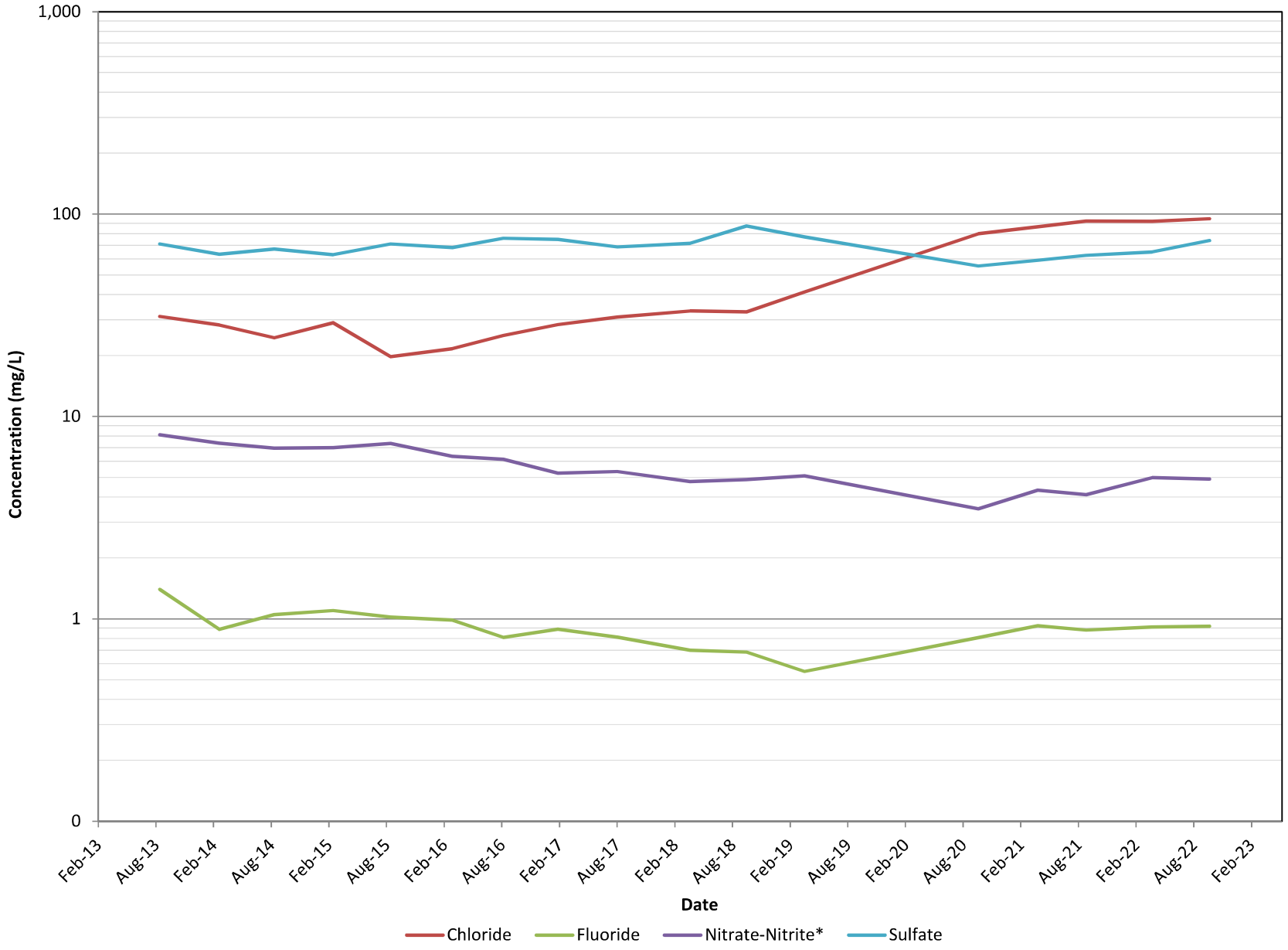


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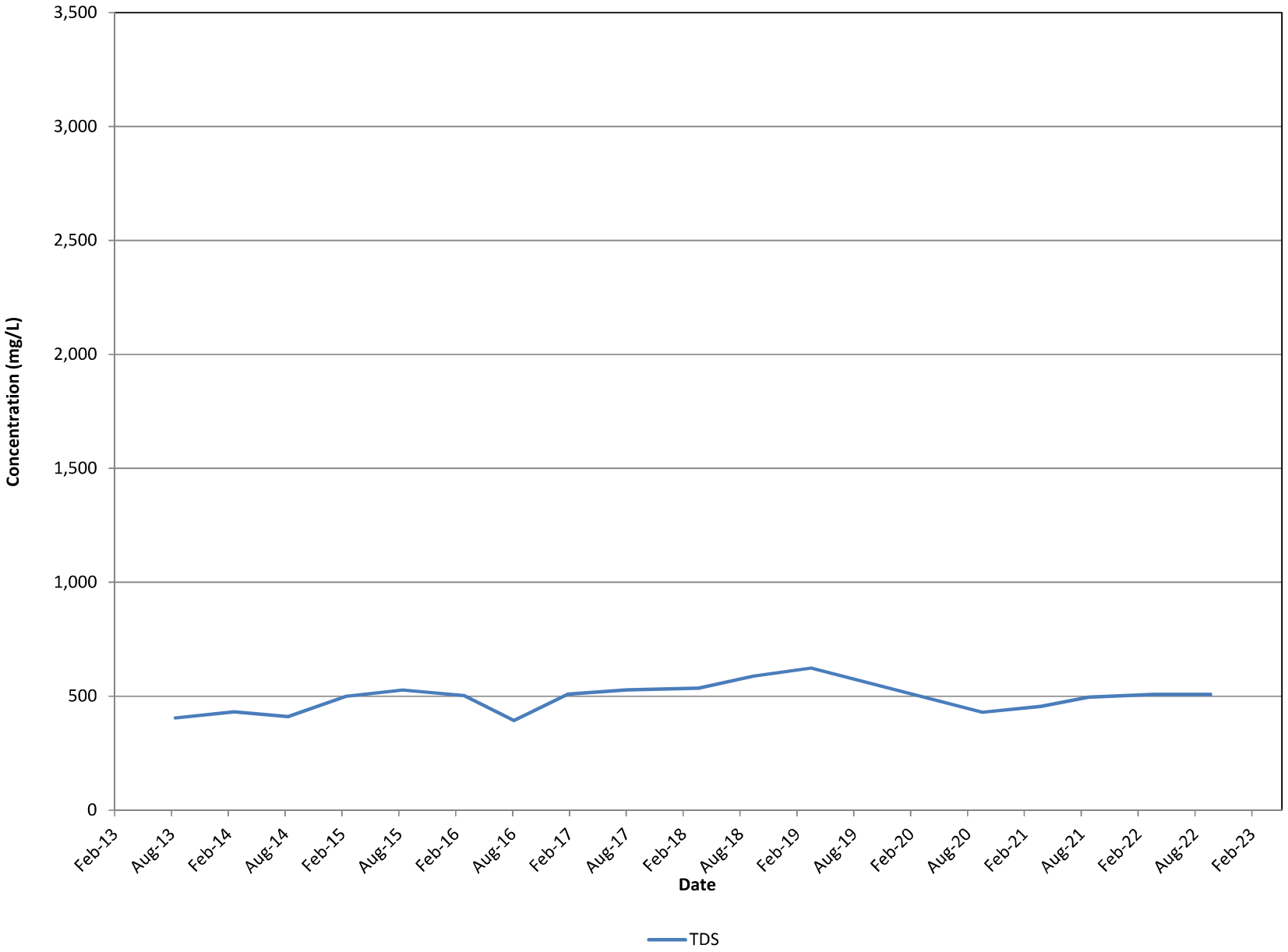
MW-12R/MW-12R2: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

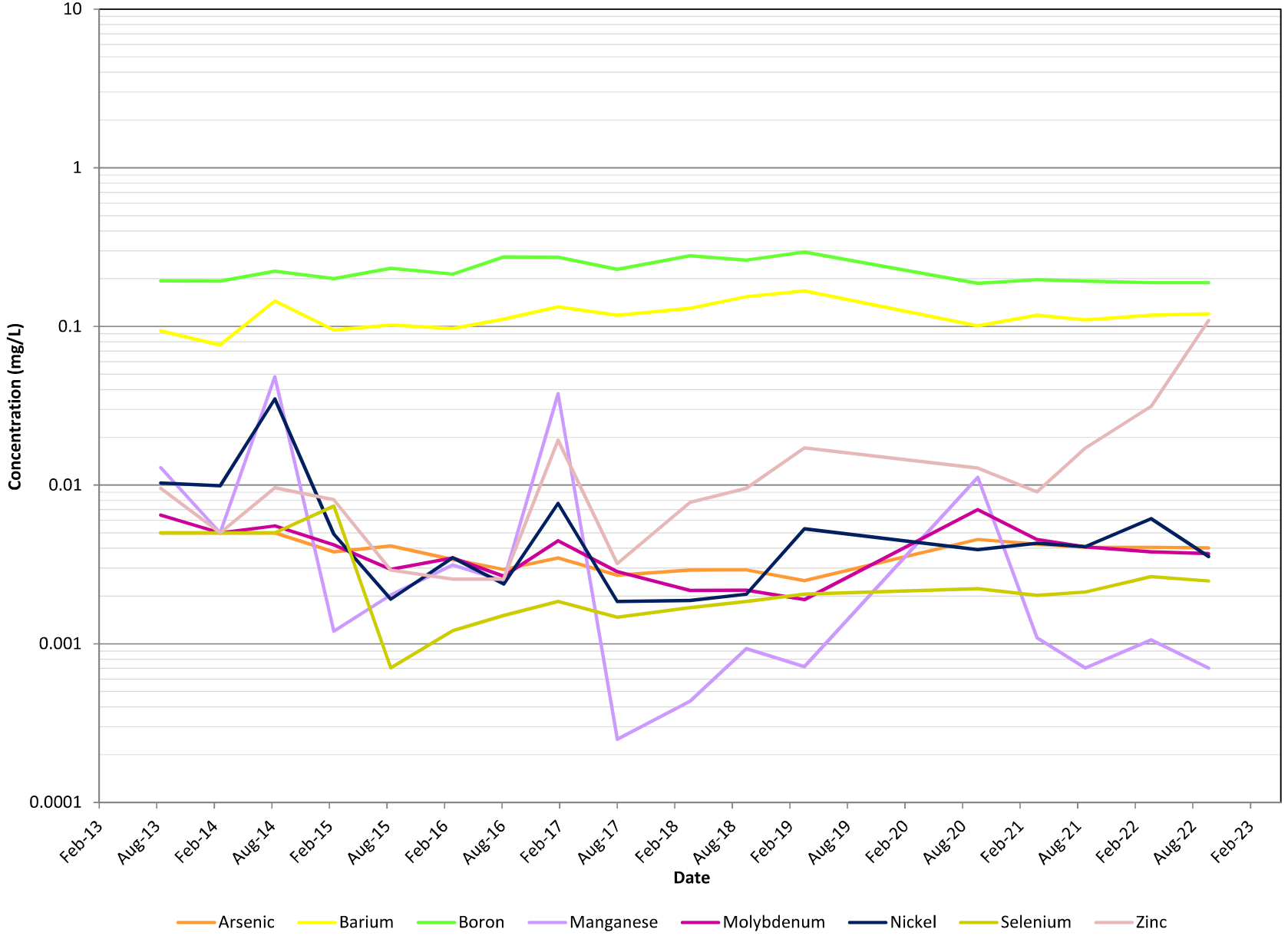
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Received by OCD: 4/14/2023 3:51:30 PM

MW-12R/MW-12R2: TDS CONCENTRATIONS OVER TIME



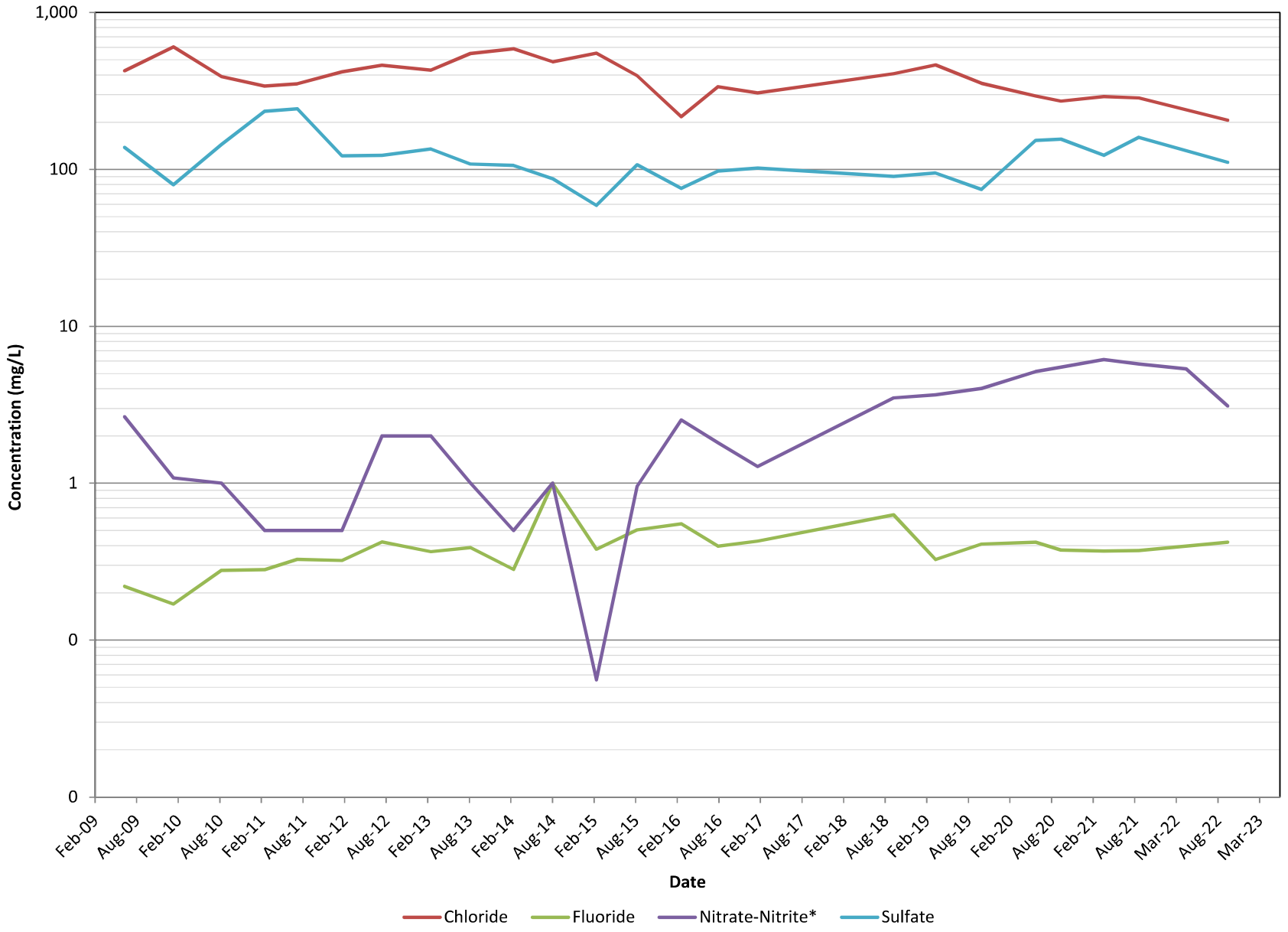
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MW-12R/MW-12R2: METAL CONCENTRATIONS OVER TIME



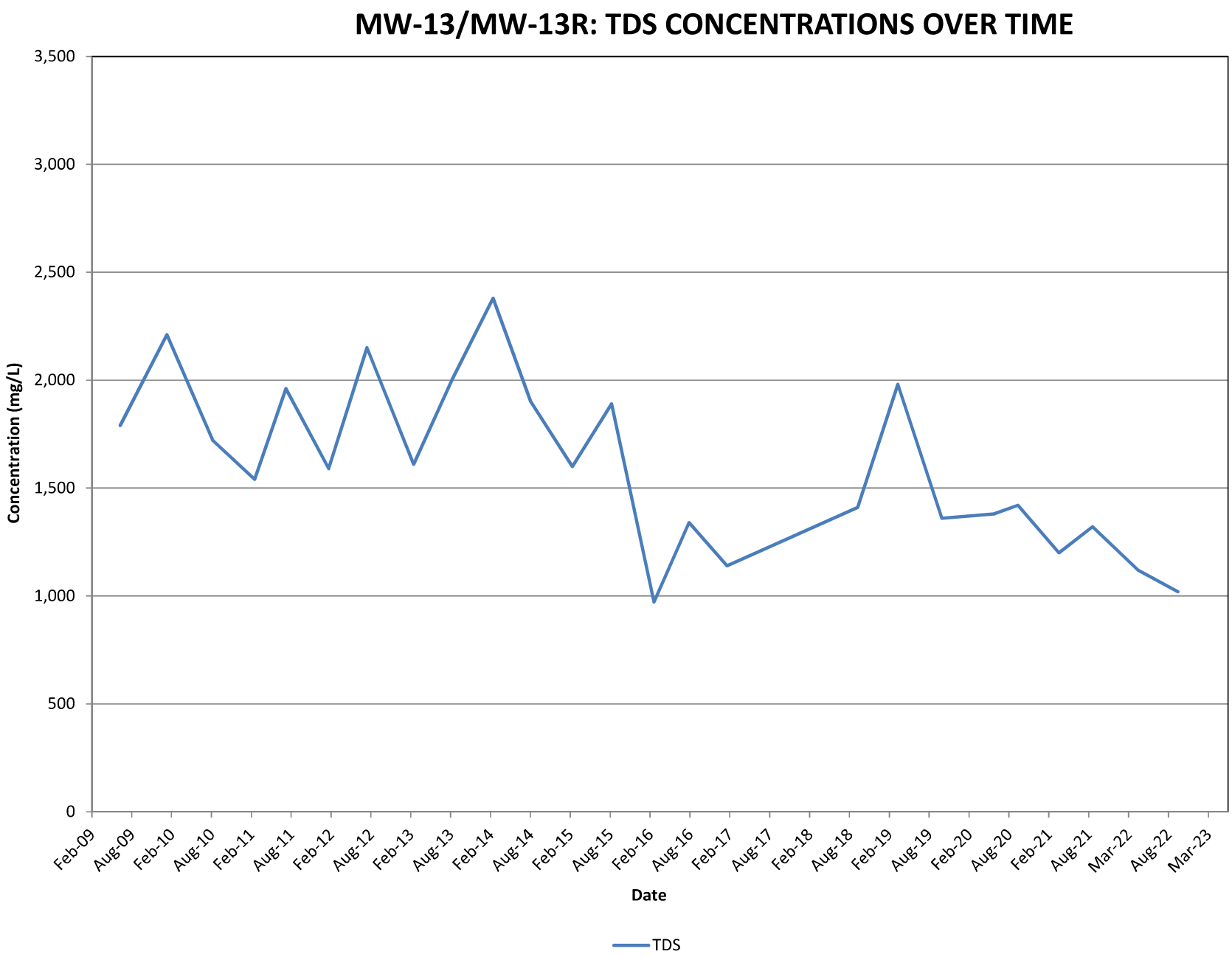
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MW-13/MW-13R: ANION CONCENTRATIONS OVER TIME



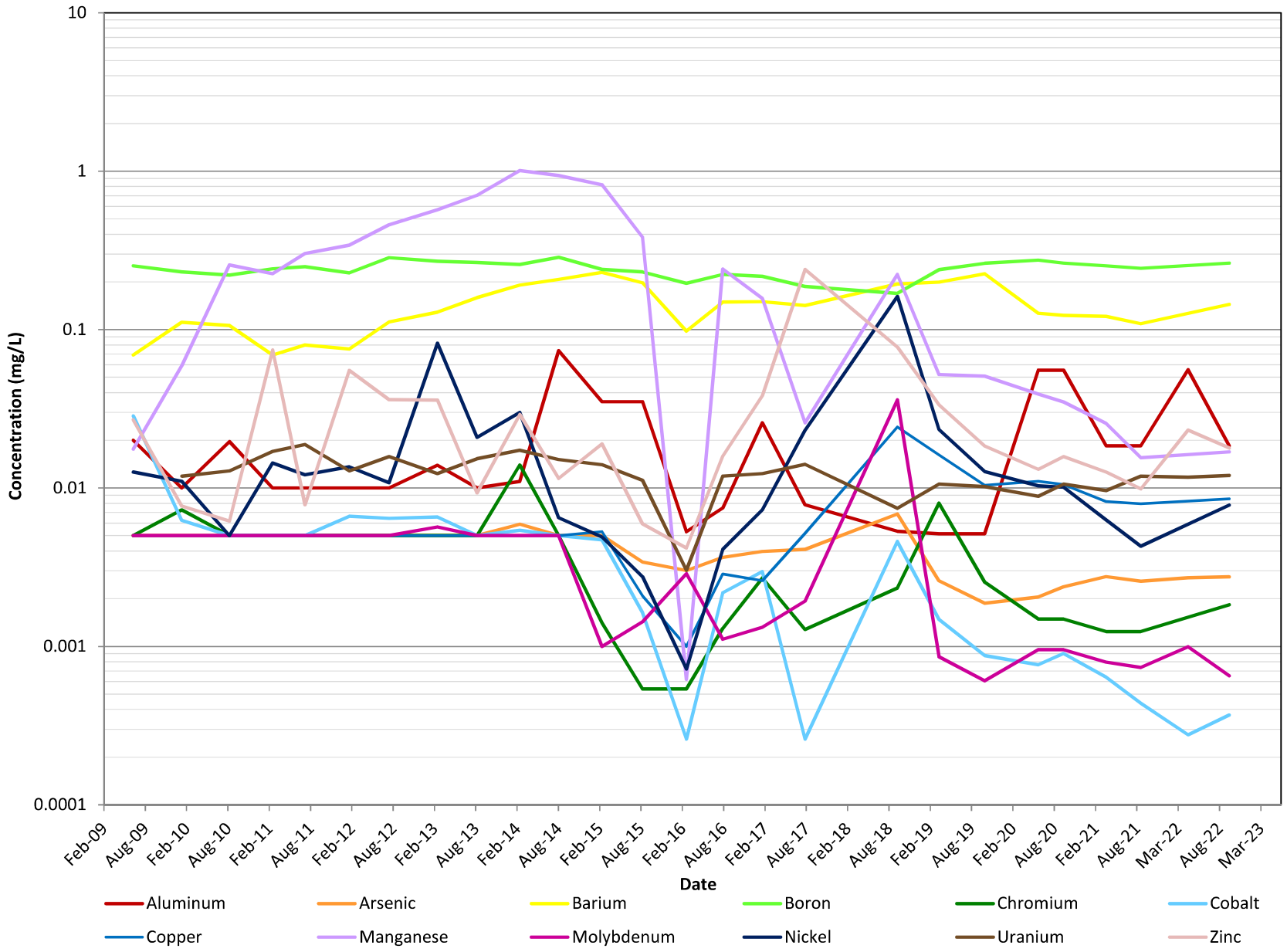
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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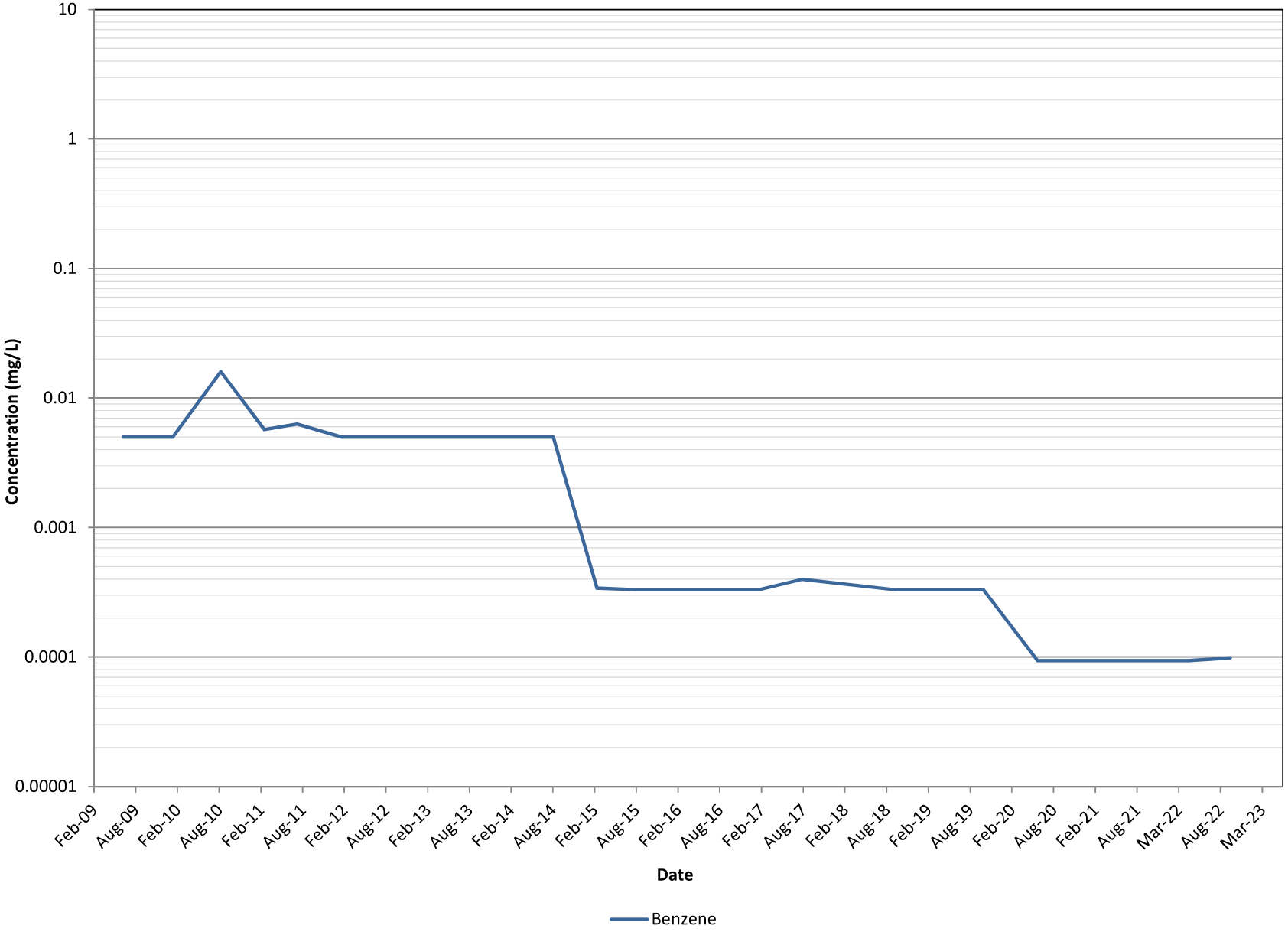
MW-13/MW-13R: METAL CONCENTRATIONS OVER TIME



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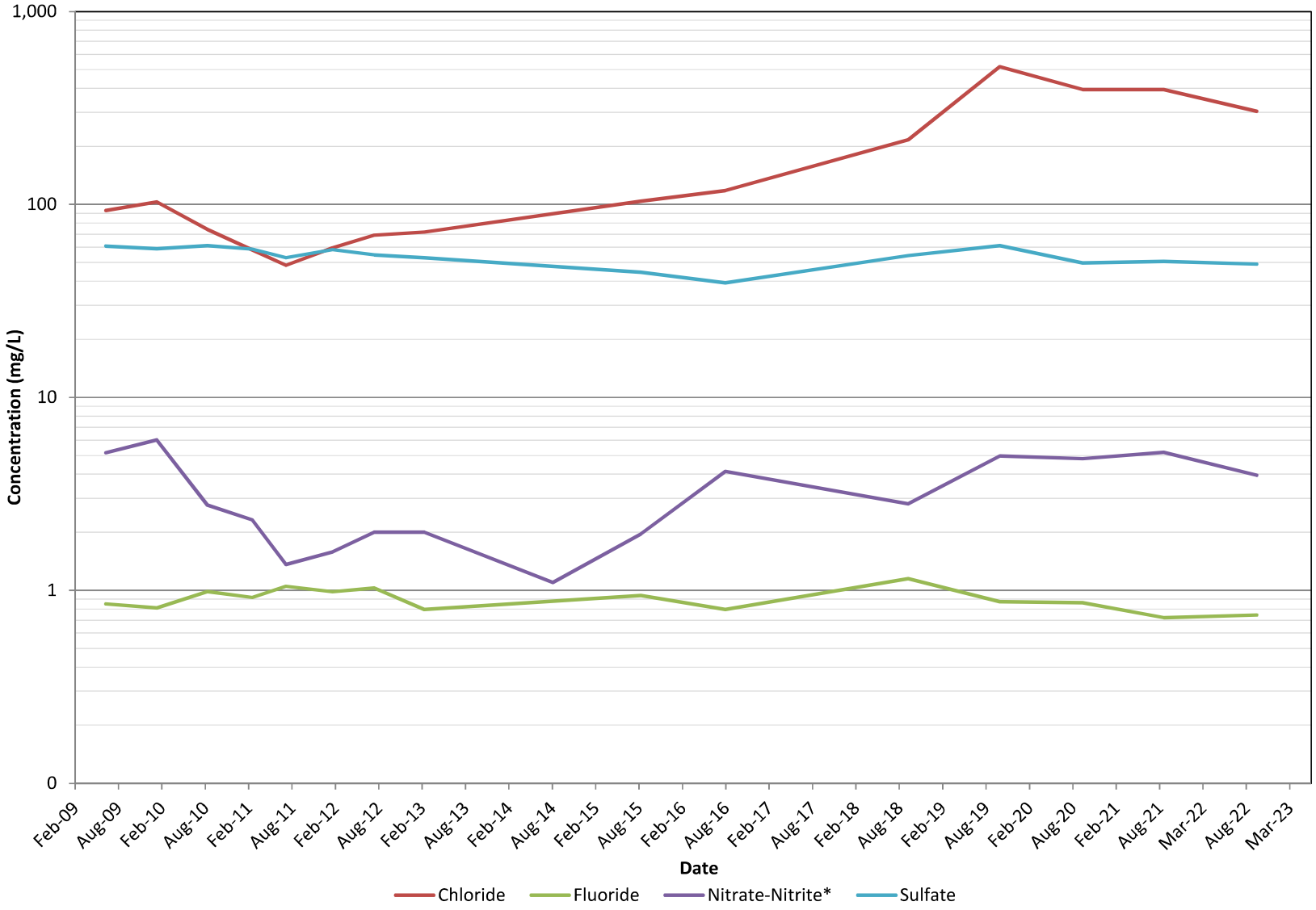
Received by OCD: 4/14/2023 3:51:30 PM

MW-13/MW-13R: VOC CONCENTRATIONS OVER TIME



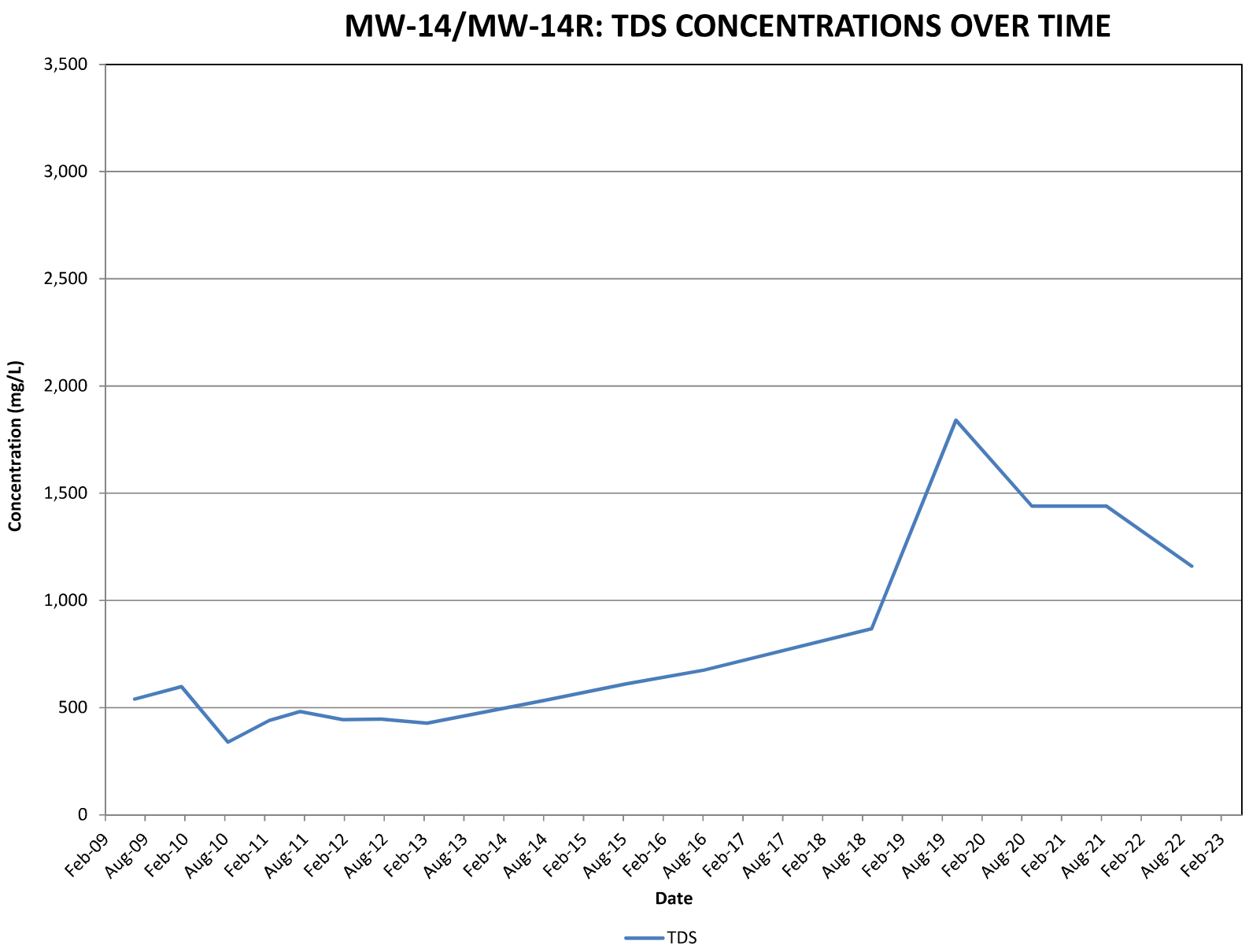
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Received by OCD: 4/14/2023 3:51:30 PM

MW-14/MW-14R: ANION CONCENTRATIONS OVER TIME



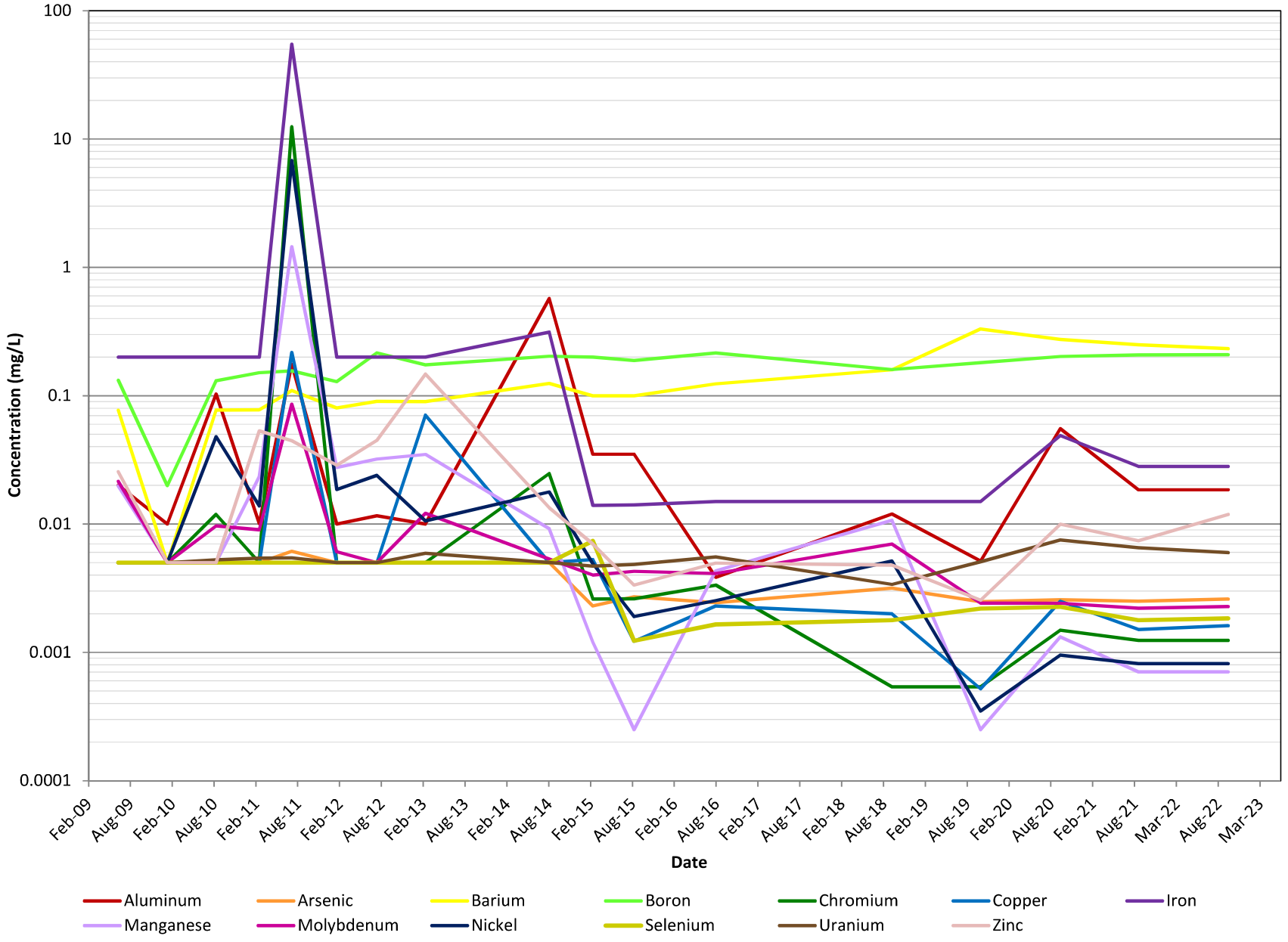
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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Received by OCD: 4/14/2023 3:51:30 PM



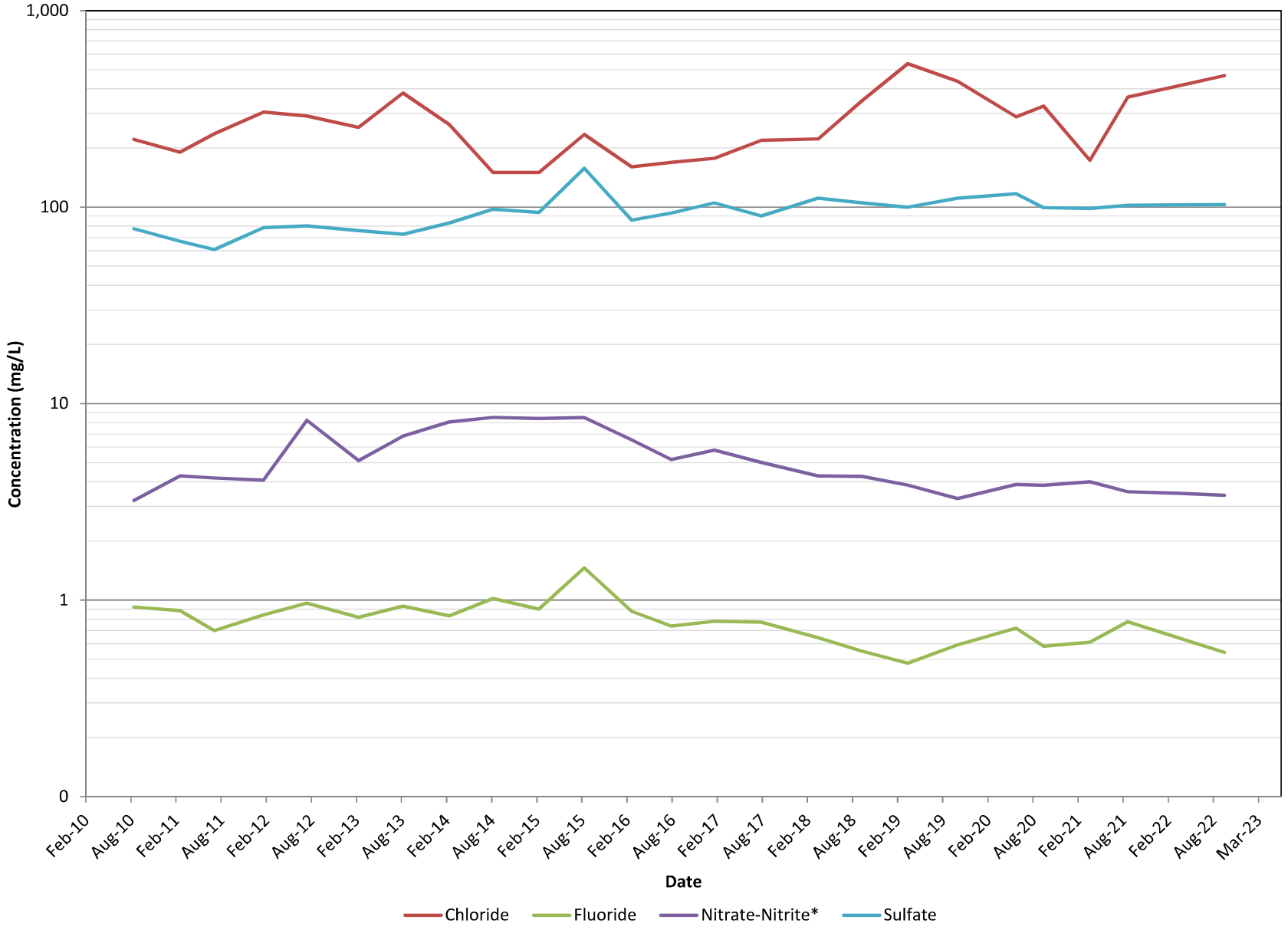
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MW-14/MW-14R: METAL CONCENTRATIONS OVER TIME



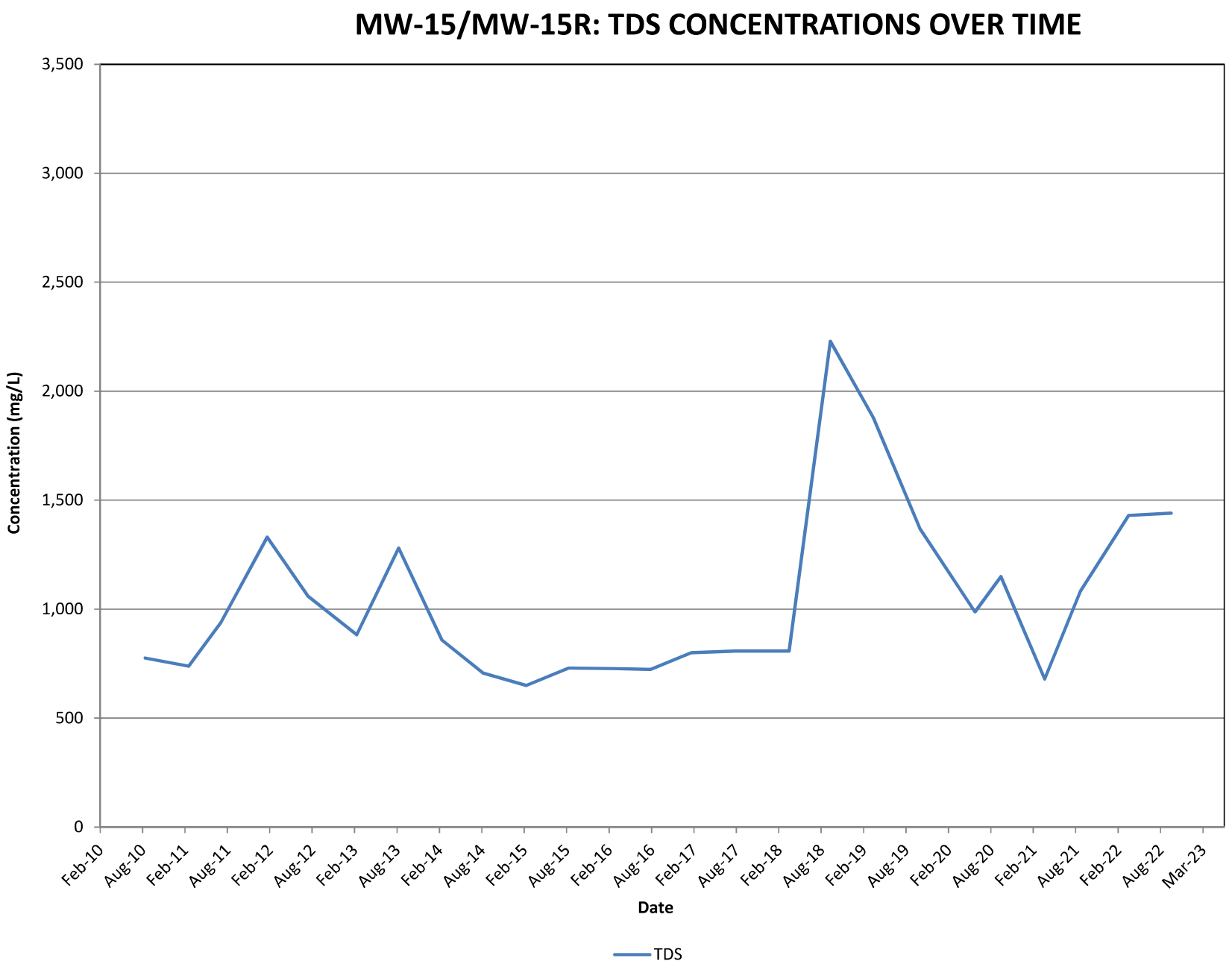
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MW-15/MW-15R: ANION CONCENTRATIONS OVER TIME



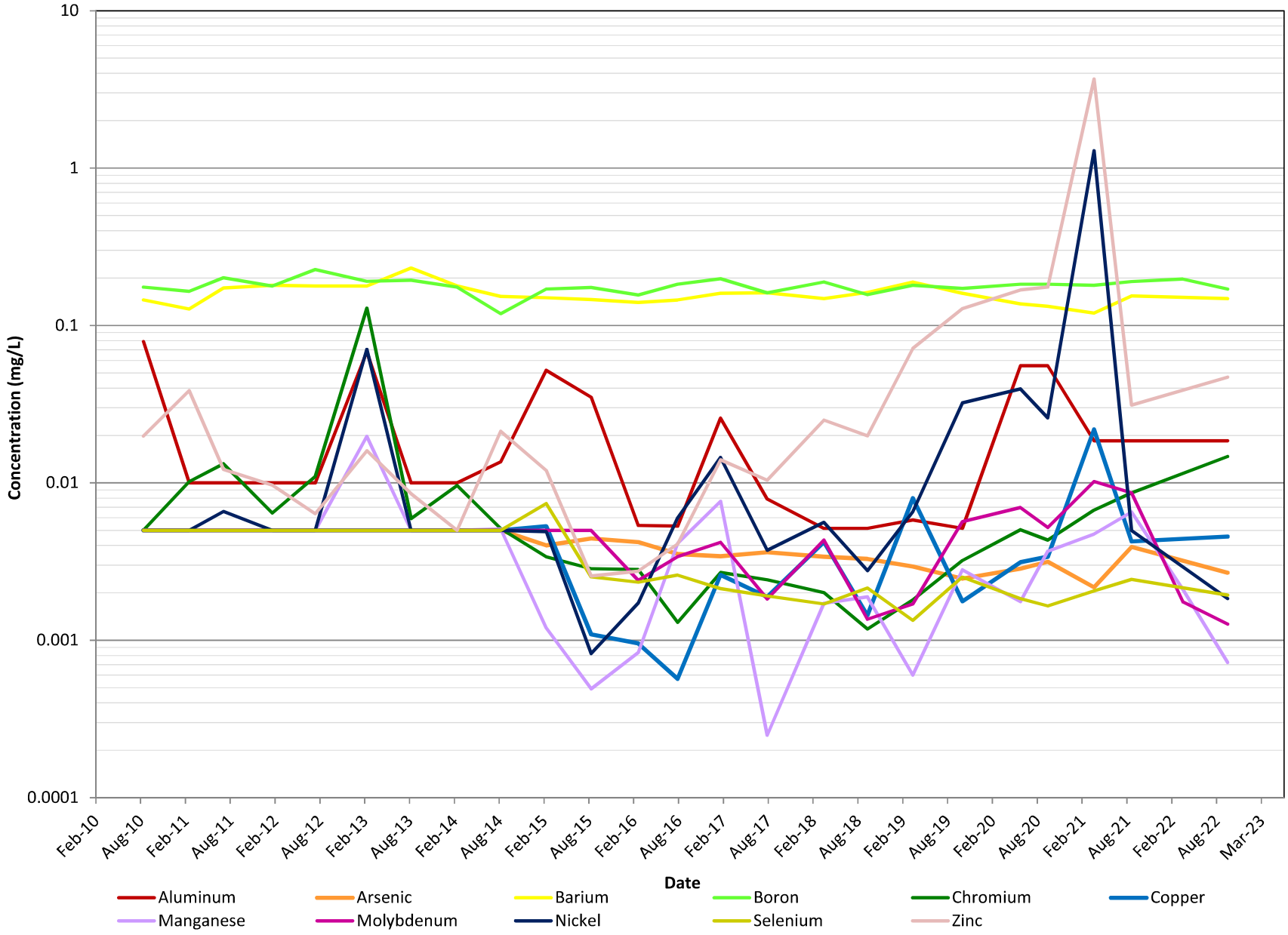
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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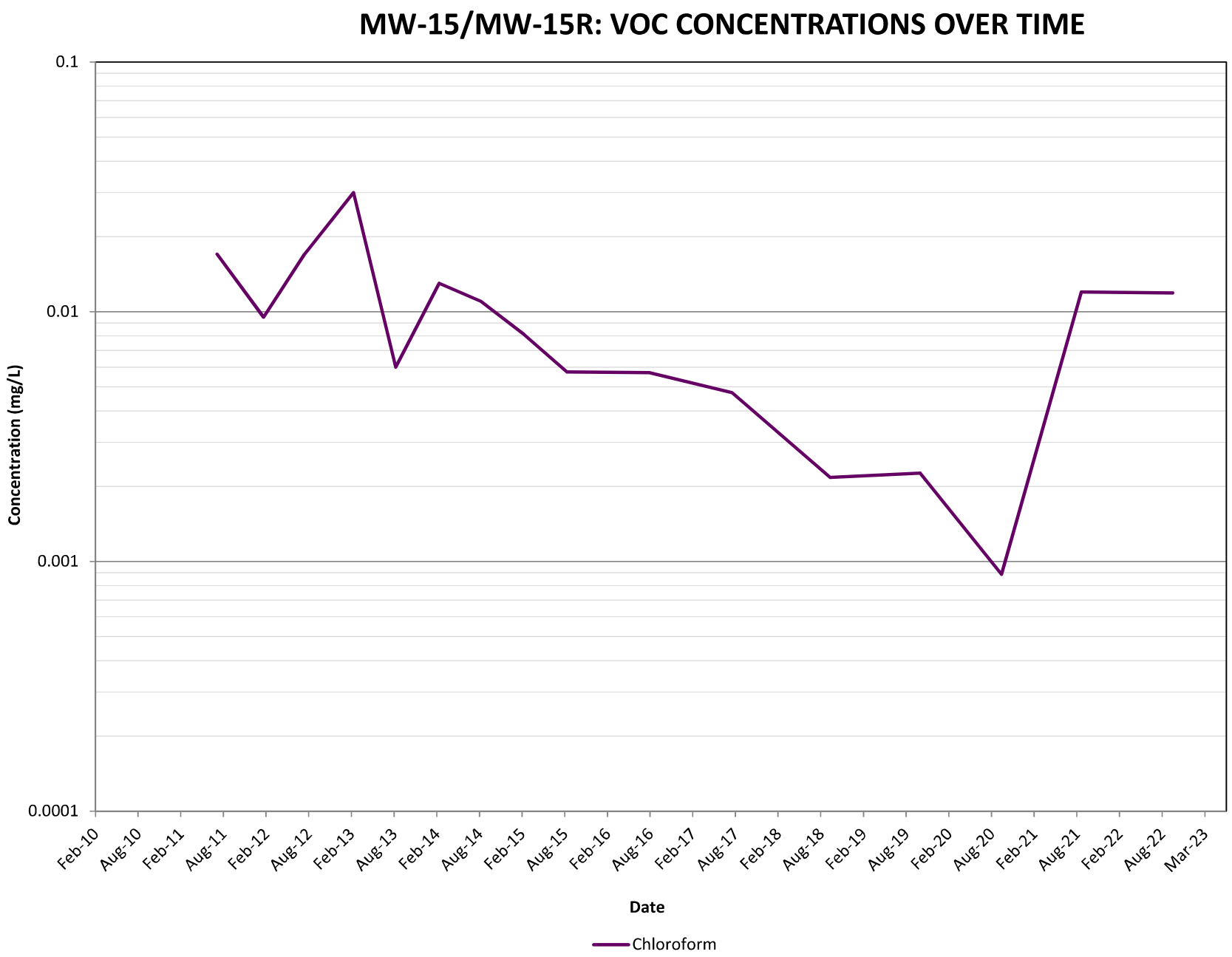


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MW-15/MW-15R: METAL CONCENTRATIONS OVER TIME

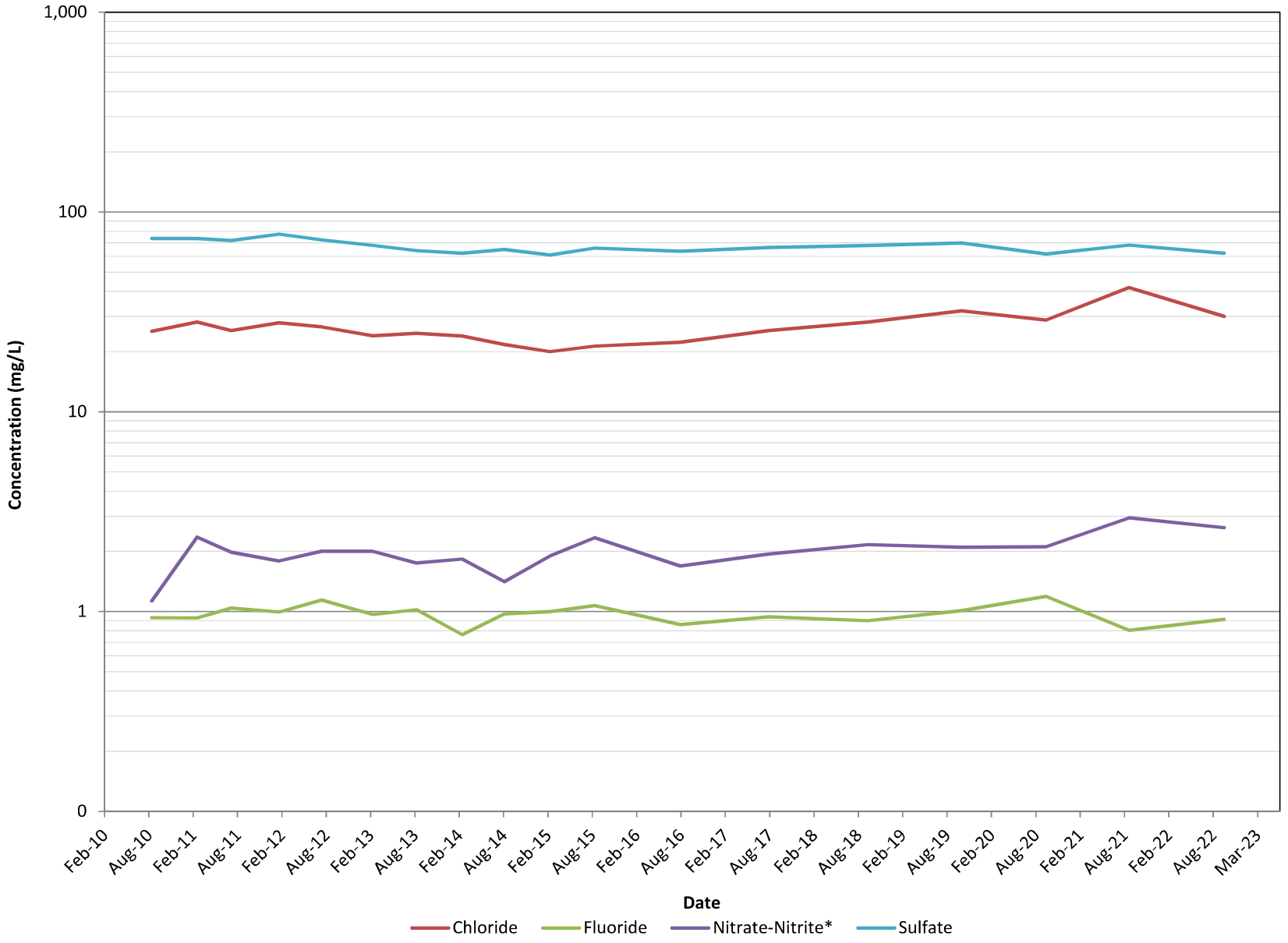


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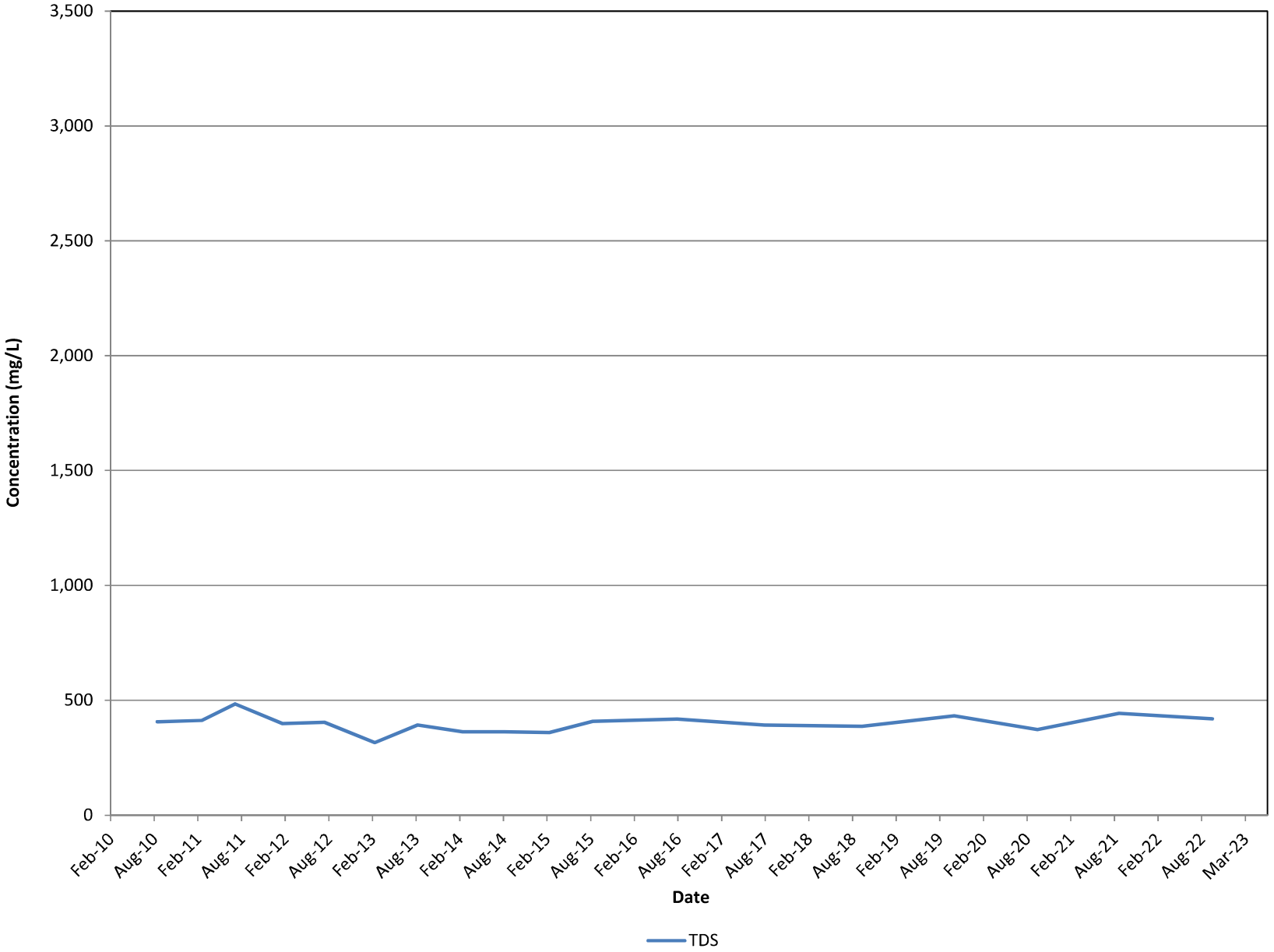
MW-16/MW-16R: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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Received by OCD: 4/14/2023 3:51:30 PM

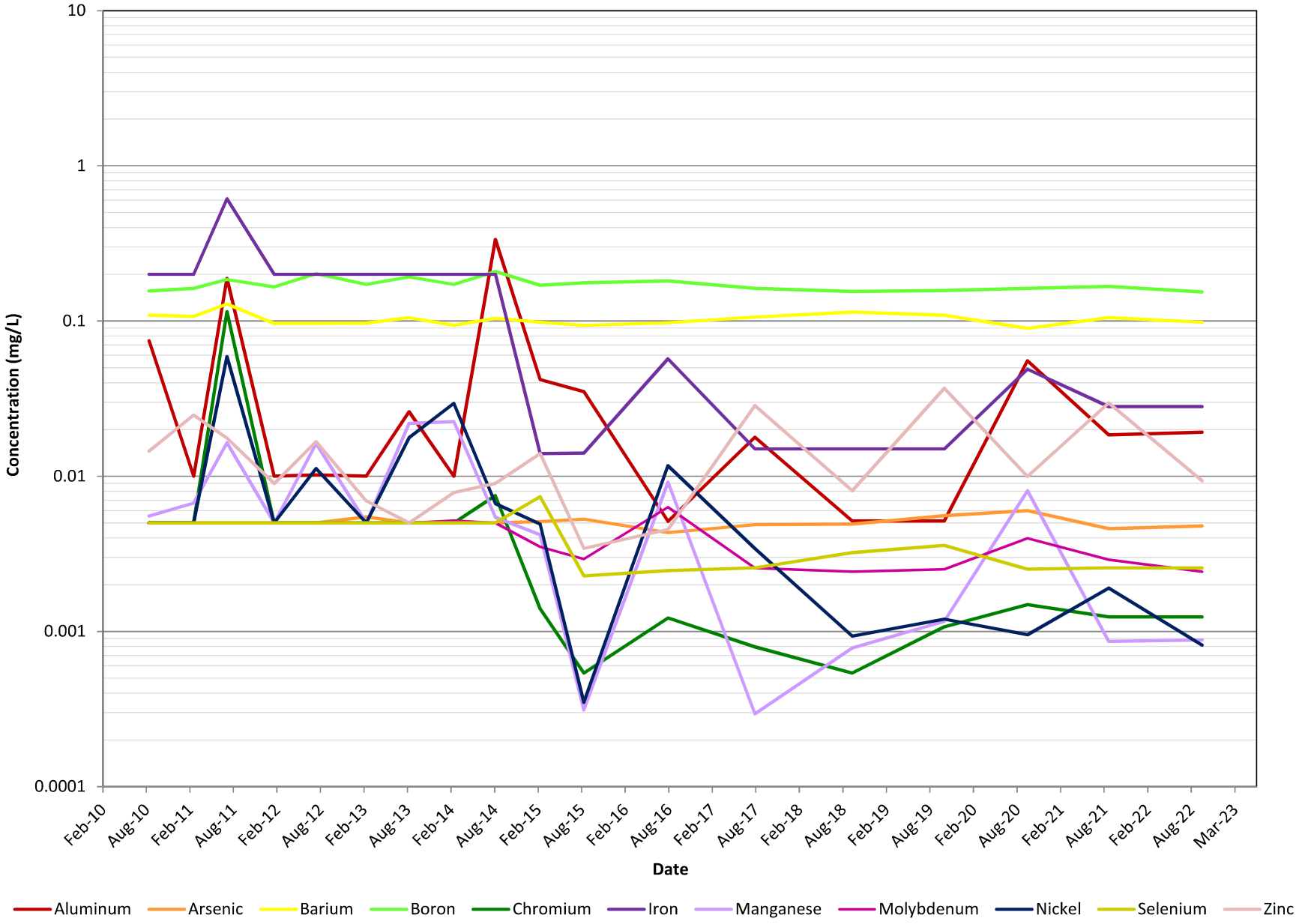
MW-16/MW-16R: TDS CONCENTRATIONS OVER TIME



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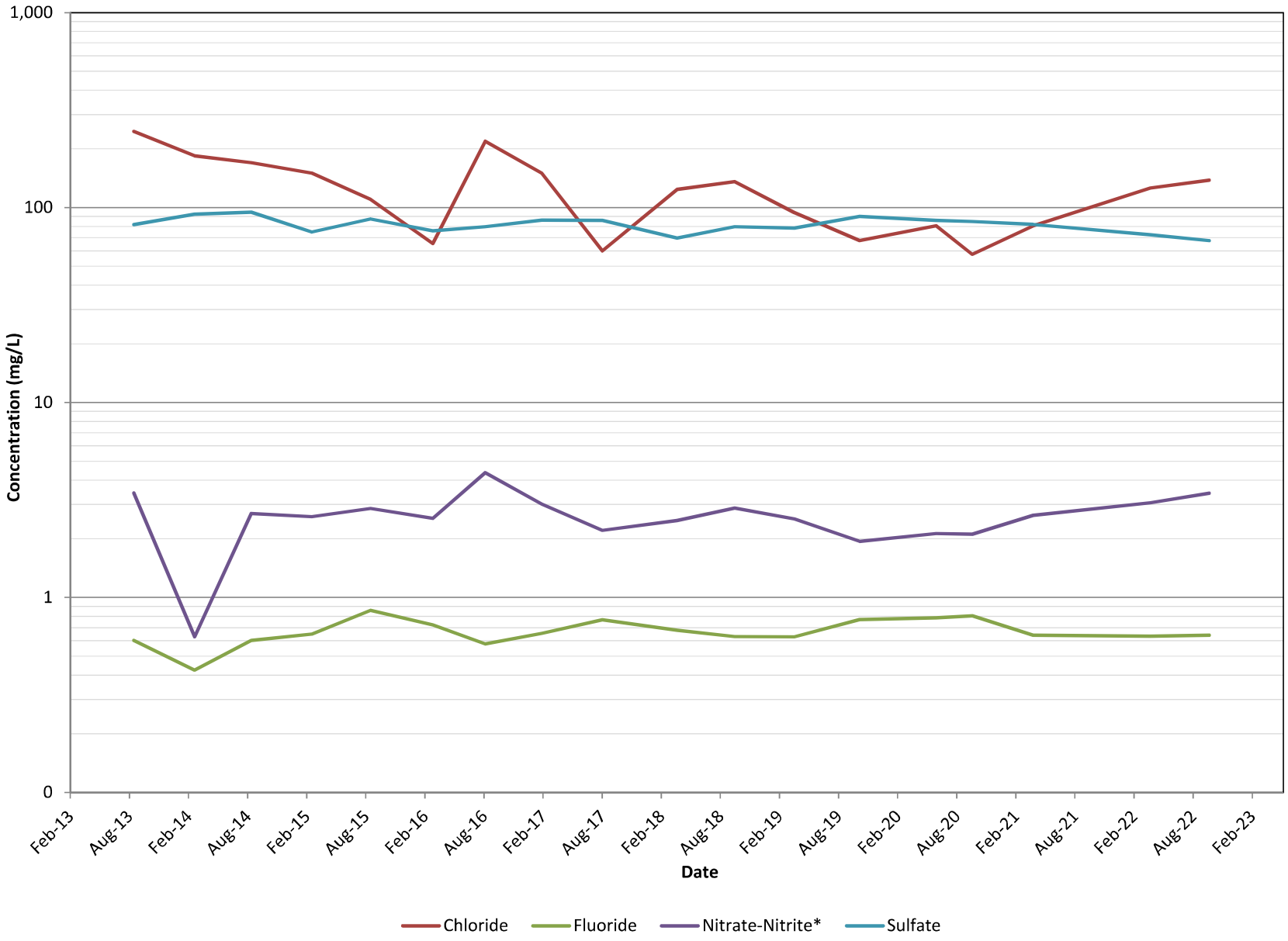
Received by OCD: 4/14/2023 3:51:30 PM

MW-16/MW-16R: METAL CONCENTRATIONS OVER TIME



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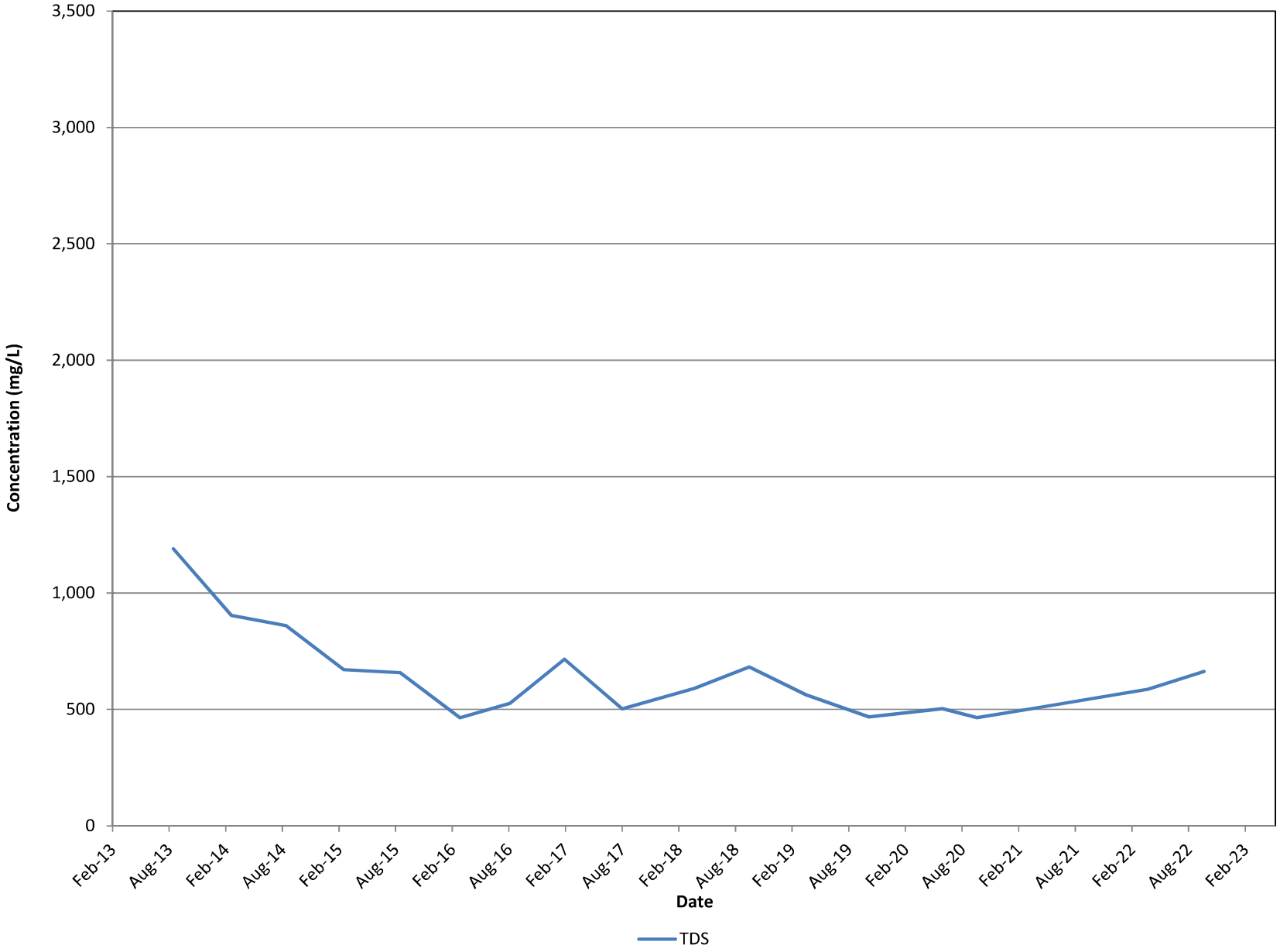
MW-17R: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

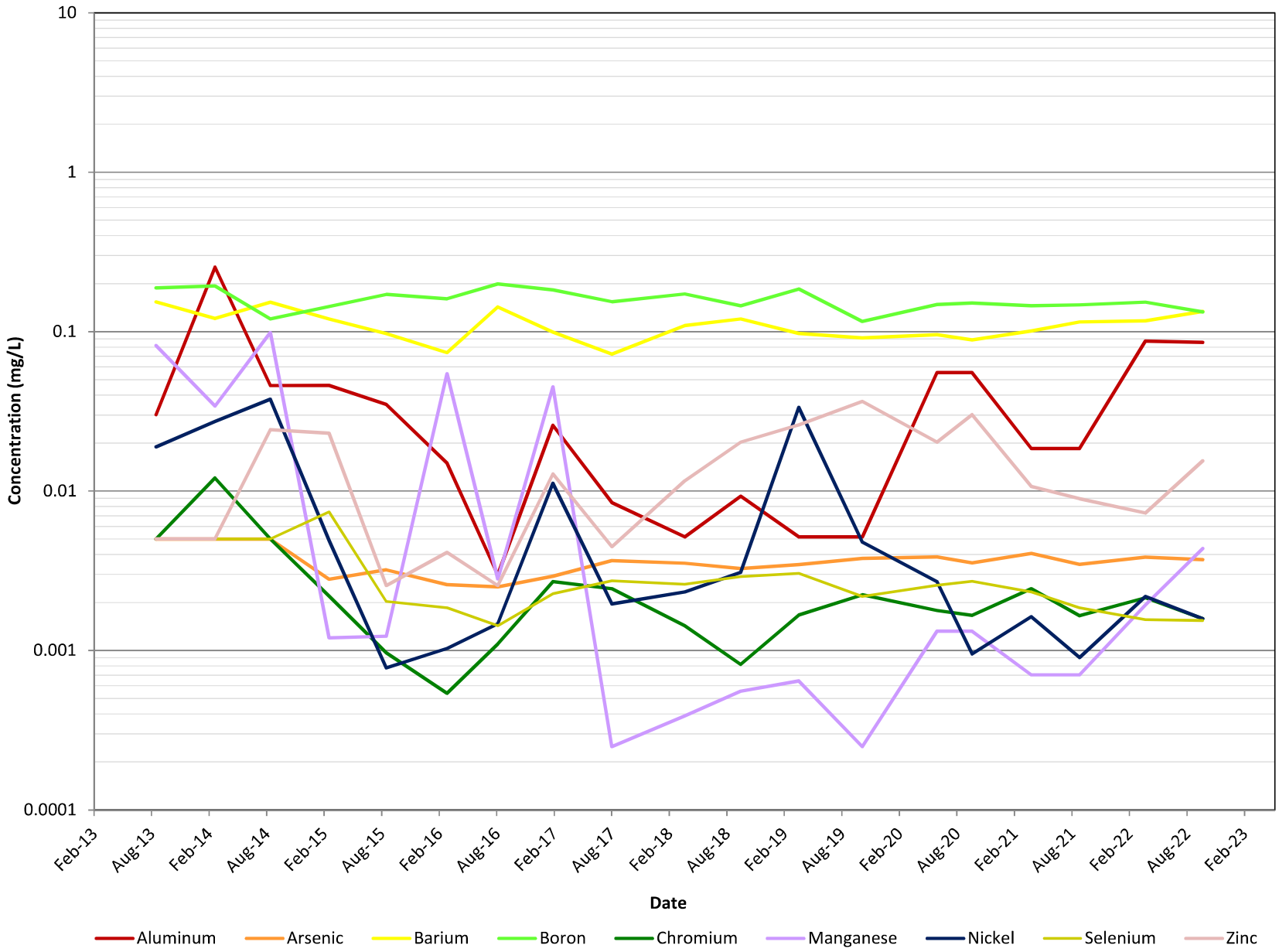
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Received by OCD: 4/14/2023 3:51:30 PM

MW-17R: TDS CONCENTRATIONS OVER TIME



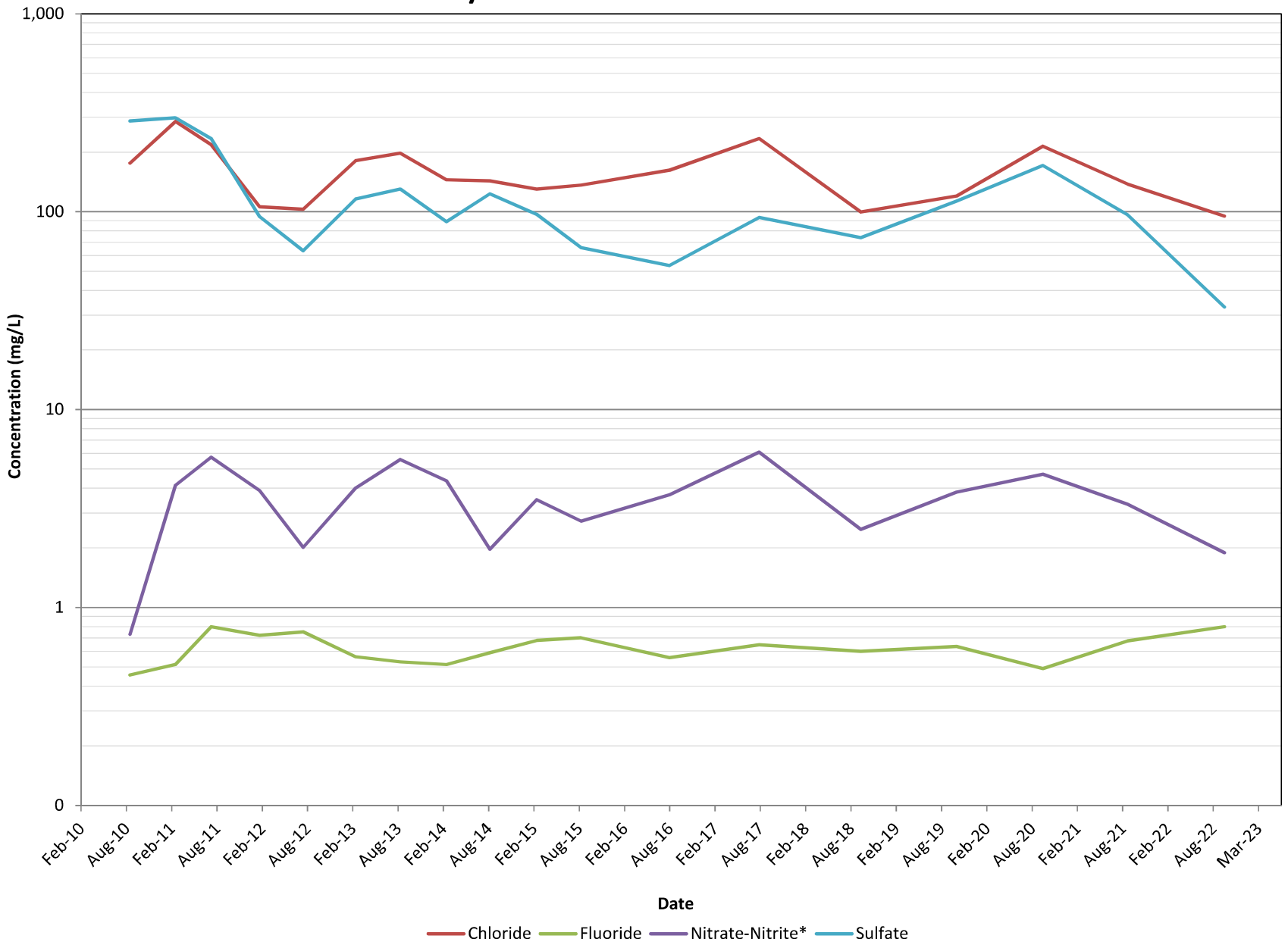
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Received by OCD: 4/14/2023 3:51:30 PM

MW-17R: METAL CONCENTRATIONS OVER TIME



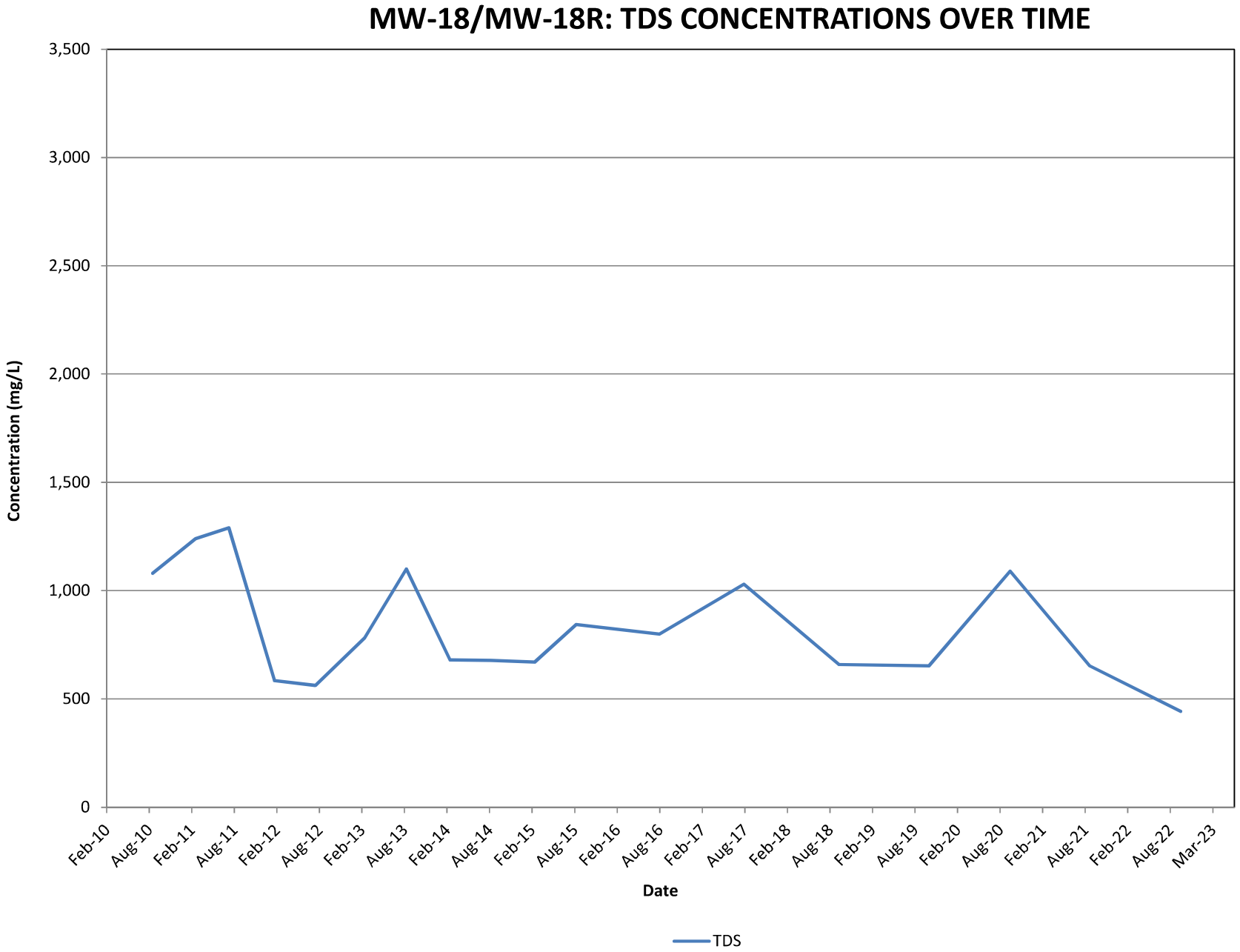
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MW-18/MW-18R: ANION CONCENTRATIONS OVER TIME



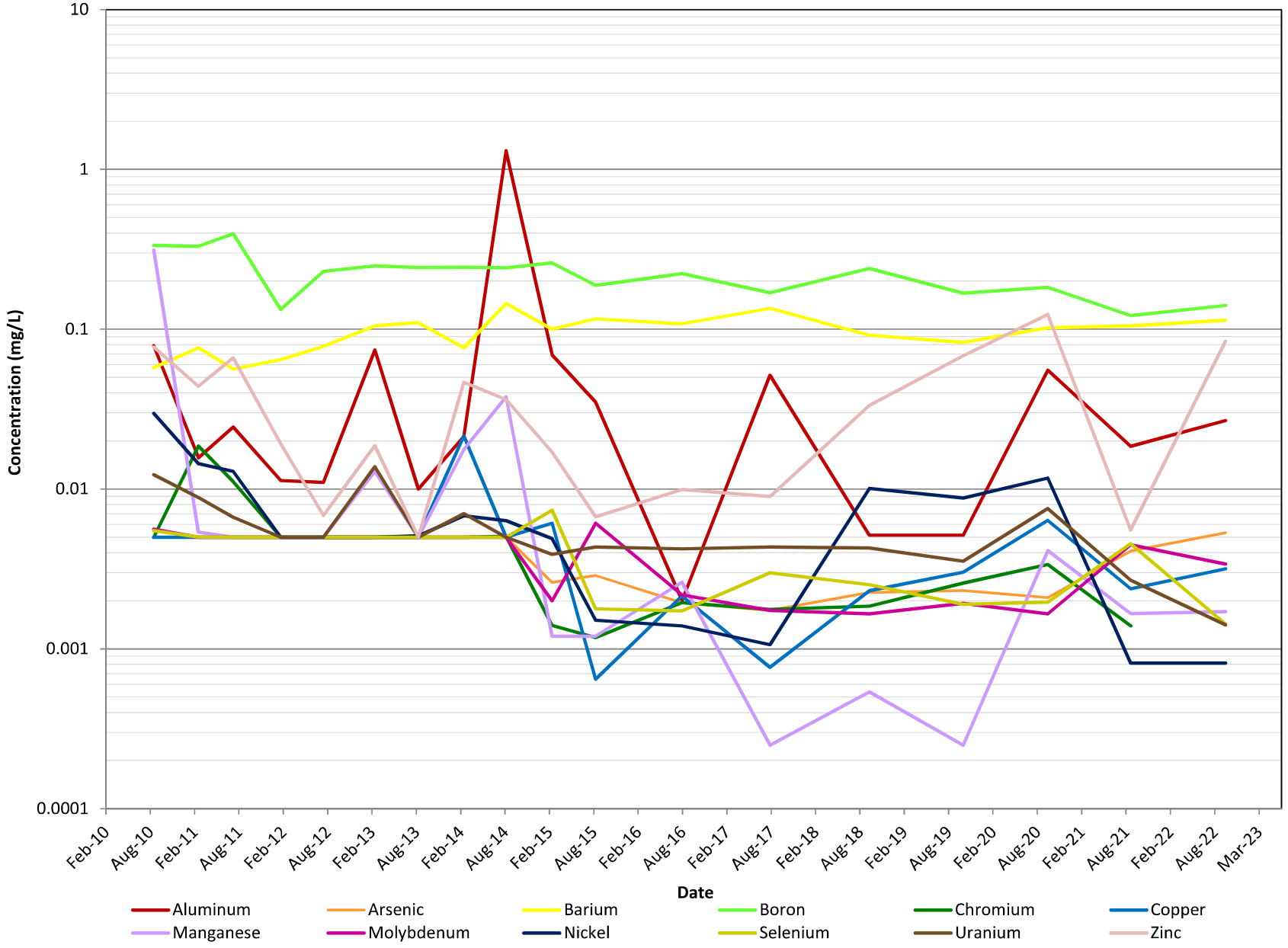
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

Released to Imaging: 4/14/2023 4:34:58 PM
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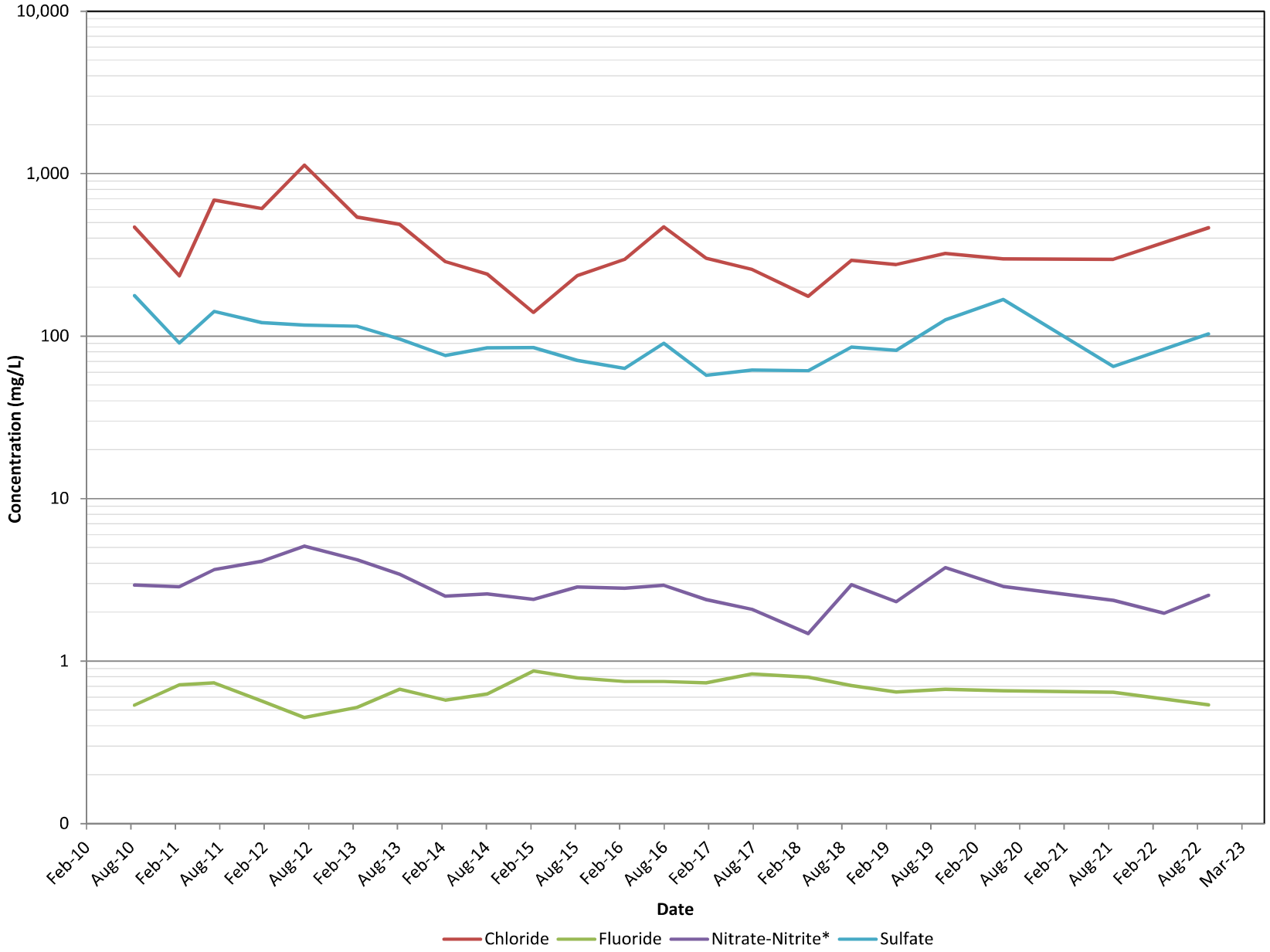
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Received by OCD: 4/14/2023 3:51:30 PM

MW-18/MW-18R: METAL CONCENTRATIONS OVER TIME



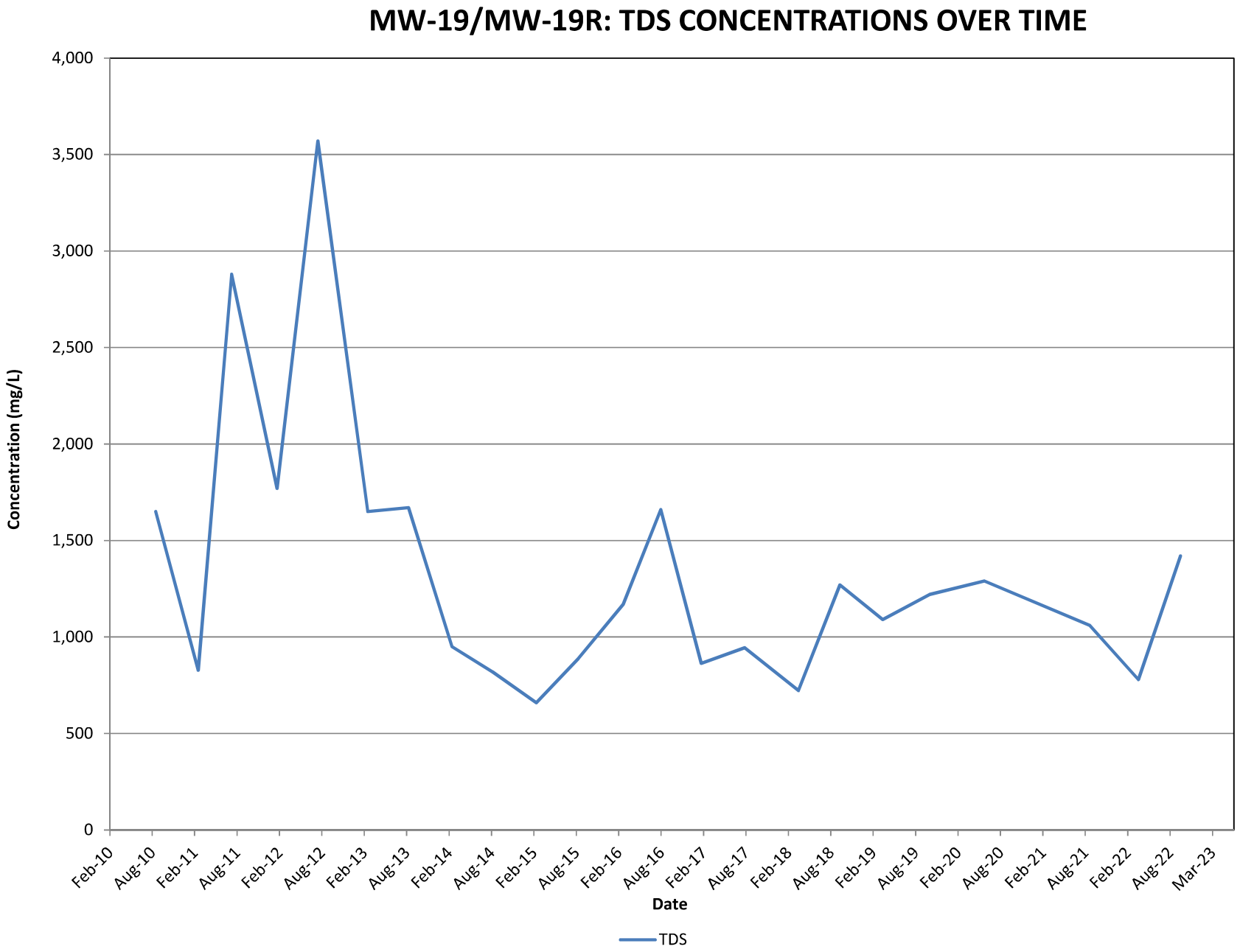
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MW-19/MW-19R: ANION CONCENTRATIONS OVER TIME

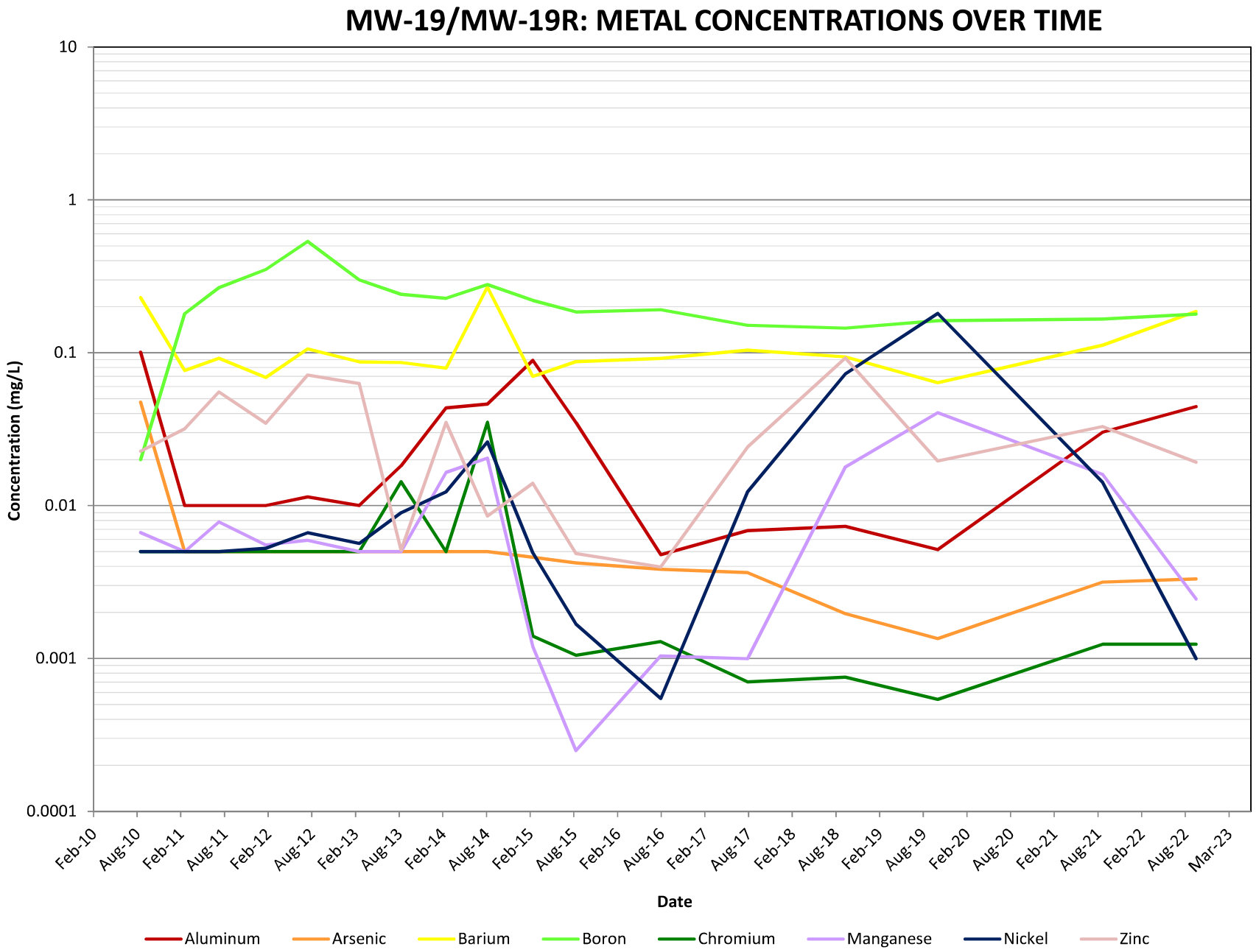


*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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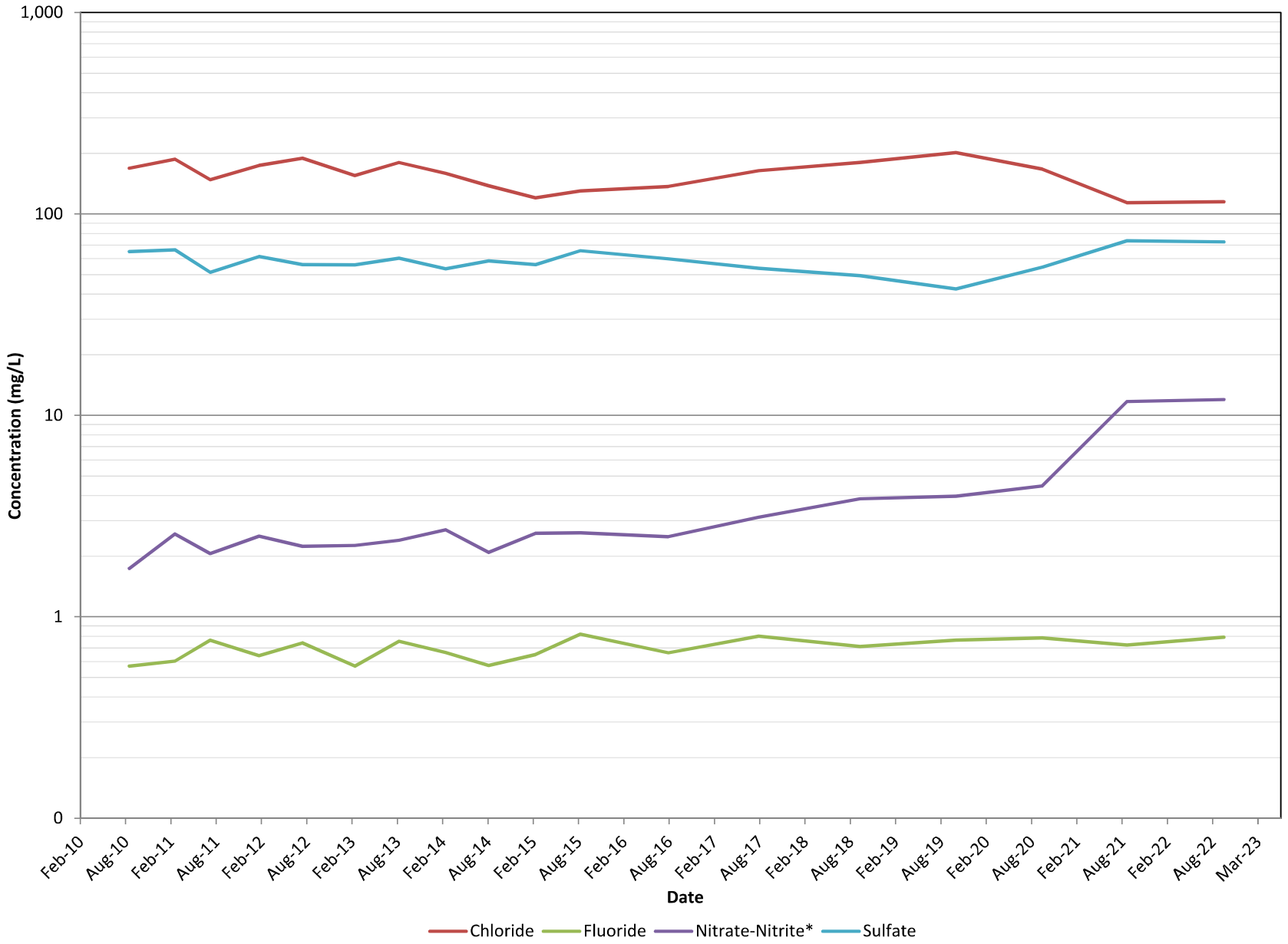
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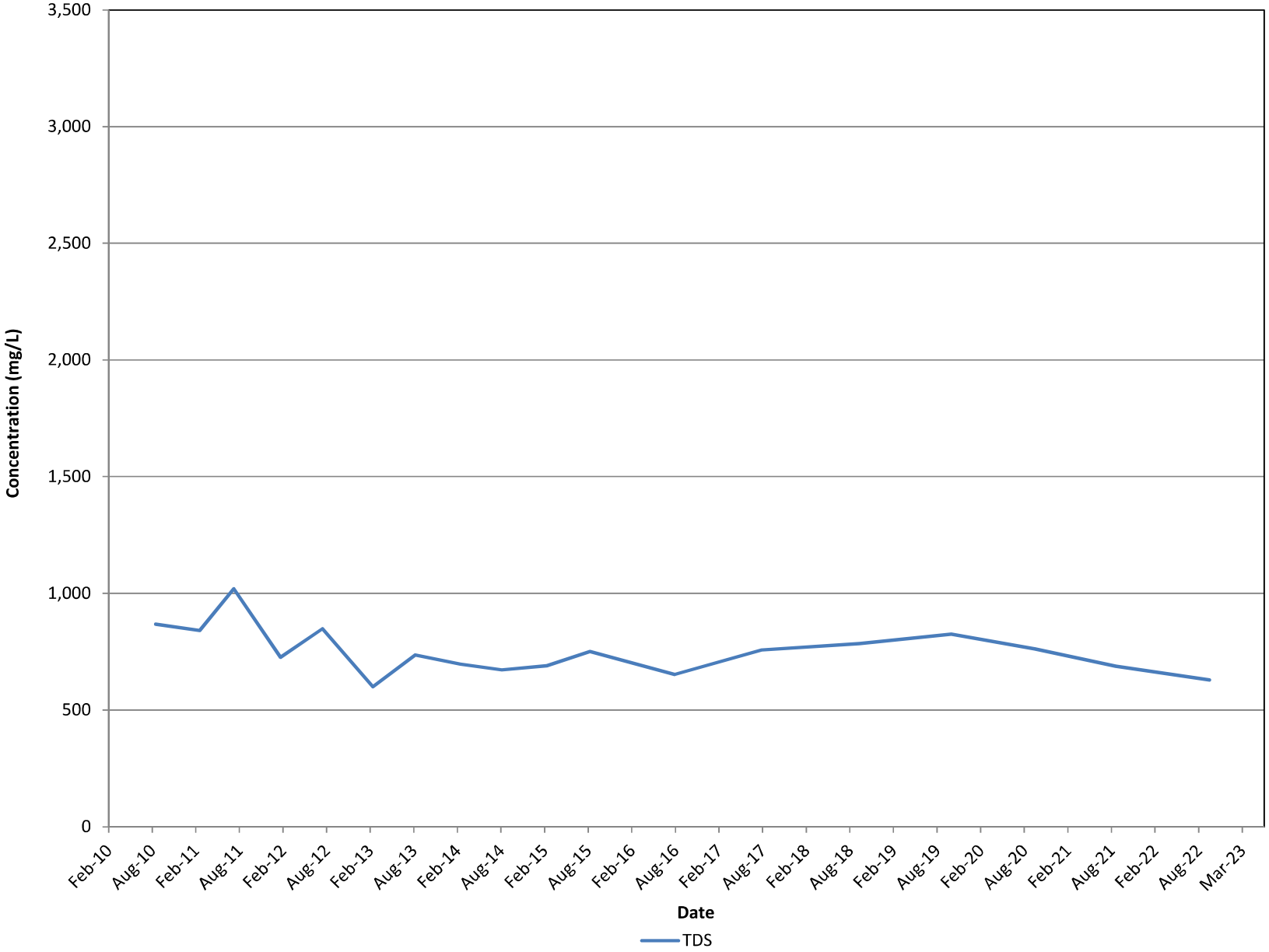
MW-20/MW-20R: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

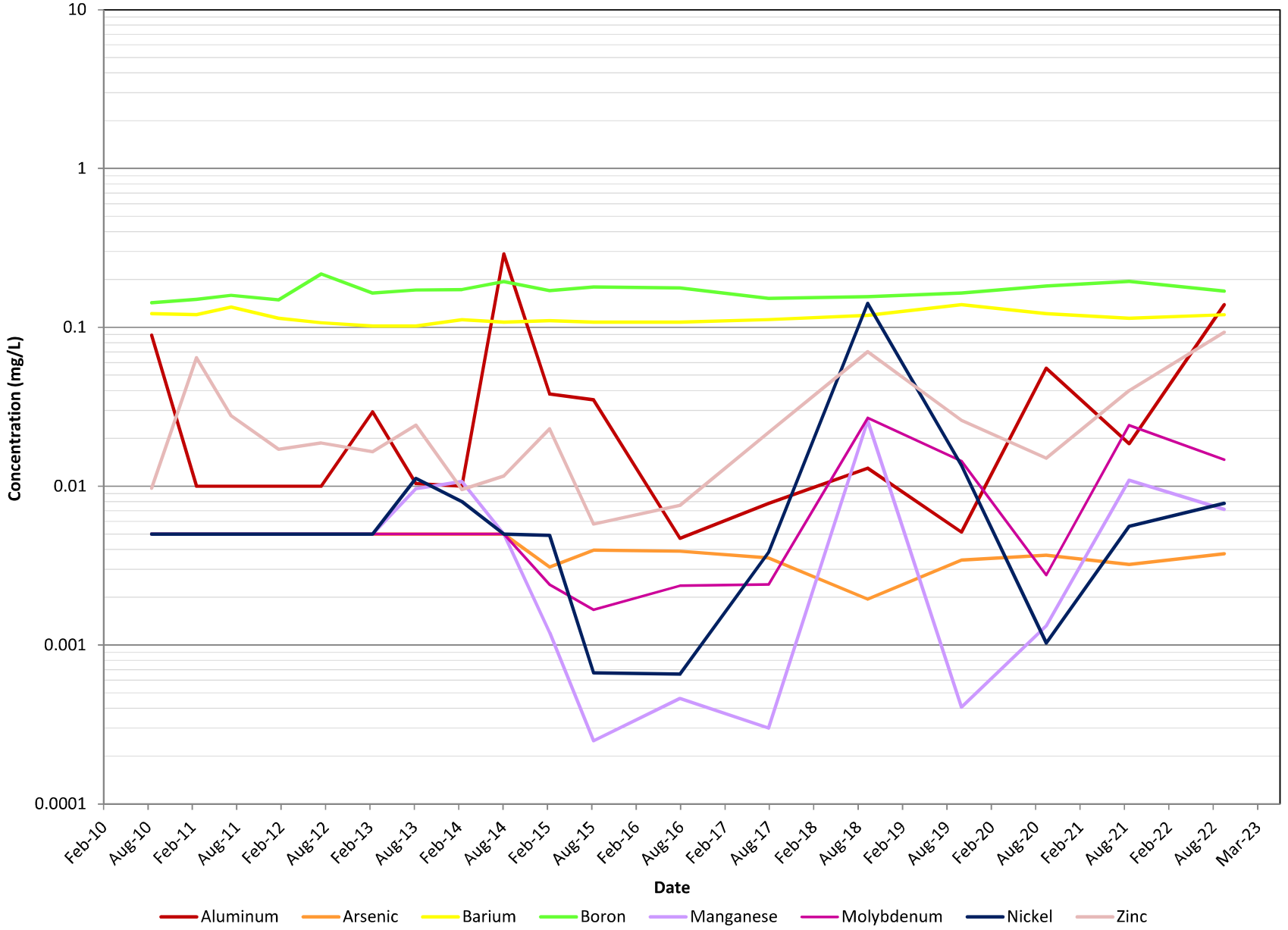
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MW-20/MW-20R: TDS CONCENTRATIONS OVER TIME



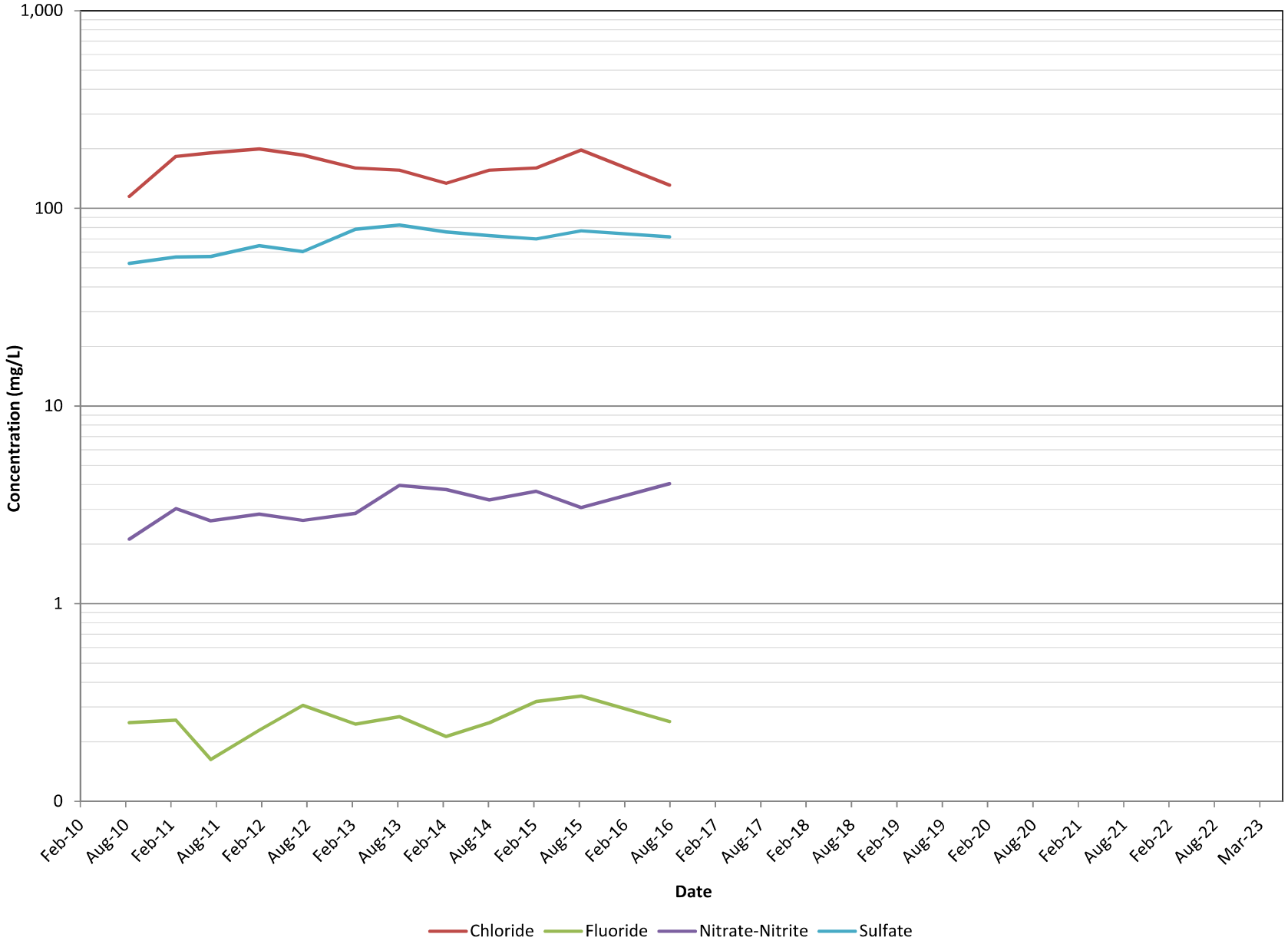
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MW-20/MW-20R: METAL CONCENTRATIONS OVER TIME

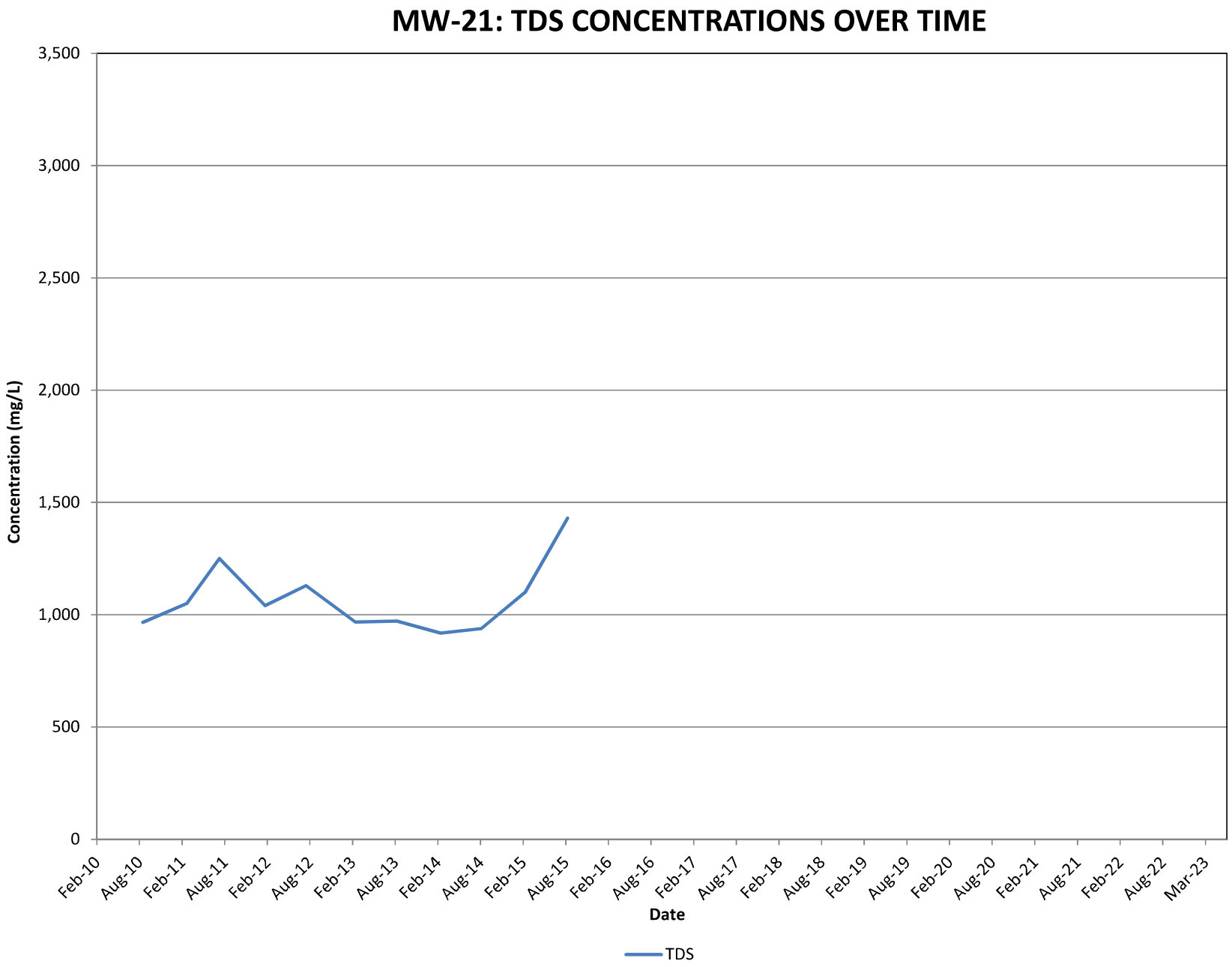


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MW-21: ANION CONCENTRATIONS OVER TIME

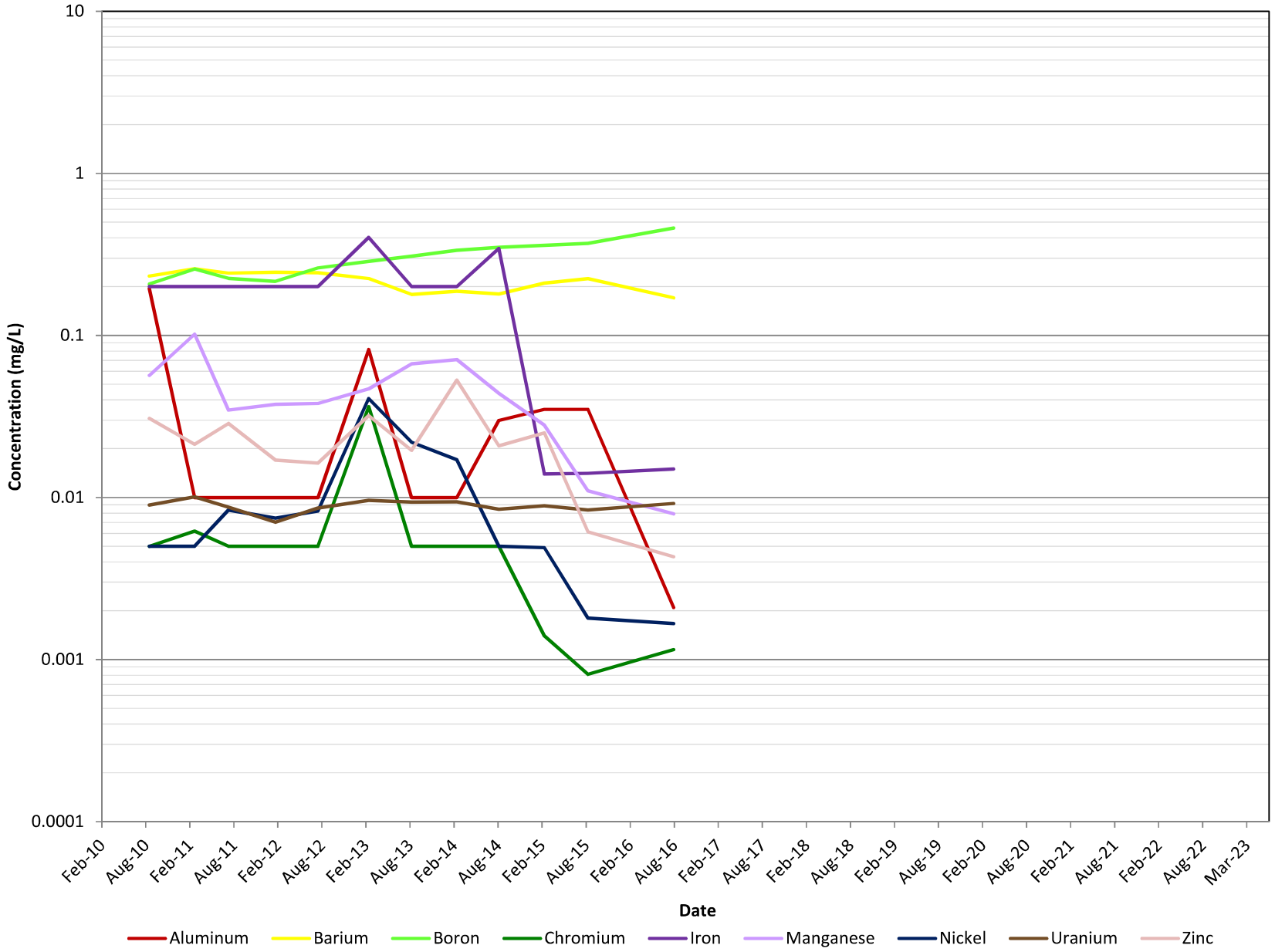


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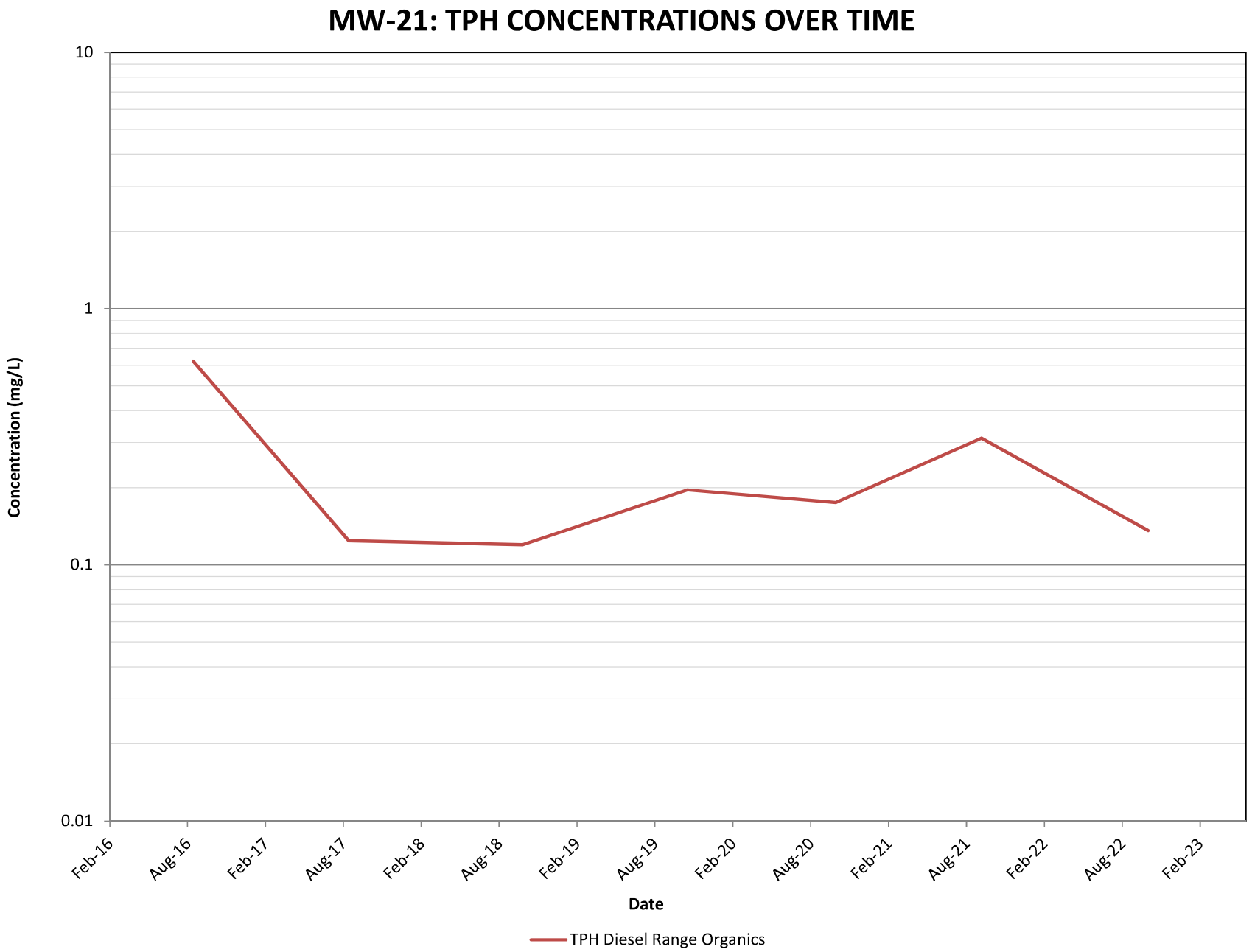


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MW-21: METAL CONCENTRATIONS OVER TIME

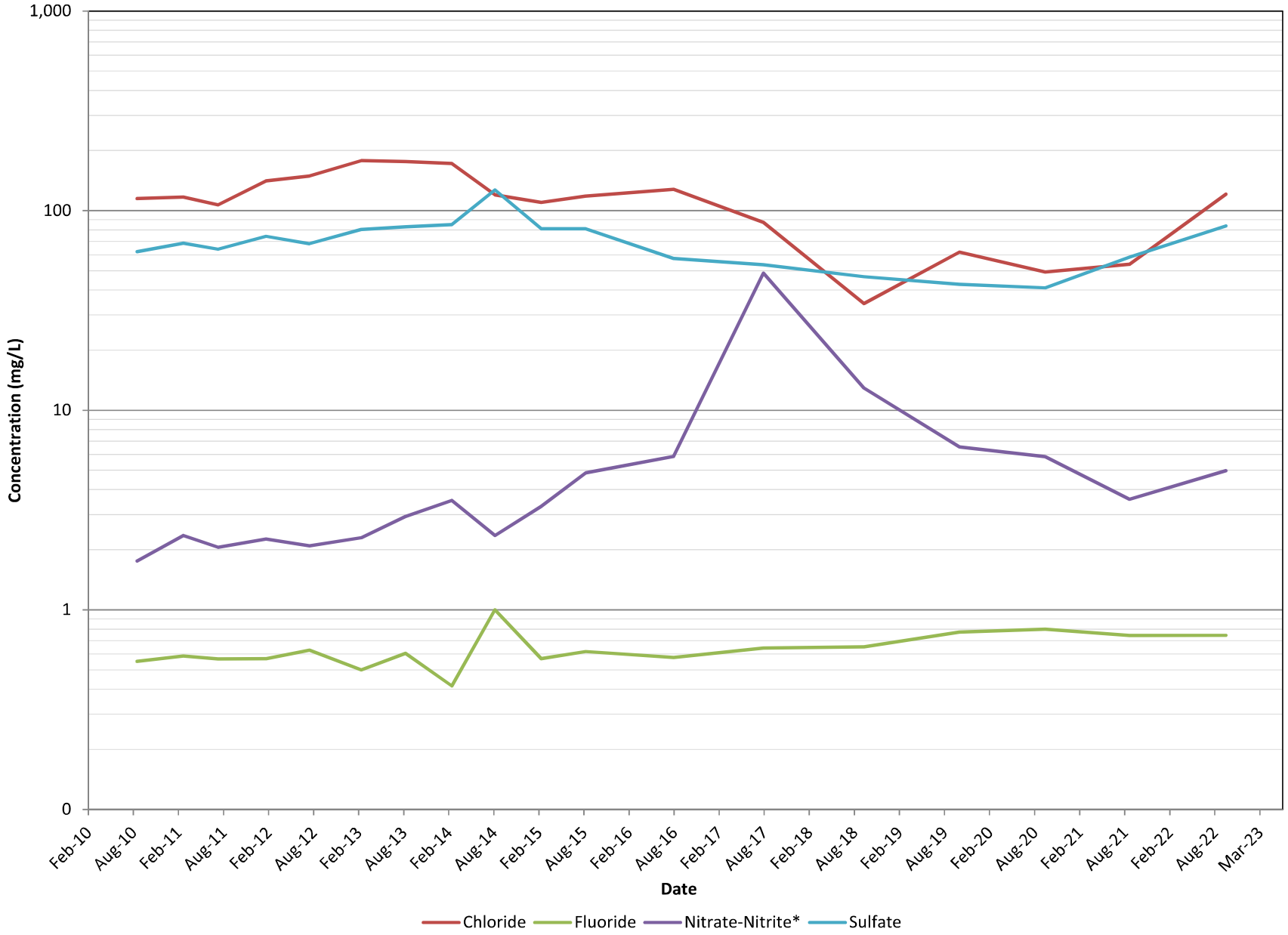


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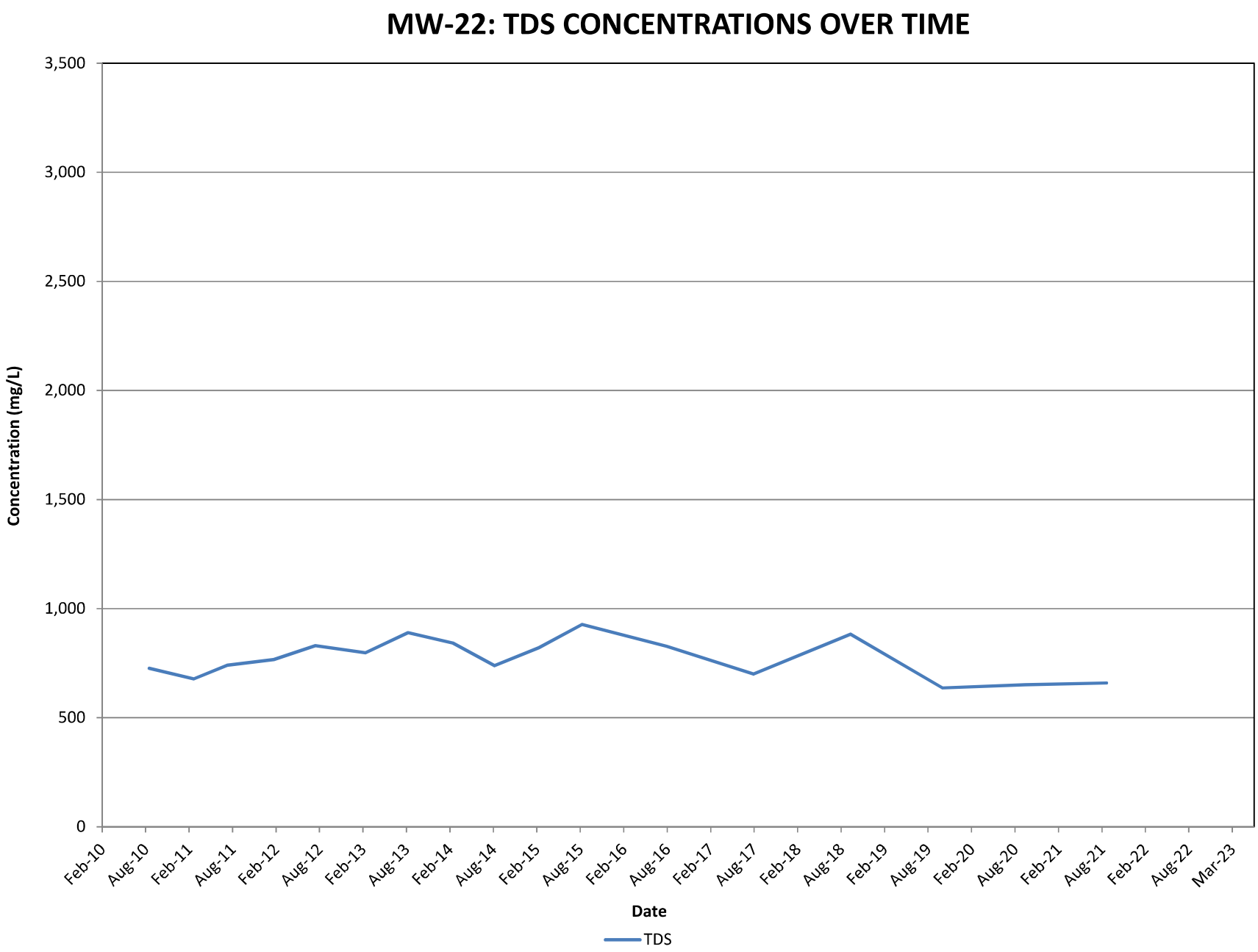
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MW-22: ANION CONCENTRATIONS OVER TIME



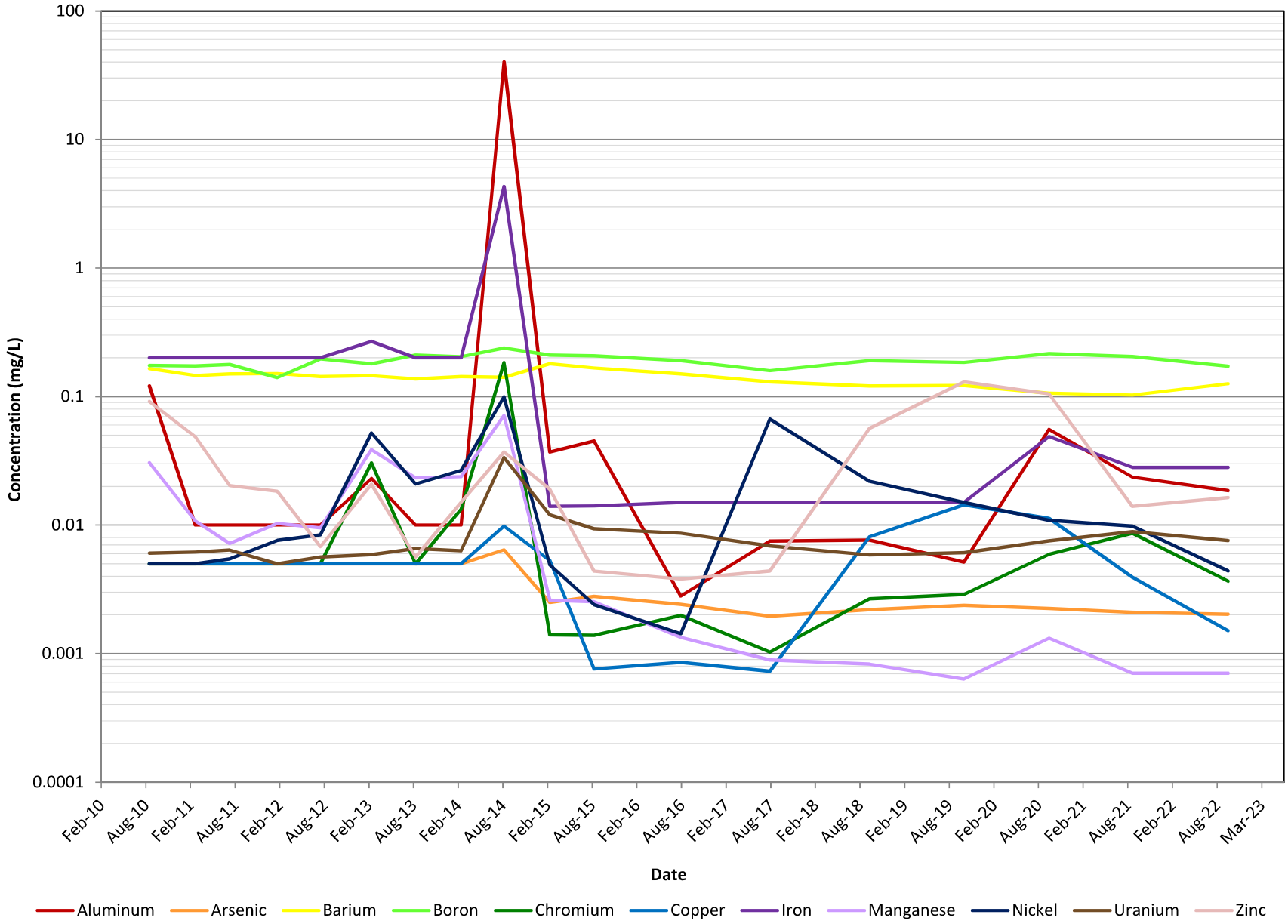
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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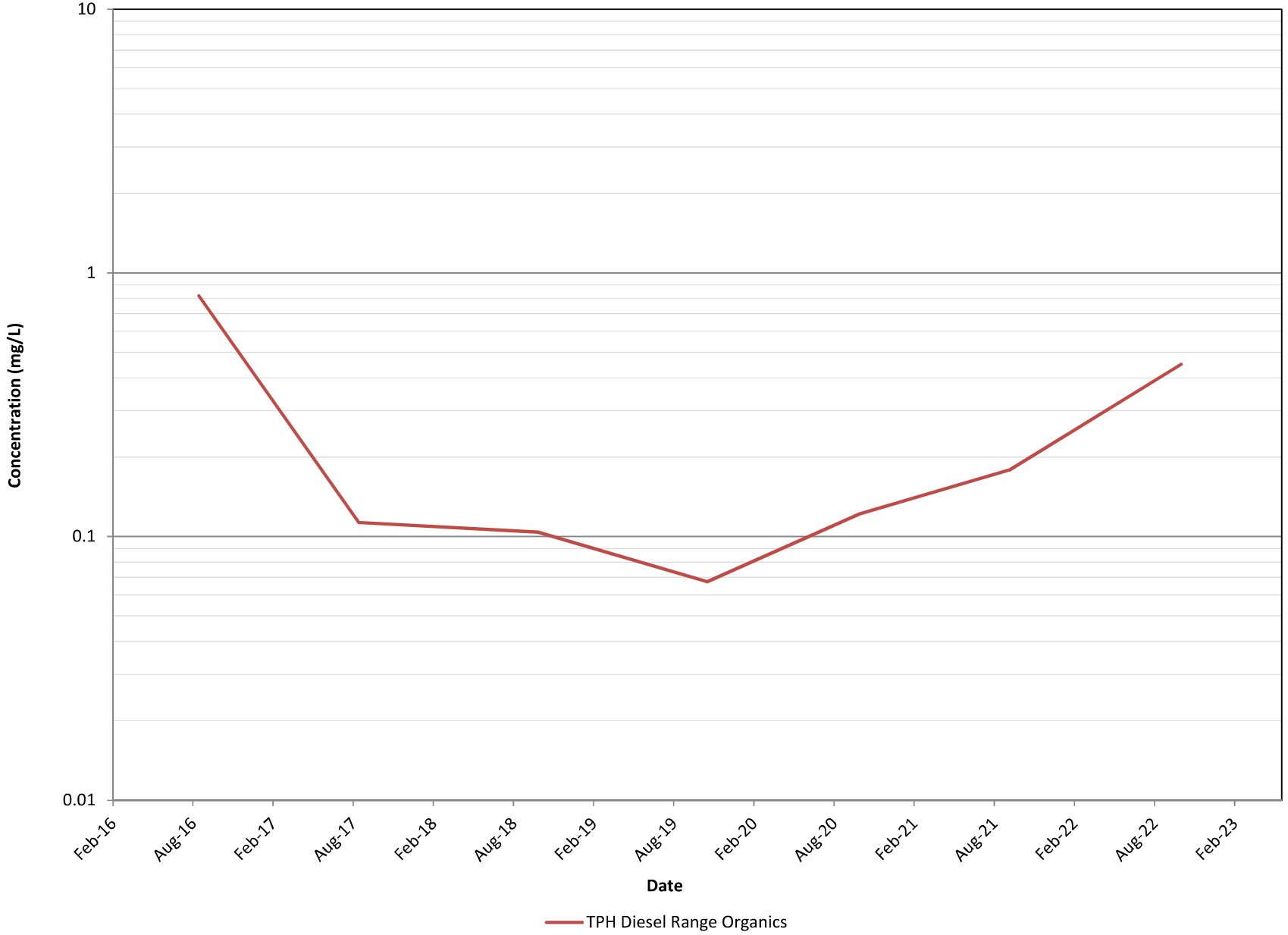
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MW-22: METAL CONCENTRATIONS OVER TIME



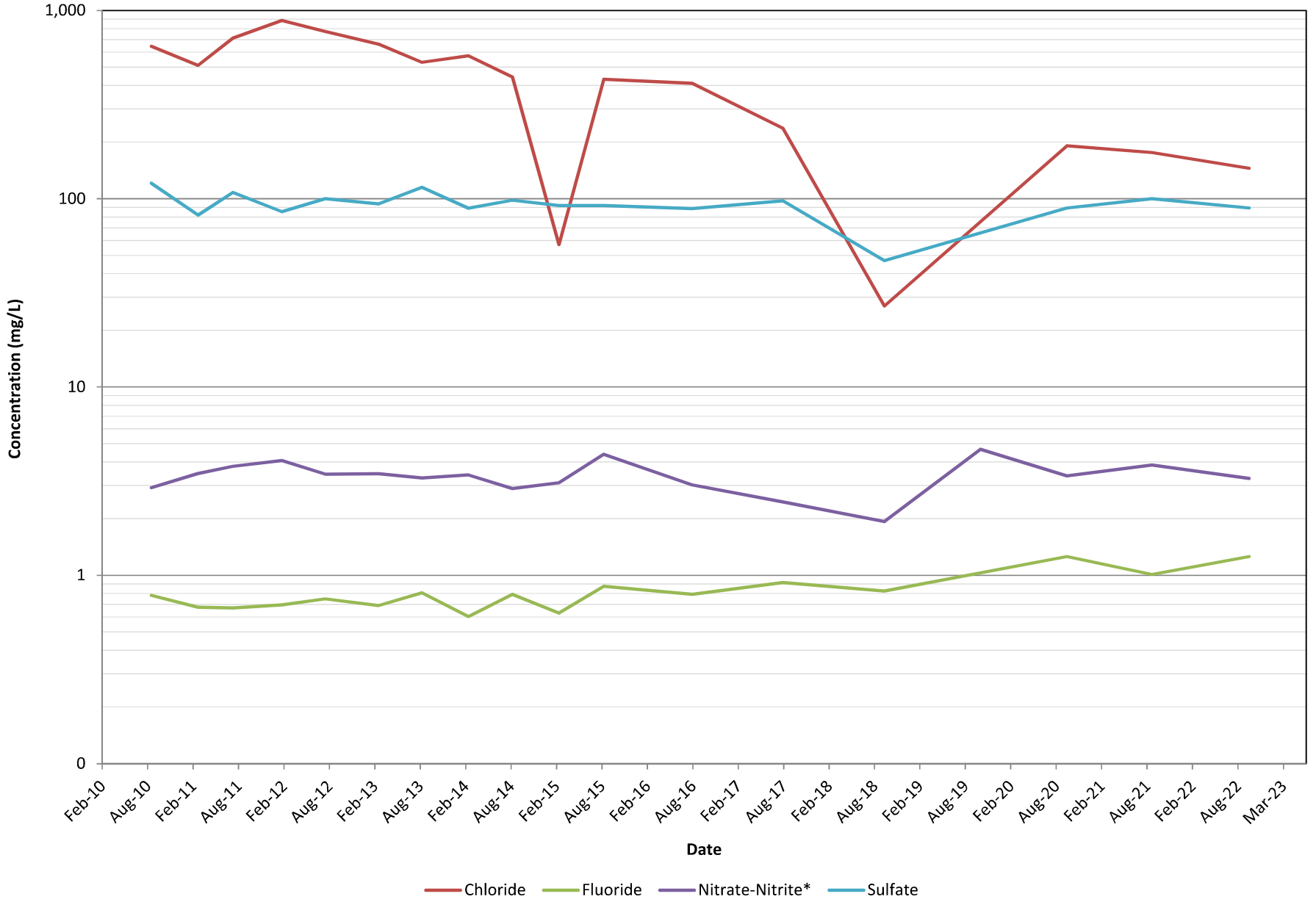
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Received by OCD: 4/14/2023 3:51:30 PM

MW-22: TPH CONCENTRATIONS OVER TIME



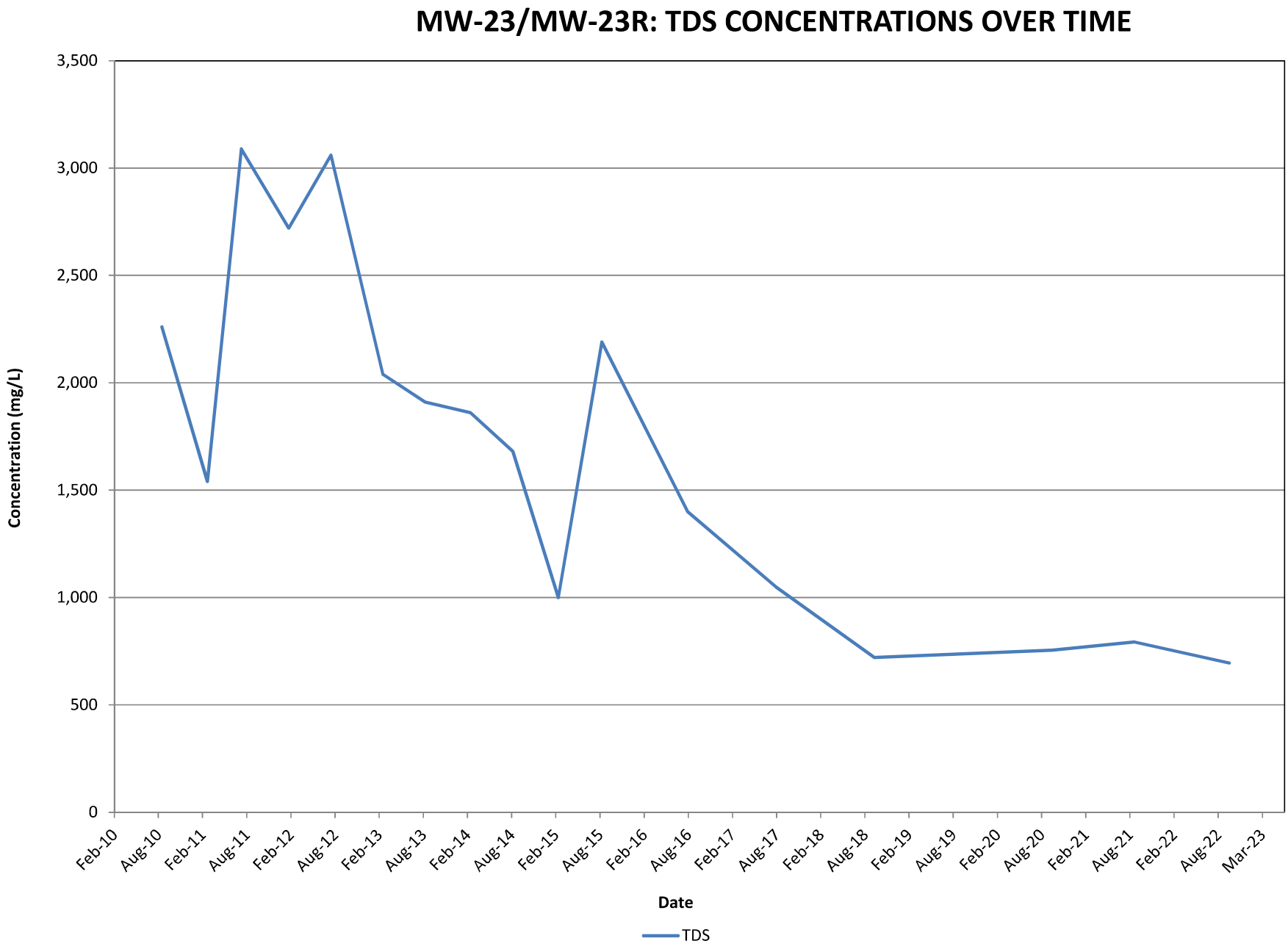
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MW-23/MW-23R: ANION CONCENTRATIONS OVER TIME



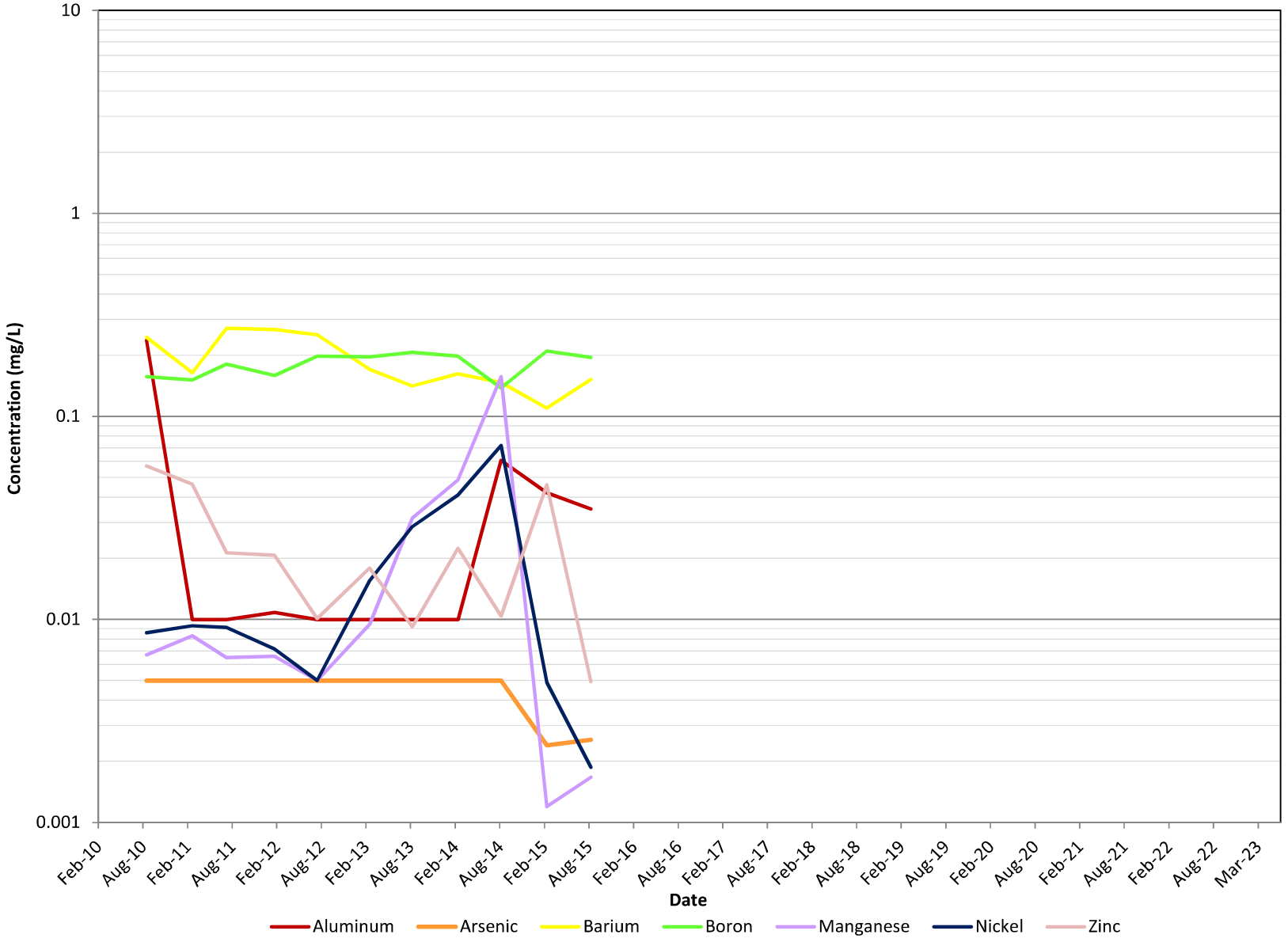
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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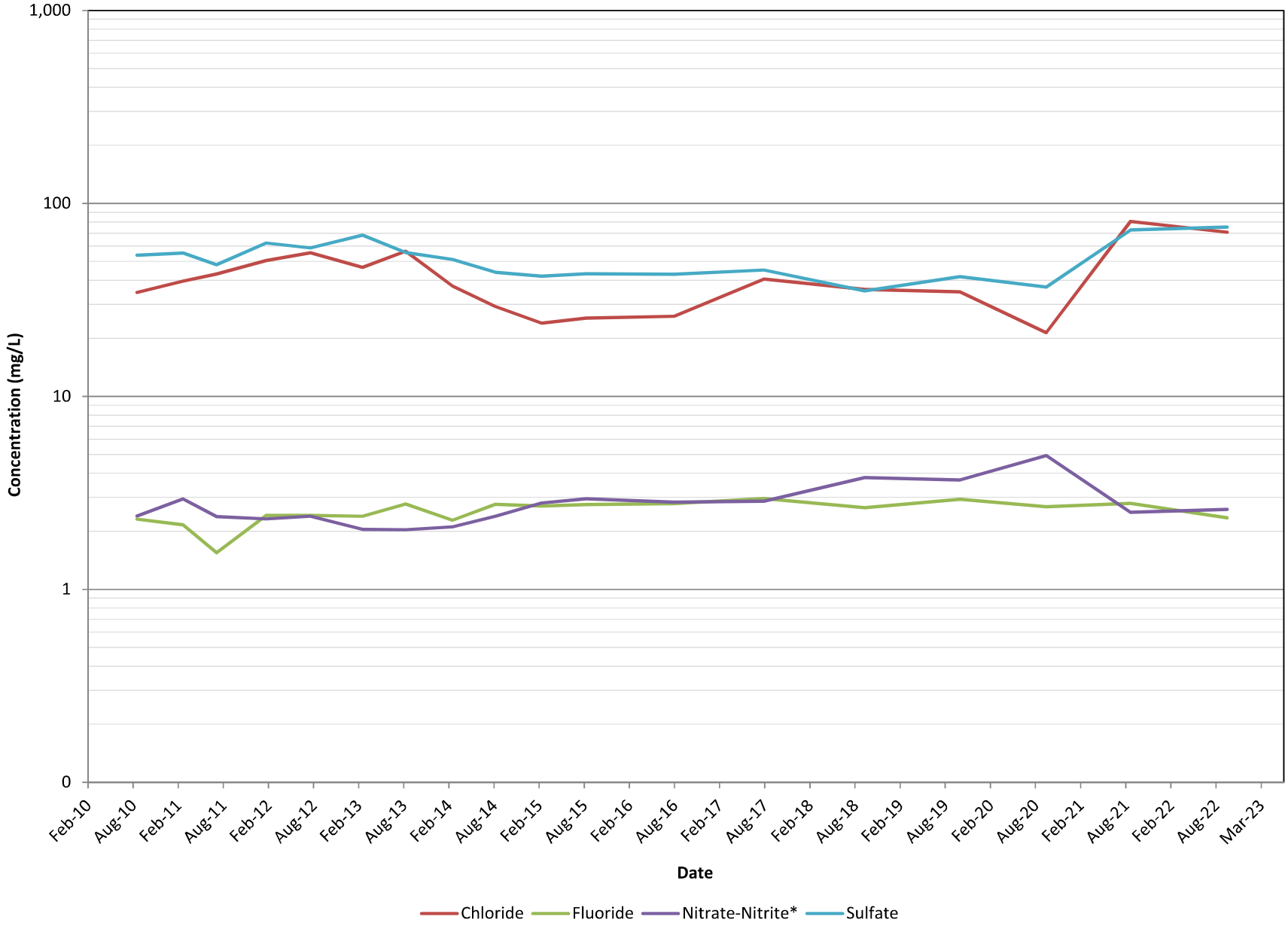
MW-23/MW-23R: METAL CONCENTRATIONS OVER TIME



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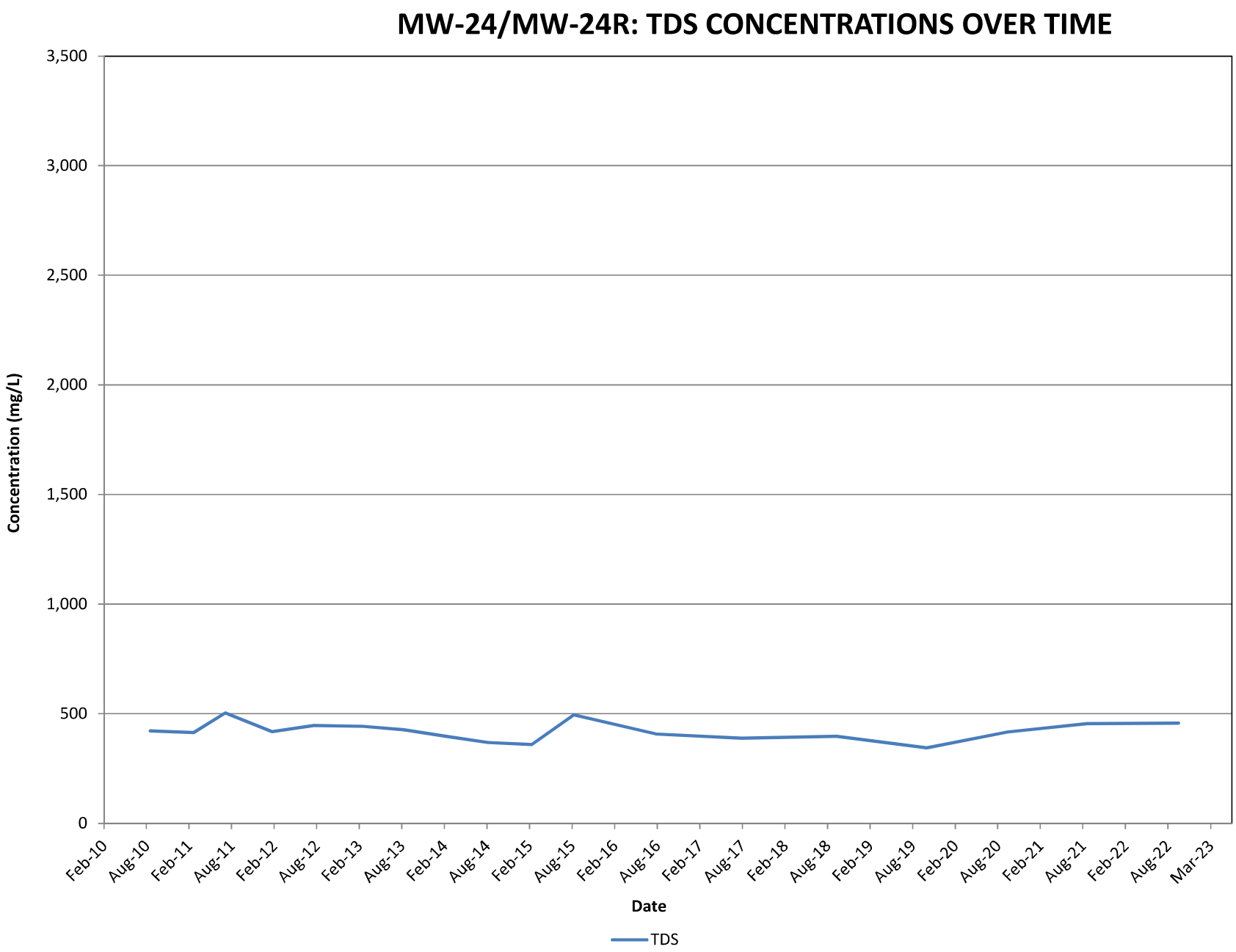
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MW-24/MW-24R: ANION CONCENTRATIONS OVER TIME



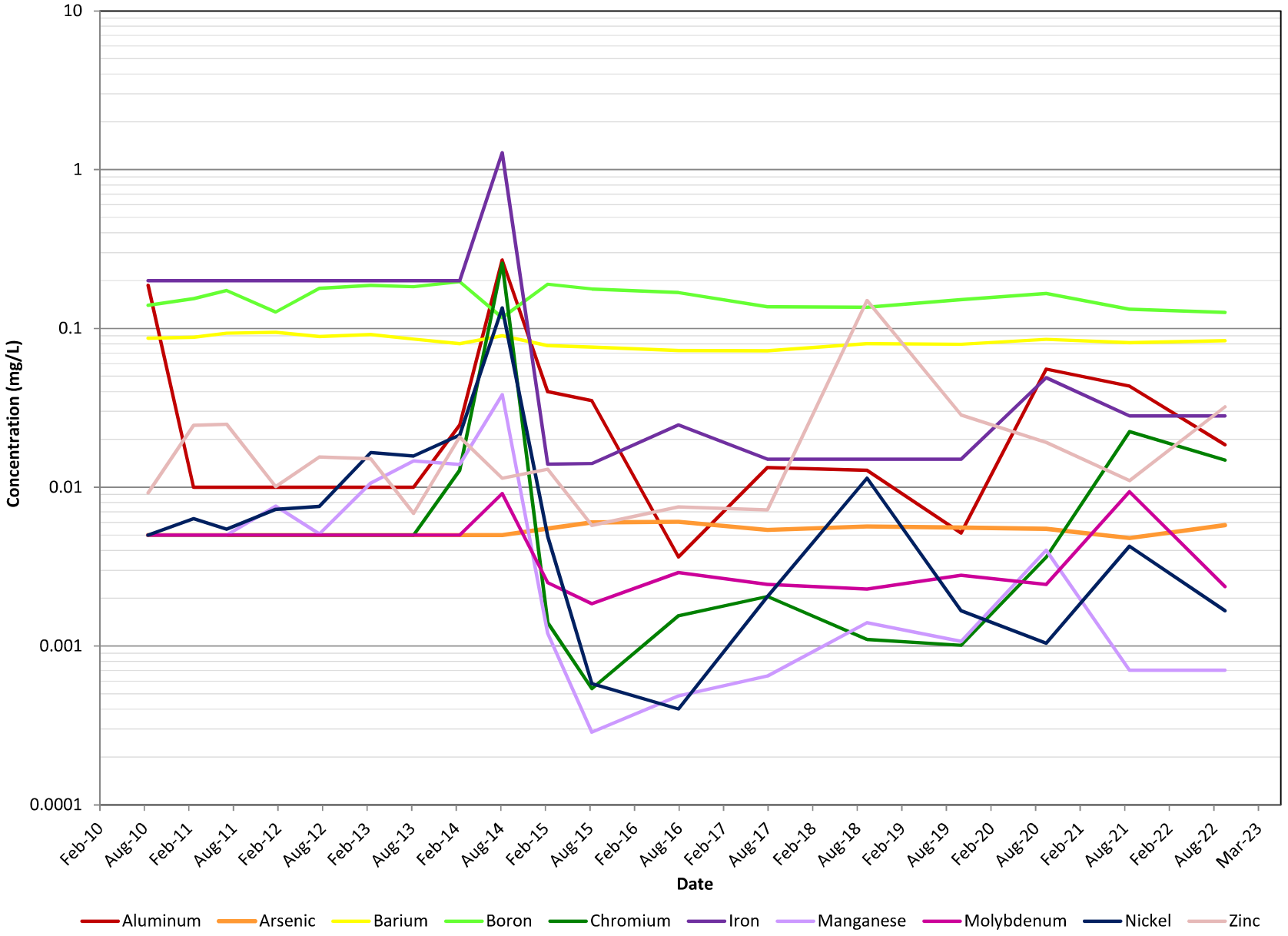
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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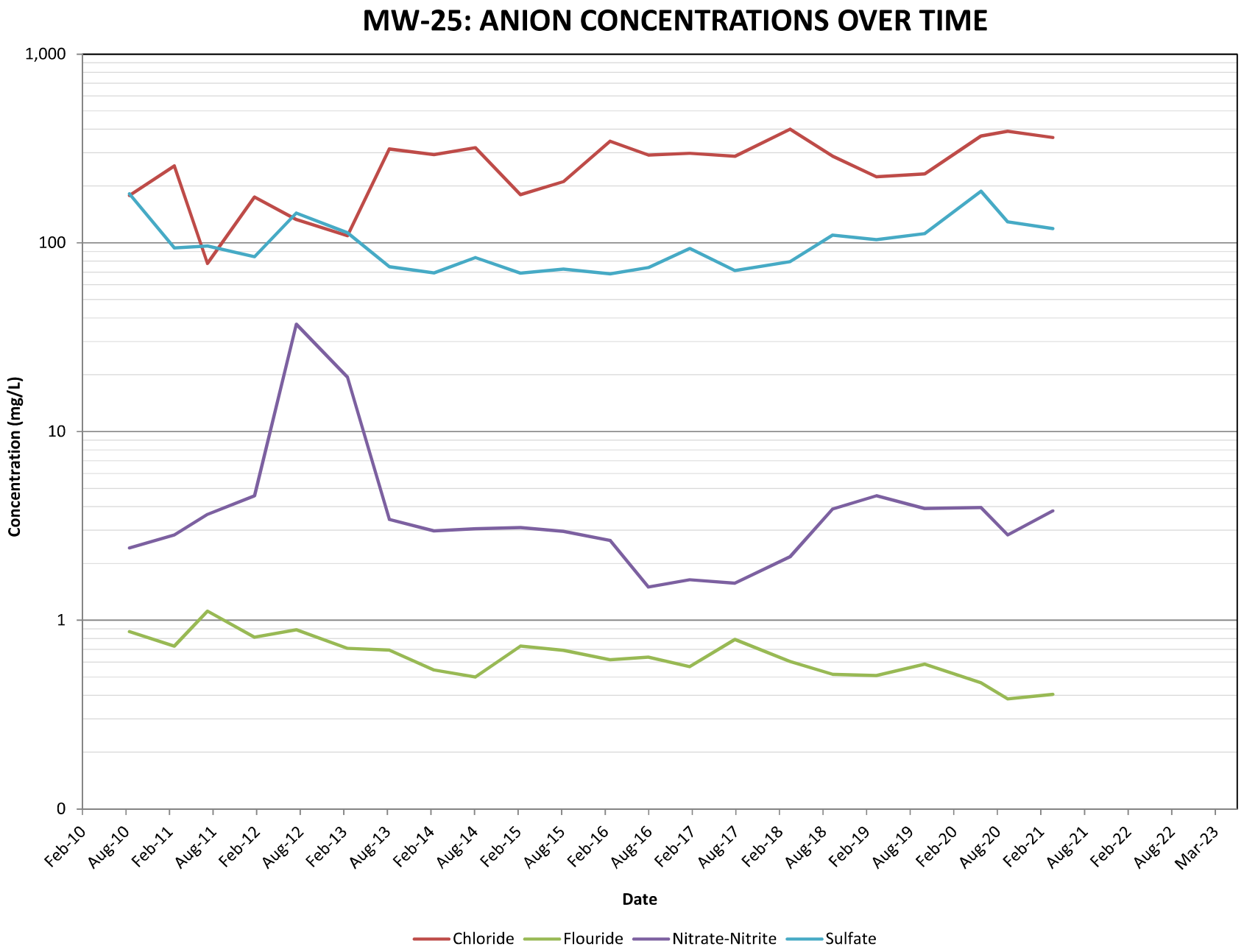


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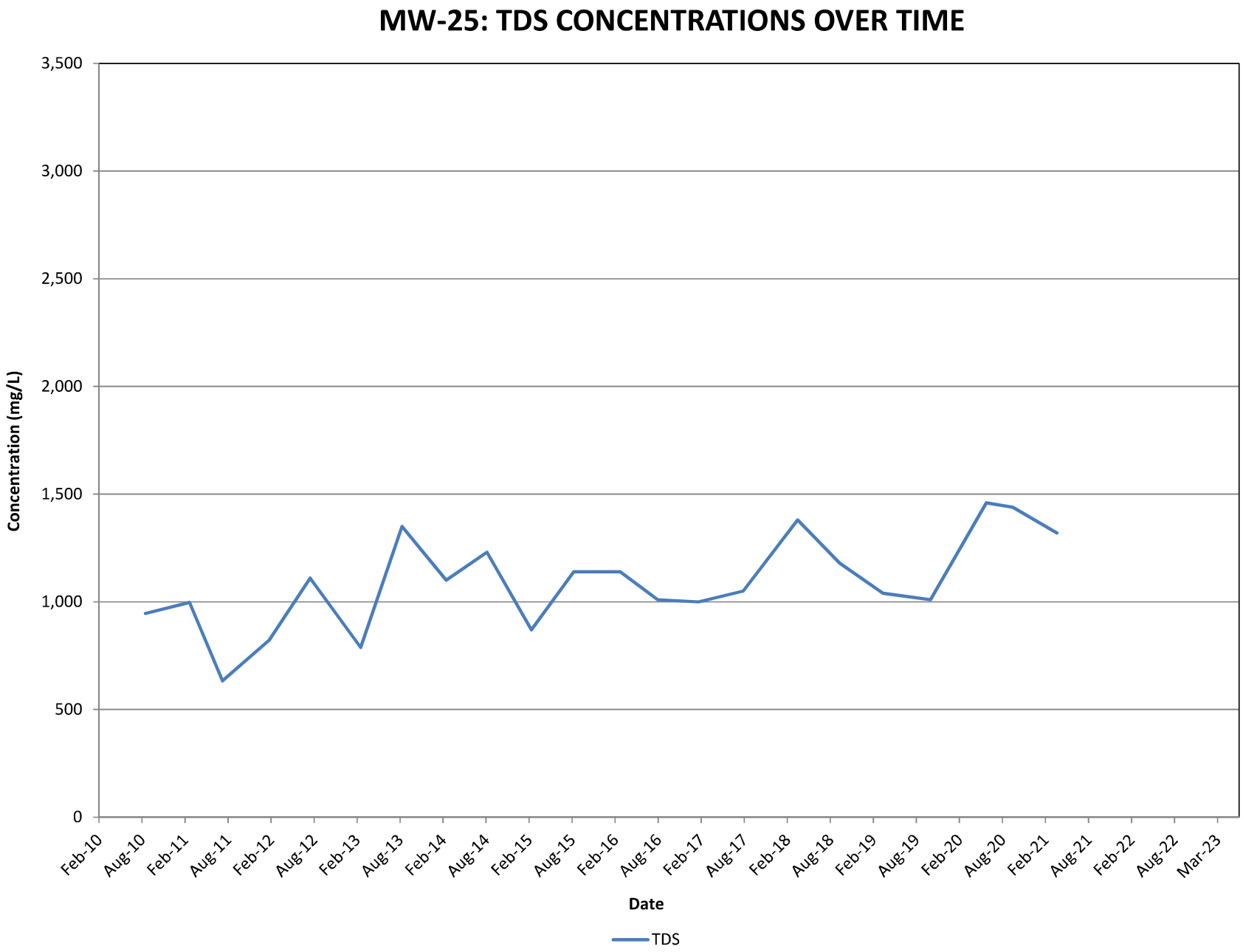
MW-24/MW-24R: METAL CONCENTRATIONS OVER TIME



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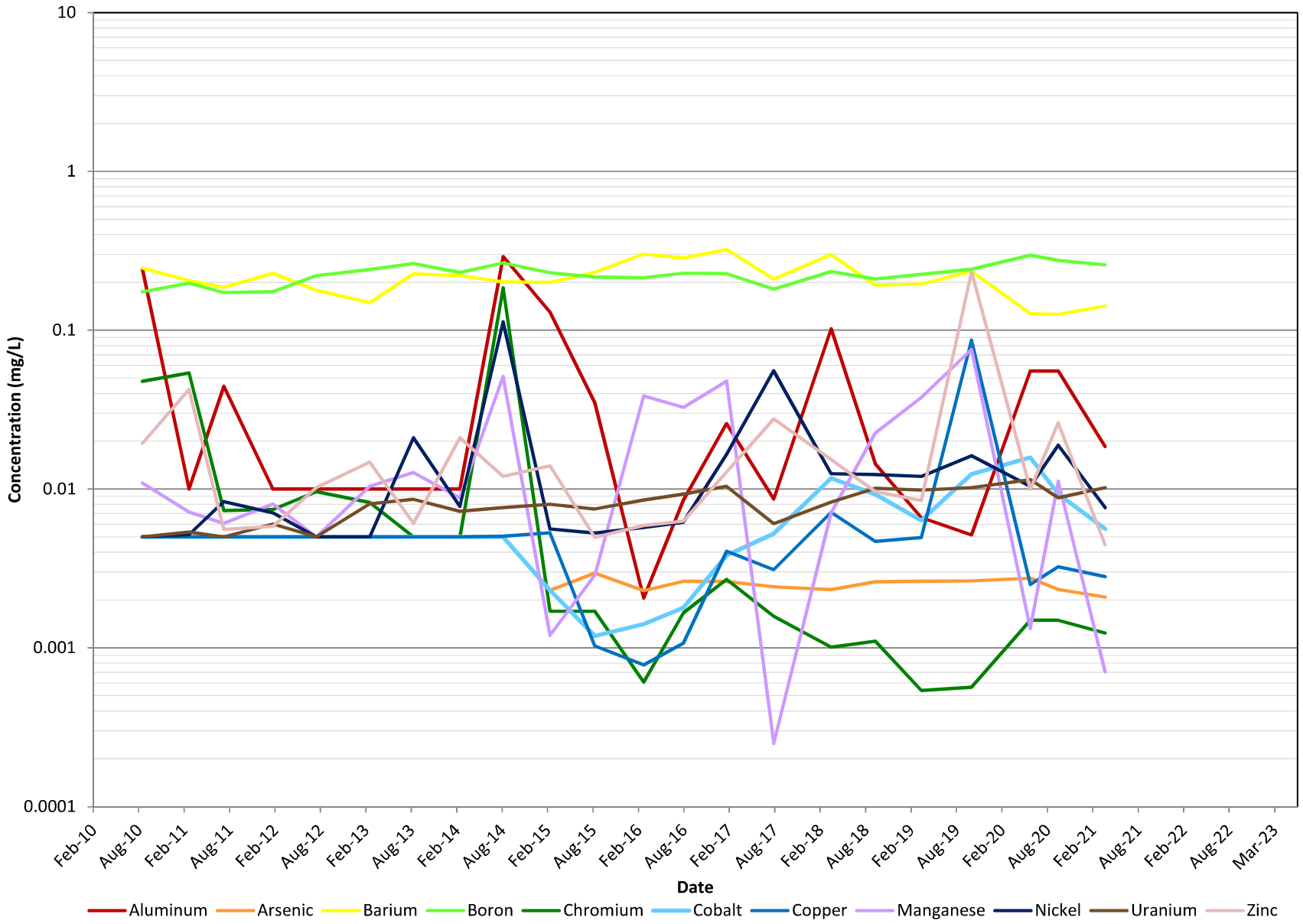


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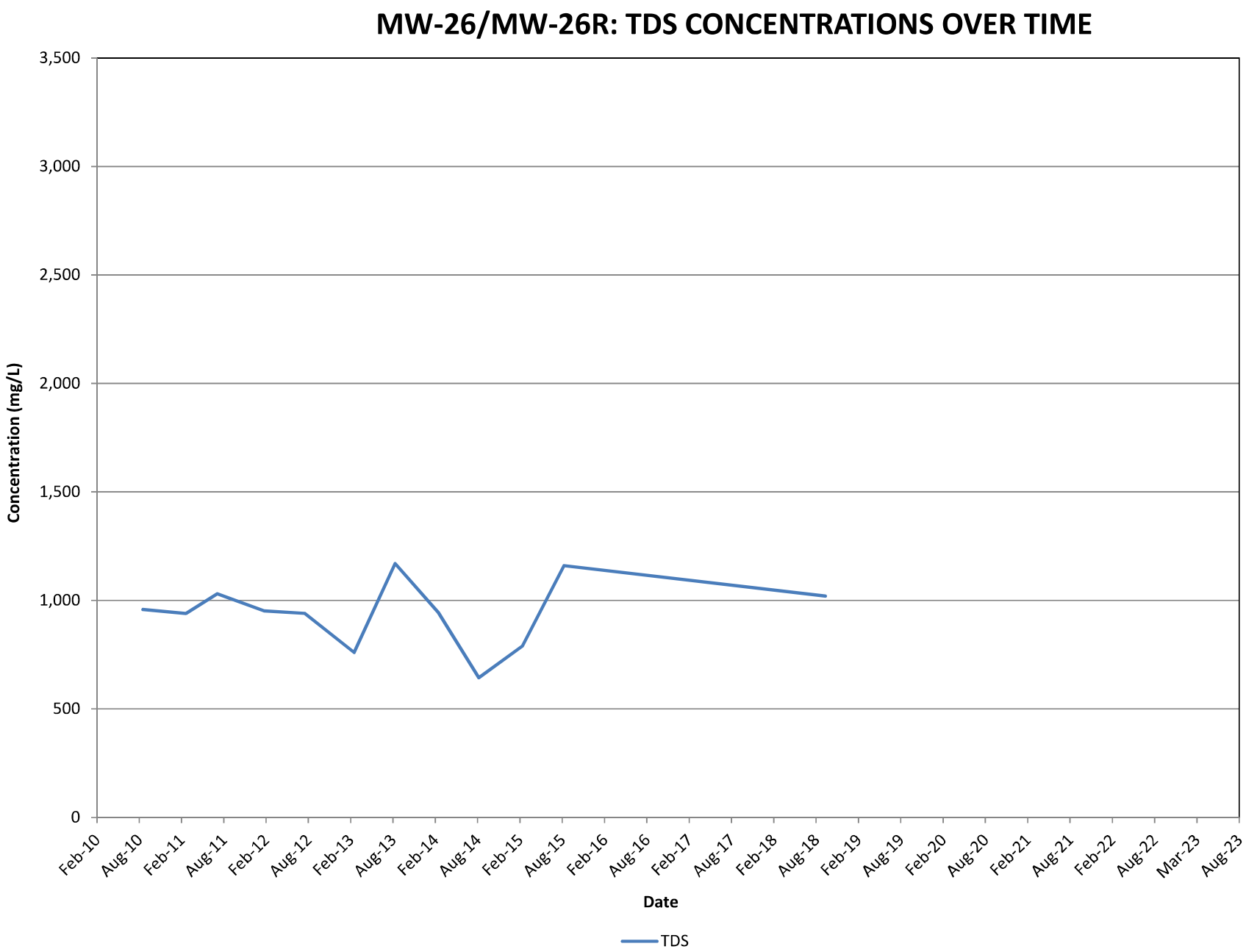


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MW-25: METAL CONCENTRATIONS OVER TIME

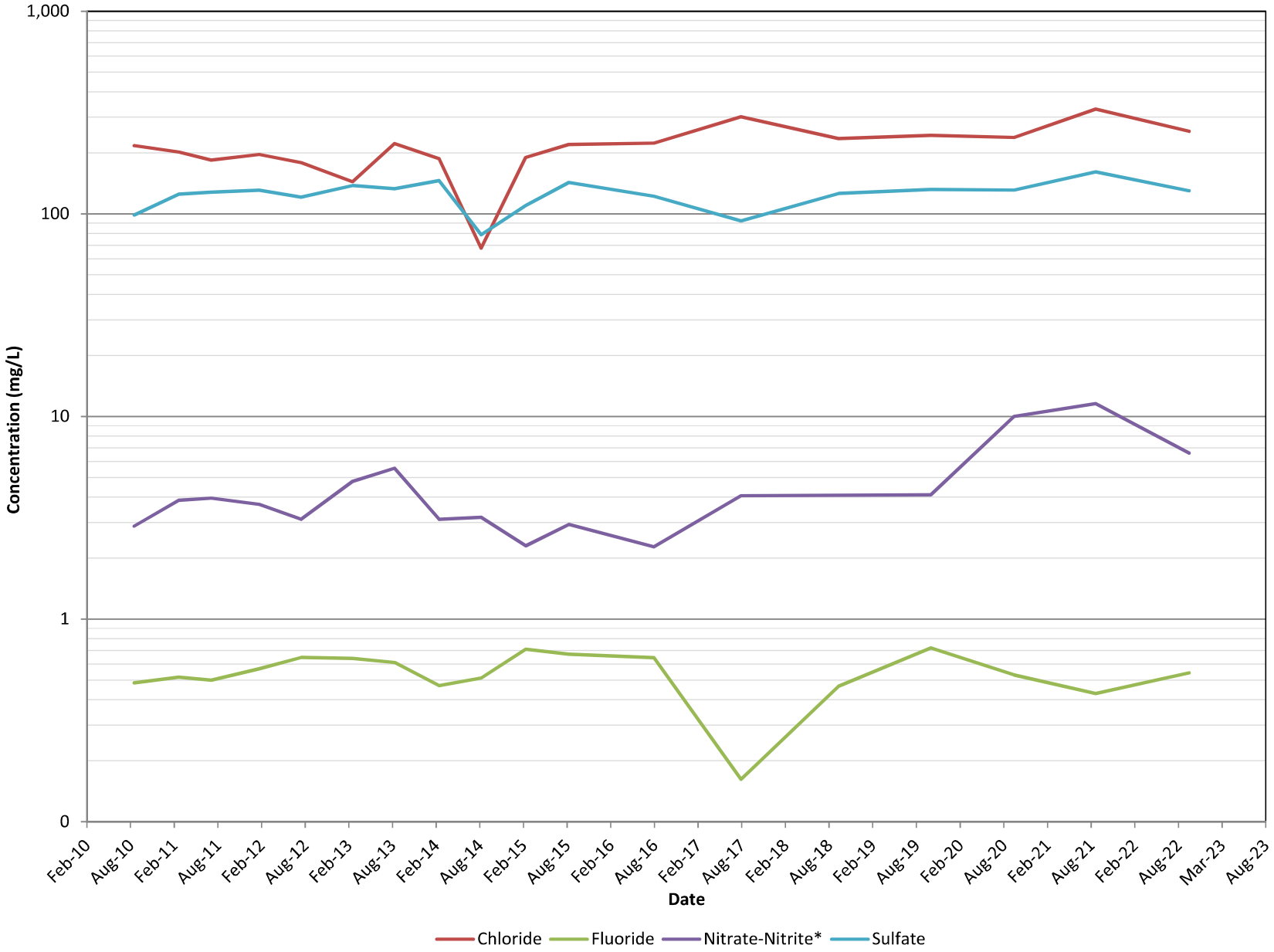


Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM



Released to Imaging: 4/14/2023 4:34:58 PM
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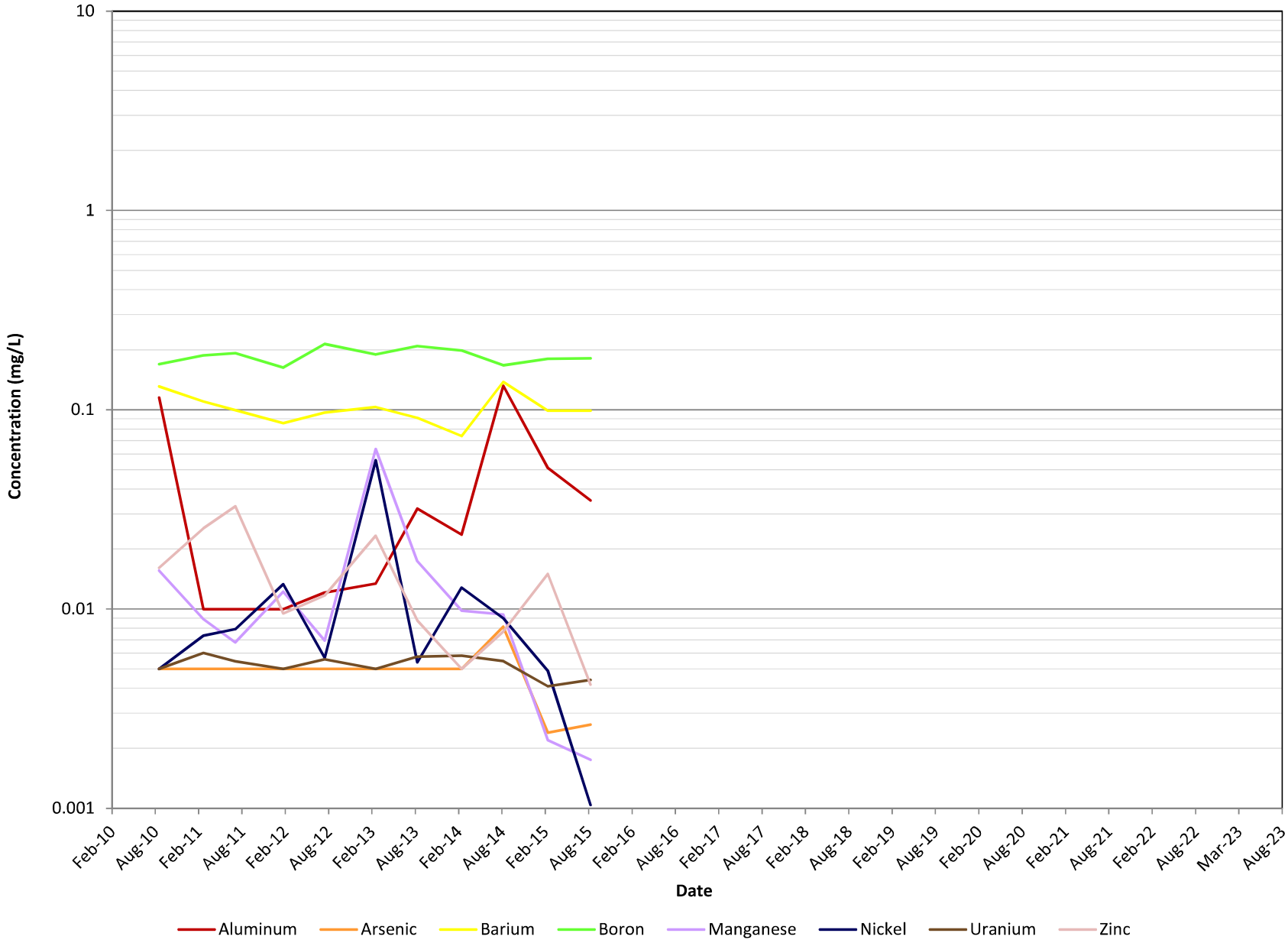
MW-26/MW-26R: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

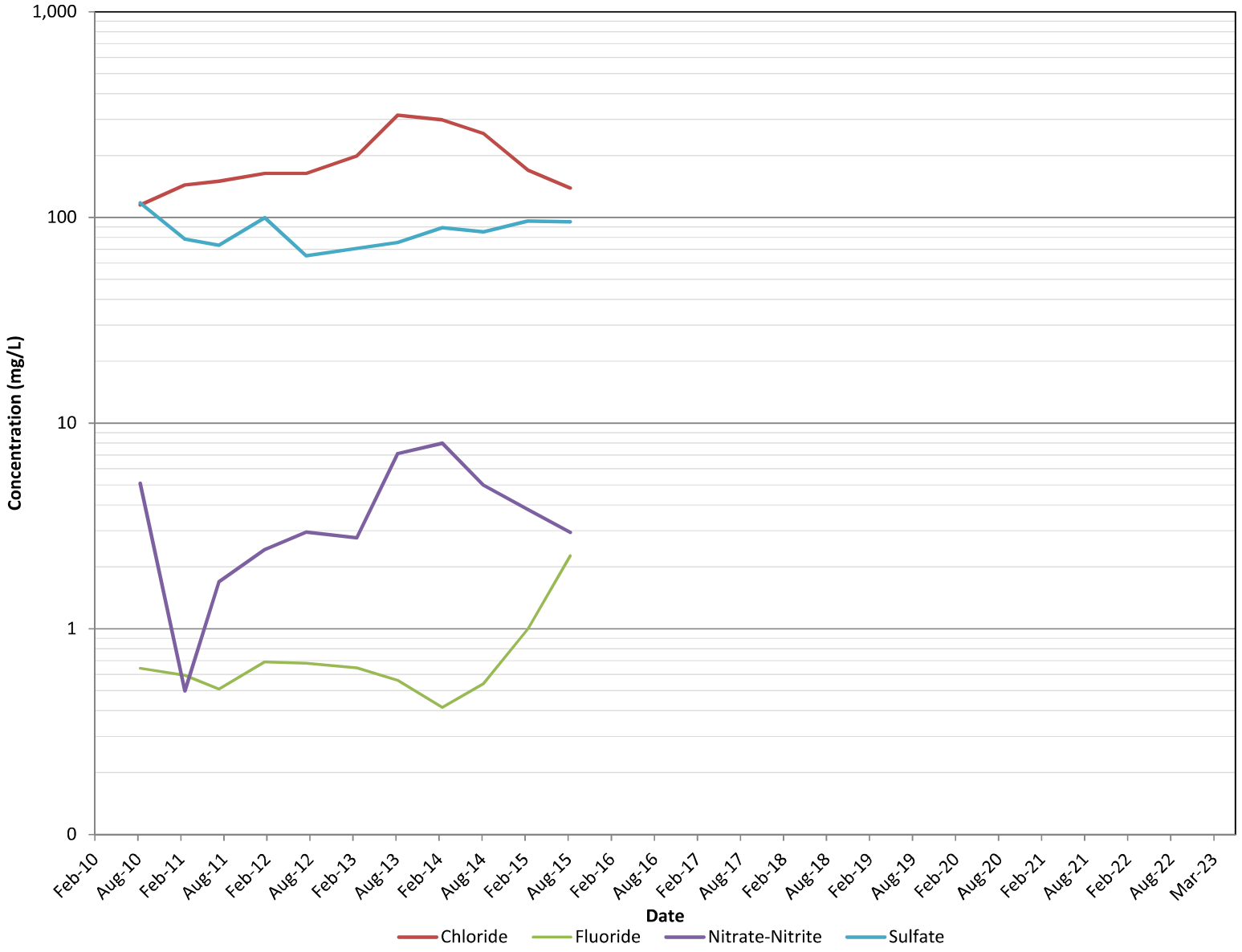
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Received by OCD: 4/14/2023 3:51:30 PM

MW-26/MW-26R: METAL CONCENTRATIONS OVER TIME

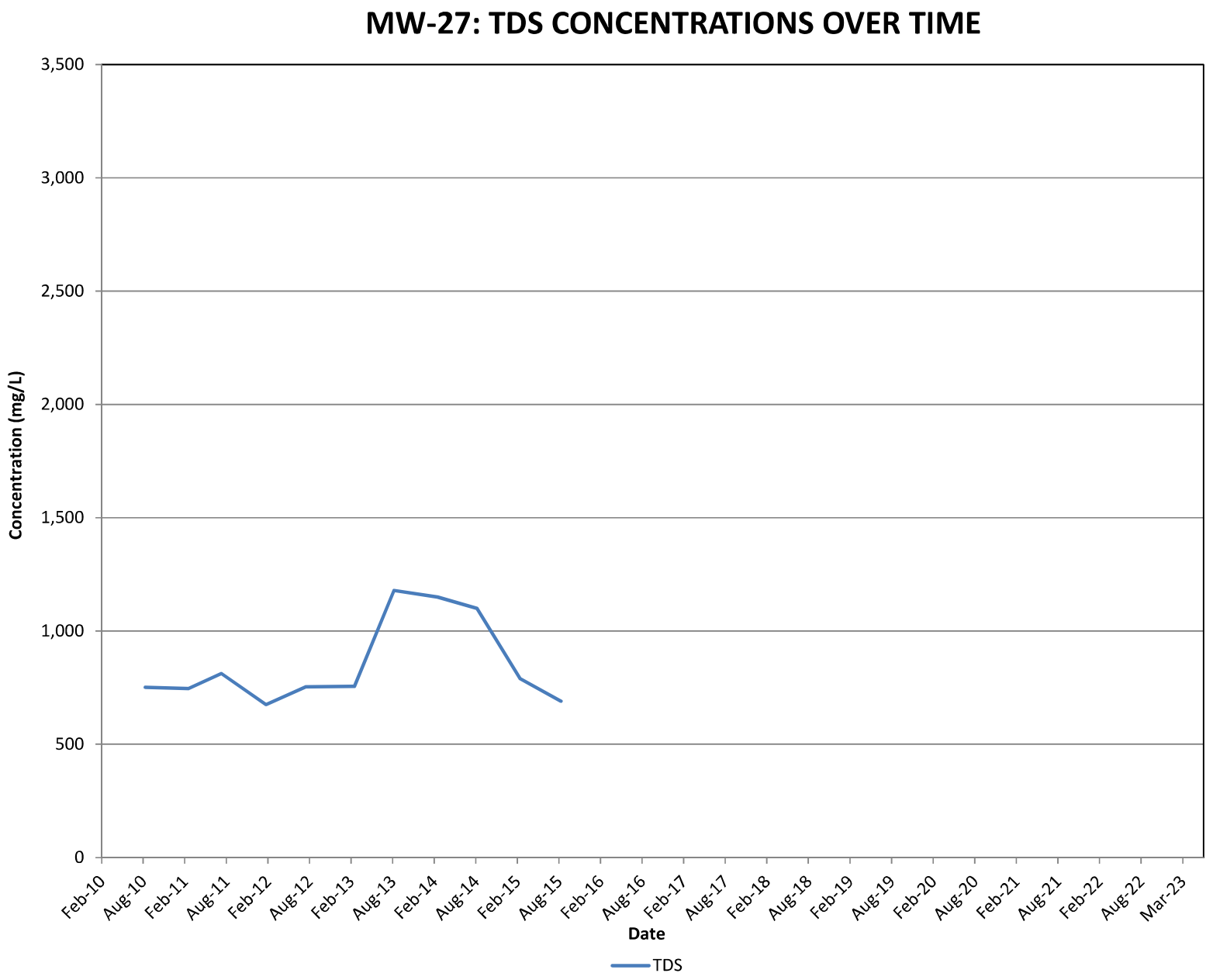


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Received by OCD: 4/14/2023 3:51:30 PM

MW-27: ANION CONCENTRATIONS OVER TIME

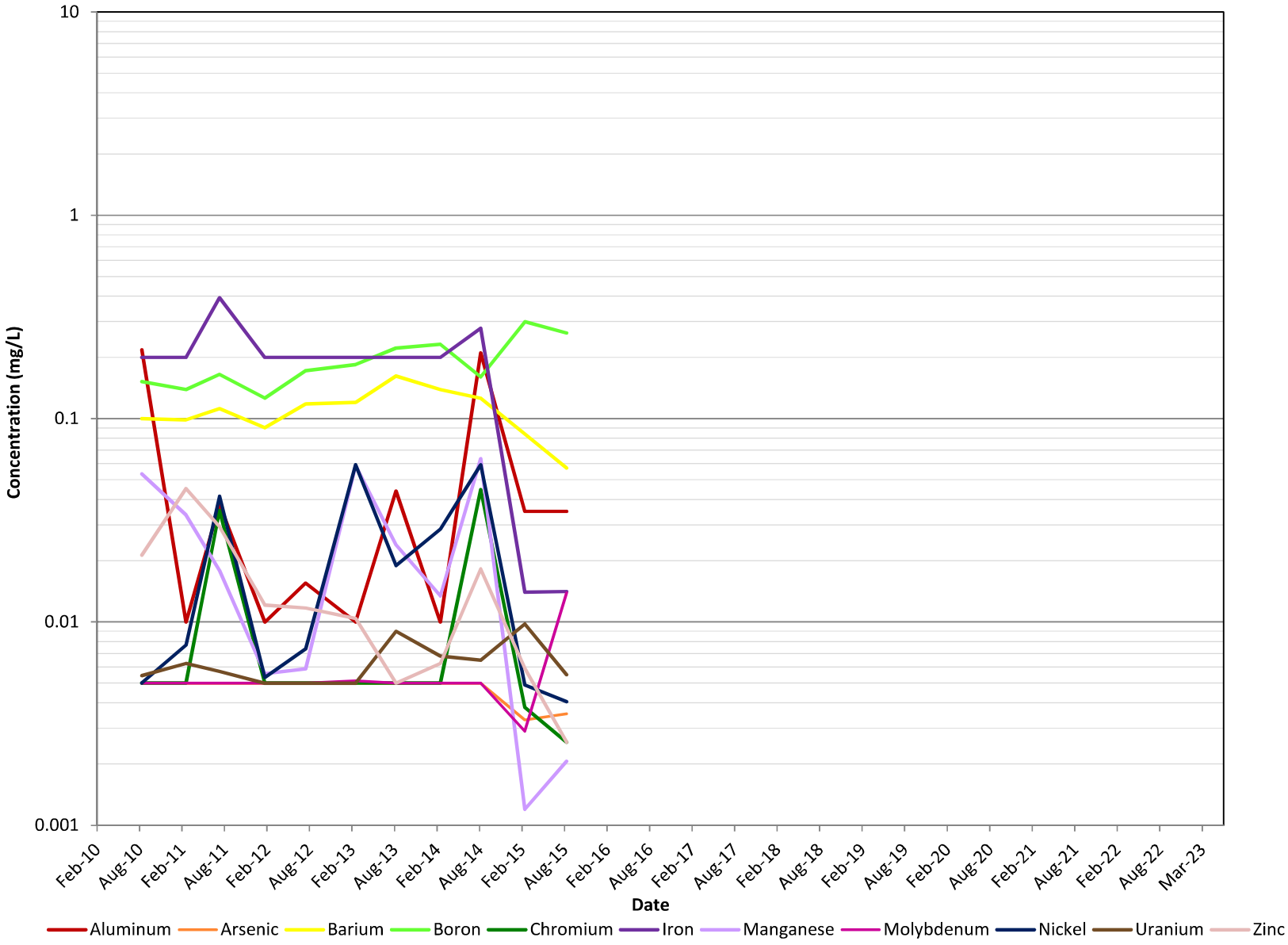


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Received by OCD: 4/14/2023 3:51:30 PM



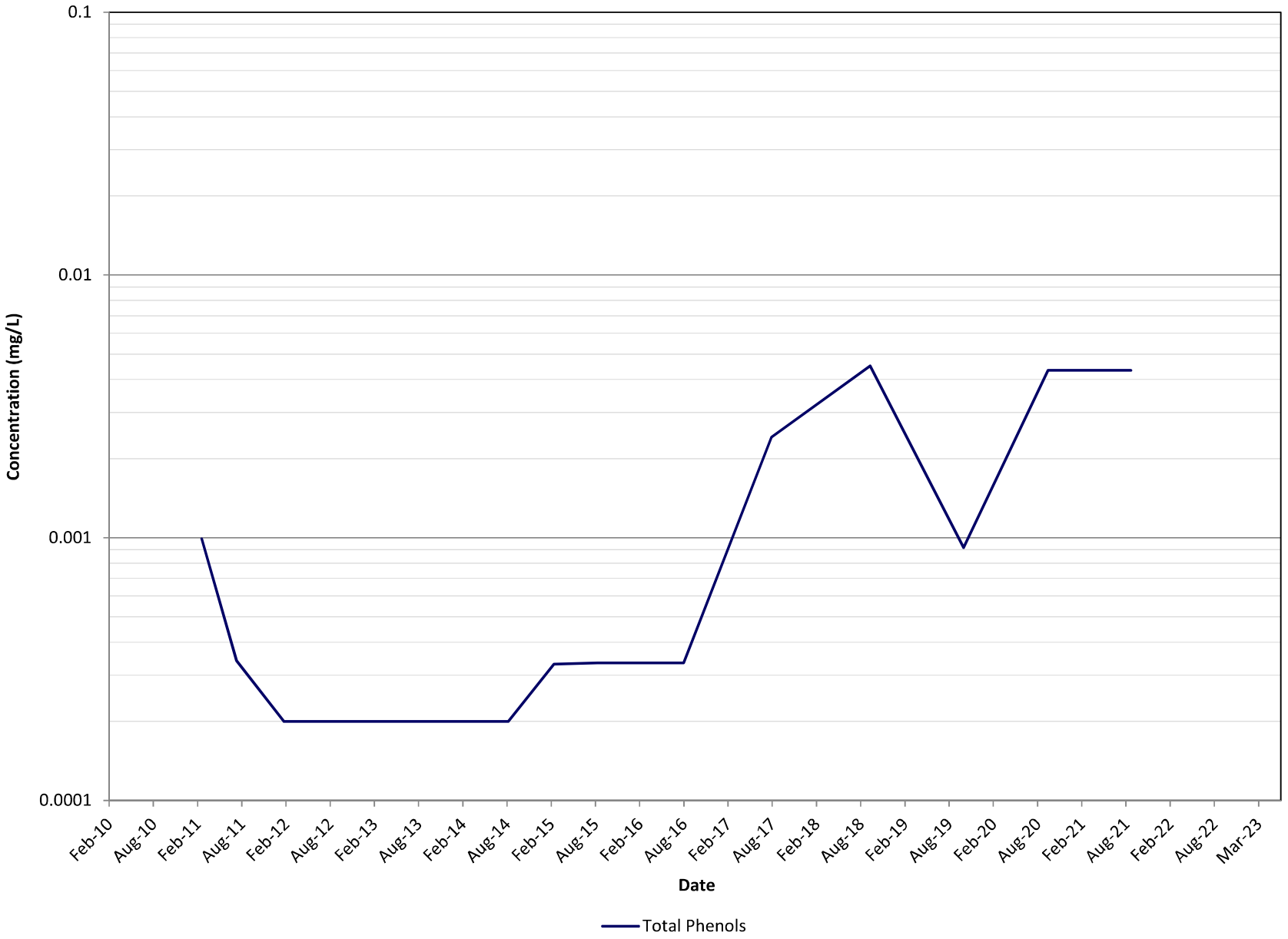
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Received by OCD: 4/14/2023 3:51:30 PM

MW-27: METAL CONCENTRATIONS OVER TIME



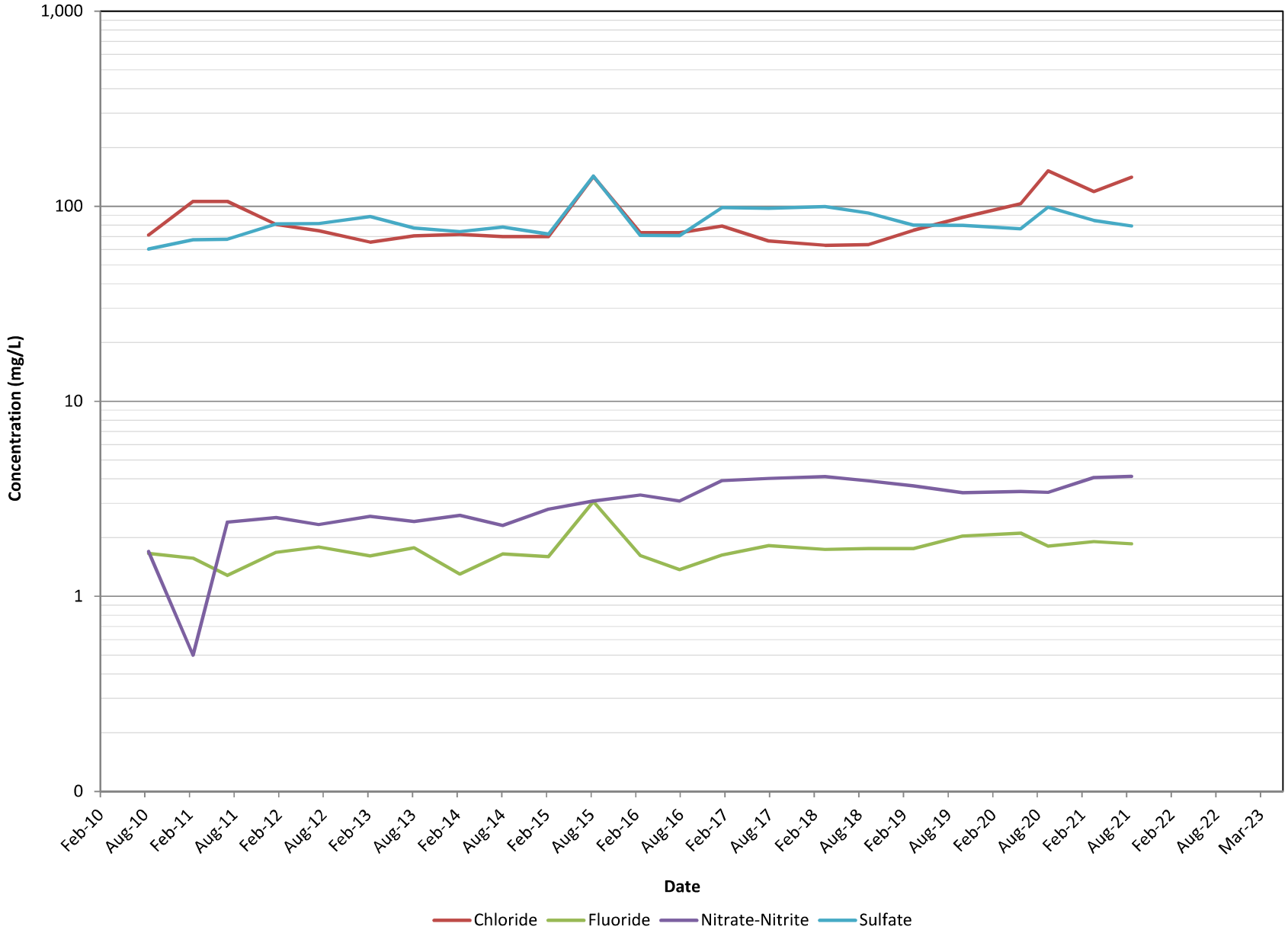
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MW-27: SVOC CONCENTRATIONS OVER TIME



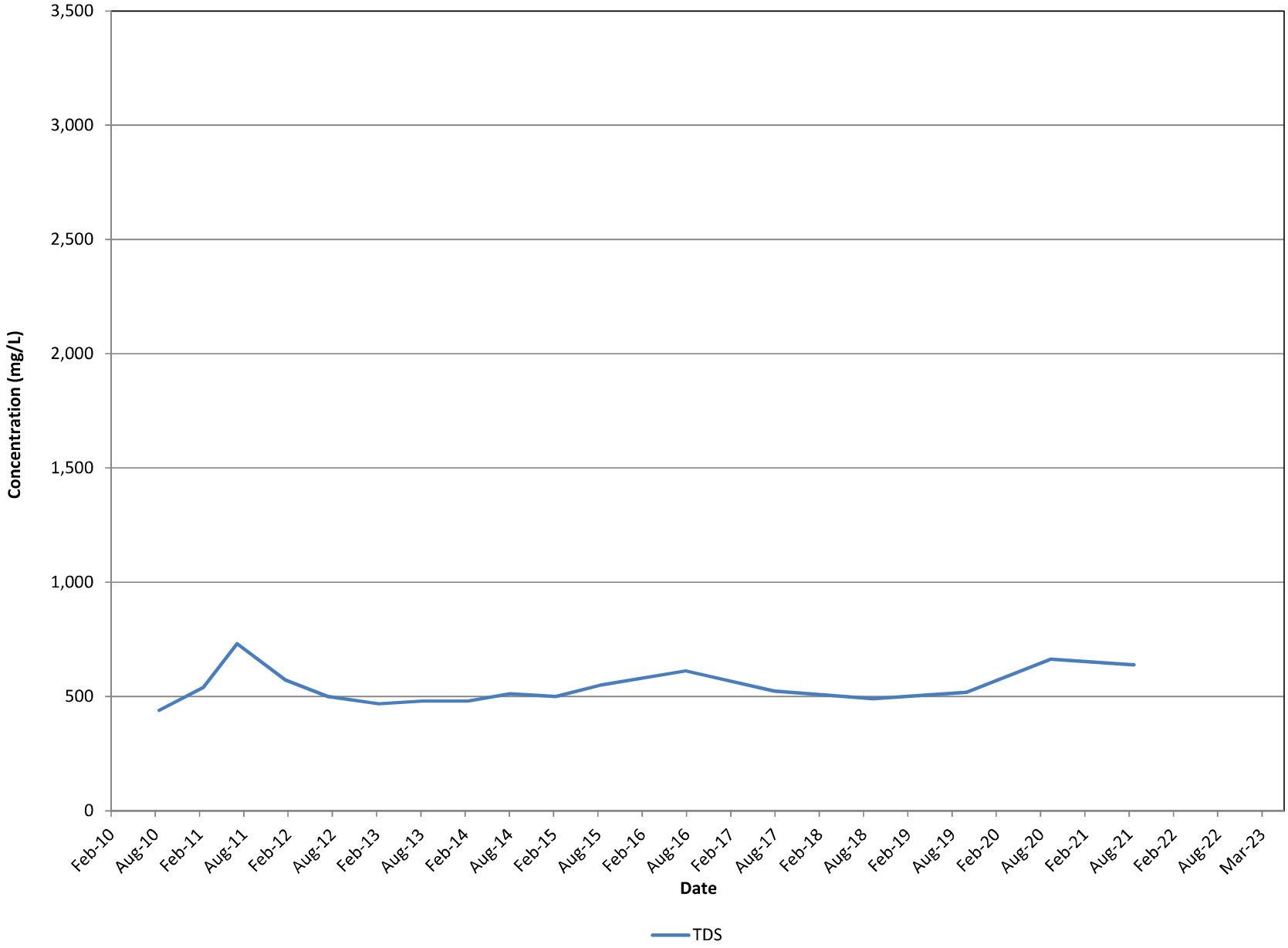
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Received by OCD: 4/14/2023 3:51:30 PM

MW-28: ANION CONCENTRATIONS OVER TIME



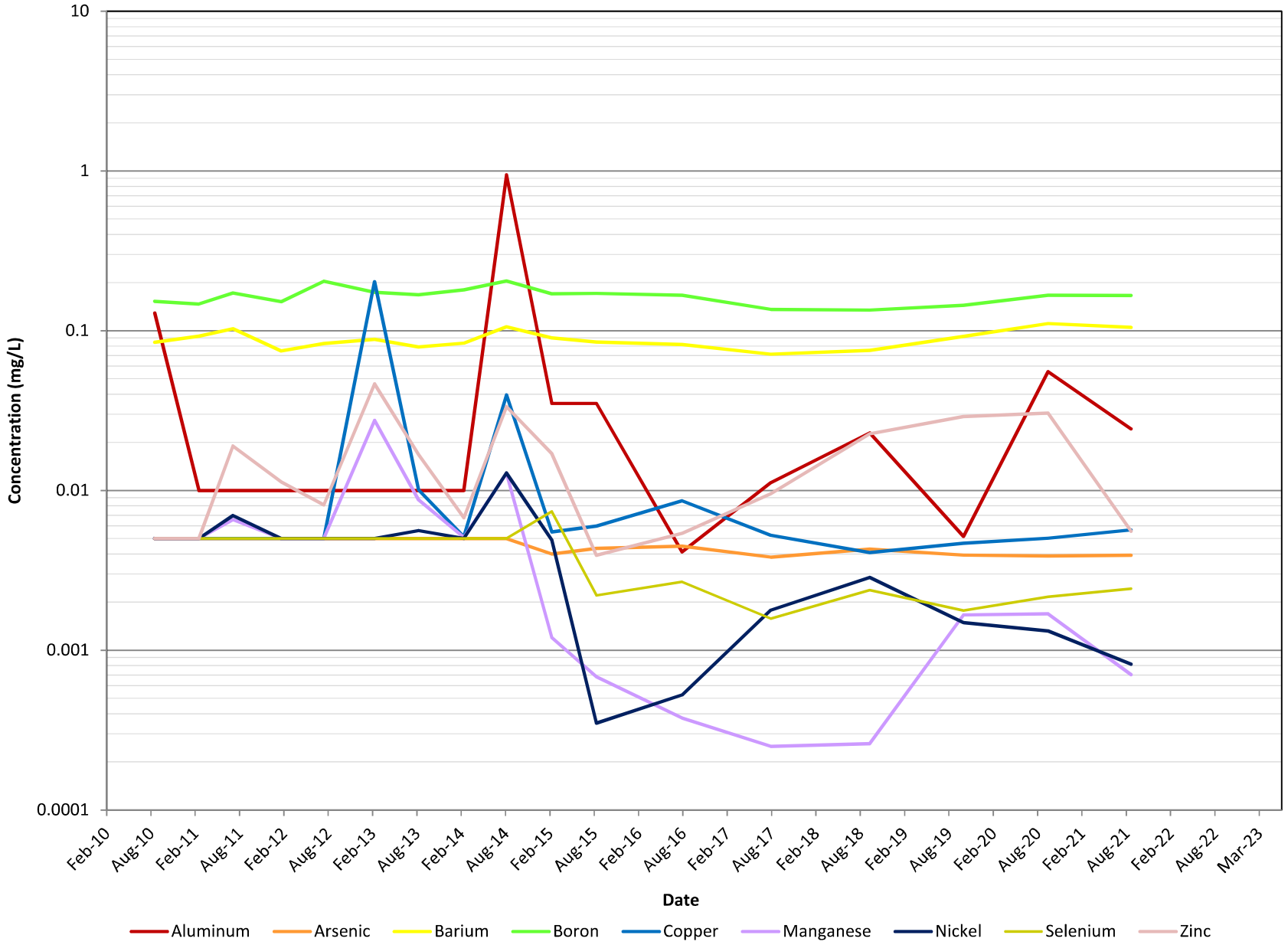
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Received by OCD: 4/14/2023 3:51:30 PM

MW-28: TDS CONCENTRATIONS OVER TIME

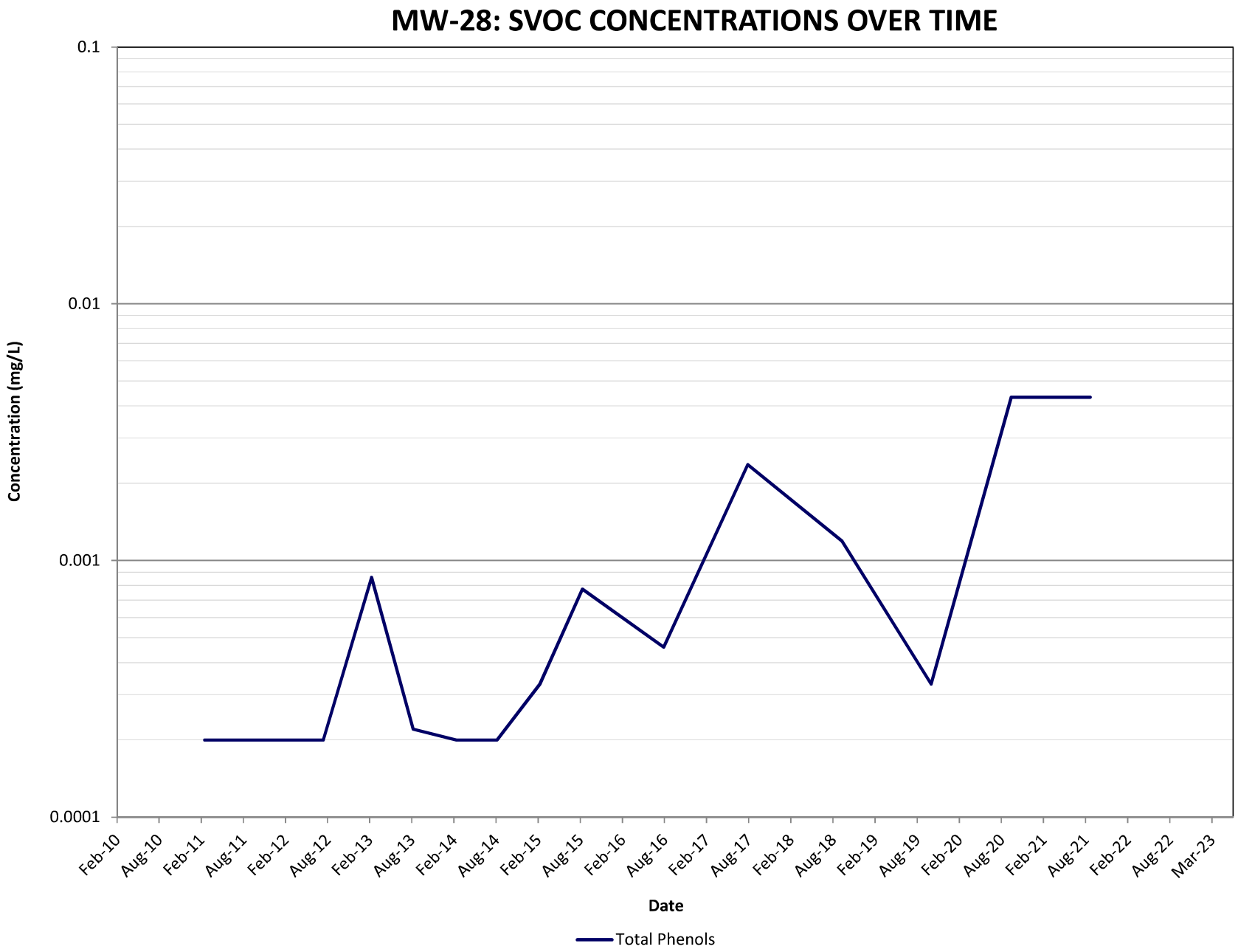


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Received by OCD: 4/14/2023 3:51:30 PM

MW-28: METAL CONCENTRATIONS OVER TIME

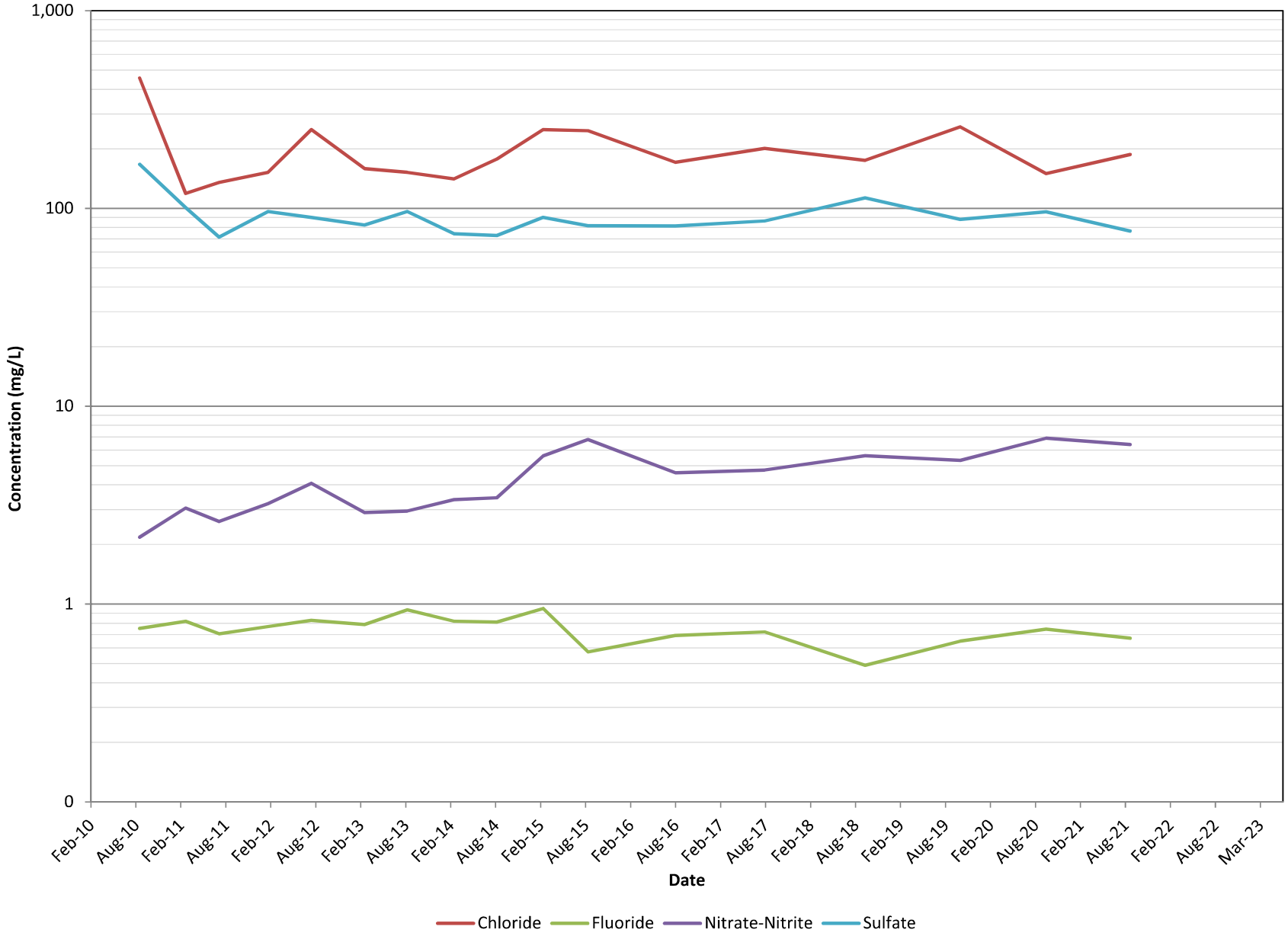


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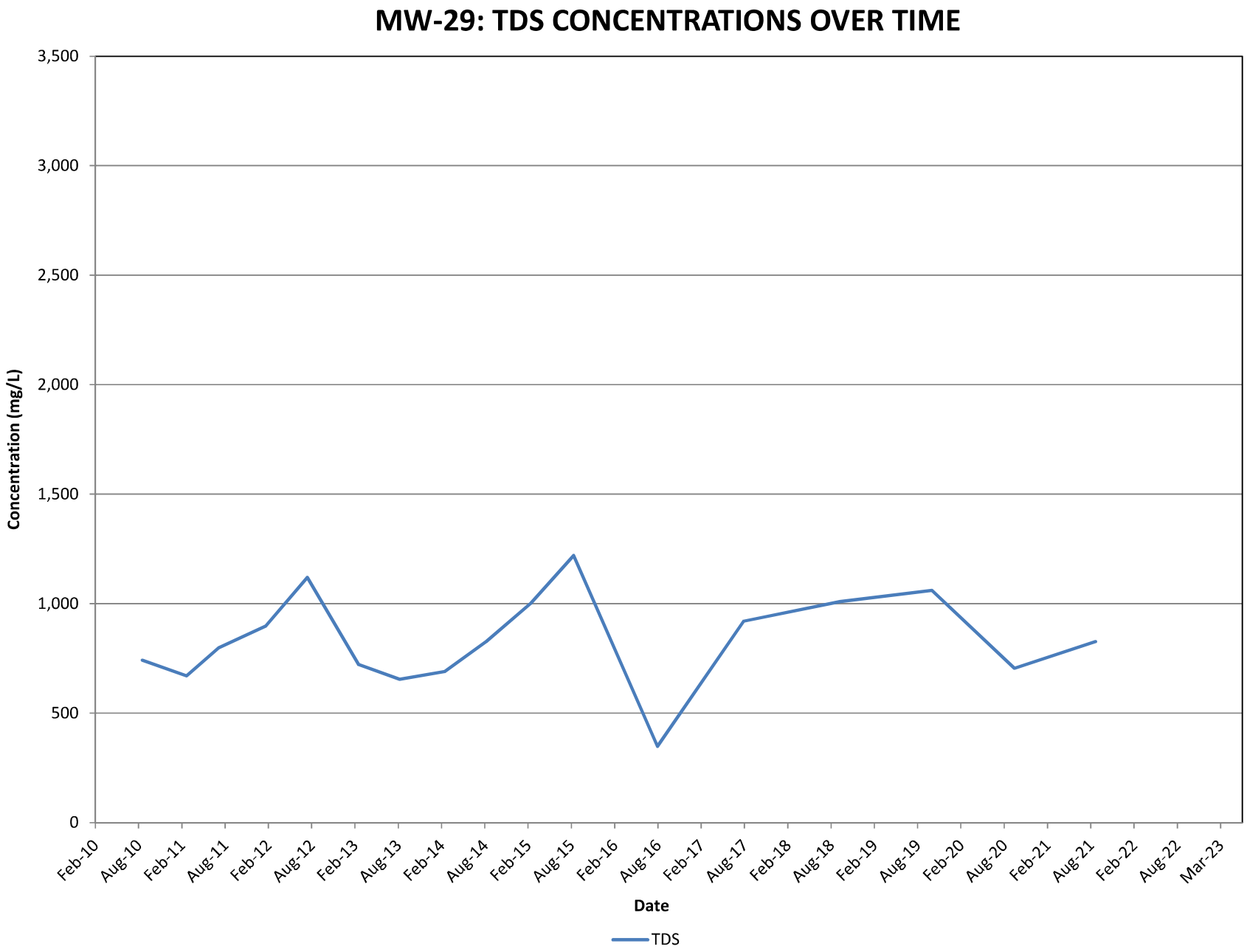


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Received by OCD: 4/14/2023 3:51:30 PM

MW-29: ANION CONCENTRATIONS OVER TIME

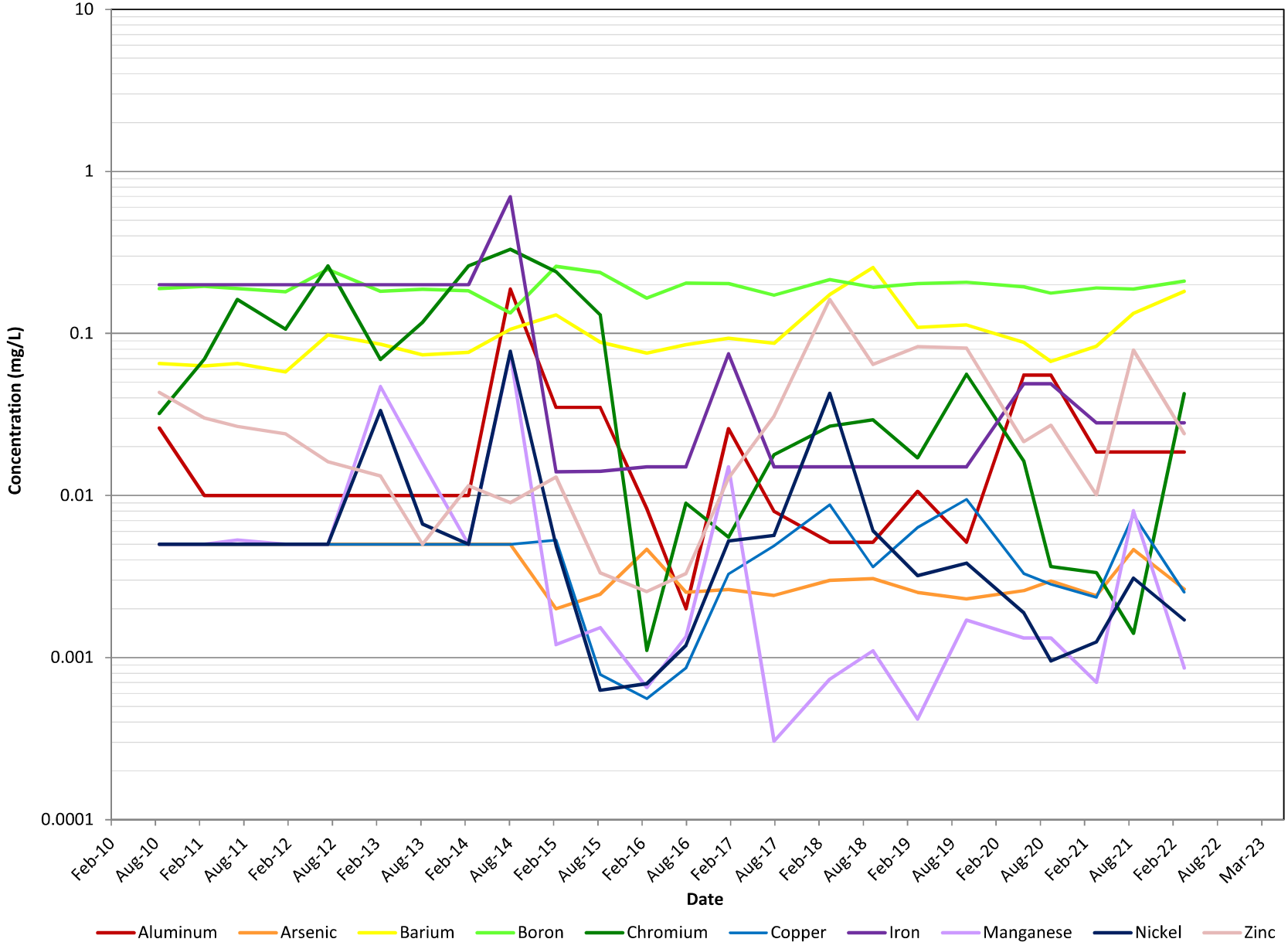


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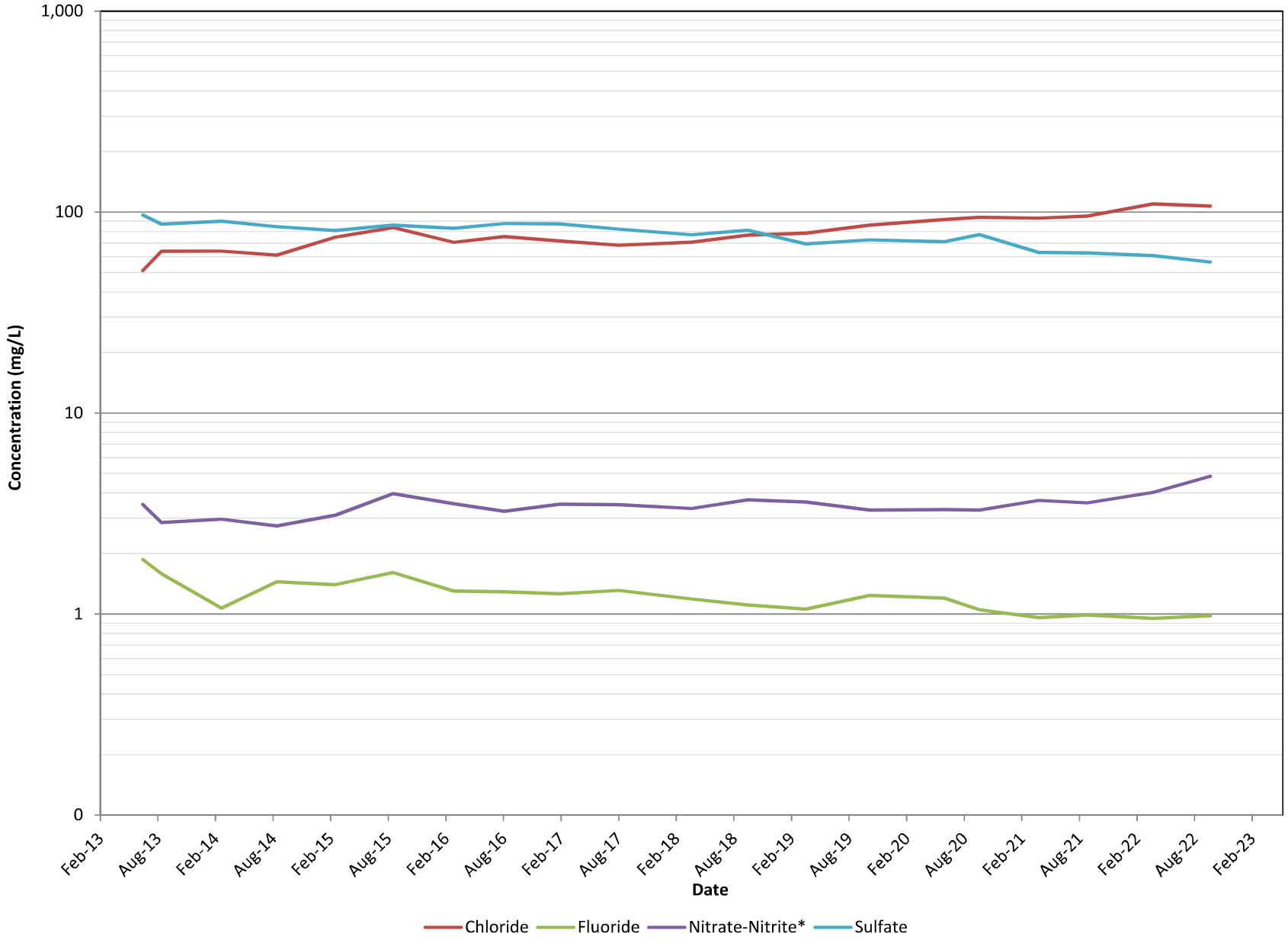
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Received by OCD: 4/14/2023 3:51:30 PM

MW-29: METAL CONCENTRATIONS OVER TIME



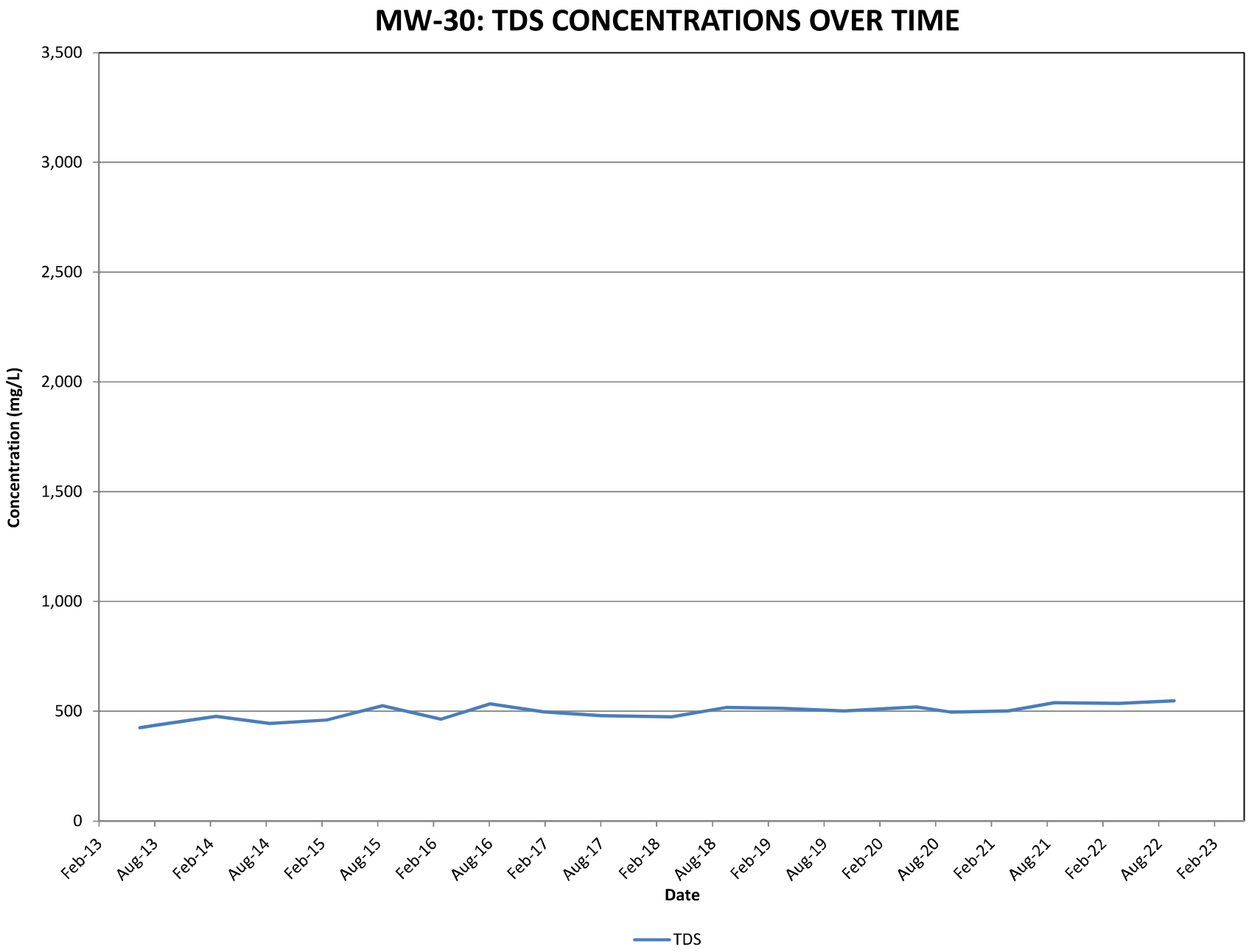
Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

MW-30: ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

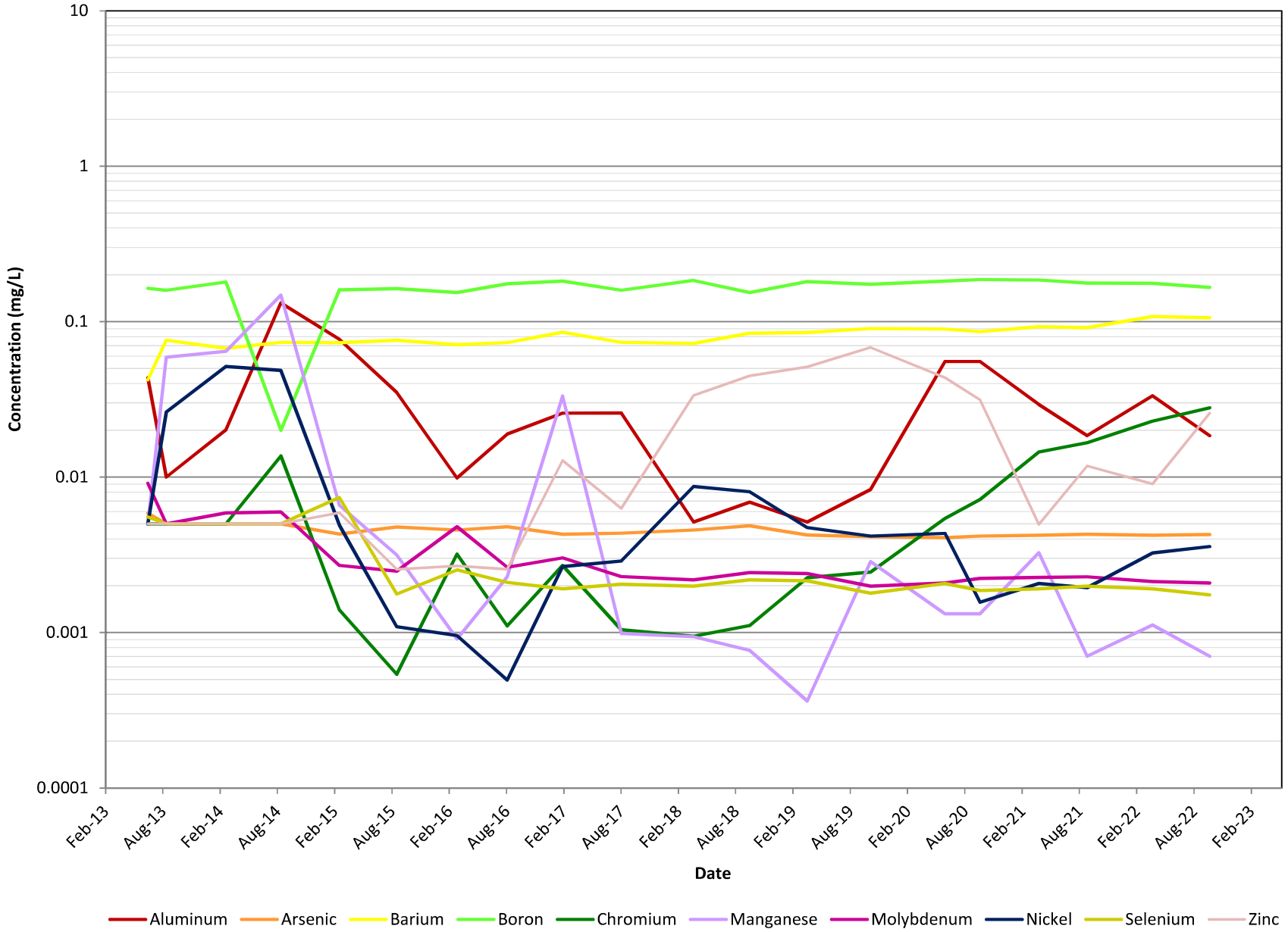
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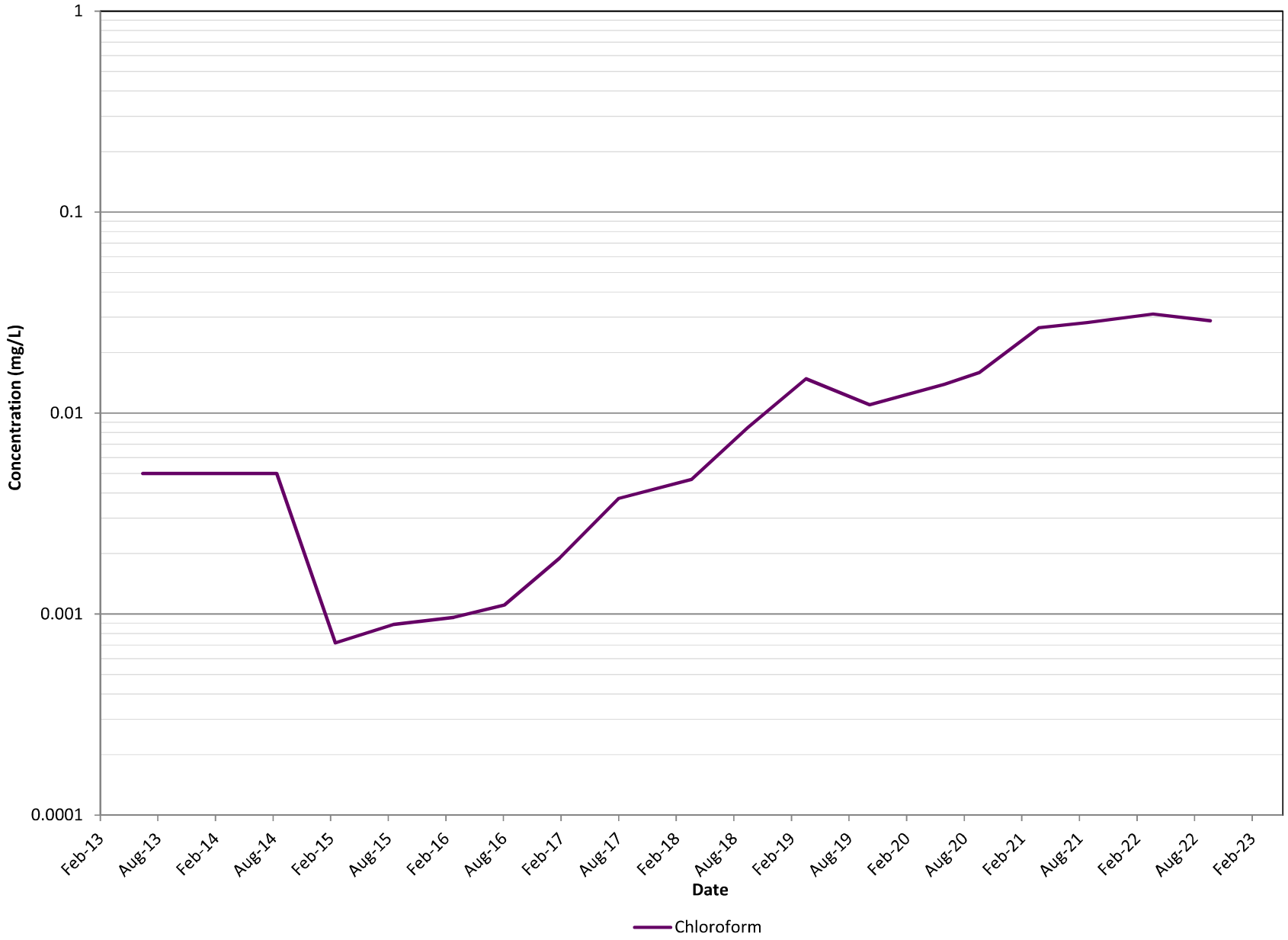
Received by OCD: 4/14/2023 3:51:30 PM

MW-30: METAL CONCENTRATIONS OVER TIME



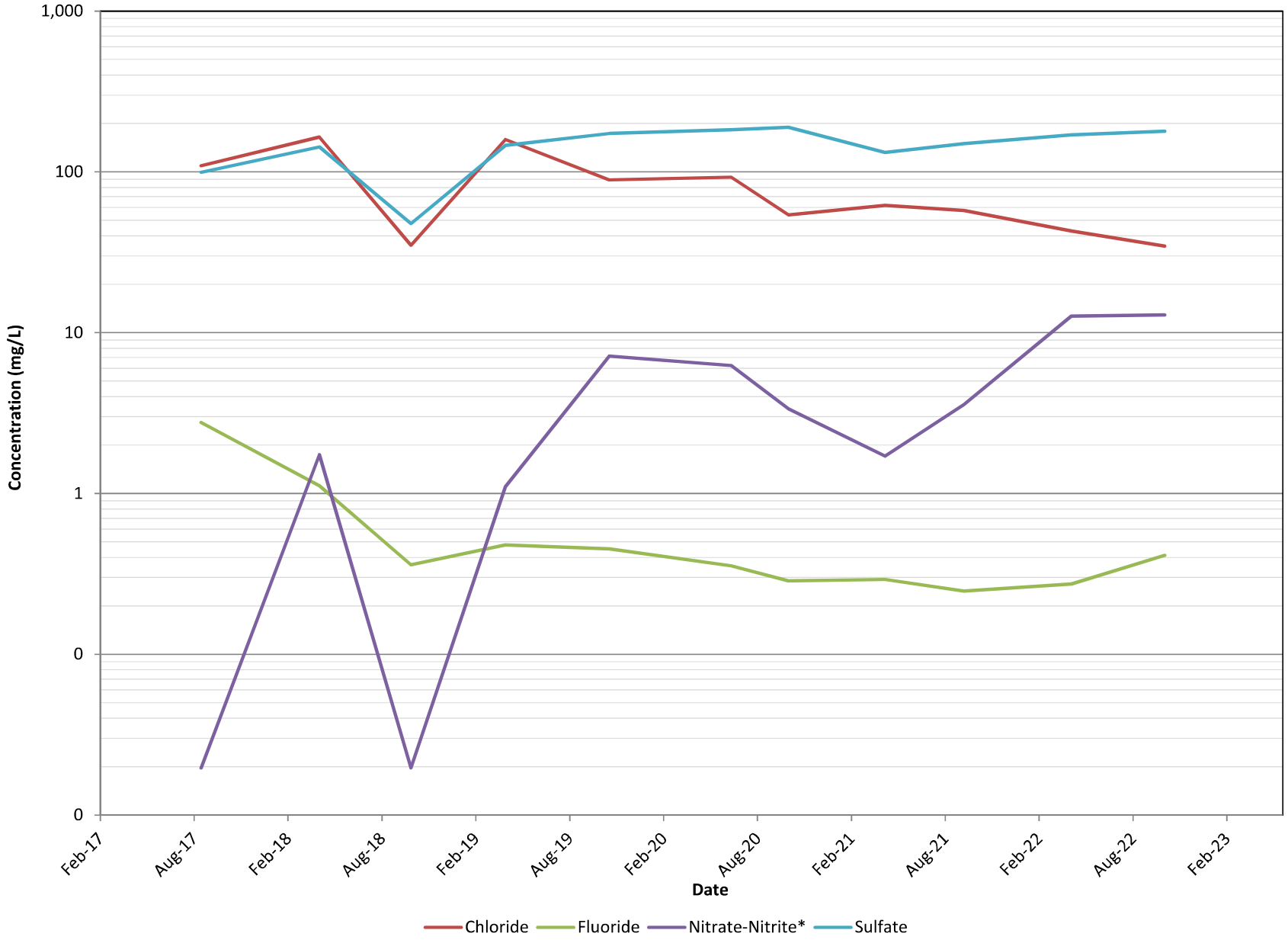
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Received by OCD: 4/14/2023 3:51:30 PM

MW-30: VOC CONCENTRATIONS OVER TIME



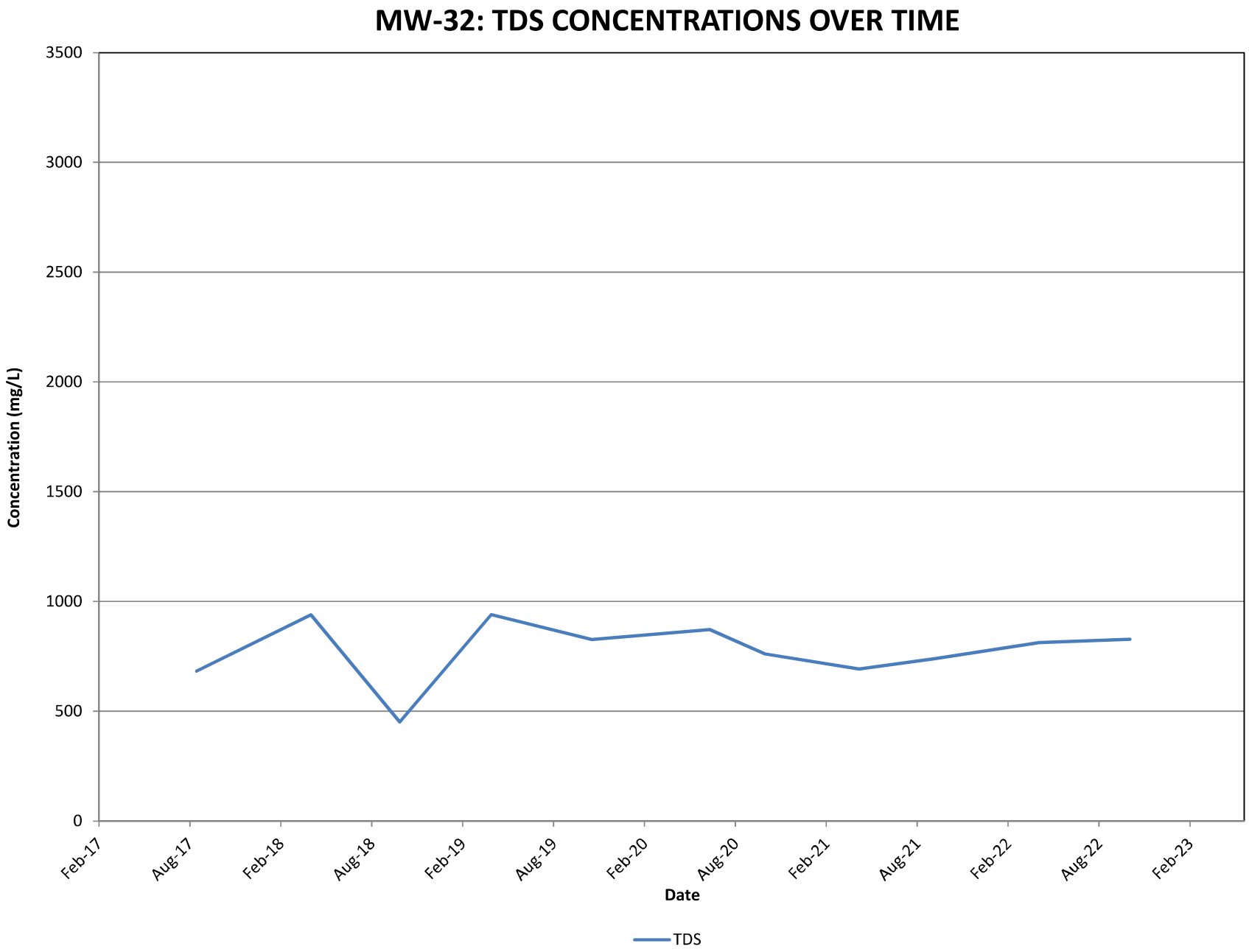
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Received by OCD: 4/14/2023 3:51:30 PM

MW-32: ANION CONCENTRATIONS OVER TIME



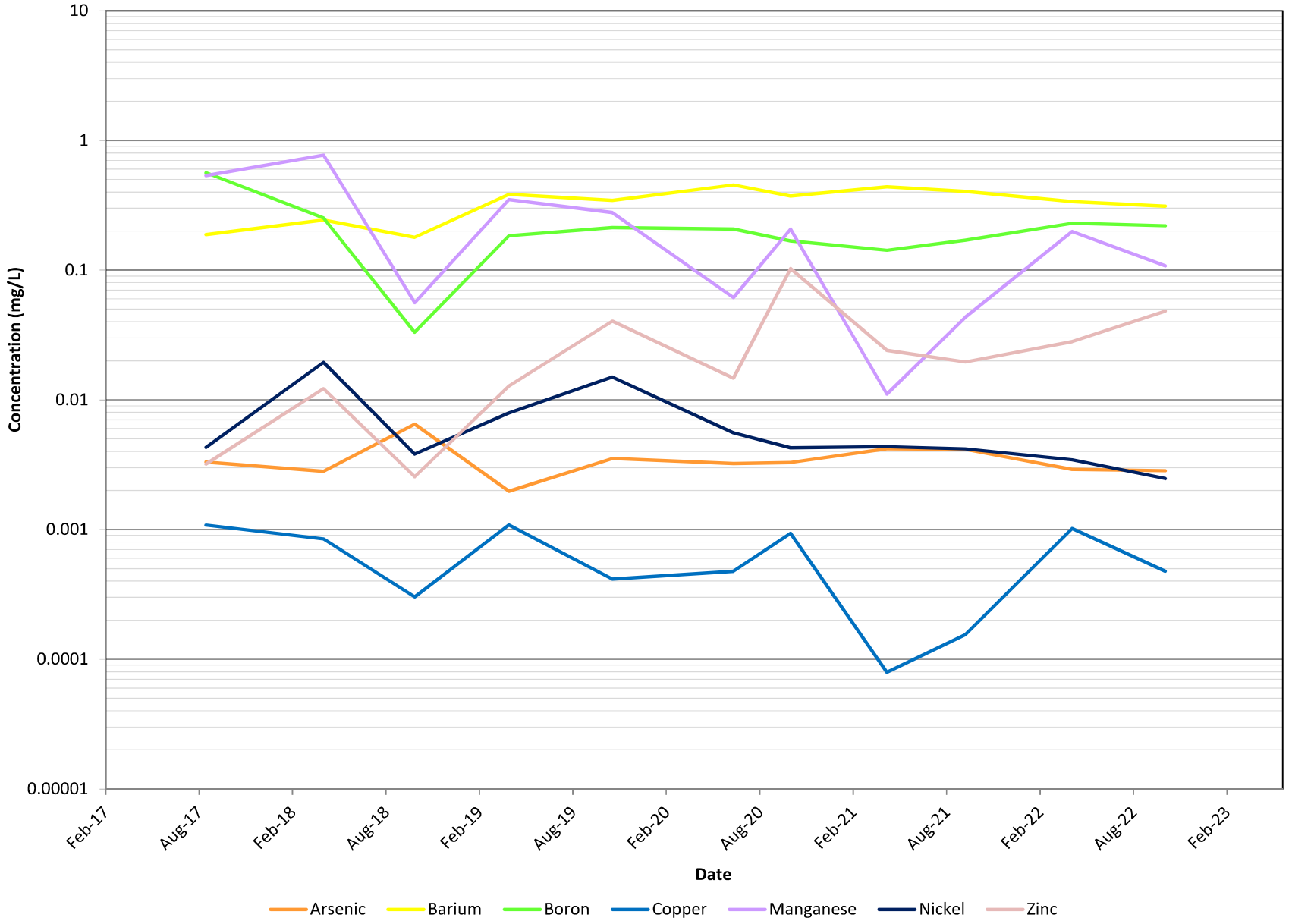
*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

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Received by OCD: 4/14/2023 3:51:30 PM

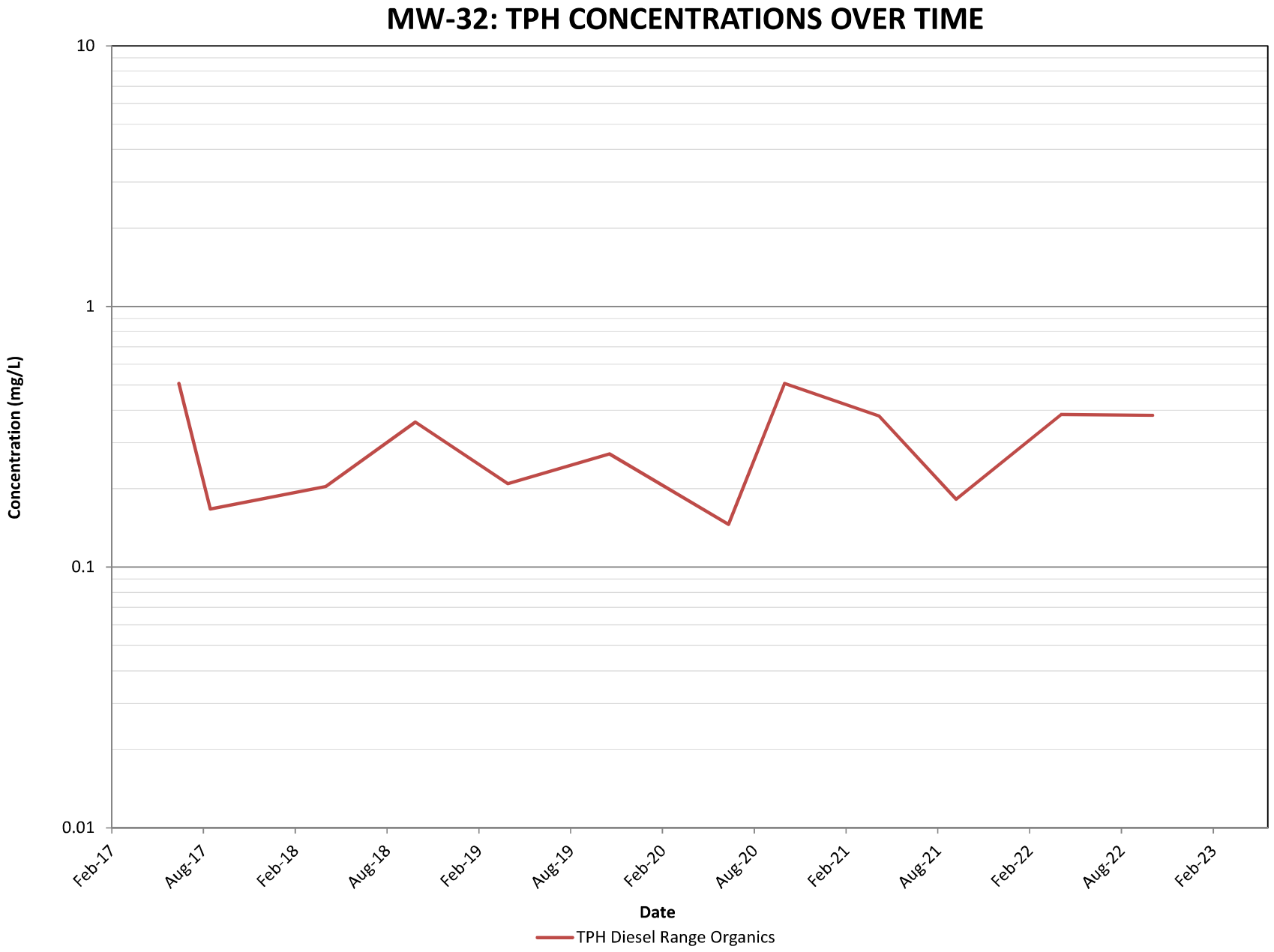


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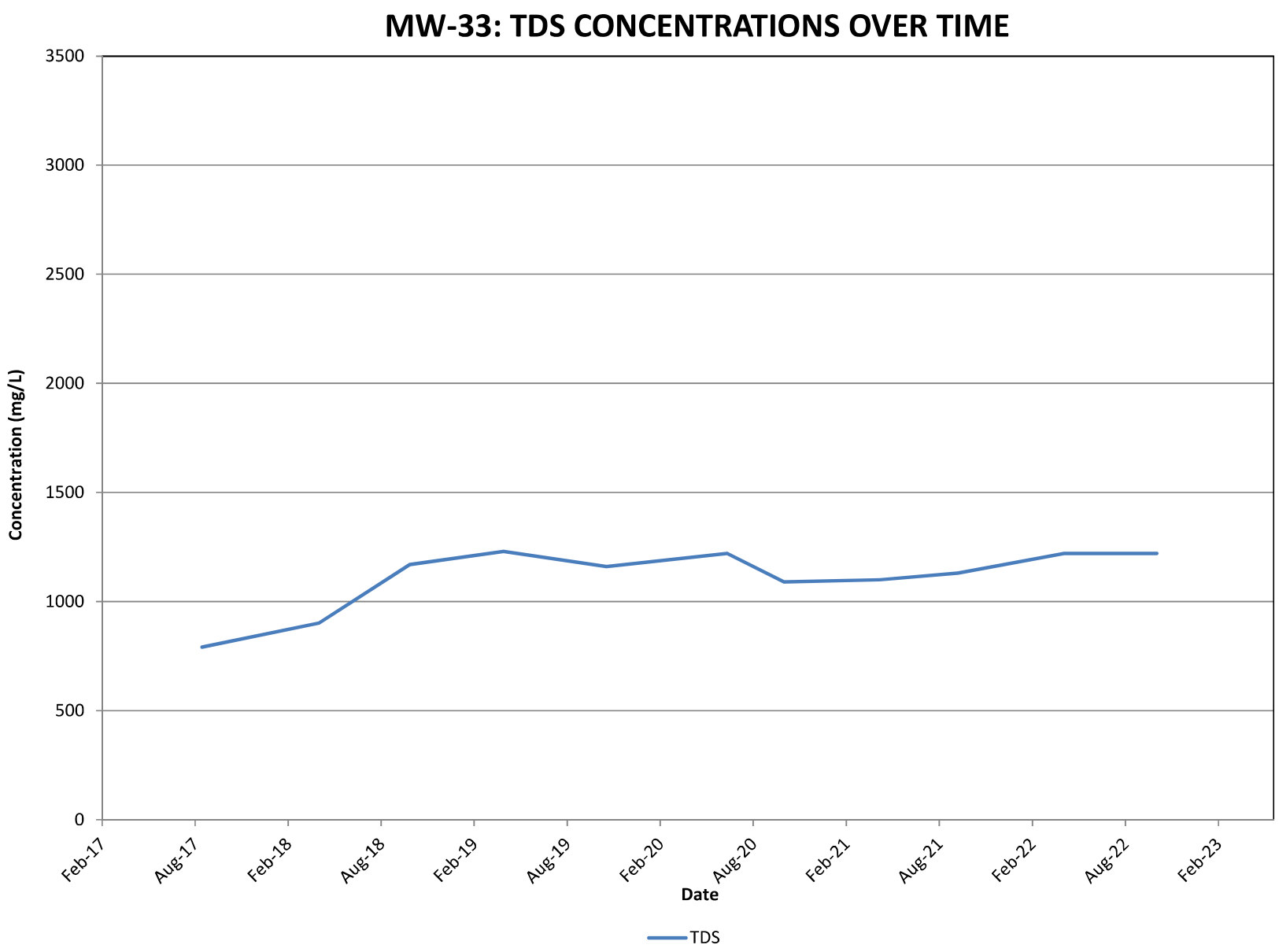
MW-32: METAL CONCENTRATIONS OVER TIME



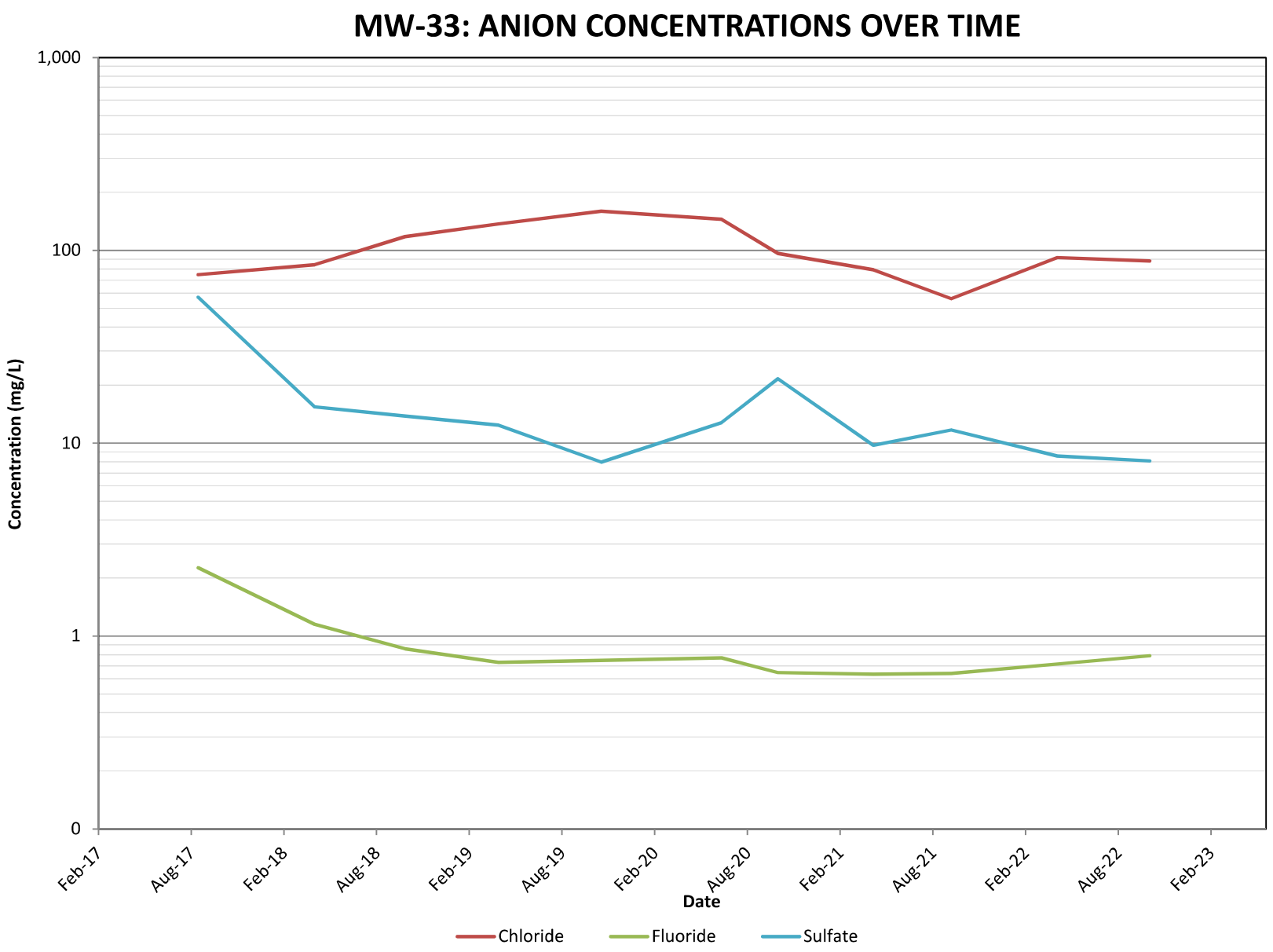
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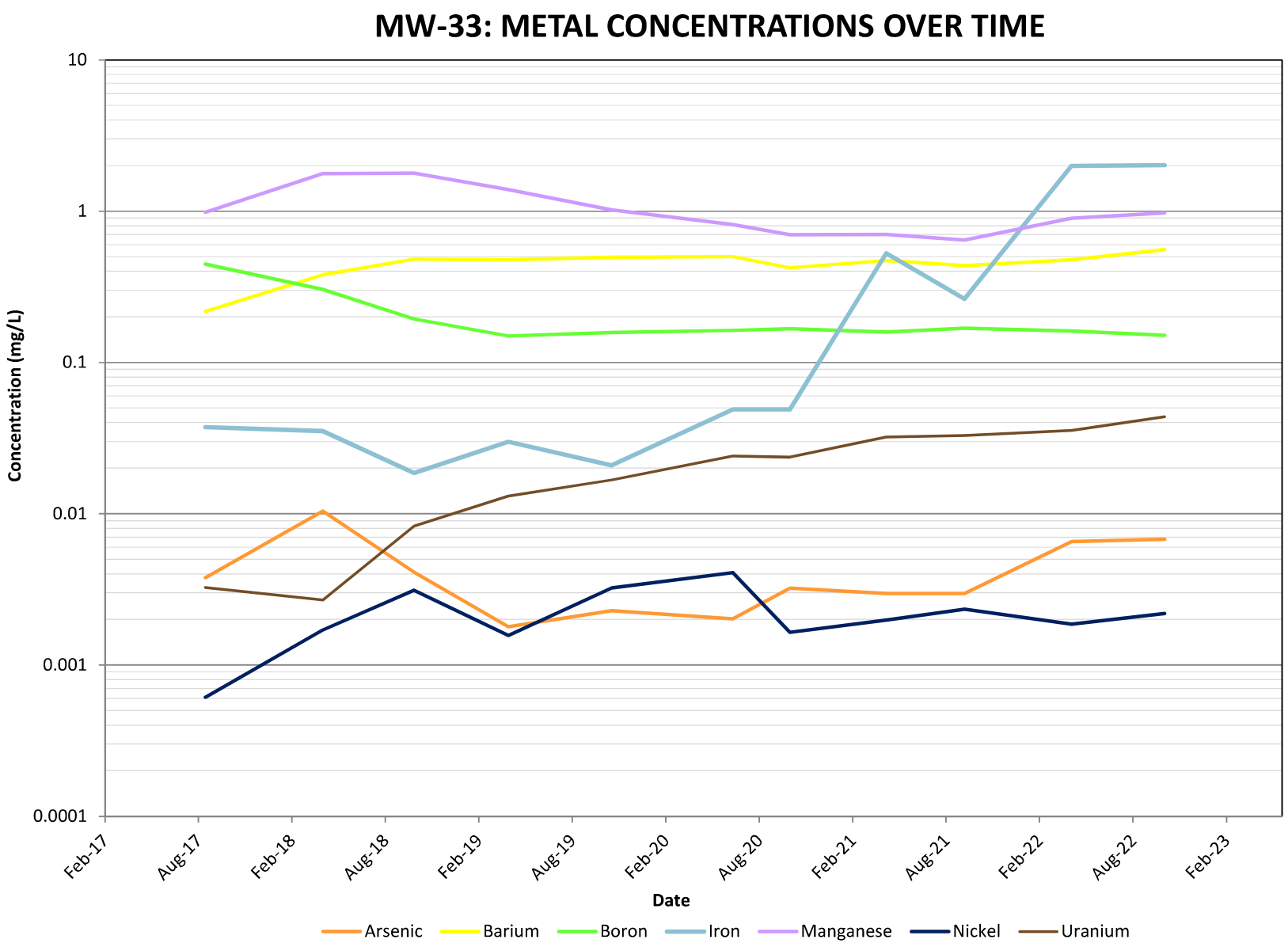


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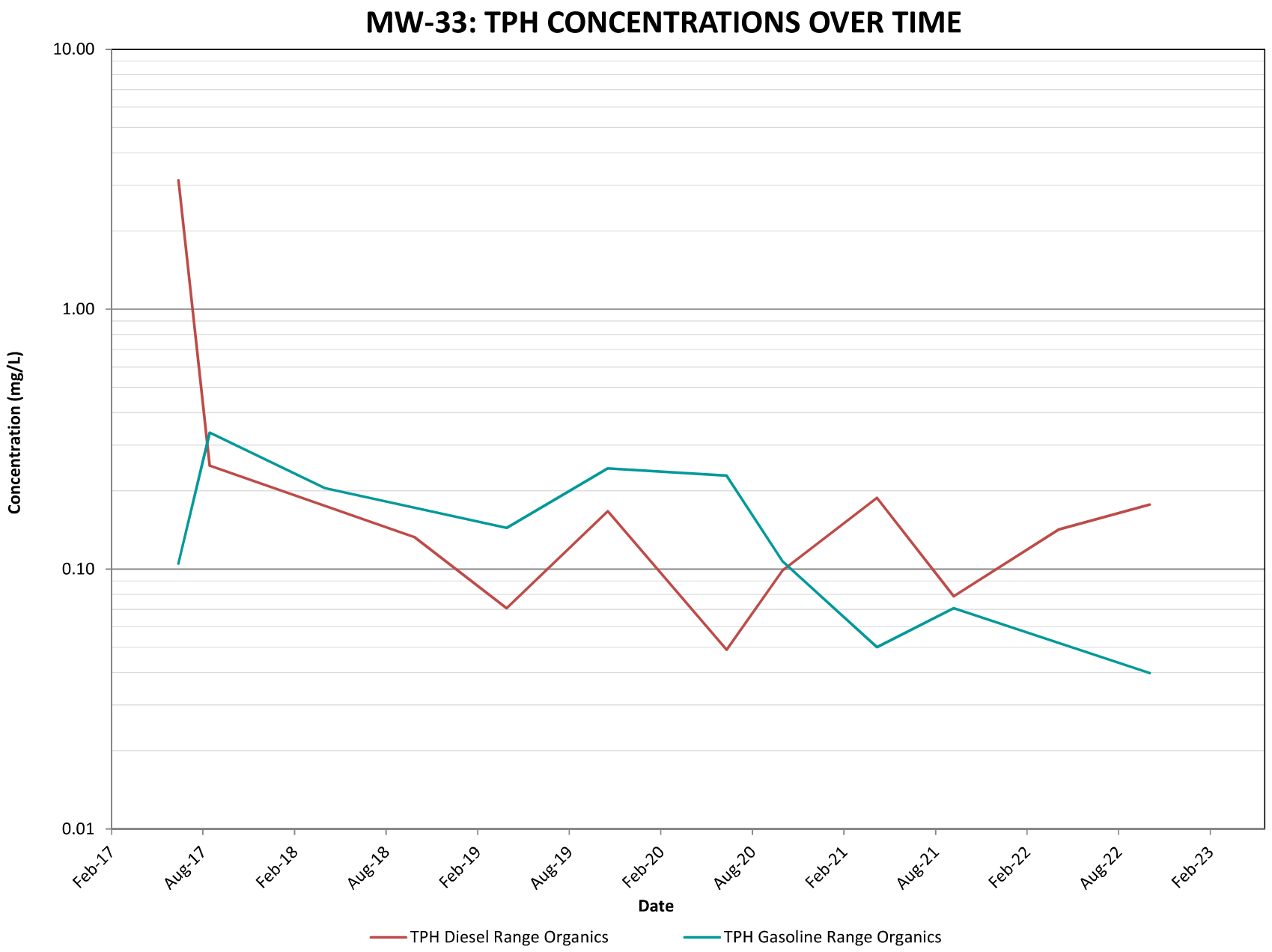


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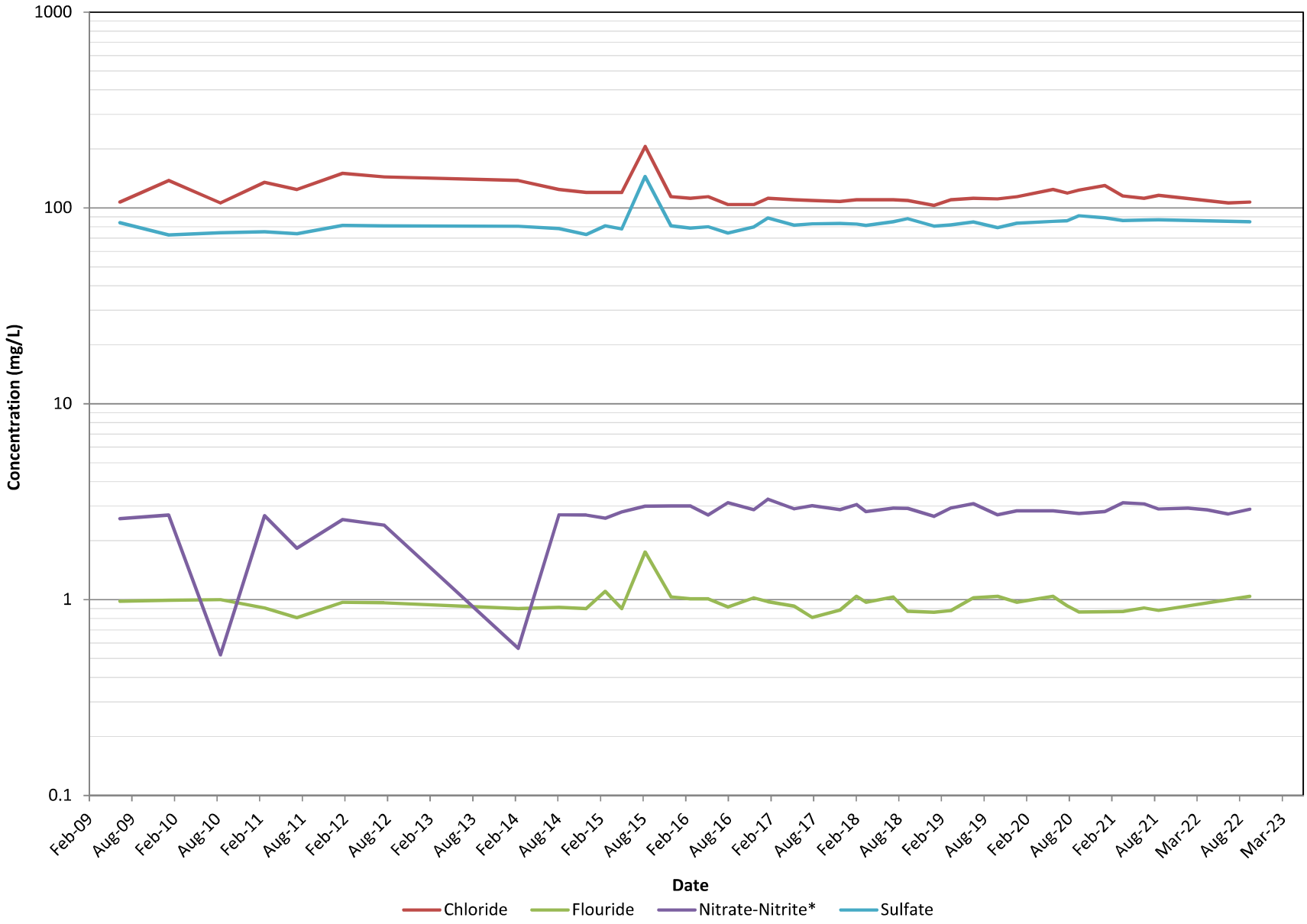


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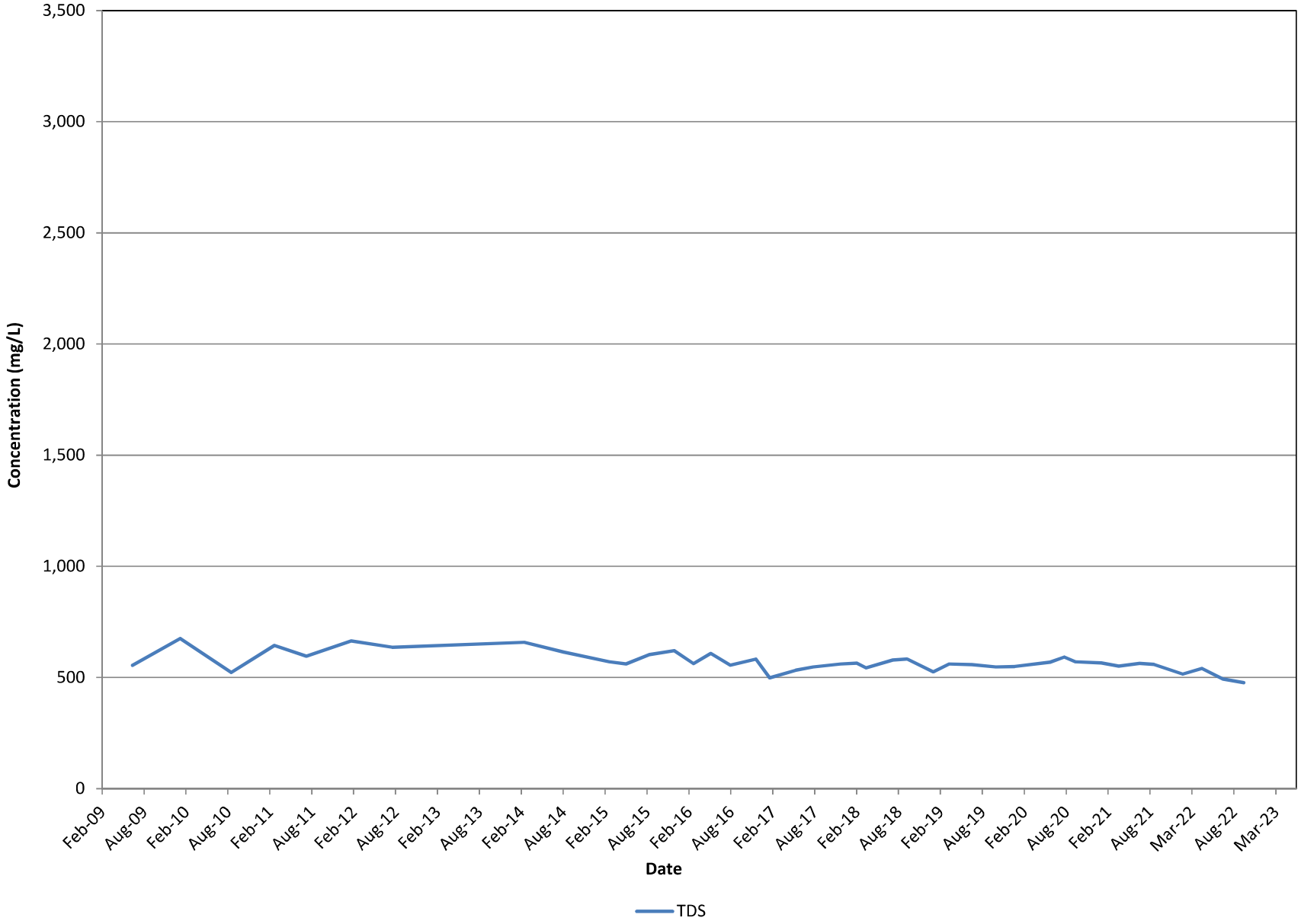
EAST WELL (WW-EAST): ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

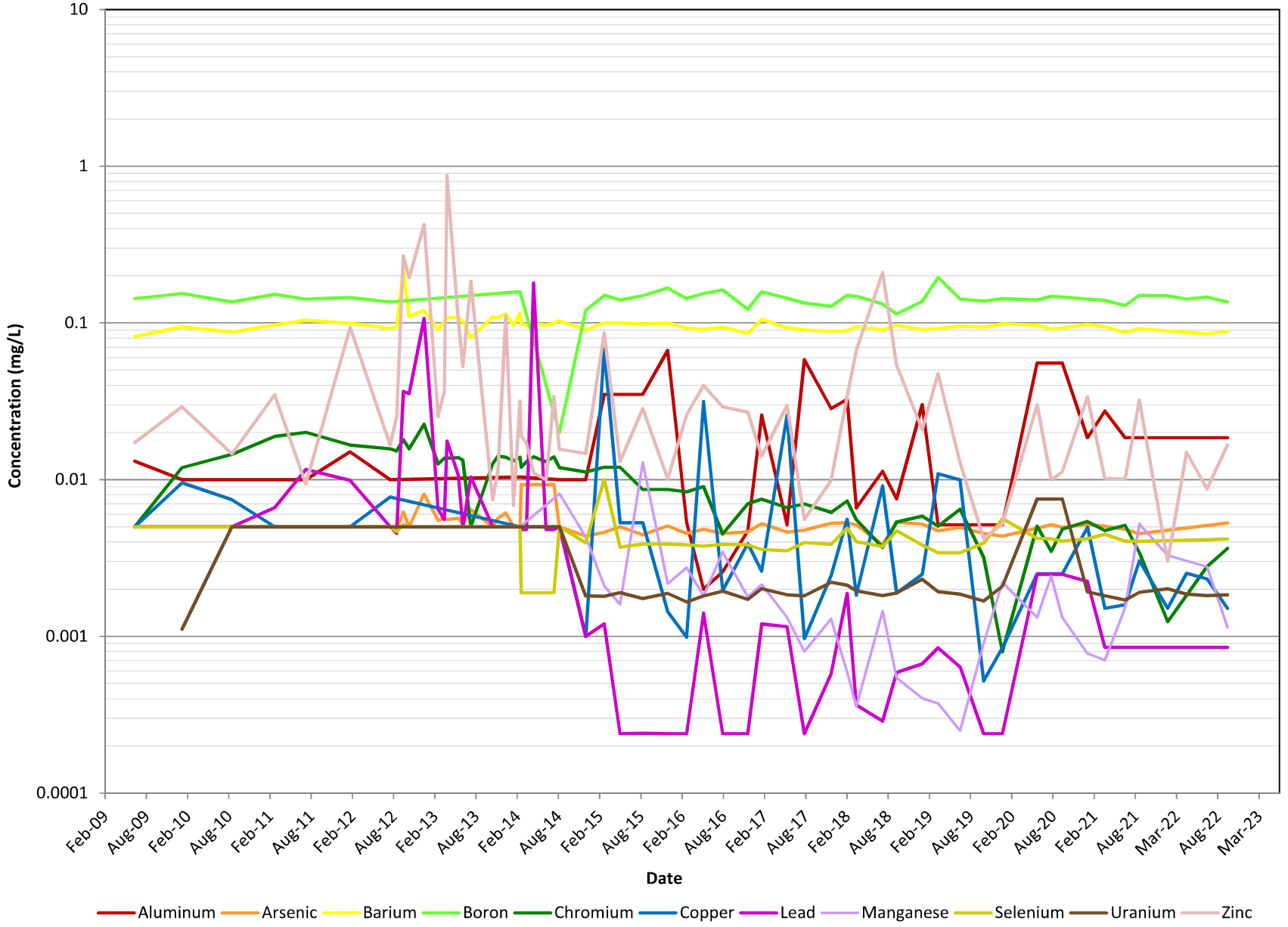
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Received by OCD: 4/14/2023 3:51:30 PM

EAST WELL (WW-EAST): TDS CONCENTRATIONS OVER TIME



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Received by OCD: 4/14/2023 3:51:30 PM

EAST WELL (WW-EAST): METAL CONCENTRATIONS OVER TIME



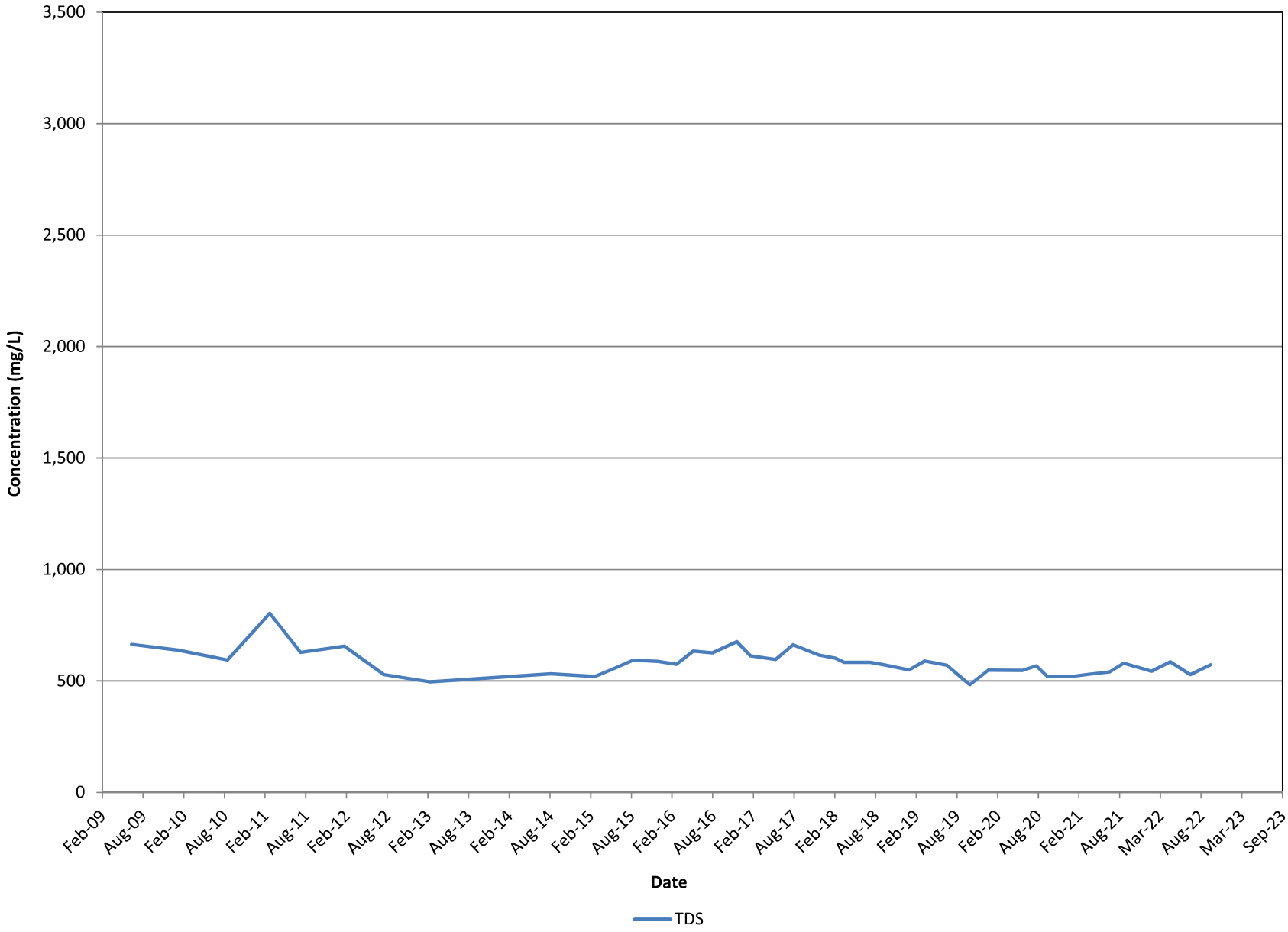
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Received by OCD: 4/14/2023 3:51:30 PM

NORTH WELL (WW-NORTH): ANION CONCENTRATIONS OVER TIME



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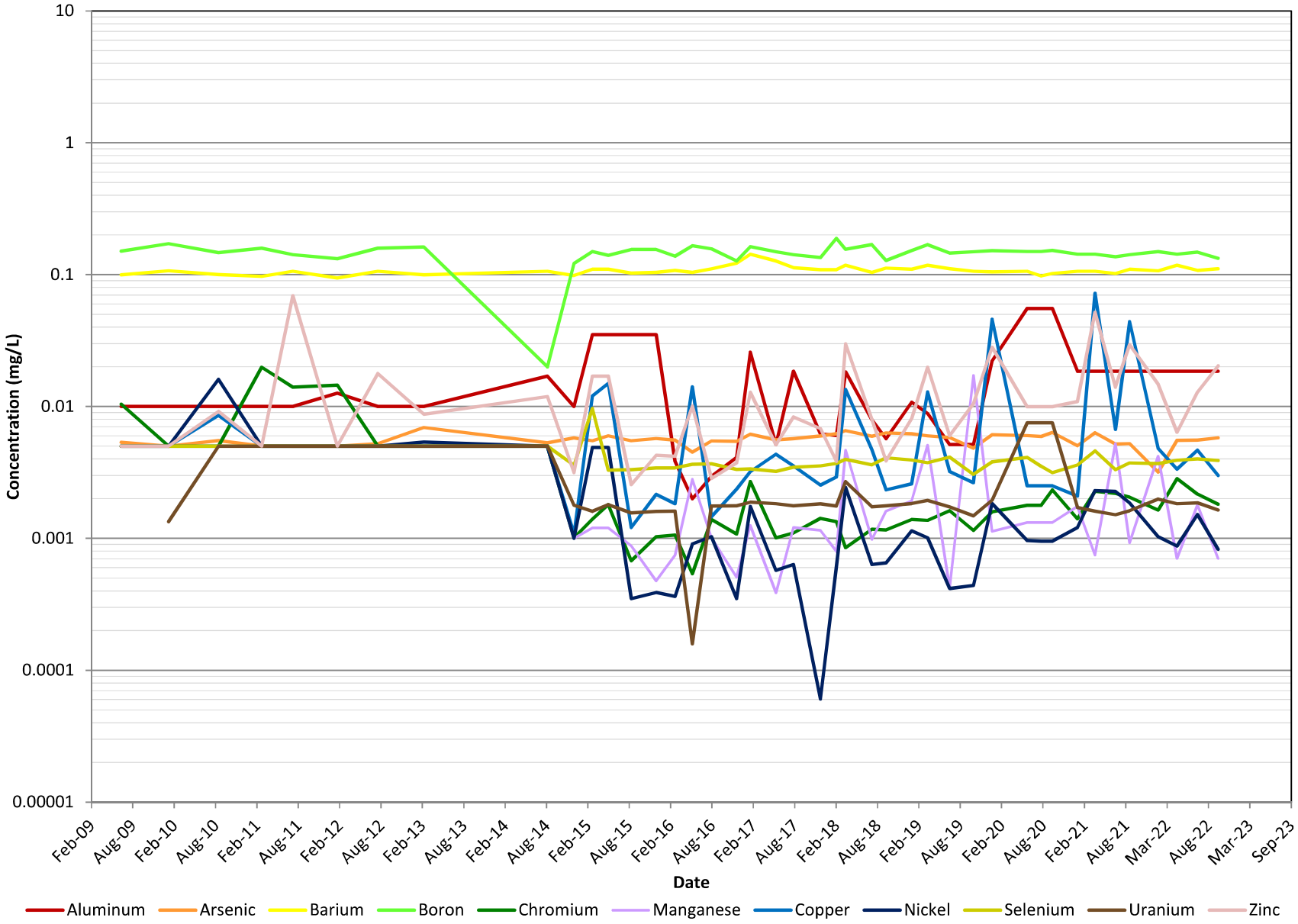
NORTH WELL (WW-NORTH): TDS CONCENTRATIONS OVER TIME



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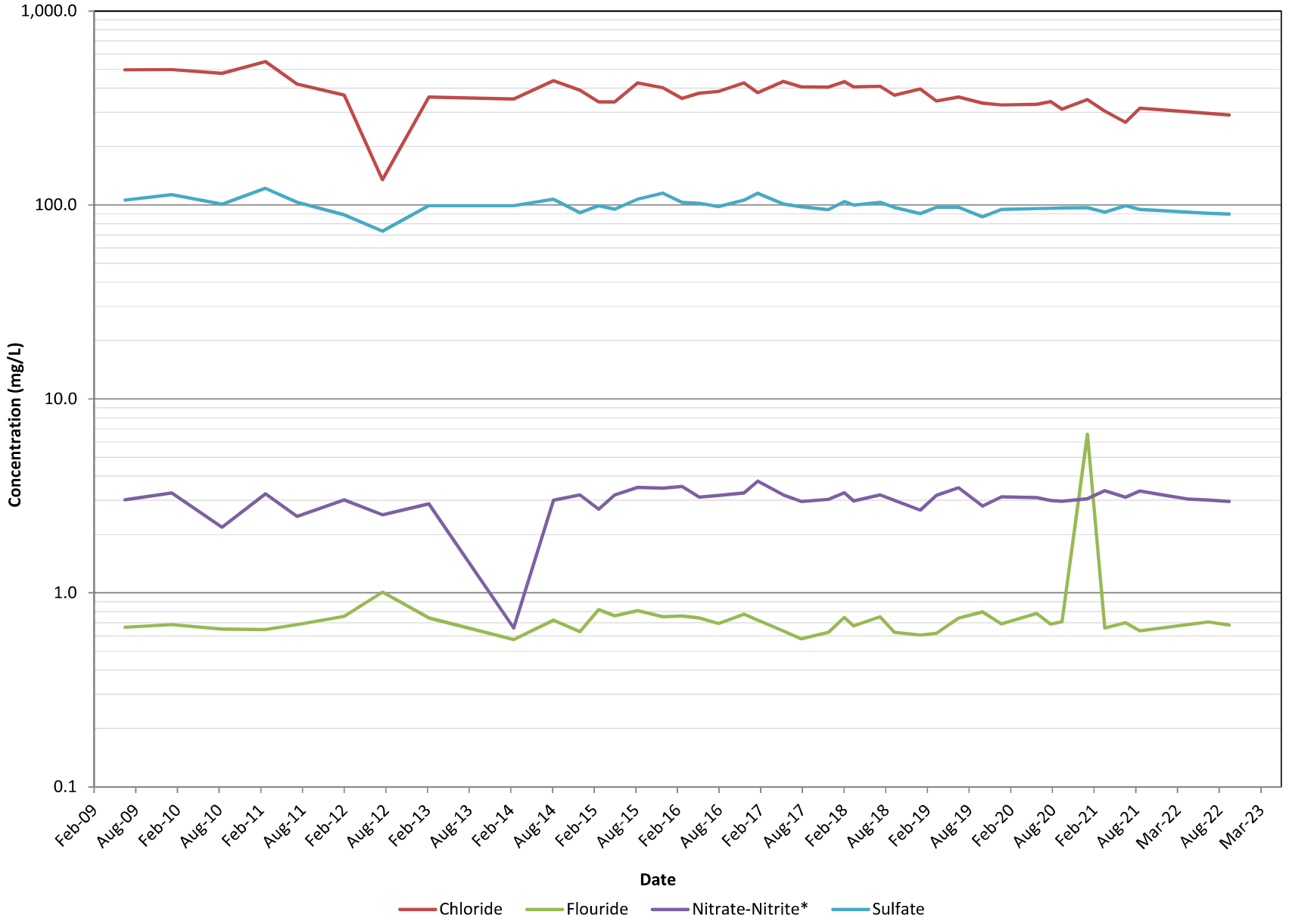
Received by OCD: 4/14/2023 3:51:30 PM

NORTH WELL (WW-NORTH): METAL CONCENTRATIONS OVER TIME



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Received by OCD: 4/14/2023 3:51:30 PM

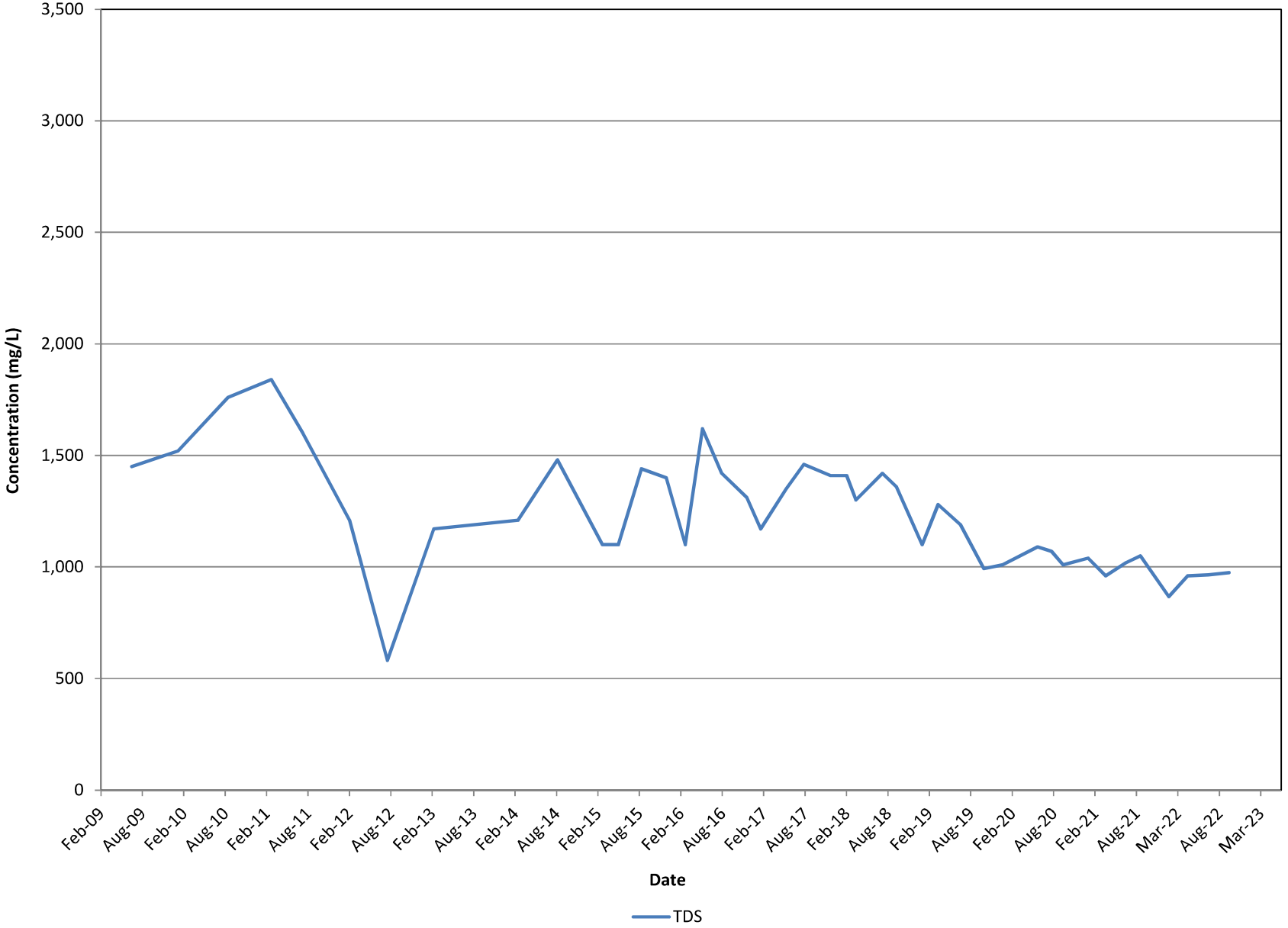
SOUTH WELL (WW-SOUTH): ANION CONCENTRATIONS OVER TIME



*Nitrate-Nitrite (as N) results presented up to April 2022, and Nitrate results presented from July 2022 to present

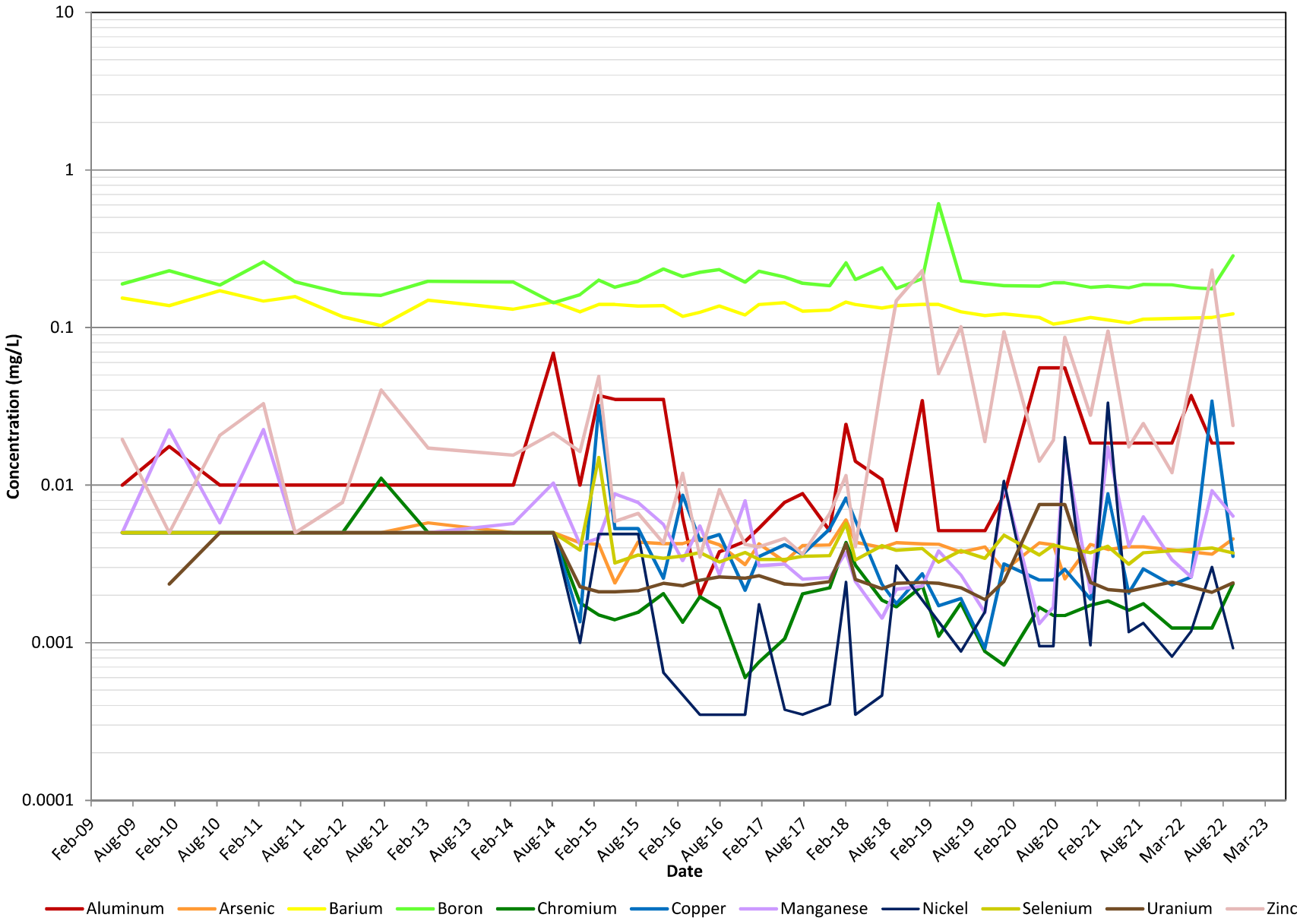
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SOUTH WELL (WW-SOUTH): TDS CONCENTRATIONS OVER TIME

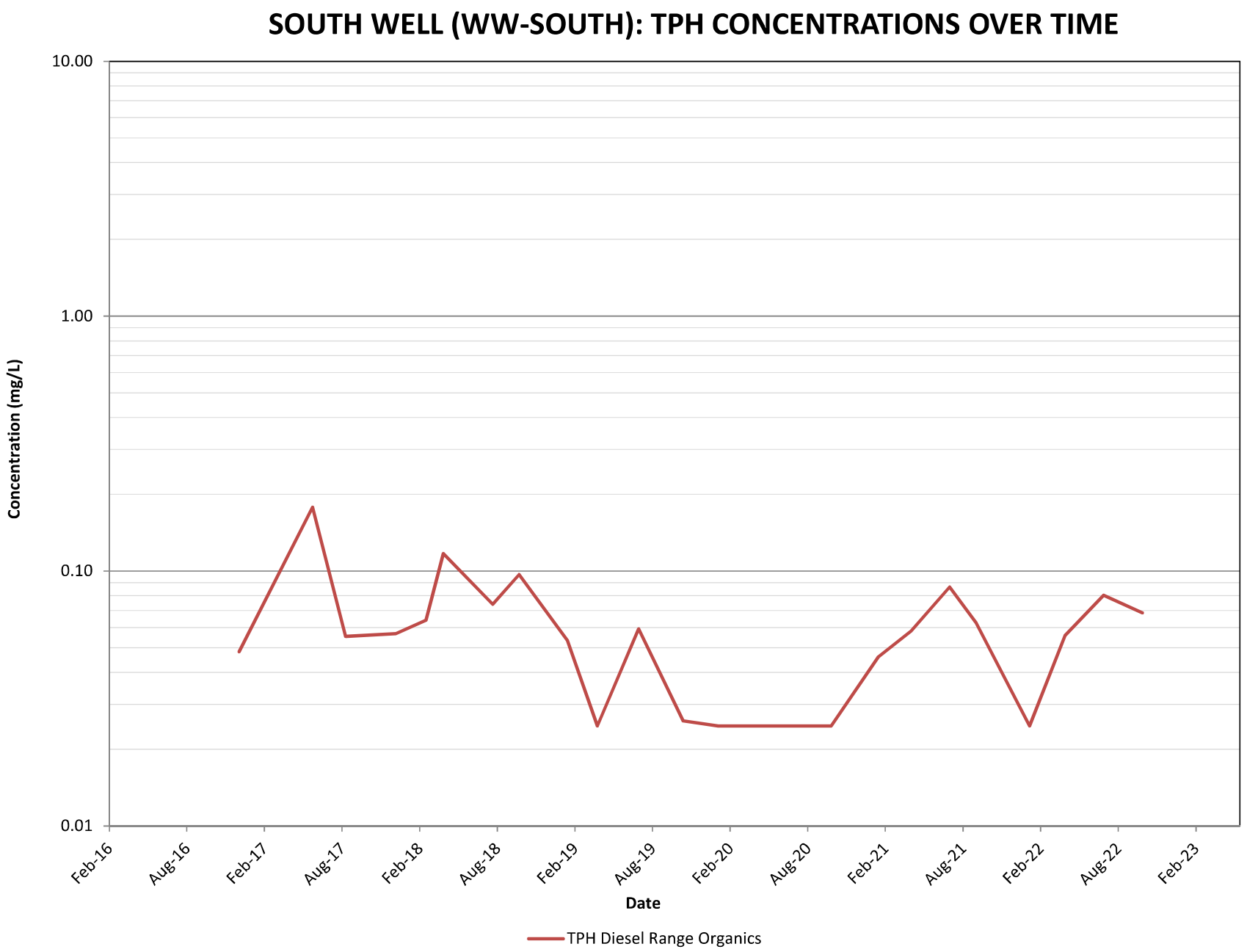


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Received by OCD: 4/14/2023 3:51:30 PM

SOUTH WELL (WW-SOUTH): METAL CONCENTRATIONS OVER TIME

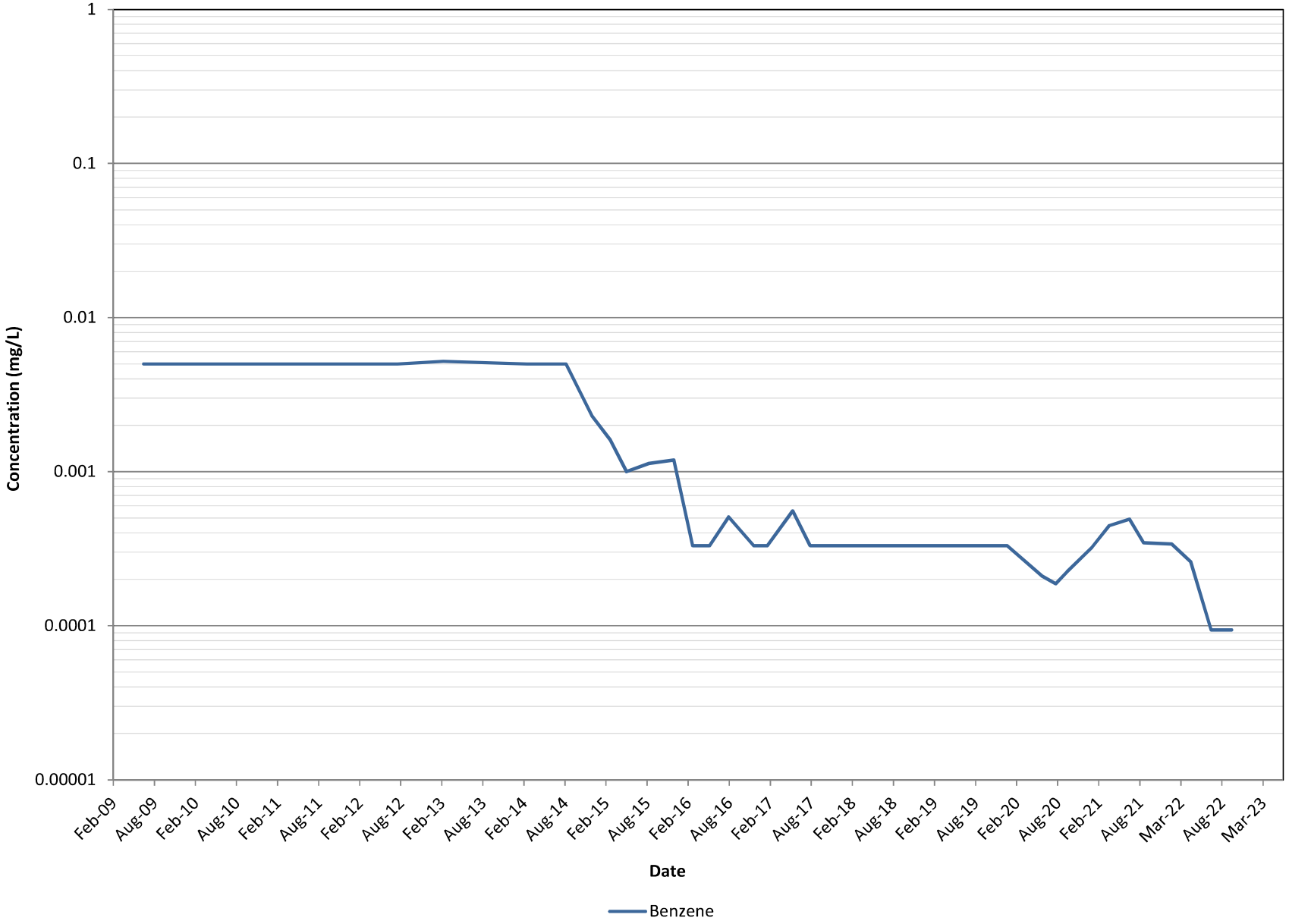


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Received by OCD: 4/14/2023 3:51:30 PM



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Received by OCD: 4/14/2023 3:51:30 PM

SOUTH WELL (WW-SOUTH): VOC CONCENTRATIONS OVER TIME



APPENDIX D

QUALITY ASSURANCE/QUALITY CONTROL DATA SUMMARY

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APPENDIX D – QUALITY ASSURANCE/QUALITY CONTROL DATA SUMMARY

1.1 Semi-Annual and Quarterly Groundwater Samples

Data reported by Pace Analytical in Mount Juliet, Tennessee for the groundwater samples collected in January, April, July, October 2022 were reviewed in accordance with the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, November 2020), and *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, November 2020), modified for the individual methods, as applicable. Three water samples and one duplicate were collected on January 20, 2022. Twenty water samples, three field duplicates, two equipment blanks, and two trip blanks were collected on April 14, 2022. Three water samples, one field duplicate, and one trip blank were collected on July 14, 2022. Thirty water samples, four field duplicates, two equipment blanks, and two trip blanks were collected on October 13, 2022. Samples were analyzed for one or more of the following parameters:

- Dissolved solids by Standard Method (SM) 2540C-2011
- Alkalinity by SM 2320B-2011
- Nitrate-nitrite by EPA Method 353.2
- Chloride, fluoride, sulfate, nitrate, and/or nitrite by SW-846 Method 9056A
- Total mercury by SW-846 Method 7470A
- Dissolved boron by SW-846 Method 6010B
- Dissolved metals by SW-846 Method 6020
- Total Petroleum Hydrocarbons (TPH) Low Fraction by SW-846 Method 8015D
- Volatile organic compounds (VOCs) by SW-846 Method 8260B
- TPH High Fraction by SW-846 Methods 3511/8015
- Semi-volatile organic compounds (SVOCs) by SW-846 Method 8270C

TRC Quality Assurance (QA) staff reviewed the data. Four data packages identified as L1453625, L1482976 (revised 07/01/2022), L1515221 (revised 08/23/2022), and L1546506 (revised 01/05/2023) were reviewed. Data were reviewed for compliance with the analytical protocols used for sample analysis and laboratory-defined quality control (QC) limits. Items reviewed during the data evaluation process included the following:

- Sample integrity, preservation, and holding times
- Blank analyses
- Surrogate recoveries
- Matrix spike and matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs)
- Laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries and RPDs
- Field duplicate and laboratory duplicate RPDs
- Sample documentation

Data interpretation issues are identified in the following subsections. Alkalinity was analyzed in select samples but is not discussed in this summary other than in Section 1.1 above since the analyte is not required to be reported per the approved *Revised Facility-Wide Groundwater Monitoring Work Plan* (November 2017). QC data indicate that measurement data are sufficient to meet method quality objectives, reported data are defensible, and QC mechanisms were generally effective in ensuring measurement data reliability within the expected limits of sampling and analytical error with one exception. Due to significantly low SVOC acid surrogate recovery (<10%), the nondetect results for 4-chloro-3-methylphenol, 2-chlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 4,6-dinitro-2-methylphenol, 2,4-dinitrophenol, 2-nitrophenol, 2-methylphenol, 3&4-methyl phenol, 4-nitrophenol, pentachlorophenol, phenol, 2,4,5-trichlorophenol, and 2,4,6-trichlorophenol in sample WW-SOUTH collected in July 2022 are not usable for project objectives. It should be noted that a field duplicate, DUP-01, was collected from WW-SOUTH and all SVOC results are usable for project objectives in the field duplicate sample.

Several dilutions and/or reduced volumes were performed by the laboratory on select samples likely due to elevated concentrations of target and/or non-target analytes or matrix interferences; therefore, reported method detection limits (MDL) and method quantitation limits (MQL) (also referred to as reporting detection limit [RDL]) may be elevated in some cases.

1.1.1 Sample Integrity, Preservation, and Holding Times

Samples were received at the laboratory properly preserved and in good condition with the following exceptions:

- For all samples submitted for dissolved metals analysis in January 2022, the laboratory did not filter the samples until 7 to 9 days after collection. Further, the laboratory did not acid-preserve the filtered aliquots prior to digestion; the laboratory proceeded directly to digestion after filtration. The July 2022 dissolved metals samples were filtered in the field, but preservative was not provided in the field. The laboratory also did not acid-preserve the July 2022 field filtered aliquots prior to digestion. Therefore, the positive and nondetect results for dissolved metals, where reported, for all January 2022 and July 2022 samples are potentially uncertain.

- In April 2022, samples MW-33 and DUP-03 (MW-33) for TPH High Fraction were received with a pH >2. This pH issue shortens the extraction holding time to seven days and these samples were extracted for TPH High Fraction after seven days of collection. Therefore, potential low bias exists for the positive TPH High Fraction results in these samples.

- In April 2022, samples MW-1, MW-6, MW-11R, MW-12R2, MW-13R, MW-15R, and MW-17R were preserved when logged in by the laboratory for the dissolved metals analysis because the pH was greater than two. These samples were preserved by the laboratory more than 24 hours after collection. Therefore, there is no adverse impact to the data usability due to this issue.

- In October 2022, sample WW-EAST for TPH High Fraction was received with a pH >2. This pH issue shortens the extraction holding time to seven days and this sample was extracted for TPH High Fraction within seven days of collection. Therefore, there is no adverse impact on the data usability due to this issue.

Samples collected during January, April, July, and October 2022 were prepared and/or analyzed within holding time except as noted below for dissolved solids and/or SVOCs.

- Samples MW-32 and DUP-02 (MW-32) from April 2022 and all applicable samples from July and October 2022 were prepared for dissolved solids analysis on the seventh day after collection, but more than seven days (168 hours) after the sample-specific collection times, with the exception of MW-6 from October 2022; this sample was prepared for dissolved solids within the holding time. Since the dissolved solids analyses were performed on the seventh day after sample collection, there is no adverse impact to the data usability due to this issue.

- Sample MW-2 from October 2022 was extracted for SVOC analysis on the seventh day after collection, but more than seven days (168 hours) after the sample-specific collection time. Since the SVOC extraction of this sample was performed on the seventh day after sample collection, there is no adverse impact to the data usability due to this issue.

Also, the trip blank in data package L1453625 (January 2022) was broken upon arrival at the laboratory and therefore was not analyzed per the chain-of-custody. The trip blank in data package L1515221 (July 2022) was transcribed as TRIP BLANK instead of TRIP BLANK-01 per the COC. The trip blank in data package L1515221 is referred to as without the "-01" in this document.

1.1.2 Surrogates

In January, April, July, and October 2022, there were no surrogate recovery nonconformances in the VOC, SVOC, TPH Low Fraction, and/or TPH High Fraction analyses with the following exceptions:

- In July 2022, the recovery for one of the SVOC acid surrogates, phenol-d5 (9.53%) in sample WW-SOUTH, was significantly low (<10%). Therefore, the following nondetect acid results should not be used for project objectives: 4-chloro-3-methylphenol, 2-chlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 4,6-dinitro-2-methylphenol, 2,4-dinitrophenol, 2-nitrophenol, 2-methylphenol, 3&4-methyl phenol, 4-nitrophenol, pentachlorophenol, phenol, 2,4,5-trichlorophenol, and 2,4,6-trichlorophenol. It should be noted that a field duplicate, DUP-01, was collected from WW-SOUTH and all SVOC results are usable for project objectives in the field duplicate sample.

- In July 2022, one of the VOC surrogates, toluene-d8 (76.1%) in sample DUP-01, recovered below laboratory defined limits (80.0-120%). Therefore, all positive and nondetect VOC results may be biased low in this sample.

- In October 2022, one of the VOC surrogates, 1,2-dichloroethane-d4 (132%) in sample MW-15R, recovered above laboratory defined limits (70.0-130%). Therefore, all positive VOC results may be biased high in this sample; there is no impact on data usability for nondetect results due to this issue.

1.1.3 Laboratory Method Blanks

Sample results were compared to associated blank results using a five times rule rather than the applicable USEPA guidance in order to remain consistent with historical

evaluations. Note that sample results for analytes that were either greater than five times the method blank concentration or nondetect were not impacted by the method blank results and therefore are not discussed below.

- In January 2022, nitrate-nitrite was detected in the laboratory method blank at a concentration of 0.0614 J mg/L in QC batch WG1811582. The detected nitrate-nitrite results in the associated samples were greater than five times the method blank concentration; therefore, no data interpretation issues were noted.
- In January 2022, trichloroethene was detected in the laboratory method blank at a concentration of 0.000604 J mg/L in QC batch WG1806323. Trichloroethene was not detected in the associated samples; therefore, no data interpretation issues were noted.
- In April 2022, methylene chloride was detected in the laboratory method blank at a concentration of 0.000448 J mg/L in QC batch WG1849677. Methylene chloride was not detected in the associated samples; therefore, no data interpretation issues were noted.
- In April 2022, dissolved aluminum, dissolved chromium, dissolved iron, dissolved molybdenum, and dissolved nickel were detected in the laboratory method blank at concentrations of 0.0241 J mg/L, 0.00203 mg/L, 0.0300 J mg/L, 0.000578 J mg/L, and 0.00134 J mg/L, respectively, in QC batch WG1850293. The detected dissolved aluminum and dissolved nickel results in associated samples MW-6 and MW-12R2, the detected dissolved chromium result in sample MW-12R2, and the detected dissolved molybdenum result in sample MW-6 were less than five times the method blank concentrations. Therefore, these sample results may include measurement contributions from laboratory sources. The remaining results were either greater than five times the method blank concentrations or not detected in the associated samples; therefore, no data interpretation issues were noted.
- In April 2022, dissolved manganese was detected in the laboratory method blank at a concentration of 0.000881 J mg/L in QC batch WG1850294. The detected dissolved manganese results in associated samples MW-15R, MW-17R, MW-29, MW-30, and WW-SOUTH were less than five times the method blank concentration. Therefore, these sample results may include measurement contributions from laboratory sources. The remaining results were either greater than five times the method blank concentration or not detected in the associated samples; therefore, no data interpretation issues were noted.

- In April 2022, dissolved barium was detected in the laboratory method blank at a concentration of 0.000502 J mg/L in QC batch WG1850297. The detected dissolved barium result in associated sample EB-02 was less than five times the method blank concentration. Therefore, the result for dissolved barium in sample EB-02 may include measurement contributions from laboratory sources. The remaining results were either greater than five times the method blank concentration or not detected in the associated samples; therefore, no data interpretation issues were noted.
- In April 2022, dissolved iron, dissolved molybdenum, and dissolved nickel were detected in the laboratory method blank at concentrations of 0.0323 J mg/L, 0.000613 J mg/L, and 0.00113 J mg/L, respectively, in QC batch WG1850306. The detected dissolved molybdenum and dissolved nickel results in associated samples MW-11R and MW-32 were less than five times the method blank concentrations. Therefore, these sample results may include measurement contributions from laboratory sources. Dissolved iron was not detected in the associated samples; therefore, no data interpretation issues were noted.
- In April 2022, TPH Low Fraction was detected in the laboratory method blank at a concentration of 0.0409 J mg/L in QC batch WG1850529. TPH Low Fraction was not detected in the associated samples; therefore, no data interpretation issues were noted.
- In July 2022, dissolved iron was detected in the laboratory method blank at a concentration of 0.0304 J mg/L in QC batch WG1900439. Dissolved iron was not detected in the associated samples; therefore, no data interpretation issues were noted.
- In July 2022, carbon disulfide and cis-1,2-dichloroethene were detected in the laboratory method blank at concentrations of 0.000219 J mg/L and 0.000260 J mg/L, respectively, in QC batch WG1896520. Carbon disulfide and cis-1,2-dichloroethene were not detected in the associated samples; therefore, no data interpretation issues were noted.
- In July 2022, TPH High Fraction was detected in the laboratory method blank at a concentration of 0.0256 J mg/L in QC batch WG1897303. The detected results for TPH High Fraction in samples WW-NORTH, WW-SOUTH, WW-EAST, and DUP-01 (WW-SOUTH) were less than five times the method blank concentration. Therefore, these sample results may include measurement contributions from laboratory sources.

- In October 2022, fluoride, nitrate, and nitrite were detected in the laboratory method blank at concentrations of 0.0664 J mg/L, 0.0687 J mg/L, and 0.0434 J mg/L, respectively, in QC batch WG1943111. The detected results for nitrate in samples MW-33, DUP-03 (MW-33), EB-01, and EB-02, and detected results for nitrite in samples MW-33, WW-NORTH, WW-SOUTH, WW-EAST, DUP-01 (WW-SOUTH), DUP-02 (MW-32), DUP-03 (MW-33), and DUP-04 (MW-13R) were less than five times the method blank concentration. Therefore, these sample results may include measurement contributions from laboratory sources.

- In October 2022, fluoride was detected in the laboratory method blank at a concentration of 0.0640 J mg/L in QC batch WG1945646. The detected results for fluoride in samples MW-3 and MW-9 were less than five times the method blank concentration. Therefore, these sample results may include measurement contributions from laboratory sources.

- In October 2022, dissolved aluminum and dissolved barium were detected in the laboratory method blank at concentrations of 0.0305 J mg/L and 0.000495 J mg/L, respectively, in QC batch WG1947765. The detected result for dissolved aluminum in sample MW-1 was less than five times the method blank concentration. Therefore, this sample result may include measurement contributions from laboratory sources.

1.1.4 Equipment Blanks

Sample results were compared to associated equipment blank results using a five times rule rather than the applicable USEPA guidance in order to remain consistent with historical evaluations. Sample results for analytes that were either greater than five times the equipment blank concentration or nondetect were not impacted by the equipment blank results and therefore are not discussed below. Samples collected from the water wells (WW-SOUTH, WW-NORTH, or WW-EAST) are not associated with equipment blanks.

- In April 2022, dissolved selenium and TPH High Fraction were detected in equipment blank EB-01 at concentrations of 0.000537 J mg/L and 0.0526 J mg/L, respectively. Dissolved barium and dissolved selenium were detected in equipment blank EB-02 at concentrations of 0.000393 J mg/L and 0.000458 J mg/L, respectively. As discussed in Section 1.1.3, TPH High Fraction in EB-01 and dissolved barium in EB-02 were detected at concentrations less than five times the associated method blank sample concentrations; therefore, the presence of TPH High Fraction in EB-01 and dissolved barium in EB-02 were not used to evaluate the associated field sample

results. Dissolved selenium in samples MW-1, MW-11R, MW-12R2, MW-13R, MW-15R, MW-17R, MW-29, MW-30, MW-32, MW-33, DUP-02 (MW-32), and DUP-03 (MW-33) were detected at concentrations less than five times the maximum equipment blank concentration (EB-01). Therefore, these results may include measurement contributions from inadequate decontamination of field equipment.

- In October 2022, dissolved solids, chloride, nitrate, dissolved aluminum, dissolved barium, dissolved chromium, dissolved iron, dissolved manganese, and caprolactam were detected in equipment blank EB-01 at concentrations of 10.0 mg/L, 0.403 J mg/L, 0.0643 J mg/L, 0.0284 J mg/L, 0.00310 mg/L, 0.00168 J mg/L, 0.704 mg/L, 0.00441 J mg/L, and 0.00102 J mg/L, respectively. Nitrate, dissolved barium, dissolved iron, dissolved silver, and caprolactam were detected in equipment blank EB-02 at concentrations of 0.0688 J mg/L, 0.000980 J mg/L, 0.0602 J mg/L, 0.0000884 J mg/L, and 0.00138 J mg/L. As discussed in Section 1.1.3, nitrate in EB-01 and EB-02 were detected at concentrations less than five times the associated method blank concentrations and were likely the result of laboratory contamination; therefore, the presence of nitrate in EB-01 and EB-02 were not used to evaluate the associated field sample results. The following results were detected at concentrations less than five times the maximum equipment blank concentration as applicable:
    - Dissolved aluminum: MW-1, MW-5, MW-8, MW-16R, MW-17R, MW-18R, MW-19R, and MW-20R;
    - Dissolved chromium: MW-2, MW-4, MW-8, MW-11R, MW-13R, MW-17R, MW-22, and DUP-04 (MW-13R);
    - Dissolved iron: MW-5, MW-8, MW-17R, MW-19R, MW-20R, MW-33, and DUP-03 (MW-33);
    - Dissolved manganese: MW-1, MW-5, MW-6, MW-8, MW-13R, MW-15R, MW-16R, MW-17R, MW-18R, MW-19R, MW-20R, and DUP-04 (MW-13R); and
    - Caprolactam: MW-2, MW-5, MW-11R, MW-12R2, MW-15R, MW-16R, MW-18R, MW-19R, MW-20R, MW-22, MW-24R, MW-30, DUP-02 (MW-32), and DUP-04 (MW-13R).

1.1.5 Trip Blanks

In April, July, and October 2022, there were no detections in the trip blank samples. The trip blank from the January 2022 monitoring event was broken upon arrival at the laboratory and therefore was not analyzed per the chain-of-custody.

1.1.6 LCS/LCSDs

- In January 2022, the LCS recovery for trichloroethene (133%) was above the laboratory-defined limits (78.0-124%) in QC batch WG1806323. Trichloroethene was not detected in the associated samples; therefore, there are no data interpretation issues due to this nonconformance.

- In January 2022, the LCS recoveries for benzaldehyde were above the laboratory-defined limits (10.0-160%) in QC batch WG1806698 at 186% and in QC batch WG1807330 at 238%. Benzaldehyde was not detected in the associated samples; therefore, there are no data interpretation issues due to this nonconformance.

- In April 2022, the LCS recovery for naphthalene (VOC) (50.2%) was below the laboratory-defined limits (54.0-135%) in QC batch WG1849677. Naphthalene (VOC) was not detected in the associated samples; therefore, the nondetect results for naphthalene (VOC) in samples WW-SOUTH, WW-EAST, DUP-01 (WW-SOUTH), EB-01, EB-02, TRIP BLANK-01, and TRIP-BLANK-02 may be biased low.

- In April 2021, the LCS recoveries for benzaldehyde was above the laboratory-defined limits (10.0-160%) in QC batches WG1850890 (254%) and WG1850898 (167%). Benzaldehyde was not detected in the associated samples; therefore, there are no data interpretation issues due to this nonconformance.

- In April 2022, the LCS/LCSD RPD for acetone (32.8%) in QC batch WG1849672 was above the laboratory-defined limit (27%). Acetone was not detected in the associated samples; therefore, there are no data interpretation issues due to this nonconformance.

- In July 2022, the LCS recovery for trans-1,3-dichloropropene was below the laboratory-defined limits (78.0-124%) in QC batch WG1896520 (72.0%). Trans-1,3-dichloropropene was not detected in the associated samples; therefore, the nondetect results for trans-1,3-dichloropropene in samples WW-NORTH, WW-SOUTH, WW-EAST, and DUP-01 (WW-SOUTH) may be biased low.

- In October 2022, the LCS recovery for dissolved chromium (121%) was above the laboratory-defined limits (80.0-120%) in QC batch WG1947765. Dissolved chromium

was not detected in the associated sample; therefore, there are no data interpretation issues due to this nonconformance.

- In October 2022, the LCS recovery for acetone (190%) was above the laboratory-defined limits (19.0-160%) in QC batch WG1943655. Acetone was not detected in the associated samples; therefore, there are no data interpretation issues due to this nonconformance.
- In October 2022, the LCS recoveries for benzaldehyde were above the laboratory-defined limits (10.0-160%) in QC batches WG1944475 at 174% and WG1944825 at 170%. Benzaldehyde was not detected in the associated samples; therefore, there are no data interpretation issues due to this nonconformance.

1.1.7 MS/MSDs

The following table summarizes the MS and/or MSD analyses performed on samples in these data sets.

Sample ID	Analytical Parameters
January 2022	
DUP-01	Total Mercury
April 2022	
MW-1	Fluoride, Sulfate, Chloride
MW-3	Chloride, Fluoride, Sulfate
MW-15R	Nitrate-nitrite
MW-12R2	Total Mercury
MW-33	VOCs, SVOCs, TPH Low Fraction, TPH High Fraction, Nitrate-nitrite, Fluoride, Sulfate, Chloride, Total Mercury, Dissolved Metals
EB-01	Nitrate-nitrite
July 2022	
None	
October 2022	
MW-1	Fluoride
MW-5	Chloride, Sulfate, Nitrate, Nitrite
MW-10	Chloride, Sulfate, Nitrate, Nitrite
MW-13R	Fluoride
MW-14R	Dissolved Boron
MW-24R	Chloride, Sulfate, Fluoride, Nitrate, Nitrite
MW-33	VOCs, SVOCs, TPH Low Fraction, TPH High Fraction, Chloride, Sulfate, Fluoride, Nitrate, Nitrite, Dissolved Metals, Total Mercury
EB-01	Dissolved Metals (except Dissolved Boron and Total Mercury)

- In April 2022, the MS/MSD recoveries for total mercury (50.4%/50.7%) in the MS/MSD analyses performed on sample MW-33 were below laboratory-defined

limits (75.0-125%) in QC batch WG1850021. Therefore, the nondetect total mercury results in all field samples collected in April 2022 may be biased low.

- In April 2022, the %Rs for dissolved manganese in the MS/MSD analyses performed on sample MW-33 were outside the laboratory-specified limits. However, the concentration of dissolved manganese in the unspiked sample was greater than four times the concentration spiked; therefore, the recoveries of dissolved manganese were not used to evaluate potential matrix effects.

- In April 2022, the MS/MSD recoveries for benzaldehyde (222%/204%) in the MS/MSD analyses performed on sample MW-33 were above laboratory-defined limits (10.0-160%) in QC batch WG1850890. Benzaldehyde was not detected in sample MW-33, so there are no data interpretation issues due to this nonconformance.

- In October 2022, the MSD recovery for total mercury (71.3%) in the MS/MSD analyses performed on sample MW-33 was below laboratory-defined limits (75.0-125%) in QC batch WG1944802. Therefore, the nondetect total mercury results in all field samples collected in October 2022 may be biased low.

- In October 2022, the MSD recovery for dissolved manganese in the MS/MSD analyses performed on sample MW-33 was below the laboratory-specified limits. However, the concentration of dissolved manganese in the unspiked sample was greater than four times the concentration spiked; therefore, the recovery of dissolved manganese was not used to evaluate potential matrix effects.

1.1.8 Laboratory Duplicates

The following table summarizes the laboratory duplicate analyses performed with these data sets.

Sample ID	Analytical Parameters
January 2022	
WW-SOUTH	Dissolved Solids
DUP-01	Dissolved Solids
April 2022	
MW-1	Chloride, Fluoride, Sulfate
MW-3	Chloride, Fluoride, Sulfate
MW-15R	Nitrate-nitrite
MW-30	Dissolved Solids
MW-32	Nitrate-nitrite
MW-33	Nitrate-nitrite, Chloride, Fluoride, Sulfate

Sample ID	Analytical Parameters
DUP-02	Nitrate-nitrite
EB-01	Nitrate-nitrite
July 2022	
WW-SOUTH	Dissolved Solids
October 2022	
MW-1	Fluoride
MW-5	Chloride, Sulfate, Nitrate, Nitrite
MW-6	Dissolved Solids
MW-8	Dissolved Solids
MW-10	Chloride, Sulfate, Nitrate, Nitrite
MW-13R	Fluoride
MW-24R	Chloride, Sulfate, Fluoride, Nitrate, Nitrite
MW-33	Chloride, Sulfate, Fluoride, Nitrate, Nitrite
WW-SOUTH	Dissolved Solids
WW-NORTH	Dissolved Solids
WW-EAST	Dissolved Solids

- In October 2022, the RPD for dissolved solids (5.44%) in the laboratory duplicate analysis performed on sample WW-EAST was above laboratory-defined limits (5%) in QC batch WG1946176. Therefore, the detected dissolved solids results in samples all field samples collected in October 2022 except MW-6, MW-8, WW-SOUTH, and WW-NORTH may be considered estimated.

1.1.9 Field Duplicates

The following table lists the original sample and duplicate pairs for each data set.

Sample ID	Duplicate Sample ID
January 2022	
WW-SOUTH	DUP-01
April 2022	
WW-SOUTH	DUP-01
MW-32	DUP-02
MW-33	DUP-03
July 2022	
WW-SOUTH	DUP-01
October 2022	
WW-SOUTH	DUP-01
MW-32	DUP-02
MW-33	DUP-03
MW-13R	DUP-04

Field duplicate acceptance criteria are as follows: RPD is <30% when both results are >5x the MQL; when one or both the original and duplicate results are <5x the MQL, then the

absolute difference must be < the MQL. Field duplicate data that did not meet acceptance criteria are discussed below:

- In July 2022, the original or duplicate result for dissolved copper, dissolved manganese, and dissolved zinc are <5x the MQLs (0.005 mg/L, 0.005 mg/L, and 0.025 mg/L, respectively) and have an absolute value (0.03139 mg/L, 0.00534 mg/L, and 0.109 mg/L, respectively) > the MQLs. Therefore, the results for dissolved copper, dissolved manganese, and dissolved zinc in samples WW-SOUTH, WW-NORTH, WW-EAST, and DUP-01 may be considered estimated.

APPENDIX E

LNAPL GAUGING AND RECOVERY RESULTS, MONITORING WELL MW-31

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Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
2/9/2017	105.04	98.92	6.12	3,719.22	100.52	99.81	0.71	3,719.24	7.50	7.50
3/3/2017	102.71	99.39	3.32	3,719.22	100.30	99.90	0.40	3,719.20	3.28	10.8
3/8/2017	101.21	99.57	1.64	3,719.32	99.95	99.83	0.12	3,719.32	1.19	12.0
3/15/2017	101.48	99.45	2.03	3,719.38	99.98	99.82	0.16	3,719.32	1.59	13.5
3/22/2017	101.84	99.34	2.50	3,719.41	100.07	99.99	0.08	3,719.17	1.72	15.3
3/29/2017	101.73	99.42	2.31	3,719.36	100.47	100.37	0.10	3,718.78	1.72	17.0
4/4/2017	101.79	99.47	2.32	3,719.31	100.27	100.11	0.16	3,719.03	1.85	18.8
4/12/2017	101.77	99.37	2.40	3,719.40	100.30	100.10	0.20	3,719.04	1.85	20.7
4/19/2017	101.71	99.40	2.31	3,719.38	100.27	100.17	0.10	3,718.98	1.72	22.4
4/24/2017	101.48	99.45	2.03	3,719.38	100.09	99.77	0.32	3,719.35	1.66	24.1
4/25/2017	100.68	99.67	1.01	3,719.33	99.83	99.78	0.05	3,719.38	0.96	25.0
4/26/2017	100.82	99.56	1.26	3,719.40	100.02	99.75	0.27	3,719.37	2.50	27.5
4/27/2017	100.51	99.61	0.90	3,719.41	99.88	99.73	0.15	3,719.41	1.50	29.0
4/28/2017	100.73	99.55	1.18	3,719.42	99.68	99.59	0.09	3,719.56	1.00	30.0
5/4/2017	101.44	99.52	1.92	3,719.33	100.33	99.74	0.59	3,719.33	1.45	31.5
5/11/2017	101.59	99.59	2.00	3,719.24	100.00	99.89	0.11	3,719.26	1.85	33.3
5/16/2017	101.78	99.62	2.16	3,719.19	100.30	99.83	0.47	3,719.26	1.45	34.8
5/18/2017	101.73	99.58	2.15	3,719.23	100.37	99.43	0.94	3,719.58	1.32	36.1
5/24/2017	101.85	99.38	2.47	3,719.37	100.89	99.98	0.91	3,719.04	1.72	37.8
5/31/2017	101.49	99.55	1.94	3,719.29	100.26	99.38	0.88	3,719.64	1.19	39.0
6/12/2017	103.28	99.50	3.78	3,719.03	100.80	99.96	0.84	3,719.07	2.51	41.5
6/23/2017	101.78	99.61	2.17	3,719.19	100.04	99.83	0.21	3,719.30	1.32	42.8
6/26/2017	101.71	99.70	2.01	3,719.13	100.27	99.87	0.40	3,719.23	1.45	44.3
6/29/2017	101.59	99.54	2.05	3,719.28	100.56	99.89	0.67	3,719.17	1.45	45.7
7/6/2017	100.78	99.65	1.13	3,719.33	100.02	99.63	0.39	3,719.47	1.72	47.5
7/11/2017	101.48	99.59	1.89	3,719.26	100.37	99.67	0.70	3,719.38	1.32	48.8
7/13/2017	103.58	99.91	3.67	3,718.64	101.13	100.42	0.71	3,718.63	1.98	50.8
7/18/2017	102.90	99.98	2.92	3,718.70	101.11	100.32	0.79	3,718.72	1.72	52.5
7/21/2017	101.54	99.54	2.00	3,719.29	--	--	--	--	1.32	53.8
8/22/2017	101.03	100.41	0.62	3,718.66	--	--	--	--	0.26	54.1
8/23/2017	101.01	100.04	0.97	3,718.97	--	--	--	--	0.26	54.3
8/29/2017	101.46	100.36	1.10	3,718.62	--	--	--	--	0.26	54.6
8/31/2017	101.45	100.35	1.10	3,718.63	--	--	--	--	0.26	54.9
9/5/2017	101.35	100.31	1.04	3,718.68	--	--	--	--	0.26	55.1
9/7/2017	101.13	100.25	0.88	3,718.77	--	--	--	--	0.26	55.4
9/11/2017	101.47	100.36	1.11	3,718.62	--	--	--	--	0.26	55.6
9/12/2017	101.45	100.35	1.10	3,718.63	--	--	--	--	0.26	55.9
9/14/2017	101.44	100.36	1.08	3,718.63	--	--	--	--	0.26	56.2
9/18/2017	101.47	100.27	1.20	3,718.70	--	--	--	--	0.26	56.4
9/19/2017	101.38	100.23	1.15	3,718.75	--	--	--	--	0.26	56.7
9/20/2017	101.44	100.32	1.12	3,718.66	--	--	--	--	0.26	57.0
9/22/2017	101.40	100.28	1.12	3,718.70	--	--	--	--	0.26	57.2
9/25/2017	101.47	100.25	1.22	3,718.71	--	--	--	--	0.26	57.5

Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
9/26/2017	101.45	100.36	1.09	3,718.63	--	--	--	--	0.26	57.8
9/27/2017	101.45	100.35	1.10	3,718.63	--	--	--	--	0.26	58.0
9/28/2017	101.13	100.20	0.93	3,718.81	--	--	--	--	0.26	58.3
10/2/2017	101.47	100.25	1.22	3,718.71	--	--	--	--	0.26	58.5
10/3/2017	101.45	100.36	1.09	3,718.63	--	--	--	--	0.26	58.8
10/4/2017	102.67	100.14	2.53	3,718.60	--	--	--	--	0.26	59.1
10/5/2017	102.73	100.10	2.63	3,718.63	--	--	--	--	0.26	59.3
10/9/2017	101.44	100.36	1.08	3,718.63	--	--	--	--	0.26	59.6
10/10/2017	101.46	100.36	1.10	3,718.62	--	--	--	--	0.26	59.9
10/12/2017	102.67	100.14	2.53	3,718.60	--	--	--	--	0.26	60.1
10/13/2017	102.50	100.05	2.45	3,718.71	--	--	--	--	0.26	60.4
10/16/2017	102.46	100.05	2.41	3,718.71	--	--	--	--	0.26	60.7
10/17/2017	102.56	100.23	2.33	3,718.55	--	--	--	--	0.26	60.9
10/18/2017	102.22	100.23	1.99	3,718.61	--	--	--	--	0.26	61.2
10/19/2017	102.71	99.89	2.82	3,718.81	--	--	--	--	0.26	61.5
10/23/2017	102.62	100.15	2.47	3,718.60	--	--	--	--	0.26	61.7
10/24/2017	101.87	99.57	2.30	3,719.21	--	--	--	--	0.26	62.0
10/25/2017	101.88	99.87	2.01	3,718.96	--	--	--	--	0.26	62.2
10/31/2017	102.82	100.00	2.82	3,718.70	--	--	--	--	0.26	62.5
11/1/2017	102.70	100.02	2.68	3,718.70	--	--	--	--	0.26	62.8
11/2/2017	102.72	100.00	2.72	3,718.71	--	--	--	--	0.26	63.0
11/3/2017	102.41	100.05	2.36	3,718.72	--	--	--	--	0.26	63.3
11/6/2017	102.44	100.13	2.31	3,718.65	--	--	--	--	0.26	63.6
11/7/2017	102.23	100.20	2.03	3,718.63	--	--	--	--	0.26	63.8
11/8/2017	102.43	100.25	2.18	3,718.55	--	--	--	--	0.26	64.1
11/13/2017	102.60	100.07	2.53	3,718.67	--	--	--	--	0.26	64.4
11/14/2017	102.35	100.12	2.23	3,718.67	--	--	--	--	0.26	64.6
11/15/2017	102.10	100.17	1.93	3,718.68	--	--	--	--	0.26	64.9
11/16/2017	101.88	100.21	1.67	3,718.68	--	--	--	--	0.26	65.2
11/17/2017	101.85	100.27	1.58	3,718.63	--	--	--	--	0.26	65.4
11/20/2017	102.05	100.15	1.90	3,718.70	101.12	100.40	0.72	3,718.65	1.45	66.9
11/22/2017	101.20	100.40	0.80	3,718.64	100.94	100.45	0.49	3,718.64	0.53	67.4
11/28/2017	101.05	100.47	0.58	3,718.60	--	--	--	--	0.26	67.7
11/29/2017	101.26	100.58	0.68	3,718.48	--	--	--	--	0.26	67.9
11/30/2017	101.27	100.56	0.71	3,718.49	--	--	--	--	0.26	68.2
12/1/2017	101.27	100.55	0.72	3,718.50	--	--	--	--	0.26	68.5
12/4/2017	101.30	100.67	0.63	3,718.39	--	--	--	--	0.26	68.7
12/5/2017	101.37	100.66	0.71	3,718.39	--	--	--	--	0.26	69.0
12/6/2017	101.23	100.50	0.73	3,718.55	--	--	--	--	0.26	69.2
12/7/2017	101.33	100.54	0.79	3,718.50	--	--	--	--	0.26	69.5
12/8/2017	101.28	100.56	0.72	3,718.49	--	--	--	--	0.26	69.8
12/12/2017	102.78	100.12	2.66	3,718.60	--	--	--	--	0.26	70.0
12/13/2017	102.75	100.09	2.66	3,718.63	--	--	--	--	0.26	70.3

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Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
12/14/2017	--	--	--	--	102.66	100.26	2.40	3,718.51	1.98	72.3
12/15/2017	101.28	100.48	0.80	3,718.56	--	--	--	--	0.26	72.6
12/18/2017	101.64	100.38	1.26	3,718.58	--	--	--	--	0.26	72.8
12/19/2017	101.60	100.34	1.26	3,718.62	--	--	--	--	0.26	73.1
12/21/2017	101.75	100.35	1.40	3,718.58	--	--	--	--	0.26	73.3
12/22/2017	101.66	100.43	1.23	3,718.53	--	--	--	--	0.26	73.6
1/2/2018	104.05	99.85	4.20	3,718.61	--	--	--	--	0.26	73.9
1/3/2018	104.10	99.93	4.17	3,718.54	--	--	--	--	0.26	74.1
1/4/2018	104.13	99.89	4.24	3,718.57	--	--	--	--	0.26	74.4
1/9/2018	104.14	99.88	4.26	3,718.57	--	--	--	--	0.26	74.7
1/12/2018	104.15	99.90	4.25	3,718.55	--	--	--	--	0.26	74.9
1/18/2018	104.63	99.82	4.81	3,718.54	--	--	--	--	0.26	75.2
1/19/2018	104.66	99.84	4.82	3,718.52	--	--	--	--	0.26	75.5
1/23/2018	104.68	99.93	4.75	3,718.44	--	--	--	--	0.26	75.7
1/26/2018	104.60	99.86	4.74	3,718.51	--	--	--	--	0.26	76.0
1/31/2018	105.51	99.70	5.81	3,718.49	--	--	--	--	0.26	76.2
2/2/2018	105.55	99.78	5.77	3,718.42	--	--	--	--	0.26	76.5
2/9/2018	--	--	--	--	105.68	99.35	6.33	3,718.75	1.72	78.2
2/14/2018	--	--	--	--	104.67	99.43	5.24	3,718.86	1.59	79.8
2/21/2018	--	--	--	--	105.51	99.73	5.78	3,718.47	1.45	81.3
3/6/2018	--	--	--	--	105.78	100.43	5.35	3,717.84	1.59	82.9
3/12/2018	--	--	--	--	105.77	100.35	5.42	3,717.91	1.32	84.2
3/16/2018	--	--	--	--	105.48	100.29	5.19	3,718.01	1.45	85.6
3/20/2018	--	--	--	--	106.26	99.75	6.51	3,718.32	1.06	86.7
3/21/2018	106.02	99.77	6.25	3,718.35	101.53	100.71	0.82	3,718.32	1.19	87.9
3/22/2018	102.04	100.06	1.98	3,718.78	101.38	100.78	0.60	3,718.29	1.32	89.2
3/26/2018	104.53	100.13	4.40	3,718.30	101.82	100.69	1.13	3,718.29	1.59	90.8
3/27/2018	102.45	100.06	2.39	3,718.71	101.53	100.79	0.74	3,718.26	1.19	92.0
3/28/2018	102.28	100.56	1.72	3,718.32	101.49	100.73	0.76	3,718.31	1.06	93.0
4/5/2018	105.55	100.05	5.50	3,718.19	101.34	100.90	0.44	3,718.20	5.00	98.0
4/11/2018	104.18	100.36	3.82	3,718.17	101.76	100.84	0.92	3,718.18	1.72	99.7
4/16/2018	105.03	100.26	4.77	3,718.11	101.73	100.89	0.84	3,718.14	3.70	103
4/19/2018	105.15	100.37	4.78	3,718.00	101.89	100.81	1.08	3,718.18	2.64	106
4/20/2018	104.05	100.32	3.73	3,718.22	101.53	100.73	0.80	3,718.31	2.77	109
4/24/2018	105.19	100.38	4.81	3,717.98	101.79	100.88	0.91	3,718.14	3.96	113
4/25/2018	104.20	100.29	3.91	3,718.22	101.39	100.79	0.60	3,718.28	3.43	116
4/30/2018	105.17	100.40	4.77	3,717.97	101.67	100.80	0.87	3,718.22	3.96	120
5/1/2018	104.67	100.52	4.15	3,717.95	101.49	100.03	1.46	3,718.89	2.77	123
5/3/2018	104.55	100.58	3.97	3,717.92	101.40	100.67	0.73	3,718.38	3.17	126
5/8/2018	105.09	100.41	4.68	3,717.97	101.77	100.08	1.69	3,718.81	1.59	128
5/9/2018	106.02	99.69	6.33	3,718.41	101.56	100.77	0.79	3,718.27	1.85	130
5/10/2018	105.67	99.70	5.97	3,718.47	101.64	100.71	0.93	3,718.30	2.25	132
5/14/2018	104.63	99.82	4.81	3,718.54	101.55	100.87	0.68	3,718.19	2.64	134

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Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
5/16/2018	104.32	100.58	3.74	3,717.96	101.49	100.98	0.51	3,718.10	2.25	137
5/17/2018	102.54	99.39	3.15	3,719.25	100.77	99.90	0.87	3,719.12	1.85	139
5/18/2018	102.09	100.1	1.99	3,718.74	101.35	100.81	0.54	3,718.27	1.85	140
5/21/2018	102.77	99.39	3.38	3,719.21	100.37	99.98	0.39	3,719.12	4.09	145
5/23/2018	101.78	99.57	2.21	3,719.23	99.89	99.83	0.06	3,719.33	1.85	146
5/24/2018	101.48	99.47	2.01	3,719.36	99.95	99.88	0.07	3,719.28	1.85	148
5/25/2018	101.44	99.61	1.83	3,719.25	100.29	99.83	0.46	3,719.26	1.98	150
5/30/2018	102.71	99.37	3.34	3,719.24	101.31	99.79	1.52	3,719.12	1.72	152
6/1/2018	101.79	99.47	2.32	3,719.31	100.32	99.89	0.43	3,719.21	1.85	154
6/4/2018	104.18	100.36	3.82	3,718.17	101.76	100.84	0.92	3,718.18	1.45	155
6/6/2018	106.51	100.53	5.98	3,717.63	102.16	101.38	0.78	3,717.66	1.45	157
6/7/2018	104.18	100.36	3.82	3,718.17	101.76	100.84	0.92	3,718.18	1.59	158
6/12/2018	105.03	100.26	4.77	3,718.11	101.73	100.29	1.44	3,718.64	1.59	160
6/14/2018	102.73	99.42	3.31	3,719.19	101.73	100.47	1.26	3,718.49	1.59	161
6/19/2018	101.44	99.54	1.90	3,719.31	100.33	99.74	0.59	3,719.33	1.72	163
6/20/2018	101.48	99.45	2.03	3,719.38	99.98	99.82	0.16	3,719.32	1.85	165
6/25/2018	101.20	100.4	0.80	3,718.64	100.94	100.45	0.49	3,718.64	1.85	167
6/27/2018	101.77	99.37	2.40	3,719.40	100.27	100.07	0.20	3,719.07	1.32	168
6/29/2018	101.57	99.82	1.75	3,719.06	100.73	99.87	0.86	3,719.16	1.72	170
7/3/2018	101.66	99.92	1.74	3,718.96	100.64	100.10	0.54	3,718.98	1.32	171
7/5/2018	101.45	99.79	1.66	3,719.10	100.32	99.81	0.51	3,719.27	1.32	173
7/10/2018	101.47	99.69	1.78	3,719.18	100.27	99.88	0.39	3,719.22	1.06	174
7/20/2018	101.21	99.57	1.64	3,719.32	100.21	99.83	0.38	3,719.28	1.19	175
7/25/2018	101.77	99.37	2.40	3,719.40	100.30	100.10	0.20	3,719.04	1.45	176
7/27/2018	101.78	99.62	2.16	3,719.19	100.30	99.83	0.47	3,719.26	1.32	178
7/30/2018	106.75	100.90	5.85	3,717.29	101.99	101.75	0.24	3,717.38	9.25	187
8/7/2018	101.48	99.45	2.03	3,719.38	100.09	99.77	0.32	3,719.35	1.32	188
8/10/2018	100.78	99.65	1.13	3,719.33	100.02	99.63	0.39	3,719.47	1.45	190
8/14/2018	103.58	99.91	3.67	3,718.64	101.13	100.42	0.71	3,718.63	1.59	191
8/16/2018	104.18	100.36	3.82	3,718.17	101.76	100.84	0.92	3,718.18	1.32	192
8/22/2018	101.73	99.58	2.15	3,719.23	100.37	99.43	0.94	3,719.58	1.59	194
8/23/2018	101.59	99.54	2.05	3,719.28	101.56	99.89	1.67	3,719.00	1.45	196
8/31/2018	106.02	99.77	6.25	3,718.35	101.53	100.71	0.82	3,718.32	1.72	197
9/3/2018	104.67	100.52	4.15	3,717.95	101.49	100.03	1.46	3,718.89	1.59	199
9/6/2018	105.67	99.70	5.97	3,718.47	101.64	100.71	0.93	3,718.30	1.72	201
9/11/2018	102.71	99.29	3.42	3,719.30	100.30	99.90	0.40	3,719.20	1.98	203
9/12/2018	101.77	99.37	2.40	3,719.40	100.30	100.10	0.20	3,719.04	1.59	204
9/19/2018	106.59	101.30	5.29	3,716.98	101.77	100.08	1.69	3,718.81	1.85	206
9/26/2018	104.57	101.46	3.11	3,717.19	102.55	100.20	2.35	3,718.57	1.85	208
10/1/2018	106.82	101.07	5.75	3,717.13	--	--	--	--	0.26	208
10/4/2018	106.78	101.09	5.69	3,717.12	102.77	101.91	0.86	3,717.12	4.76	213
10/5/2018	104.15	101.69	2.46	3,717.07	102.44	101.98	0.46	3,717.11	2.51	215
10/9/2018	105.96	101.36	4.60	3,717.04	102.64	102.01	0.63	3,717.05	4.49	220

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	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
10/11/2018	105.12	101.55	3.57	3,717.02	102.57	102.10	0.47	3,716.99	3.43	223
10/16/2018	105.63	101.27	4.36	3,717.17	102.32	102.20	0.12	3,716.95	4.49	228
10/18/2018	106.58	101.63	4.95	3,716.71	102.87	102.53	0.34	3,716.58	3.70	231
10/23/2018	105.83	101.37	4.46	3,717.05	102.85	102.68	0.17	3,716.46	3.70	235
10/25/2018	105.67	101.73	3.94	3,716.78	101.86	101.53	0.33	3,717.58	4.49	240
10/30/2018	104.68	101.43	3.25	3,717.19	102.74	102.59	0.15	3,716.55	3.70	243
11/1/2018	105.23	101.77	3.46	3,716.82	102.56	101.98	0.58	3,717.09	3.70	247
11/6/2018	105.55	101.96	3.59	3,716.61	102.54	102.38	0.16	3,716.76	4.23	251
11/8/2018	105.78	101.68	4.10	3,716.80	102.68	102.53	0.15	3,716.61	2.64	254
11/13/2018	105.66	101.67	3.99	3,716.83	102.53	102.36	0.17	3,716.78	2.64	257
11/14/2018	105.23	101.78	3.45	3,716.81	102.47	102.26	0.21	3,716.87	3.96	260
11/20/2018	106.93	101.31	5.62	3,716.91	104.25	101.85	2.40	3,716.92	3.96	264
11/27/2018	106.59	101.4	5.19	3,716.90	102.55	101.78	0.77	3,717.26	3.96	268
11/29/2018	106.87	101.17	5.70	3,717.04	102.62	101.75	0.87	3,717.27	3.96	272
12/4/2018	105.87	101.36	4.51	3,717.05	102.59	101.83	0.76	3,717.21	2.64	275
12/5/2018	105.67	101.37	4.30	3,717.08	102.79	101.76	1.03	3,717.24	3.96	279
12/11/2018	106.48	101.66	4.82	3,716.70	102.86	101.82	1.04	3,717.17	3.96	283
12/12/2018	105.79	101.83	3.96	3,716.67	102.66	101.92	0.74	3,717.13	4.49	287
12/18/2018	105.87	101.56	4.31	3,716.88	102.55	101.36	1.19	3,717.61	3.96	291
12/20/2018	105.79	101.46	4.33	3,716.98	102.36	101.45	0.91	3,717.57	2.64	294
12/28/2018	107	101.2	5.80	3,716.99	103.59	101.90	1.69	3,716.99	5.28	299
1/8/2019	107.88	101.75	6.13	3,716.39	102.59	101.98	0.61	3,717.09	5.28	305
1/10/2019	106.86	101.68	5.18	3,716.62	102.76	101.73	1.03	3,717.27	6.60	311
1/15/2019	106.56	101.74	4.82	3,716.62	102.83	101.76	1.07	3,717.23	6.60	318
1/17/2019	106.78	101.62	5.16	3,716.68	102.62	101.86	0.76	3,717.18	5.28	323
1/23/2019	106.52	101.47	5.05	3,716.85	102.65	101.72	0.93	3,717.29	4.49	328
1/24/2019	106.72	101.45	5.27	3,716.83	102.73	101.82	0.91	3,717.20	5.28	333
1/30/2019	106.78	101.64	5.14	3,716.66	102.35	101.86	0.49	3,717.23	7.13	340
1/31/2019	105.89	101.63	4.26	3,716.82	102.72	101.84	0.88	3,717.18	4.49	345
2/5/2019	106.63	101.83	4.80	3,716.53	102.36	101.85	0.51	3,717.23	5.28	350
2/7/2019	105.87	101.63	4.24	3,716.83	102.83	101.86	0.97	3,717.15	4.49	354
2/12/2019	105.67	101.78	3.89	3,716.74	102.73	101.23	1.50	3,717.69	5.28	360
2/14/2019	105.73	101.63	4.10	3,716.85	102.82	101.93	0.89	3,717.09	3.96	364
2/20/2019	105.32	101.53	3.79	3,717.00	102.37	101.86	0.51	3,717.22	4.49	368
2/21/2019	105.33	101.86	3.47	3,716.73	102.83	102.46	0.37	3,716.65	3.96	372
2/26/2019	106.98	101.26	5.72	3,716.95	102.78	101.89	0.89	3,717.13	3.96	376
2/28/2019	105.86	101.75	4.11	3,716.73	102.63	101.64	0.99	3,717.36	2.64	379
3/7/2019	105.68	101.56	4.12	3,716.92	102.68	101.57	1.11	3,717.41	3.96	383
3/13/2019	105.47	101.56	3.91	3,716.95	102.56	101.57	0.99	3,717.43	3.96	387
3/14/2019	105.52	101.53	3.99	3,716.97	102.47	101.83	0.64	3,717.23	4.49	391
3/20/2019	105.63	101.58	4.05	3,716.91	102.76	101.89	0.87	3,717.13	5.28	396
3/21/2019	102.05	100.15	1.90	3,718.70	101.14	100.40	0.74	3,718.65	3.96	400
3/25/2019	102.77	99.88	2.89	3,718.80	101.30	99.96	1.34	3,718.98	3.96	404

Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
3/27/2019	102.45	100.05	2.40	3,718.72	101.57	100.58	0.99	3,718.42	2.64	407
4/1/2019 [3]	107.98	102.33	5.65	3,715.89	--	--	--	--	--	--
5/22/2019	108.14	102.56	5.58	3,715.67	--	--	--	--	35.0	442
5/24/2019	--	--	--	--	--	--	--	--	2.00	444
5/29/2019	--	--	--	--	--	--	--	--	14.0	458
5/31/2019	--	--	--	--	--	--	--	--	6.00	464
6/3/2019	--	--	--	--	--	--	--	--	5.00	469
6/7/2019	--	--	--	--	--	--	--	--	6.50	475
6/12/2019	--	--	--	--	--	--	--	--	9.00	484
6/14/2019	--	--	--	--	--	--	--	--	3.50	488
6/17/2019	105.61	103.21	2.40	3,715.56	--	--	--	--	4.00	492
6/20/2019	--	--	--	--	--	--	--	--	4.00	496
6/26/2019	--	--	--	--	--	--	--	--	9.00	505
7/2/2019	--	--	--	--	--	--	--	--	7.00	512
7/5/2019	--	--	--	--	--	--	--	--	0.00	512
7/11/2019	108.33	102.96	5.37	3,715.31	--	--	--	--	3.00	515
7/12/2019	--	--	--	--	--	--	--	--	3.00	518
7/15/2019	--	--	--	--	--	--	--	--	2.00	520
7/19/2019	--	--	--	--	--	--	--	--	6.00	526
7/23/2019	--	--	--	--	--	--	--	--	6.00	532
7/26/2019	--	--	--	--	--	--	--	--	3.00	535
7/31/2019	--	--	--	--	--	--	--	--	1.00	536
8/2/2019	--	--	--	--	--	--	--	--	6.00	542
8/7/2019	--	--	--	--	--	--	--	--	4.00	546
8/9/2019	--	--	--	--	--	--	--	--	2.00	548
8/13/2019	--	--	--	--	--	--	--	--	3.00	551
8/15/2019	--	--	--	--	--	--	--	--	2.00	553
8/20/2019	--	--	--	--	--	--	--	--	3.00	556
8/22/2019	--	--	--	--	--	--	--	--	2.00	558
8/29/2019	105.78	103.79	1.99	3,715.05	--	--	--	--	4.00	562
8/30/2019	--	--	--	--	--	--	--	--	8.00	570
9/3/2019	--	--	--	--	--	--	--	--	24.0	594
9/6/2019	--	--	--	--	--	--	--	--	15.0	609
9/10/2019	104.95	104.08	0.87	3,714.94	--	--	--	--	0.00	609
9/12/2019	--	--	--	--	--	--	--	--	(4)	(4)
9/16/2019	--	--	--	--	--	--	--	--	35.0	644
9/20/2019	--	--	--	--	--	--	--	--	19.0	663
9/23/2019	--	--	--	--	--	--	--	--	21.0	684
9/27/2019	--	--	--	--	--	--	--	--	21.0	705
9/30/2019	--	--	--	--	--	--	--	--	17.0	722
10/3/2019	--	--	--	--	--	--	--	--	20.0	742
10/8/2019	--	--	--	--	--	--	--	--	30.0	772
10/10/2019	--	--	--	--	--	--	--	--	12.0	784

Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
10/14/2019	--	--	--	--	--	--	--	--	19.0	803
10/17/2019	--	--	--	--	--	--	--	--	2.25	805
10/21/2019	--	--	--	--	--	--	--	--	0.00	805
10/24/2019	104.97	104.32	0.65	3,715.77	--	--	--	--	0.00	805
11/15/2019	--	--	--	--	--	--	--	--	0.00	805
11/18/2019	--	--	--	--	--	--	--	--	0.00	805
11/22/2019	--	--	--	--	--	--	--	--	2.00	807
11/25/2019	--	--	--	--	--	--	--	--	4.00	811
11/26/2019	--	--	--	--	--	--	--	--	0.00	811
12/2/2019	--	--	--	--	--	--	--	--	4.00	815
12/6/2019	--	--	--	--	--	--	--	--	3.00	818
12/10/2019	--	--	--	--	--	--	--	--	4.00	822
12/13/2109	--	--	--	--	--	--	--	--	[4]	[4]
12/20/2019	--	--	--	--	--	--	--	--	[4]	[4]
12/23/2019	--	--	--	--	--	--	--	--	12.0	834
12/26/2019	--	--	--	--	--	--	--	--	3.00	837
1/6/2020	--	--	--	--	--	--	--	--	12.00	849
1/10/2020	--	--	--	--	--	--	--	--	7.00	856
1/13/2020	--	--	--	--	--	--	--	--	1.50	858
1/15/2020	104.87	104.51	0.36	3,714.60	--	--	--	--	2.50	860
1/20/2020	--	--	--	--	--	--	--	--	3.00	863
1/31/2020	--	--	--	--	--	--	--	--	9.00	872
2/4/2020	--	--	--	--	--	--	--	--	3.00	875
2/6/2020	--	--	--	--	--	--	--	--	2.00	877
2/12/2020	--	--	--	--	--	--	--	--	4.50	882
2/14/2020	--	--	--	--	--	--	--	--	1.00	883
2/17/2020	--	--	--	--	--	--	--	--	3.00	886
2/21/2020	--	--	--	--	--	--	--	--	3.00	889
2/24/2020	--	--	--	--	--	--	--	--	2.50	891
2/28/2020	--	--	--	--	--	--	--	--	3.50	895
3/2/2020	--	--	--	--	--	--	--	--	1.50	896
3/6/2020	--	--	--	--	--	--	--	--	2.00	898
3/9/2020	--	--	--	--	--	--	--	--	3.00	901
3/13/2020	--	--	--	--	--	--	--	--	3.00	904
3/17/2020	--	--	--	--	--	--	--	--	3.00	907
3/20/2020	--	--	--	--	--	--	--	--	2.00	909
3/30/2020	--	--	--	--	--	--	--	--	8.00	917
4/2/2020	--	--	--	--	--	--	--	--	2.00	919
4/7/2020	--	--	--	--	--	--	--	--	3.00	922
4/9/2020	--	--	--	--	--	--	--	--	1.00	923
4/13/2020	--	--	--	--	--	--	--	--	2.00	925
4/16/2020	--	--	--	--	--	--	--	--	2.00	927
4/20/2020	--	--	--	--	--	--	--	--	6.00	933

Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
4/24/2020	--	--	--	--	--	--	--	--	2.00	935
4/27/2020	--	--	--	--	--	--	--	--	3.00	938
5/1/2020	--	--	--	--	--	--	--	--	4.00	942
5/4/2020	--	--	--	--	--	--	--	--	3.00	945
5/8/2020	--	--	--	--	--	--	--	--	3.00	948
5/12/2020	--	--	--	--	--	--	--	--	4.00	952
5/15/2020	--	--	--	--	--	--	--	--	2.00	954
5/18/2020	--	--	--	--	--	--	--	--	4.00	958
5/22/2020	--	--	--	--	--	--	--	--	2.00	960
5/26/2020	--	--	--	--	--	--	--	--	3.00	963
5/29/2020	--	--	--	--	--	--	--	--	4.00	967
6/1/2020	--	--	--	--	--	--	--	--	2.00	969
6/5/2020	--	--	--	--	--	--	--	--	3.00	972
6/8/2020	--	--	--	--	--	--	--	--	2.00	974
6/15/2020	--	--	--	--	--	--	--	--	6.00	980
6/18/2020	107.28	104.41	2.87	3,714.28	--	--	--	--	3.00	983
6/23/2020	--	--	--	--	--	--	--	--	0.00	983
6/26/2020	--	--	--	--	--	--	--	--	1.00	984
6/29/2020	--	--	--	--	--	--	--	--	2.00	986
7/2/2020	--	--	--	--	--	--	--	--	3.00	989
7/7/2020	--	--	--	--	--	--	--	--	3.00	992
7/10/2020	--	--	--	--	--	--	--	--	2.00	994
7/13/2020	--	--	--	--	--	--	--	--	2.00	996
7/17/2020	--	--	--	--	--	--	--	--	(4)	(4)
7/20/2020	--	--	--	--	--	--	--	--	(4)	(4)
7/24/2020	--	--	--	--	--	--	--	--	(4)	(4)
7/27/2020	--	--	--	--	--	--	--	--	(4)	(4)
8/4/2020	--	--	--	--	--	--	--	--	(4)	(4)
8/11/2020	--	--	--	--	--	--	--	--	(4)	(4)
8/14/2020	--	--	--	--	--	--	--	--	(4)	(4)
8/17/2020	--	--	--	--	--	--	--	--	(4)	(4)
8/19/2020	109.32	104.43	4.89	3,713.92	--	--	--	--	(4)	(4)
8/24/2020	--	--	--	--	--	--	--	--	27.0	1,023
9/14/2020	--	--	--	--	--	--	--	--	26.0	1,049
9/23/2020	--	--	--	--	--	--	--	--	9.00	1,058
10/8/2020	108.59	105.09	3.50	3,713.49	--	--	--	--	27.0	1,085
10/12/2020	--	--	--	--	--	--	--	--	0.00	1,085
10/19/2020	--	--	--	--	--	--	--	--	5.00	1,090
10/26/2020	--	--	--	--	--	--	--	--	4.00	1,094
11/2/2020	--	--	--	--	--	--	--	--	4.00	1,098
11/10/2020	--	--	--	--	--	--	--	--	4.00	1,102
11/16/2020	--	--	--	--	--	--	--	--	6.00	1,108
11/24/2020	--	--	--	--	--	--	--	--	6.00	1,114

Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
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	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
11/30/2020	--	--	--	--	--	--	--	--	2.00	1,116
12/7/2020	--	--	--	--	--	--	--	--	4.00	1,120
12/14/2020	--	--	--	--	--	--	--	--	6.00	1,126
12/21/2020	--	--	--	--	--	--	--	--	6.00	1,132
12/29/2020	--	--	--	--	--	--	--	--	5.00	1,137
1/4/2021	--	--	--	--	--	--	--	--	6.00	1,143
1/11/2021	--	--	--	--	--	--	--	--	4.00	1,147
1/18/2021	--	--	--	--	--	--	--	--	3.00	1,150
1/26/2021	--	--	--	--	--	--	--	--	5.00	1,155
1/28/2021	109.98	105.02	4.96	3,713.32	--	--	--	--	0.00	1,155
2/2/2021	--	--	--	--	--	--	--	--	9.00	1,164
2/8/2021	--	--	--	--	--	--	--	--	6.00	1,170
2/16/2021	--	--	--	--	--	--	--	--	[4]	[4]
2/22/2021	--	--	--	--	--	--	--	--	[4]	[4]
3/1/2021	--	--	--	--	--	--	--	--	7.00	1,177
3/9/2021	--	--	--	--	--	--	--	--	6.00	1,183
3/15/2021	--	--	--	--	--	--	--	--	6.00	1,189
3/22/2021	--	--	--	--	--	--	--	--	8.00	1,197
3/29/2021	--	--	--	--	--	--	--	--	7.00	1,204
4/5/2021	--	--	--	--	--	--	--	--	7.00	1,211
4/12/2021	--	--	--	--	--	--	--	--	7.00	1,218
4/15/2021	109.53	105.34	4.19	3,713.12	--	--	--	--	4.00	1,222
4/19/2021	--	--	--	--	--	--	--	--	4.00	1,226
4/26/2021	--	--	--	--	--	--	--	--	7.00	1,233
5/3/2021	--	--	--	--	--	--	--	--	7.00	1,240
5/10/2021	--	--	--	--	--	--	--	--	7.00	1,247
5/17/2021	--	--	--	--	--	--	--	--	7.00	1,254
5/24/2021	--	--	--	--	--	--	--	--	7.00	1,261
6/1/2021	--	--	--	--	--	--	--	--	6.00	1,267
6/8/2021	--	--	--	--	--	--	--	--	7.00	1,274
6/14/2021	--	--	--	--	--	--	--	--	5.00	1,279
6/21/2021	--	--	--	--	--	--	--	--	5.00	1,284
6/28/2021	--	--	--	--	--	--	--	--	6.00	1,290
7/6/2021	--	--	--	--	--	--	--	--	8.00	1,298
7/12/2021	--	--	--	--	--	--	--	--	8.00	1,306
7/15/2021	110.04	105.54	4.50	3712.87	--	--	--	--	1.00	1,307
7/19/2021	--	--	--	--	--	--	--	--	2.00	1,309
7/26/2021	--	--	--	--	--	--	--	--	5.00	1,314
8/2/2021	--	--	--	--	--	--	--	--	9.00	1,323
8/10/2021	--	--	--	--	--	--	--	--	8.00	1,331
8/16/2021	--	--	--	--	--	--	--	--	[4]	[4]
8/24/2021	--	--	--	--	--	--	--	--	[4]	[4]
8/30/2021	--	--	--	--	--	--	--	--	2.00	1,333

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Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
9/8/2021	--	--	--	--	--	--	--	--	9.00	1,342
9/14/2021	--	--	--	--	--	--	--	--	7.00	1,349
9/16/2021	111.52	105.73	5.79	3712.47	--	--	--	--	3.00	1,352
9/21/2021	--	--	--	--	--	--	--	--	4.00	1,356
9/28/2021	--	--	--	--	--	--	--	--	5.00	1,361
10/13/2021	--	--	--	--	--	--	--	--	7.00	1,368
10/19/2021	--	--	--	--	--	--	--	--	5.00	1,373
10/27/2021	--	--	--	--	--	--	--	--	7.00	1,380
11/2/2021	--	--	--	--	--	--	--	--	6.00	1,386
11/8/2021	--	--	--	--	--	--	--	--	6.00	1,392
11/16/2021	--	--	--	--	--	--	--	--	7.00	1,399
11/22/2021	--	--	--	--	--	--	--	--	7.00	1,406
11/30/2021	--	--	--	--	--	--	--	--	8.00	1,414
12/6/2021	--	--	--	--	--	--	--	--	6.00	1,420
12/14/2021	--	--	--	--	--	--	--	--	8.00	1,428
12/21/2021	--	--	--	--	--	--	--	--	7.00	1,435
12/28/2021	--	--	--	--	--	--	--	--	8.00	1,443
1/4/2022	--	--	--	--	--	--	--	--	8.00	1,451
1/11/2022	--	--	--	--	--	--	--	--	7.00	1,458
1/18/2022	--	--	--	--	--	--	--	--	3.00	1,461
1/20/2022	110.78	105.78	5.00	3712.55	--	--	--	--	4.00	1,465
1/25/2022	--	--	--	--	--	--	--	--	6.00	1,471
2/1/2022	--	--	--	--	--	--	--	--	6.00	1,477
2/8/2022	--	--	--	--	--	--	--	--	8.00	1,485
2/15/2022	--	--	--	--	--	--	--	--	5.00	1,490
2/22/2022	--	--	--	--	--	--	--	--	7.00	1,497
3/1/2022	--	--	--	--	--	--	--	--	4.00	1,501
3/8/2022	--	--	--	--	--	--	--	--	0.00	1,501
3/15/2022	--	--	--	--	--	--	--	--	5.00	1,506
3/22/2022	--	--	--	--	--	--	--	--	5.00	1,511
3/29/2022	--	--	--	--	--	--	--	--	2.00	1,513
4/12/2022	--	--	--	--	--	--	--	--	3.00	1,516
4/14/2022	111.72	105.96	5.76	3712.24	--	--	--	--	0.00	1,516
4/29/2022	--	--	--	--	--	--	--	--	4.00	1,520
5/3/2022	--	--	--	--	--	--	--	--	11.00	1,531
5/10/2022	--	--	--	--	--	--	--	--	0.00	1,531
5/17/2022	--	--	--	--	--	--	--	--	0.00	1,531
7/5/2022	--	--	--	--	--	--	--	--	5.00	1,536
7/12/2022	--	--	--	--	--	--	--	--	9.00	1,545
7/14/2022	110.04	106.24	3.80	3712.29	--	--	--	--	0.00	1,545
7/19/2022	--	--	--	--	--	--	--	--	8.00	1,553
7/26/2022	--	--	--	--	--	--	--	--	5.00	1,558
8/2/2022	--	--	--	--	--	--	--	--	9.00	1,567

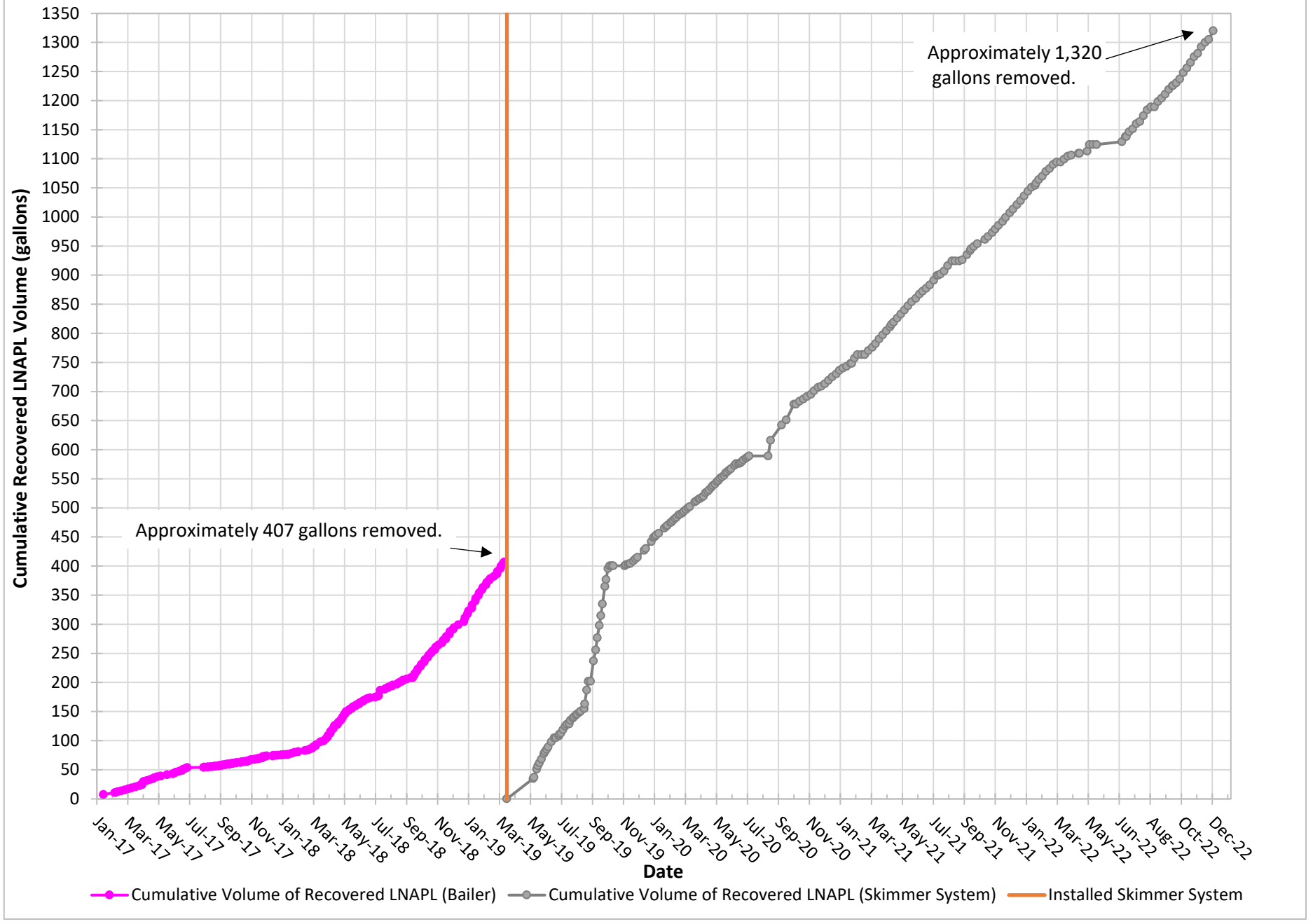
Appendix E - LNAPL Gauging and Recovery Results, Monitoring Well MW-31
HF Sinclair Navajo Refining LLC, GW-014, Lovington, New Mexico

Date	Prior to Bailing or After Removing Skimmer[1,3]				After Bailing				LNAPL Volume Recovered (gal)	Cumulative LNAPL Recovered (gal)
	Initial Depth to Water (ft btoc)	Initial Depth to LNAPL (ft btoc)	Initial Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)	Final Depth to Water (ft btoc)	Final Depth to LNAPL (ft btoc)	Final Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation[2] (ft amsl)		
8/9/2022	--	--	--	--	--	--	--	--	4.00	1,571
8/16/2022	--	--	--	--	--	--	--	--	10.00	1,581
8/23/2022	--	--	--	--	--	--	--	--	10.00	1,591
8/30/2022	--	--	--	--	--	--	--	--	5.00	1,596
9/6/2022	--	--	--	--	--	--	--	--	0.00	1,596
9/13/2022	--	--	--	--	--	--	--	--	9.00	1,605
9/20/2022	--	--	--	--	--	--	--	--	6.00	1,611
9/27/2022	--	--	--	--	--	--	--	--	7.00	1,618
10/4/2022	--	--	--	--	--	--	--	--	8.00	1,626
10/11/2022	--	--	--	--	--	--	--	--	6.00	1,632
10/12/2022	112.32	106.41	5.91	3811.77	--	--	--	--	1.00	1,633
10/18/2022	--	--	--	--	--	--	--	--	4.00	1,637
10/25/2022	--	--	--	--	--	--	--	--	7.00	1,644
11/1/2022	--	--	--	--	--	--	--	--	11.00	1,655
11/8/2022	--	--	--	--	--	--	--	--	8.00	1,663
11/15/2022	--	--	--	--	--	--	--	--	9.00	1,672
11/22/2022	--	--	--	--	--	--	--	--	10.00	1,682
11/29/2022	--	--	--	--	--	--	--	--	6.00	1,688
12/6/2022	--	--	--	--	--	--	--	--	11.00	1,699
12/13/2022	--	--	--	--	--	--	--	--	8.00	1,707
12/20/2022	--	--	--	--	--	--	--	--	5.00	1,712
12/29/2022	--	--	--	--	--	--	--	--	15.00	1,727

Notes:
LNAPL = Light Non-Aqueous Phase Liquid
ft btoc = feet below top of casing
ft amsl = feet above mean sea level
-- = not measured
[1] Passive skimmer (Petro-Bailer™) installed in well on August 17, 2017. Passive skimmer prohibits fluid gauging prior to removal from well.
[2] Groundwater elevation corrected for the presence of LNAPL using a specific gravity of 0.8317. Top of well casing elevation = 3,819.17 feet amsl.
[3] Pneumatic skimmer pump system (Geotech SpOILer System) installed on April 1, 2019. Fluid gauging conducted after skimmer pump removed from well and well equilibrates.
[4] LNAPL volume recovered in tote too low to provide accurate estimate.
[5] Pneumatic skimmer pump system noted not operating from September 28, 2021, until October 8, 2021, and from May 19, 2022, until June 29, 2022, when system was repaired.

Released to Imaging: 4/14/2023 4:34:58 PM
Received by OCD: 4/14/2023 3:51:30 PM

Graph E.1: Cumulative Volume of Recovered LNAPL at MW-31



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District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 208029

CONDITIONS

Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID: 15694
	Action Number: 208029
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
scwells	Accepted for Records Retention Purposes Only	4/14/2023