

Spring 2025 Semi-Annual Groundwater and Methane Monitoring Report for the Westwood Rubble Landfill

**Edgewood Area
Aberdeen Proving Ground, Maryland**

Prepared for:



**Directorate of Public Works Environmental Division
U.S. Army Garrison
Aberdeen Proving Ground, Maryland 21005**

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ACRONYMS AND ABBREVIATIONS

±	plus or minus
%	percent
<	less than
°C	degrees Celsius
amsl	above mean sea level
APG	Aberdeen Proving Ground
CoC	Chain-of-Custody
COMAR	Code of Maryland Regulations
DO	Dissolved oxygen
ECC	Environmental Chemical Corporation
GP	General Physics Corporation
HFPO-DA	Hexafluoropropylene oxide dimer acid
LEL	Lower explosive limit
MCL	Maximum Contaminant Level
MDE	Maryland Department of the Environment
µg/L	Micrograms per liter
MF/L	Million fibers per liter
ng/L	Nanograms per liter
ORP	Oxidation/reduction potential
pCi/L	Picocuries per liter
PFAS	Per- and Polyfluoroalkyl Substances
PFBS	Perfluorobutanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFNA	Perfluorononanoic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
RSJV	Renova-Sovereign Joint Venture
SMCL	Secondary MCL
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

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1.0 INTRODUCTION

Renova-Sovereign Joint Venture (RSJV) has been contracted by the U.S. Army Garrison Aberdeen Proving Ground (APG) Directorate of Public Works, Environmental Division under Contract Number W56ZTN-17-D-0009 to perform methane and groundwater monitoring at the Westwood Rubble Landfill, Delivery Order Number W56ZTN-21-F-0139, within the Edgewood Area of APG, Maryland.

The methane and groundwater monitoring program consists of the following tasks:

- Quarterly methane gas monitoring.
- Quarterly measurement and evaluation of groundwater elevations; and
- Semi-annual sampling of groundwater and evaluation of results.

1.1 Site Background

The Westwood Rubble Landfill is located in the Edgewood Area of APG (**Figure 1**). Disposal operations began in 1980, and the landfill was operated under Refuse Disposal Permit Number 1999-WRF-0108. The Westwood Rubble Landfill ceased accepting waste as of 30 June 2001. Waste discarded in the landfill included concrete, brick, stone, metal, asphalt, plastic, asbestos, and other construction and land clearing debris. The Refuse Disposal Permit specifically prohibited the disposal of controlled hazardous substances, waste containing free liquids, infectious waste, radioactive materials, animal carcasses, chemical/petroleum oil lubricant spill cleanup material, and drums or tanks unless empty and crushed. Final closure of the landfill began in July 2002 and ended on 23 September 2003, with inspection and approval by representatives of the Maryland Department of the Environment (MDE) (EA, 2011b).

A monitoring program has been implemented for the Westwood Rubble Landfill which originally consisted of quarterly methane gas monitoring, monthly groundwater well gauging to determine groundwater elevations, and annual groundwater sampling to monitor groundwater quality. During 2011, the monitoring program was revised to include quarterly, rather than monthly groundwater gauging. In addition, the list of wells which are included in the monitoring program was revised and shortened (EA, 2011a). Then in 2018, the monitoring program was revised to include semi-annual, rather than annual groundwater evaluation.

In accordance with the Code of Maryland Regulations (COMAR) 26.04.07.09, 26.04.07.17, 26.04.07.20 and/or 40 CFR Part 258, per- and polyfluoroalkyl substances (PFAS) sampling is required at Westwood Rubble Landfill. PFAS sampling began in 2024. The following six PFAS have been added to the semi-annual groundwater monitoring program: perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexanesulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluorobutanesulfonic acid (PFBS), and hexafluoropropylene oxide dimer acid (HFPO-DA; GenX).

1.2 Purpose

This report documents the methodology and results for monitoring activities completed at the Westwood Rubble Landfill conducted during the first and second quarters of 2025. Monitoring activities were conducted according to the *Sampling and Analysis Plan for the Westwood Rubble Landfill Methane and Groundwater Monitoring Program* (Bluestone, 2019).

The purpose of methane monitoring is to provide MDE with information to ensure that unsafe concentrations of methane gas are not leaving the permitted landfill boundary.

Groundwater sampling is conducted at the Westwood Rubble Landfill, in accordance with the groundwater discharge permit (MDE No. 2021-GWD-2567), to evaluate groundwater trends and to ensure that contaminants are not migrating towards waters of the State.

2.0 SUMMARY OF FIELD ACTIVITIES

Methane monitoring, groundwater elevation measurements, and groundwater sampling were conducted in accordance with the *Sampling and Analysis Plan for the Westwood Rubble Landfill Methane and Groundwater Monitoring Program* (Bluestone, 2019), as discussed in **Section 1.2**.

2.1 Methane Monitoring

Methane gas monitoring at the Westwood Rubble Landfill was conducted at four monitoring points (WM-04R, WM-05R, WM-06R, and WM-07R) on 28 January 2025 and 14 April 2025 (**Figure 1**). These methane monitoring points were installed adjacent to the existing monitoring points at the Westwood Rubble Landfill during November 2023 (a separate report detailing the installation will be provided).

Methane monitoring was conducted using the Landtec Gas Analyzer and Extraction Monitor 5000, which is a hand-held gas meter designed for landfill gas monitoring. The methane probe was calibrated prior to each use. The calibration logs for the probe are included in **Appendix A** and the methane monitoring logs are provided in **Appendix B**. The results from the January and April 2025 methane monitoring events are included in **Table 1**.

2.2 Groundwater Elevation Measurements

Groundwater elevation measurements were collected from seven monitoring wells (WW-01, WW-04R, WW-05, WW-08, WW-09, WW-10, and WW-11R) on 28 January 2025 and 14 April 2025 (**Figures 2 and 3, respectively**). The January and April gauging events also included an evaluation of monitoring well conditions, confirmation of well construction, and an assessment of sediment build-up within each well. Gauging data collected from the wells during the first and second quarter 2025 monitoring events are summarized in **Table 2**.

All monitoring wells were inspected, and structural components of the wells appeared to be in good condition.

2.3 Groundwater Sampling

Five site monitoring wells (WW-04R, WW-05, WW-09, WW-10, and WW-11R) were sampled during the second quarter of 2025, on 16 April 2025. Low stress (low flow) purging and sampling procedures were used to ensure a representative groundwater sample. During the April sampling event four of the monitoring wells (WW-04R, WW-09, WW-10, and WW-11R) were sampled with a Geotech submersible pump and well WW-05 was sampled with a peristaltic pump due to high turbidity and flow rate issues. All sampling equipment used was PFAS free.

Water quality parameters were monitored in the field during groundwater sampling to ensure well stabilization using a Horiba U-52 Water Quality Meter. Parameters monitored included temperature, conductivity, pH, turbidity, oxidation/reduction potential (ORP), dissolved oxygen (DO), and salinity. Readings were collected at five-minute intervals. Stabilization was defined as three consecutive readings that were within plus or minus (\pm) 0.1 for pH, ± 3 percent (%) for conductivity, $\pm 10\%$ for DO, and $\pm 10\%$ or less than ($<$) 10 nephelometric turbidity units for turbidity. The calibration logs for the instruments can be found in **Appendix A** and the purge logs from the groundwater sampling are included in **Appendix C**.

Samples were collected in laboratory-supplied sample containers and packed on ice in portable coolers immediately following containerization to maintain a temperature of 4 degrees Celsius ($^{\circ}\text{C}$). Volatile

organic compound (VOC) sample containers were stored in the same cooler along with the trip blanks. Chain-of-Custody (CoC) procedures were maintained to provide a record of samples collected and to document custody transfer of the samples from collection to analysis. Samples were submitted to Advanced Environmental Laboratories in Jacksonville, Florida for the following analyses:

- VOCs (United States Environmental Protection Agency [USEPA] 8260C)
- Total Metals (USEPA 6010C, 6020A, Mercury EPA 7470A)
- Chemical Oxygen Demand (USEPA 410.4)
- Hardness (USEPA 6010C)
- Nitrate (USEPA 300.0)
- Alkalinity (USEPA 310.1)
- Chloride (USEPA 300.0)
- Specific Conductance (SM 2510B)
- Sulfate (USEPA 300.0)
- pH (SM 4500H+B)
- Turbidity (SM 2130B)
- Total Dissolved Solids (SM 2540C)
- Ammonia (USEPA 350.1)
- Gross Alpha and Gross Beta (USEPA 900.0)
- Asbestos (USEPA 100.2)
- PFAS [PFOA, PFOS, PFHxS, PFNA, PFBS, and HFPO-DA; GenX] (USEPA 1633)

The laboratory reported analytical results based on the practical quantitation limits defined within the State of Maryland discharge permit for the Westwood Rubble Landfill. Copies of the CoCs provided to the laboratory are included in **Appendix D**.

2.4 Decontamination Procedures

Decontamination procedures outlined in the *Sampling and Analysis Plan for the Westwood Rubble Landfill Methane and Groundwater Monitoring Program* (Bluestone, 2019) were followed during the semi-annual groundwater sampling event.

2.5 Health and Safety

As described in the approved Site Safety and Health Plan (ECC, 2014), a health and safety tailgate meeting was held at the beginning of the workday. The daily tailgate meeting forms are included in **Appendix E**.

3.0 RESULTS

3.1 Methane Monitoring

Methane was not detected at the Westwood Rubble Landfill during January and April 2025. This follows the historical trend, which shows little to no methane detected over the past several years.

The regulatory level of concern for the site is 1.25% methane in air, which is 25% of the lower explosive limit (LEL). There were no exceedances of the action level during this monitoring period.

The quarterly methane monitoring results are shown in **Table 1**. Historical results (2010 – 2025) of methane monitoring for the events are summarized in **Appendix F**.

3.2 Groundwater Monitoring

3.2.1 Groundwater Elevation Measurements

Groundwater elevations at the Westwood Rubble Landfill site ranged from 1.39 to 15.06 feet above mean sea level (amsl) during the January 2025 gauging event and ranged from 1.11 to 17.12 feet amsl during the April 2025 gauging event (**Table 2**). Groundwater elevations at the Westwood Rubble Landfill exhibit slight seasonal fluctuations compared to historical groundwater elevations.

Groundwater elevation gauging data is used to determine the direction of groundwater flow during each monitoring event. The quarterly groundwater elevations were used to form groundwater contour maps for the landfill (**Figures 2 and 3**). Groundwater at the site flows to the southwest with minimal variation during the year. Since the landfill type is area fill, the landfill bottom is the original ground surface elevation (GP, 2009).

3.2.2 April 2025 Sampling Event

Analytes detected in groundwater were compared to primary or secondary Maximum Contaminant Levels (MCLs) for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025). The analytes detected in exceedance of the MCLs or secondary MCLs (SMCLs) during the April 2025 semi-annual groundwater monitoring event are summarized in **Table 3** and a summary of the detected compound results are shown in **Table 4**. The complete laboratory analytical data packages for the April 2025 sampling event are included in **Appendix G**. All analytical results below the reporting limit that could be estimated by the laboratory are reported with a “J” qualifier.

During April 2025 there was a low detection of acetone, which does not have an MCL, reported in well WW-09. No other VOCs were detected during the April 2025 sampling event.

No metals were detected above primary MCLs during the April 2025 sampling event. Total arsenic, previously detected at 45 micrograms per Liter (µg/L) in monitoring well WW-09 during the October 2022 sampling event, was only detected at 0.7 J µg/L during the April 2025 sampling event. SMCLs were exceeded for total aluminum, total iron, and total manganese at monitoring wells WW-05, WW-09, and WW-11R. Aluminum was also reported above the SMCL at well WW-10.

Radiological parameters (gross alpha and gross beta) and asbestos were analyzed, and the results are included in **Appendix G**. There were no detections of asbestos during the April 2025 event. Gross alpha

(3.24 picocuries per liter (pCi/L)) and gross beta (7.31 pCi/L) were detected below the MCLs at well WW-10. Gross beta was also detected at wells WW-05 (2.64 pCi/L) and WW-09 (2.37 pCi/L) below the MCL.

Multiple PFAS were detected during the April 2025 sampling event. Both PFOA and PFHxS concentrations were reported above the MCLs (4 nanograms per liter [ng/L] and 10 ng/L, respectively) at monitoring wells WW-09 and WW-10. PFOA was detected at 31 ng/L in WW-09 and at 18 ng/L in WW-10. PFHxS was detected at 32 ng/L in WW-09 and at 17 ng/L in WW-10. PFBS was also reported in monitoring wells WW-09 (3 ng/L) and WW-10 (1.5 ng/L), however PFBS does not have an individual MCL. PFOS was detected below the MCL (4 ng/L) at well WW-10. HFPO-DA was not detected in the groundwater during the April 2025 sampling event. Monitoring wells WW-04R, WW-05, and WW-11R did not have detections of PFAS.

3.2.3 Historical Monitoring Data

Historical groundwater monitoring data (since March 2000) is included in **Appendix H**. Historical data were compared to MCLs and SMCLs, and USEPA Guidance Levels where no MCLs were available.

The only VOCs to exceed MCLs during long-term monitoring at the Westwood Rubble Landfill were dichloromethane and tetrachloroethene. Dichloromethane was detected sporadically at two wells, at levels exceeding the MCL of 5 µg/L. The most recent occurrence of dichloromethane above the MCL was March 2004 at 14 µg/L in WW-09. The most recent exceedance of the MCL for tetrachloroethene occurred in August 2003 at 6.5 µg/L in WW-11R. The detections of these two VOCs above MCLs are not sustained and show no pattern of migration. No VOC analytes were detected above the MCLs during April 2025.

Detections above MCLs of five metals, arsenic, chromium, lead, mercury, and thallium, have been reported since the start of landfill monitoring in 2000. Over time, these detections have varied between non-detect and levels above the MCL values (i.e., are not sustained) and show no distinct patterns of migration at the site. Arsenic has been detected above the MCL value in two wells, once in WW-04R during 2016 and in WW-09 during 2022. Arsenic was not detected above the MCL at WW-09 during April 2025. Within well WW-11R, chromium has been detected above the MCL value twice, and lead and thallium each have been detected once above the MCL values. Mercury has only been detected at a level above its MCL value once, within well WW-10. Thallium concentrations have exceeded the MCL value twice at well WW-05 and three times within well WW-09.

The metals aluminum, iron, and manganese have been routinely detected in groundwater above SMCLs during the 25 years of long-term monitoring at the Westwood Rubble Landfill. Secondary MCLs are non-enforceable advisory standards related to aesthetics and physical characteristics (e.g., turbidity, taste, color, odor, etc.) of drinking water. The presence of these three metals in groundwater underlying a construction debris landfill and within an area historically used for munitions testing is commonly expected.

The following metals were detected above MCLs or SMCLs (location and date of most recent exceedance noted):

- Aluminum (WW-04 during November 2024; WW-05, WW-09, WW-10, and WW-11R during April 2025)
- Arsenic (WW-04R during April 2016; WW-09 during October 2022)
- Chromium (WW-11R during August 2002)
- Iron (WW-10 during October 2018; WW-04R during April 2023; WW-05, WW-09, and WW-11R during April 2025)
- Lead (WW-11R during August 2002)

- Manganese (WW-10 during August 2000; WW-04R during October 2012; WW-05, WW-09, and WW-11R during April 2025)
- Mercury (WW-10 during February 2002)
- Thallium (WW-05 during April 2019, WW-09 during August 2003, and WW-11R during November 2015)

There were valid exceedances of gross alpha above its MCL of 5 pCi/L in October 2016 at WW-11R with a value of 31 pCi/L, and in October 2017 at WW-10 with a value of 15.1 pCi/L. Although the exceedances of gross alpha are intermittent, monitoring for radiochemistry parameters should continue as prior to landfilling activities, the site was used for radiological testing activities. Gross alpha (3.24 pCi/L) was only detected in WW-10 during the April 2025 sampling event. Gross beta was reported above the MCL of 50 pCi/L in well WW-05 (53.1 pCi/L) during the April 2021 sampling event. The anomalous gross beta MCL exceedance was a first-time occurrence at WW-05 and the well was resampled in June 2021. The results were reported as non-detect for gross beta, which is consistent with historical results at this well location. Gross beta was detected below the MCL at wells WW-05 (2.64 pCi/L), WW-09 (2.37 pCi/L), and WW-10 (7.31 pCi/L) during the April 2025 sampling event.

Prior to 2012, asbestos had been detected once, at a concentration of 2 million fibers per liter (MF/L) at WW-11R in March 2007. This detection was below the MCL of 7 MF/L. In October 2012, asbestos was detected in two wells, WW-04R at 288 MF/L and WW-05 at 2,832 MF/L. No asbestos fibers were reported during the April 2025 sampling event. Therefore, based on historical sampling data, it appears that the concentrations reported for the original 2012 samples are anomalous.

4.0 CONCLUSIONS

The overall groundwater flow direction at the Westwood Rubble Landfill is to the southwest, and consistent with past groundwater flow trends at the site (GP 2008; GP 2009; EA 2010; and EA 2011b). Groundwater elevations at the site ranged from 1.39 to 15.06 feet amsl during the January 2025 gauging event and ranged from 1.11 to 17.12 feet amsl during the April 2025 gauging event.

During the first and second quarter 2025 methane monitoring events at the Westwood Rubble Landfill there were no exceedances of the action level (1.25 % methane in air [25 % of the LEL]) reported.

There were no detections of VOCs at the five site monitoring wells during April 2025 with the exception of a low detection of acetone at WW-09. Arsenic was not detected above the MCL at well WW-09 during April 2025. A few metals were detected at values exceeding the SMCLs, which is consistent with historical trends at the site. Gross alpha was detected below the MCL at WW-10 during the April 2025 sampling event. Gross beta was detected below the MCL at wells WW-05, WW-09 and WW-10. Asbestos was not detected during April 2025.

PFAS was not detected in monitoring wells WW-04, WW-05, and WW-11R. PFOA and PFHxS were detected above the MCLs in monitoring wells WW-09 and WW-10. PFBS was also reported in monitoring wells WW-09 and WW-10, however PFBS does not have an individual MCL. PFOS was detected below the MCL at well WW-10.

In general, analyte concentrations in each well have varied over the last 25 years of monitoring with no pattern of migration from the site. The remaining laboratory results reported in 2025 are also consistent with past trends (**Appendix H**).

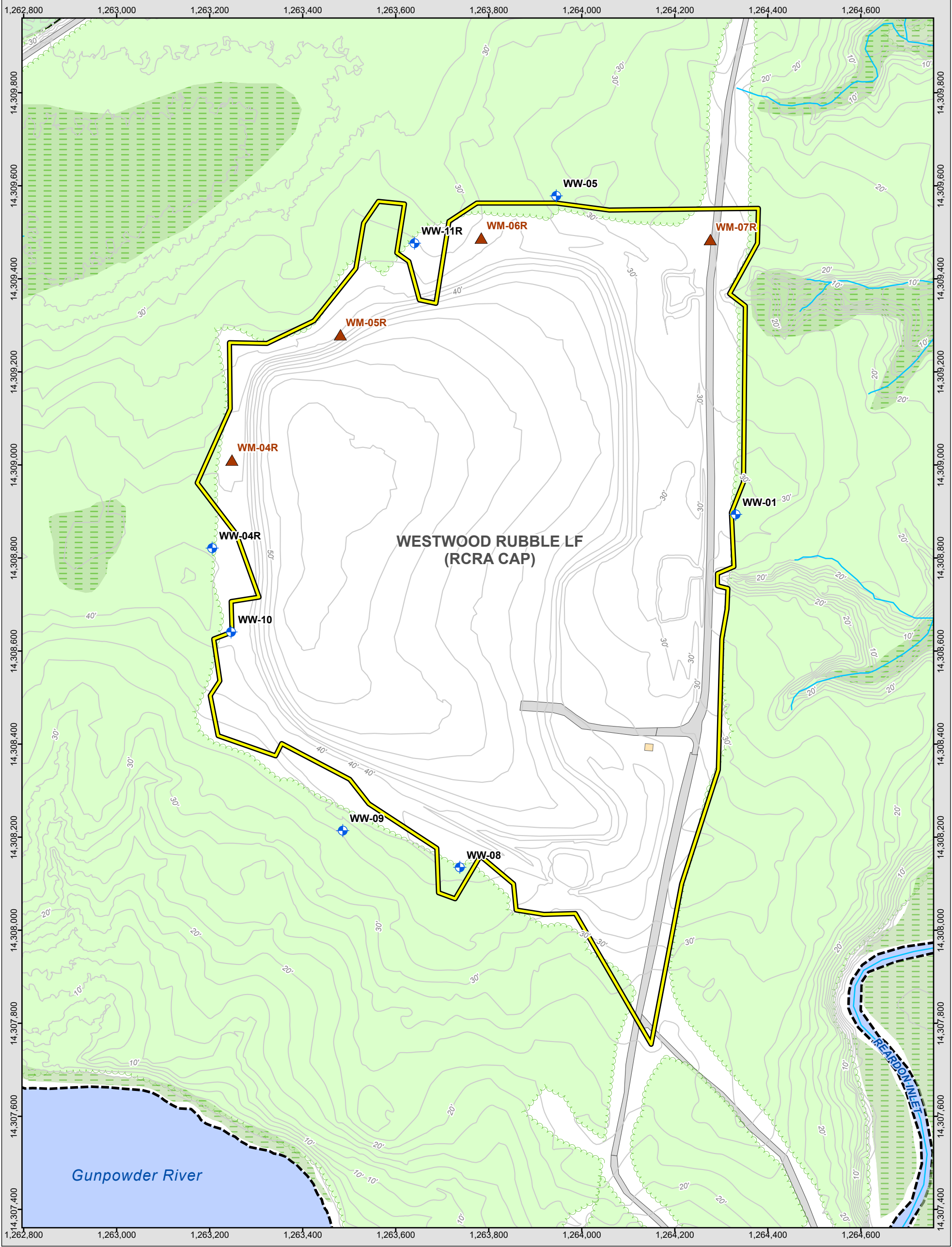
It is recommended that the current methane and groundwater monitoring program for the Westwood Rubble Landfill be continued, with the next semi-annual sampling event planned for Fall 2025. The Army has no rationale at this time for the detections of arsenic above the MCL in monitoring well WW-09 during 2022, but the arsenic concentrations since 2023 have remained below 1 µg/L. WW-09 will continue to be monitored and if arsenic concentrations are reported above the MCL value or increase, the Army will revisit with MDE and plan for additional investigations at that location.

5.0 REFERENCES

- Aberdeen Proving Ground (APG). 2005. *Sampling and Analysis Plan for the Phillips Army Airfield and Westwood Rubble Landfill Groundwater Monitoring Program*. May.
- Bluestone Environmental Group, 2019. *Sampling and Analysis Plan for the Westwood Rubble Landfill Methane and Groundwater Monitoring Program*. July.
- Department of Defense (DoD). 2009. *DoD Quality Systems Manual for Environmental Laboratories*. Version 4.1.5. June.
- EA Engineering, Science, and Technology, Inc. (EA). 2010. *2010 Annual Groundwater Monitoring Report for the Westwood Rubble Landfill*. December.
- EA, 2011a. *Sampling and Analysis Plan for the Westwood Rubble Landfill Methane and Groundwater Monitoring Program*. August.
- EA, 2011b. *2011 Annual Groundwater Monitoring Report for the Westwood Rubble Landfill*. December.
- Environmental Protection Agency (USEPA). 2009. National Primary Drinking Water Regulations. May.
- General Physics Corporation (GP). 2005. Sampling and Analysis Plan for the Phillips Army Airfield Rubble Landfill and the Westwood Rubble Landfill Groundwater Monitoring Program. May.
- _____. 2006. *Methane Monitoring Plan for the Phillips Army Airfield Rubble Landfill and the Westwood Rubble Landfill*. July.
- _____. 2008. *2008 Annual Groundwater Monitoring Program Report for the Westwood Rubble Landfill, Aberdeen Proving Ground*. December.
- _____. 2009. *2009 Annual Groundwater Monitoring Program Report for the Westwood Rubble Landfill, Aberdeen Proving Ground*. December.
- U.S. Environmental Protection Agency (USEPA). 2025. *National Primary Drinking Water Regulations Complete Table*. <http://www.epa.gov/sdwa/drinking-water-regulations-and-contaminants>

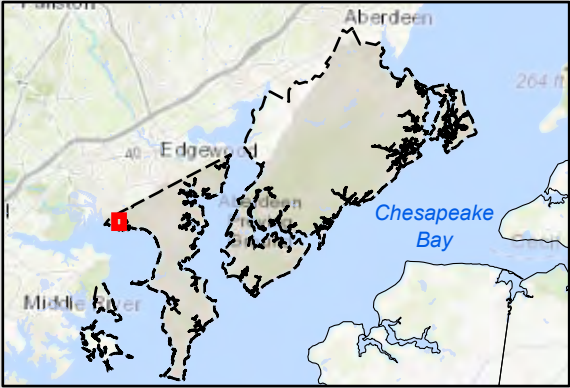
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FIGURES



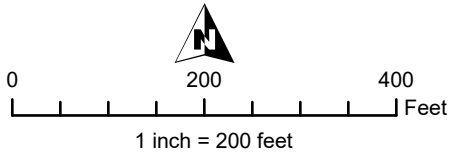
LEGEND

- Monitoring Well
- Methane Monitoring Point
- Westwood Rubble Landfill Area (RCRA Cap)
- Building
- Surface Water
- Topographic Contour (2 ft interval)
- Wetlands
- Vegetated Area
- Paved Roadway
- Installation Boundary
- Water Body



- NOTES
- Coordinate System: WGS 84 UTM Zone 18N, US Feet
 - Basemap data from Directorate of Public Works at Aberdeen Proving Ground (APG)
 - Map Size: B-size (17" x11")
 - Revision Date: 6/25/2025

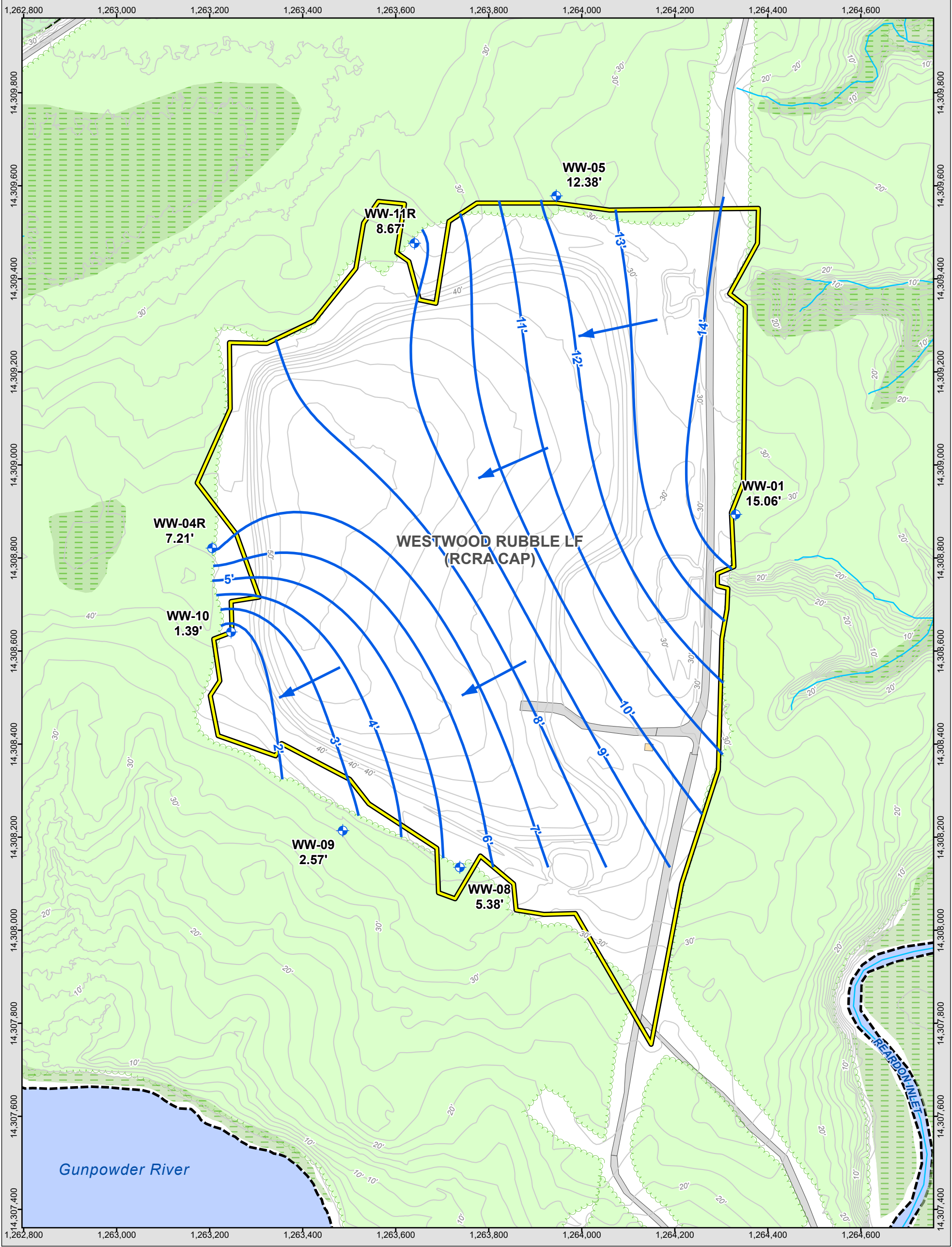
FIGURE 1
SITE MAP
WESTWOOD RUBBLE LANDFILL
Aberdeen Proving Ground



U.S. Army
Aberdeen Proving Ground



DISCLAIMER: The data represent the results of data collection/processing for a specific Aberdeen Proving Ground activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.



LEGEND

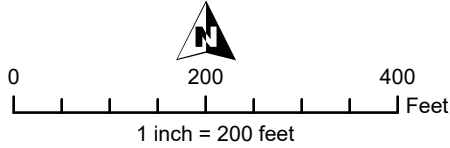
- Monitoring Well
- Potentiometric Contours (January 2025)
- Groundwater Flow Direction
- Westwood Rubble Landfill Area (RCRA Cap)
- Installation Boundary
- Topographic Contour (2 ft interval)
- Wetlands
- Vegetated Area
- Surface Water
- Water Body
- Paved Roadway
- Building

NOTES

- Wells were gauged on 01/28/2025.
- Coordinate System: WGS 84 UTM Zone 18N, US Feet
- Basemap data from Directorate of Public Works at Aberdeen Proving Ground (APG)
- Map Size: B-size (17" x11")
- Revision Date: 6/25/2025

FIGURE 2
GROUNDWATER
POTENTIOMETRIC CONTOURS
JANUARY 2025
WESTWOOD RUBBLE LANDFILL

Aberdeen Proving Ground



U.S. Army
Aberdeen Proving Ground



DISCLAIMER: The data represent the results of data collection/processing for a specific Aberdeen Proving Ground activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.

WW-01 Groundwater elevation reading
15.06' (measured from top of riser)

TABLES

Table 1**Methane Monitoring Results (28 January 2025)**

Methane Monitoring Location ¹	Concentration (%)				Barometric Pressure
	CH ₄			O ₂	
	Maximum Value ²	Stabilized Value ³	% LEL		
WM-04R	0	0	0	23.1	29.70
WM-05R	0	0	0	21.8	29.70
WM-06R	0	0	0	22.4	29.70
WM-07R	0	0	0	21.9	29.70

Methane Monitoring Results (14 April 2025)

Methane Monitoring Location ¹	Concentration (%)				Barometric Pressure
	CH4			O2	
	Maximum Value ²	Stabilized Value ³	% LEL		
WM-04R	0.2	0	0	20.4	29.86
WM-05R	0.3	0	0	17.2	29.86
WM-06R	0	0	0	20.4	29.86
WM-07R	0	0	0	20.6	29.86

Notes:

¹ = Four new replacement methane monitoring points (WM-04R, WM-05R, WM-06R, and WM-07R) were installed during November 2023.

² = The maximum value is the peak reading observed upon opening valve.

³ = The stabilized value is recorded after the Landtec meter pump runs for 3 minutes after opening valve to purge the probe.

% = percent

CH₄ = methane

LEL = 100% Lower Explosive Limit (5% methane); Calculated using the stabilized methane concentration.

O₂ = oxygen

Table 2**Groundwater Elevation Data (28 January 2025)**

Well Identification	Top of Riser (ft amsl)	Depth to Water (ft TOC)	Depth to Bottom (ft TOC)	Elevation (ft amsl)
WW-01	31.56	16.50	53.38	15.06
WW-04R	45.10	37.89	53.59	7.21
WW-05	34.70	22.32	38.51	12.38
WW-08	39.98	34.60	43.06	5.38
WW-09	35.00	32.43	41.27	2.57
WW-10	40.10	38.71	42.88	1.39
WW-11R	35.13	26.46	30.96	8.67

Groundwater Elevation Data (14 April 2025)

Well Identification	Top of Riser (ft amsl)	Depth to Water (ft TOC)	Depth to Bottom (ft TOC)	Elevation (ft amsl)
WW-01	31.56	14.44	53.28	17.12
WW-04R	45.10	38.02	54.51	7.08
WW-05	34.70	21.88	38.43	12.82
WW-08	39.98	34.86	42.94	5.12
WW-09	35.00	32.73	41.18	2.27
WW-10	40.10	38.99	42.81	1.11
WW-11R	35.13	27.04	30.53	8.09

Notes:

amsl = above mean sea level

ft = feet

TOC = top of casing

Table 3**Summary of Groundwater Sampling Results above MCLs
(16 April 2025)**

Analyte	Result (µg/L)	MCL (µg/L)
WW-05		
Aluminum	940	50-200 (s)
Iron	21,000	300 (s)
Manganese	250	50 (s)
WW-09		
Aluminum	120	50-200 (s)
Iron	63,000	300 (s)
Manganese	8,100	50 (s)
Perfluorooctanoic acid (PFOA)	31 (ng/L)	4 (ng/L)
Perfluorohexanesulfonic acid (PFHxS)	32 (ng/L)	10 (ng/L)
WW-10		
Aluminum	180	50-200 (s)
Perfluorooctanoic acid (PFOA)	18 (ng/L)	4 (ng/L)
Perfluorohexanesulfonic acid (PFHxS)	17 (ng/L)	10 (ng/L)
WW-11R		
Aluminum	810	50-200 (s)
Iron	12,000	300 (s)
Manganese	300	50 (s)

Notes:

(s) = secondary MCL

J = estimated value > MDL but < RL

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from

<https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

µg/L = micrograms per liter

Table 4

Detected Compounds in Groundwater Monitoring Wells
(16 April 2025)

Analyte	MCL	Units	WW-04R	WW-05	WW-09	WW-10	WW-11R
Metals							
Aluminum	50-200 (s)	µg/L	22 J	940	120	180	810
Arsenic	10	µg/L	ND	0.38 J	0.7 J	ND	0.68 J
Barium	2,000	µg/L	18	28	37	35	1.7 J
Calcium	----	µg/L	3,000	2,700	5,700	5,800	4,600
Chromium	100	µg/L	1.3 J	0.72 J	ND	1.2 J	1.6 J
Cobalt	----	µg/L	0.28 J	ND	77	0.45 J	ND
Copper	1,300	µg/L	1.7 J	ND	ND	2 J	ND
Iron	300 (s)	µg/L	ND	21,000	63,000	ND	12,000
Magnesium	----	µg/L	2,600	3,200	7,100	5,600	3,700
Manganese	50 (s)	µg/L	6.5	250	8,100	19	300
Mercury	2	µg/L	0.032 J	ND	0.068 J	0.23	0.016 J
Nickel	100	µg/L	4.9 J	ND	4.8 J	7.4	ND
Potassium	----	µg/L	610 J	630 J	850 J	930 J	650 J
Sodium	20,000 (g)	µg/L	4,200	16,000	32,000	8,400	5,800
Vanadium	----	µg/L	ND	ND	ND	ND	1.4 J
Zinc	5,000 (s)	µg/L	7.5 J	ND	ND	16 J	ND
Wet Chemistry							
Alkalinity	----	mg/L	10	34	28	10	32
Ammonia	----	mg/L	ND	0.68	0.28 J	ND	0.17 J
Chemical Oxygen Demand	----	mg/L	360	16 J	20 J	16 J	16 J
Chloride	250 (s)	mg/L	3.7 J	16	47	26	5 J
Gross Alpha	15	pCi/L	ND	ND	ND	3.24	ND
Gross Beta	50	pCi/L	ND	2.64	2.37	7.31	ND
Nitrate	10	mg/L	0.24 J	0.21 J	0.27 J	0.23 J	0.2 J
pH	6.5-8.5 (s)	standard	5.8	6.1	6.3	6.2	6.4
Specific Conductivity	----	µmho/cm	66	130	330	150	91
Sulfate	250 (s)	mg/L	13	3.2 J	49	14	5.1 J
Total Dissolved Solids	500 (s)	mg/L	49	87	240	92	68
Total Hardness	----	mg/L	18	20	43	38	27
Turbidity	----	NTU	0.84	35	110	26	16
Volatile Organic Compounds							
Acetone	----	µg/L	ND	ND	0.83 J	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)							
Perfluorooctanoic acid (PFOA)	4	ng/L	ND	ND	31	18	ND
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	ND	ND	ND	3	ND
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	ND	ND	32	17	ND
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	ND	ND	3	1.5 J	ND

Notes:

RED HIGHLIGHT = exceedance of primary MCL

YELLOW HIGHLIGHT = exceedance of secondary MCL or guidance level

Table 4
Detected Compounds in Groundwater Monitoring Wells
(16 April 2025)

Notes (cont'd):

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

---- = no regulatory limit

(g) = guidance level

(s) = secondary MCL

J = estimated value > MDL but < RL

M = matrix spike and/or matrix spike duplicate recovery outside acceptance limits

µg/L = micrograms per liter

µmho/cm = micro mho per centimeter

mg/L = milligrams per liter

ND = non-detect

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter

APPENDIX A

Instrument Calibration Logs

INSTRUMENT CALIBRATION LOG



Site Name: Phillips and Westwood
Landfills Instrument: Landtec GEM 5000
Serial #: G507763

Date	Standard	Standard	Instrument	Calibrated
	(A,B,C)	Value	Value	(Yes, No)
1/28/25	A	50%	50%	Yes
1/28/25	B	35%	35%	Yes
1/28/25	C	Balance	Balance	Yes

Calibration Gas Mixture:

Standard A: CH₄ (50%)

Standard B: CO₂ (35%)

Standard C: Nitrogen (Balance)

INSTRUMENT CALIBRATION LOG



Site Name: Phillips and Westwood
Landfills Instrument: Landtec GEM 5000
Serial #: G502410

Date	Standard	Standard	Instrument	Calibrated
	(A,B,C)	Value	Value	(Yes, No)
4/14/25	A	50%	50%	Yes
4/14/25	B	35%	35%	Yes
4/14/25	C	Balance	Balance	Yes

Calibration Gas Mixture:

Standard A: CH₄ (50%)

Standard B: CO₂ (35%)

Standard C: Nitrogen (Balance)



ECC
Instrument Calibration Log



Project: WWLF LTM - April 2025 GW Sampling Event

Date: 4/16/2025

Weather: Sunny 46°F

Calibrated by: T. Zatalava

Instrument: Horiba U-52

Serial Number: NTKH51MV / 2FH2W38D

Parameters	Calibration	Comments
pH (4.01)	4.00	N/A
Conductivity (4.49 mS/cm)	4.48	N/A
Turbidity (0.0 NTU)	0.0	N/A
Dissolved Oxygen (mg/L)	9.70	N/A
Temperature (°C)	21.54	N/A
ORP (mV)	252	N/A



ECC
Instrument Calibration Log



Project: WWLF LTM - April 2025 GW Sampling Event **Date:** 4/16/2025 **Weather:** Sunny 46°F
Calibrated by: S. Walsh **Instrument:** Horiba U-52 **Serial Number:** AMBRE594 / S70HLMON

Parameters	Calibration	Comments
pH (4.01)	3.89	
Conductivity (4.49 mS/cm)	4.48	
Turbidity (0.0 NTU)	0.0	
Dissolved Oxygen (mg/L)	7.80	
Temperature (°C)	21.64	
ORP (mV)	243	



ECC
Instrument Calibration Log



Project: WWLF LTM - April 2025 GW Sampling Event

Date: 4/16/2025

Weather: Sunny 46°F

Calibrated by: T. Zatalava

Instrument: Horiba U-52

Serial Number: UP2XGB98 / P4BVH27L

Parameters	Calibration	Comments
pH (4.01)	3.99	N/A
Conductivity (4.49 mS/cm)	4.49	N/A
Turbidity (0.0 NTU)	0.0	N/A
Dissolved Oxygen (mg/L)	9.61	N/A
Temperature (°C)	21.07	N/A
ORP (mV)	264	N/A

APPENDIX B

Methane Monitoring Logs



WWLF Quarterly Methane Readings



Date: 1/28/2025
Weather: Partly Cloudy 42°F
Field Team: T. Zatalava K. Faison

Monitoring Point	CH ₄ (percent)		CH ₄ (percent LEL)	CO ₂ (percent)	O ₂ (percent)	Barometric Pressure (" Hg)	Static Pressure (" H ₂ O)	Time	Comments
	Maximum Value	Stabilized Value							
WM-04R	0.0	0.0	0.0	0.9	23.1	29.70	0.02	9:56	N/A
WM-05R	0.0	0.0	0.0	2.1	21.8	29.70	0.02	9:52	N/A
WM-06R	0.0	0.0	0.0	1.6	22.4	29.70	0.02	9:43	N/A
WM-07R	0.0	0.0	0.0	2.1	21.9	29.70	0.06	9:33	N/A

Note:
LEL = 100% Lower Explosive Limit (5% methane); Calculated using the stabilized methane concentration.



WWLF Quarterly Methane Readings



Date: 4/14/2025
Weather: Cloudy 56°F
Field Team: K. Faison T. Zatalava

Monitoring Point	CH ₄ (percent)		CH ₄ (percent LEL)	CO ₂ (percent)	O ₂ (percent)	Barometric Pressure (" Hg)	Static Pressure (" H ₂ O)	Time	Comments
	Maximum Value	Stabilized Value							
WM-04R	0.2	0.0	0.0	0.5	20.4	29.86	0.49	11:05	N/A
WM-05R	0.3	0.0	0.0	2.8	17.2	29.86	0.47	11:02	N/A
WM-06R	0.0	0.0	0.0	0.6	20.4	29.86	0.48	10:53	N/A
WM-07R	0.0	0.0	0.0	0.4	20.6	29.86	0.41	10:37	N/A

Note:
LEL = 100% Lower Explosive Limit (5% methane); Calculated using the stabilized methane concentration.

APPENDIX C

Groundwater Sampling Logs

**ECC****Low Flow Groundwater Sampling Log**

Project: WWLF LTM - April 2025 GW Sampling Event
Location: APG, MD
Well ID: WW-04R

Date: 4/16/2025
Sampler: T. Zatalava
Weather: Partly Cloudy 46°F

Start Time: 740 **End Time:** 930
Well Construction: 4" PVC, stick-up
Depth to water (ft): 38.26
Well Depth (ft): 51.58
Water Column (ft): 13.32
Sample Depth (ft): 46.58
3 Well Volumes (L): 99
Total Volume Removed (L): 115.0

Field Testing Equipment

Make	Model	Serial #
Horiba	U52	UP2XGB98 / P4BVH27L
Geotech	Geosub 2 (PFAS free)	8076AL
Geotech	ET (PFAS free)	04D0154

Time (24 hour)	Volume Removed (liters)	Flow Rate (ml/min)	Depth to Water (ft)	Temperature (celsius)	pH (standard)	SPC (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Salinity (ppt)	Color (visual description)
850	99.0	400	38.39	13.88	4.59	0.042	5.41	246	0.0	0.0	clear
855	101.0	400	38.39	14.00	4.58	0.041	4.77	255	0.0	0.0	clear
900	103.0	400	38.39	14.00	4.58	0.041	4.62	260	0.0	0.0	clear
905	105.0	400	38.39	14.13	4.58	0.041	4.33	264	0.0	0.0	clear
910	107.0	400	38.39	14.05	4.58	0.041	4.17	267	0.0	0.0	clear
915	109.0	400	38.39	14.11	4.58	0.041	4.11	269	0.0	0.0	clear
920	111.0	400	38.40	14.09	4.59	0.041	4.01	271	0.0	0.0	clear
925	113.0	400	38.40	14.10	4.58	0.041	3.98	272	0.0	0.0	clear
930	115.0	400	38.40	14.11	4.58	0.041	3.97	274	0.0	0.0	clear

Acceptance Criteria (three consecutive readings): < 0.3 ft 3% ± 0.1 3% 10% ±10mv 10% or < 10 N/A N/A

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
930	WWLF - WW04R - 041625	40 mL vial	3	HCL	VOCs
930	WWLF - WW04R - 041625	500 mL poly	1	HNO3	Total Metals, Hardness
930	WWLF - WW04R - 041625	1 L poly	1	NONE	Alkalinity, Specific Conductance, pH, Turbidity, TDS
930	WWLF - WW04R - 041625	125 mL poly	1	NONE	Anions (Nitrate, Chloride, Sulfate)
930	WWLF - WW04R - 041625	250 mL poly	1	H2SO4	Chemical Oxygen Demand
930	WWLF - WW04R - 041625	250 mL poly	1	H2SO4	Ammonia
930	WWLF - WW04R - 041625	1 L poly	2	HNO3	Gross Alpha/Beta
930	WWLF - WW04R - 041625	1 L amber	1	NONE	Asbestos
930	WWLF - WW04R - 041625	250 mL poly	1	NONE	PFAS
930	WWLF - WW04R - 041625	500 mL poly	2	NONE	PFAS

Comments:

Started purging @ 740.
Purged 99 L at approximately 1,400 mL/min before beginning readings.
Purged to ground.

T. Zatalava
Signature

4/16/2025
Date



ECC

Low Flow Groundwater Sampling Log



Project: WWLF LTM - April 2025 GW Sampling Event

Location: APG, MD

Well ID: WW-05

Date: 4/16/2025

Sampler: S. Walsh

Weather: Sunny 48°F

Start Time: 820 End Time: 1050

Well Construction: 2" PVC stick-up

Depth to water (ft): 21.86

Well Depth (ft): 38.39

Water Column (ft): 16.53

Sample Depth (ft): 28

3 Well Volumes (L): 30.5

Total Volume Removed (L): 39.25

Field Testing Equipment

Make	Model	Serial #
Horiba	U52	NTKH51MV / 2FH2W38D
Geotech	Geosub 2 (PFAS free)	7955
Geotech	ET (PFAS free)	8532AL

Time (24 hour)	Volume Removed (liters)	Flow Rate (ml/min)	Depth to Water (ft)	Temperature (celsius)	pH (standard)	SPC (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Salinity (ppt)	Color (visual description)
1010	31.75	250	25.16	13.15	5.22	0.210	1.17	-7	7.6	0.1	clear
1015	33.00	250	25.17	13.18	5.35	0.208	0.76	-25	6.6	0.1	clear
1020	34.25	250	25.18	13.18	5.53	0.208	0.64	-39	5.4	0.1	clear
1025	35.50	250	25.19	13.20	5.57	0.208	0.58	-43	3.8	0.1	clear
1030	36.75	250	25.20	13.21	5.57	0.208	0.54	-44	4.3	0.1	clear
1035	38.00	250	25.21	13.29	5.55	0.210	0.51	-44	3.4	0.1	clear
1040	39.25	250	25.22	13.29	5.54	0.210	0.49	-45	2.4	0.1	clear

Acceptance Criteria (three consecutive readings): < 0.3 ft 3% ± 0.1 3% 10% ±10mv 10% or < 10 N/A N/A

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1045	WWLF - WW05 - 041625	40 mL vial	3	HCL	VOCs
1045	WWLF - WW05 - 041625	500 mL poly	1	HNO3	Total Metals, Hardness
1045	WWLF - WW05 - 041625	1 L poly	1	NONE	Alkalinity, Specific Conductance, pH, Turbidity, TDS
1045	WWLF - WW05 - 041625	125 mL poly	1	NONE	Anions (Nitrate, Chloride, Sulfate)
1045	WWLF - WW05 - 041625	250 mL poly	1	H2SO4	Chemical Oxygen Demand
1045	WWLF - WW05 - 041625	250 mL poly	1	H2SO4	Ammonia
1045	WWLF - WW05 - 041625	1 L poly	2	HNO3	Gross Alpha/Beta
1045	WWLF - WW05 - 041625	1 L amber	1	NONE	Asbestos
1045	WWLF - WW05 - 041625	250 mL poly	1	NONE	PFAS
1045	WWLF - WW05 - 041625	500 mL poly	2	NONE	PFAS

Comments:

Started purging @ 825

Purged 30.5 L at approximately 305 mL/min before beginning readings

Purged to ground

S. Walsh

Signature

4/16/2025

Date



ECC

Low Flow Groundwater Sampling Log



Project: WWLF LTM - April 2025 GW Sampling Event
Location: APG, MD
Well ID: WW-09

Date: 4/16/2025
Sampler: K. Faison
Weather: Sunny 46°F

Start Time: 740 End Time: 840
Well Construction: 4" PVC, stick-up
Depth to water (ft): 32.81
Well Depth (ft): 41.26
Water Column (ft): 8.45
Sample Depth (ft): 34.26
4 Well Volumes (L): 84
Total Volume Removed (L): 96.0

Field Testing Equipment

Make	Model	Serial #
Horiba	U52	UP2XGB98 / P4BVH27L
Geotech	Geosub 2 (PFAS free)	01A1080
Geotech	ET (PFAS free)	8741AL

Time (24 hour)	Volume Removed (liters)	Flow Rate (ml/min)	Depth to Water (ft)	Temperature (celsius)	pH (standard)	SPC (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Salinity (ppt)	Color (visual description)
800	84.0	300	32.81	15.28	5.73	0.518	1.79	-55	33.7	0.3	clear
805	85.5	300	32.81	14.40	5.78	0.540	1.20	-63	34.6	0.3	clear
810	87.0	300	32.81	13.87	5.80	0.540	1.23	-53	33.7	0.3	clear
815	88.5	300	32.81	13.70	5.73	0.526	1.21	-41	22.4	0.3	clear
820	90.0	300	32.81	13.61	5.66	0.523	1.27	-33	16.1	0.3	clear
825	91.5	300	32.81	13.55	5.61	0.524	1.25	-30	6.5	0.3	clear
830	93.0	300	32.81	13.51	5.57	0.526	1.25	-28	1.6	0.3	clear
835	94.5	300	32.81	13.45	5.59	0.527	1.25	-29	0.3	0.3	clear
840	96.0	300	32.81	13.41	5.52	0.530	1.25	-25	0.0	0.3	clear

Acceptance Criteria (three consecutive readings): < 0.3 ft 3% ± 0.1 3% 10% ±10mv 10% or < 10 N/A N/A

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
840	WWLF - WW09 - 041625	40 mL vial	3	HCL	VOCs
840	WWLF - WW09 - 041625	500 mL poly	1	HNO3	Total Metals, Hardness
840	WWLF - WW09 - 041625	1 L poly	1	NONE	Alkalinity, Specific Conductance, pH, Turbidity, TDS
840	WWLF - WW09 - 041625	125 mL poly	1	NONE	Anions (Nitrate, Chloride, Sulfate)
840	WWLF - WW09 - 041625	250 mL poly	1	H2SO4	Chemical Oxygen Demand
840	WWLF - WW09 - 041625	250 mL poly	1	H2SO4	Ammonia
840	WWLF - WW09 - 041625	1 L poly	2	HNO3	Gross Alpha/Beta
840	WWLF - WW09 - 041625	1 L amber	1	NONE	Asbestos
840	WWLF - WW09 - 041625	250 mL poly	1	NONE	PFAS
840	WWLF - WW09 - 041625	500 mL poly	2	NONE	PFAS
840	WWLF - WW09 - 051625fb				SAME AS PFAS ABOVE

Comments:

Started purging @ 0740
Purged 84 L at approximately 4,200 mL/min before beginning readings
Purged to ground. Field blank collected at this location.

K. Faison
Signature

4/16/2025
Date

**ECC****Low Flow Groundwater Sampling Log**

Project: WWLF LTM - April 2025 GW Sampling Event
Location: APG, MD
Well ID: WW-10

Date: 4/16/2025
Sampler: T. Zatalava
Weather: Partly Cloudy 46°F

Start Time: 1115 **End Time:** 1215
Well Construction: 4" PVC, stick-up
Depth to water (ft): 39.01
Well Depth (ft): 42.79
Water Column (ft): 3.78
Sample Depth (ft): 40.79
3 Well Volumes (L): 28
Total Volume Removed (L): 41.5

Field Testing Equipment

Make	Model	Serial #
Horiba	U52	UP2XGB98 / P4BVH27L
Geotech	Geosub 2 (PFAS free)	8076AL
Geotech	ET (PFAS free)	044D0154

Time (24 hour)	Volume Removed (liters)	Flow Rate (ml/min)	Depth to Water (ft)	Temperature (celsius)	pH (standard)	SPC (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Salinity (ppt)	Color (visual description)
1135	29.5	300	39.06	15.28	4.42	0.087	9.25	269	17.2	0.0	clear
1140	31.0	300	39.06	15.28	4.38	0.088	7.76	281	28.7	0.0	clear
1145	32.5	300	39.06	15.24	4.37	0.088	6.74	286	42.9	0.0	clear
1150	34.0	300	39.06	15.25	4.37	0.089	5.97	291	29.1	0.0	clear
1155	35.5	300	39.06	15.25	4.38	0.089	5.50	294	20.2	0.0	clear
1200	37.0	300	39.06	15.28	4.37	0.089	5.07	297	13.5	0.0	clear
1205	38.5	300	39.06	15.30	4.37	0.089	4.87	298	9.8	0.0	clear
1210	40.0	300	39.07	15.32	4.37	0.089	4.81	299	8.2	0.0	clear
1215	41.5	300	39.07	15.30	4.37	0.089	4.77	300	5.9	0.0	clear

Acceptance Criteria (three consecutive readings): < 0.3 ft 3% ± 0.1 3% 10% ±10mv 10% or < 10 N/A N/A

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1215	WWLF - WW10 - 041625	40 mL vial	3	HCL	VOCs
1215	WWLF - WW10 - 041625	500 mL poly	1	HNO3	Total Metals, Hardness
1215	WWLF - WW10 - 041625	1 L poly	1	NONE	Alkalinity, Specific Conductance, pH, Turbidity, TDS
1215	WWLF - WW10 - 041625	125 mL poly	1	NONE	Anions (Nitrate, Chloride, Sulfate)
1215	WWLF - WW10 - 041625	250 mL poly	1	H2SO4	Chemical Oxygen Demand
1215	WWLF - WW10 - 041625	250 mL poly	1	H2SO4	Ammonia
1215	WWLF - WW10 - 041625	1 L poly	2	HNO3	Gross Alpha/Beta
1215	WWLF - WW10 - 041625	1 L amber	1	NONE	Asbestos
1215	WWLF - WW10 - 041625	250 mL poly	1	NONE	PFAS
1215	WWLF - WW10 - 041625	500 mL poly	2	NONE	PFAS
0000	WWLF - WW10 - 041625dup			SAME AS ABOVE	

Comments:

Replaced geotech submersible pump before purging and sampling due to defected pump.

Started purging @ 1115.

Purged 28 L at approximately 1,870 mL/min before beginning readings.

Purged to ground. DUP collected at this location.

T. Zatalava

Signature

4/16/2025

Date



ECC

Low Flow Groundwater Sampling Log



Project: WWLF LTM - April 2025 GW Sampling Event

Date: 4/16/2025

Location: APG, MD

Sampler: K. Faison

Well ID: WW11R

Weather: Sunny 51 °F

Start Time: 940 End Time: 1040

Well Construction: 4" PVC, stick-up

Depth to water (ft): 27.07

Well Depth (ft): 30.95

Water Column (ft): 3.88

Sample Depth (ft): 29.95

3 Well Volumes (L): 29

Total Volume Removed (L): 41.0

Field Testing Equipment

Make	Model	Serial #
Horiba	U52	UP2XGB98 / P4BVH27L
Geotech	Geosub 2 (PFAS free)	01A1080
Geotech	ET (PFAS free)	8741AL

Time (24 hour)	Volume Removed (liters)	Flow Rate (ml/min)	Depth to Water (ft)	Temperature (celsius)	pH (standard)	SPC (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Salinity (ppt)	Color (visual description)
1000	29.0	300	27.43	13.47	5.74	0.137	2.29	20	76.5	1.8	clear with light brown tint
1005	30.5	300	27.32	13.55	5.64	0.129	0.64	12	39.2	0.1	clear
1010	32.0	300	27.26	13.70	5.56	0.128	0.48	12	20.1	0.1	clear
1015	33.5	300	27.26	13.74	5.53	0.127	0.49	12	13.0	0.1	clear
1020	35.0	300	27.26	13.73	5.50	0.127	0.38	12	10.7	0.1	clear
1025	36.5	300	27.25	13.78	5.50	0.127	0.35	12	9.8	0.1	clear
1030	38.0	300	27.25	13.86	5.48	0.127	0.33	12	8.1	0.1	clear
1035	39.5	300	27.24	13.97	5.46	0.127	0.32	14	8.3	0.1	clear
1040	41.0	300	27.24	13.99	5.44	0.127	0.30	12	6.6	0.1	clear

Acceptance Criteria (three consecutive readings): < 0.3 ft 3% ± 0.1 3% 10% ±10mv 10% or < 10 N/A N/A

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1040	WWLF - WW11R - 041625	40 mL vial	3	HCL	VOCs
1040	WWLF - WW11R - 041625	500 mL poly	1	HNO3	Total Metals, Hardness
1040	WWLF - WW11R - 041625	1 L poly	1	NONE	Alkalinity, Specific Conductance, pH, Turbidity, TDS
1040	WWLF - WW11R - 041625	125 mL poly	1	NONE	Anions (Nitrate, Chloride, Sulfate)
1040	WWLF - WW11R - 041625	250 mL poly	1	H2SO4	Chemical Oxygen Demand
1040	WWLF - WW11R - 041625	250 mL poly	1	H2SO4	Ammonia
1040	WWLF - WW11R - 041625	1 L poly	2	HNO3	Gross Alpha/Beta
1040	WWLF - WW11R - 041625	1 L amber	1	NONE	Asbestos
1040	WWLF - WW11R - 041625	250 mL poly	1	NONE	PFAS
1040	WWLF - WW11R - 041625	500 mL poly	2	NONE	PFAS

Comments:

Started purging @ 0940

Purged 29 L at approximately 1,450 mL/min before beginning readings

Purged to ground

K. Faison

Signature

4/16/2025

Date

APPENDIX D

Laboratory Sample Chain-of-Custody Forms



Advanced
Environmental Laboratories, Inc.

- ☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
- ☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- ☒ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- ☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095

Page 1 of 1

- ☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
- ☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
- ☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Client Name: ECC		Project Name: Westwood LF LTM - April 2025		BOTTLE SIZE & TYPE		40 mL Vials		250 mL Plastic		125 mL Plastic		1L Plastic		250 mL Plastic		250 mL Plastic		1L Plastic								LABORATORY I.D. NUMBER	
Address: 1304 Governor Ct, Suite 101		Project Number: 5583.011		ANALYSIS REQUIRED		VOCs (8260)		Total Metals, Hardness (6010/6020/7470)		Anions (chloride, nitrate, sulfate)		TDS/Alk/pH/Cond/Turb		COD		Ammonia		Gross Alpha/Beta		1633 PFAS (*see note)							
Abingdon, MD 21009		PO Number: 5583.011																									
Phone: 410-671-2970		FDEP Facility No: -																									
FAX:		FDEP Facility Addr:																									
Contact: J.Schaefer/H. Cavanagh																											
Sampled By: K. Faison/T. Zatalava/S. Walsh		Special Instructions: *6 selected PFAS: PFOA, PFOS, PFHxS, PFNA, PFBS, and HFPO-DA																									
Turn Around Time: Standard <input checked="" type="checkbox"/> Rush																											
AEL Profile #: 65695		ADaPT EQuIS Other																									
SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE TIME		MATRIX	NO. COUNT	Preservation	HCL	HNO3	None	None	H2SO4	H2SO4	HNO3	None												
	WWLF-TB-041625		4/16/25	0700	DI	3		X																			
	WWLF-WW04R-041625		4/16/25	0930	GW	13		X	X	X	X	X	X	X	X												
	WWLF-WW05-041625		4/16/25	1045	GW	13		X	X	X	X	X	X	X	X												
	WWLF-WW09-041625		4/16/25	0840	GW	13		X	X	X	X	X	X	X	X												
	WWLF-WW09-041625fb		4/16/25	0840	DI	3														X							
	WWLF-WW10-041625		4/16/25	1215	GW	13		X	X	X	X	X	X	X	X												
	WWLF-WW10-041625dup		4/16/25	0000	GW	13		X	X	X	X	X	X	X	X												
	WWLF-WW11R-041625		4/16/25	1040	GW	13		X	X	X	X	X	X	X	X												
	WWLF-WW10 -041625rb		4/16/25	1320	DI	13		X	X	X	X	X	X	X	X												

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) _____ °C Temp. when received (corrected) _____ °C

DCN: AD-D051web Form last revised 08/07/2019

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:		Date	Time	Received by:		Date	Time
1	<i>[Signature]</i>	4/16/25	16:00				
2							
3							
4							

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____

Supplier of Water: _____

Site-Address: _____



EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos in Water - Chain of Custody Form

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

PHONE: (800) 220-3675

EMAIL: CinnAsblab@EMSL.com

Customer Information	Customer ID:				Billing ID:			
	Company Name: Advanced Environmental Labs (for ECC)				Company Name:			
	Contact Name: Craig Myers				Billing Contact:			
	Street Address: 6684 Southpoint Pkwy.				Street Address:			
	City, State, Zip: Jacksonville, FL 32216			Country: US	City, State, Zip:			Country:
	Phone: 904-363-9350				Phone:			
	Email(s) for Report: cmyers@aellab.com				Email(s) for Invoice:			
Project Information								
Project Name/No: WWLF LTM - April 2025						Purchase Order:		
EMSL LIMS Project ID: (If applicable, EMSL will provide)				US State where samples collected: MD		State of Connecticut (CT) must select project location:		
				<input type="checkbox"/> Commercial (Taxable)		<input type="checkbox"/> Residential (Non-Taxable)		
Sampled By Name:			Sampled By Signature:			No. of Samples in Shipment		
Turn-Around-Time (TAT)								
<input type="checkbox"/> 24 Hour		<input type="checkbox"/> 32 Hour		<input type="checkbox"/> 48 Hour		<input type="checkbox"/> 72 Hour		
						<input type="checkbox"/> 96 Hour		
						<input type="checkbox"/> 1 Week		
						<input checked="" type="checkbox"/> 2 Week		
<input checked="" type="checkbox"/> EPA Method 100.2 (>10um only)		<input type="checkbox"/> EPA Method 100.2 (All fiber sizes ≥ 0.5µm)			<input type="checkbox"/> EPA Method 100.1 (≥ 0.5µm only)			
<input type="checkbox"/> DRINKING WATER COMPLIANCE - BOTTLE ACKNOWLEDGEMENT: If samples are being submitted for drinking water compliance testing under this Chain of Custody, Client acknowledges that certified, pre-cleaned, asbestos-free sampling bottle(s) as outlined in EPA 100.2 were utilized in the collection of the drinking water samples submitted.								
Report results directly to the State? <input type="checkbox"/> YES If checked, complete all fields below:								
State:		Water System ID:		Facility Code:		Entry Point Number:		
Sample Number	Sample Location	Sample Type (Potable / Non-Potable)	Volume	Date Collected	Time Collected	Temperature (C) Laboratory Use Only		
	WWLF-VW04R-041625	GW	1 L	4/16/25	0930			
	WWLF-VW05-041625	GW	1 L	4/16/25	1045			
	WWLF-VW09-041625	GW	1 L	4/16/25	0840			
	WWLF-VW10-041625	GW	1 L	4/16/25	1215			
	WWLF-VW10-041625dup	GW	1 L	4/16/25	0000			
	WWLF-VW11R-041625	GW	1 L	4/16/25	1040			
	WWLF-VW12-041625rb	DI	1 L	4/16/25	1320			
Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)								
Method of Shipment: FedEx				Sample Condition Upon Receipt:				
Relinquished by: [Signature]		Date/Time: 4/16/25 16:00		Received by:		Date/Time		
Relinquished by:		Date/Time:		Received by:		Date/Time		

Controlled Document - COC-06 Asbestos in Water R4 3/12/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

APPENDIX E

Daily Health and Safety Tailgate Briefing Forms



ECC
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: K. Faison

Date: 1/28/2025

Project Site: WWLF and PAALF, APG, MD

Task: Quarterly Monitoring

Personal protective Equipment:

Level D

Daily Activities:

Quarterly Gauging and Methane Monitoring

Hazards & Control Measures:

Spiders, Snakes, Mice - Be cautious opening monitoring wells.

Cold weather - Wear warm clothing. Use hand warmers. Stay hydrated.

Driving in wooded and wet areas - Be cautious, drive slowly. Walk to locations before driving/parking.

Slippery surfaces - Wear proper footwear and walk slowly.

UXO - Stay on marked paths. If observed, do not touch. Report to PM/COR.

Emergency Procedures:

911

Cell Phones

Buddy System

Hospital/Clinic: Upper Chesapeake Medical Center (7 miles - 25 minutes)

Address: 520 Upper Chesapeake Drive Bel Air, MD 21014

Phone: (443)- 843-5500

Attendees

Name printed

Signature

Kendall Faison

Tom Zatalava

Kendall Faison

Tom Zatalava



ECC
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: K. Faison Date: 4/14/25

Project Site: WWLF and PAALF, APG, MD Task: Q1 2025 Methane Readings & Gauging

Personal protective Equipment:

Level D

Daily Activities:

Quarterly Methane Readings & Gauging

Hazards & Control Measures:

Ticks, mosquitos, chiggers -Tape bottom of pants. Use bug spray.

Spiders, Bees, Wasps, Snakes, Mice - Be cautious opening monitoring wells and walking through wooded/
high grass areas.

Warm weather - Stay hydrated, wear sun protection.

Driving in wooded areas - Be cautious, drive slowly.

Emergency Procedures:

911

Cell Phones

Buddy System

Hospital/Clinic: Upper Chesapeake Medical Center (7 miles - 25 minutes)
Address: 520 Upper Chesapeake Drive Bel Air, MD 21014
Phone: (443)- 843-5500

Attendees

Name printed

Signature

Kendall Faison

Tom Zatalava

Kendall Faison
Tom Zatalava



ECC
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: K. Faison

Date: 4/16/2025

Project Site: WWLF, APG, MD

Task: Groundwater Sampling

Personal protective Equipment:

Level D

Daily Activities:

Semi-Annual Groundwater Sampling

Hazards & Control Measures:

Ticks, mosquitos, chiggers - Tape bottom of pants. Use bug spray.

Wasps, Spiders, Snakes, Mice - Be cautious opening monitoring wells. Use wasp spray.

Driving in wooded and wet areas - Be cautious, drive slowly. Walk to locations before driving/parking

Slippery surfaces - Wear proper footwear and walk slowly.

Hunting Areas - Have approved range work request. Wear safety vest/hivis clothing.

UXO - Stay on marked paths. If observed, do not touch. Report to PM/COR.

Emergency Procedures:

911

Cell Phones

Buddy System

Hospital/Clinic: Upper Chesapeake Medical Center (7 miles - 25 minutes)

Address: 520 Upper Chesapeake Drive Bel Air, MD 21014

Phone: (443)- 843-5500

Attendees

Name printed

Signature

Kendall Faison

Tom Zatalava

Sean Walsh

Kendall Faison
Tom Zatalava
Sean Walsh

APPENDIX F

Historical Methane Monitoring Results (2010-2025)

Historical Methane Monitoring Results (2010-2025)

Monitoring Point	2/25/10	5/17/10	8/5/10	11/3/10	2/15/11	5/19/11	8/24/11	11/29/11 ¹	2/13/12	5/17/12	11/1/12	3/26/13	6/18/13	9/12/13	10/22/13	4/4/14	6/3/14	8/12/14	10/28/14	5/12/15	1/12/15	4/13/15	10/31/16	10/19/18
WM-01	0	0	0	0	0	0	0	NS	0	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	0	0	0	0
WM-02	0	0	0	0	0	0	0	NS	0	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	0	0	0	0
WM-03	0	0	0	0	0	0	0	NS	0	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	0	0	0	0
WM-04	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	ND	ND	ND	ND	ND	0	0	0	0
WM-05	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	ND	ND	ND	ND	ND	0	0	0	0
WM-06	0	0	NS	NS	NS	NS	NS	0.1	NS	NS	NS	1	1	1	1	ND	ND	ND	ND	ND	0	0	0	0
WM-07	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	ND	ND	ND	ND	ND	0	0	0	0
WM-08	0	0	0	0	0	0	0	NS	0	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	0	0	0	0
WM-09	0	0	0	0	0	0	0	NS	0	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	0	0	0	0

Monitoring Point	4/17/19	11/7/19	3/11/20	6/10/20	7/30/20	10/15/20	1/27/21	4/12/21	8/5/21	11/2/21	1/26/22	4/12/22	8/5/22	10/25/22	1/24/23	4/10/23	7/25/23
WM-01	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WM-02	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WM-03	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WM-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WM-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WM-06	0	NS ²	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WM-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WM-08	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WM-09	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Monitoring Point ³	12/13/23		1/23/24		4/10/24		7/17/24		11/11/24		1/28/25		4/14/25	
	Maximum Value	Stabilized Value	Maximum Value	Maximum Value	Maximum Value	Stabilized Value	Stabilized Value	Stabilized Value	Maximum Value	Stabilized Value	Maximum Value	Stabilized Value	Maximum Value	Stabilized Value
WM-04R	0	0	0.1	0	0	0	0	0	0	0	0	0	0.2	0
WM-05R	0	0	0.1	0	0	0	0	0	0	0	0	0	0.3	0
WM-06R	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0
WM-07R	0	0	0.3	0.1	0.4	0.2	0.1	0	0.4	0.2	0	0	0	0

Notes:
¹ = As of 29 November 2011, methane monitoring of points WM-01, WM-02, WM-03, WM-08, and WM-09 were removed from the monitoring program.
² = Unable to locate methane monitoring point WM-06 as of 7 November 2019.
³ = Four new replacement methane monitoring points (WM-4R, WM-05R, WM-06R, and WM-07R) were installed during November 2023.
NS = not sampled
ND = non-detect
The methane results are provided as percentages.

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APPENDIX G

Laboratory Analytical Data Reports

NOTE: The laboratory (AEL) uses different nomenclature for the VOCs listed below, but they are the same compounds listed on the Table I and II parameters list.

- 1,2-dibromoethane (EDB) = Ethylene Dibromide (EDB)
- 1,1-dichloroethene = 1,1-Dichloroethylene
- cis-1,2-dichloroethene = cis-1,2-Dichloroethylene
- trans-1,2-dichloroethene = trans-1,2-Dichloroethylene
- trans-1,3-dichloropropene = trans-1,3-Dichloropropylene
- dichloromethane = Methylene Chloride
- tetrachloroethene = Tetrachloroethylene (PCE)



Advanced Environmental Laboratories, Inc
6681 Southpoint Pkwy Jacksonville, FL 32216
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (904) 363-9350
Fax: (904) 363-9354

FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

May 14, 2025

Tara Weeks
Environmental Chemical Corporation (ECC)
1304 Governor Ct
Suite 101
Abingdon, MD 21009

RE: Workorder: J2505849 Westwood LF LTM - April 2025

Dear Tara Weeks:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday April 17, 2025. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Craig Myers, Client Services Manager
CMyers@aellab.com

Certificate of Analysis

This report shall not be reproduced, except in full,
without the written consent of Advanced Environmental Laboratories, Inc.



NELAP Accredited E82574



FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
J2505849001	WWLF-TB-041625	WA	DoD SW-846 8260C	04/16/2025 07:00	04/17/2025 09:00	47	NA
J2505849001	WWLF-TB-041625	WA	DoD SW-846 8260C (SIM)	04/16/2025 07:00	04/17/2025 09:00	2	NA
J2505849002	WWLF-WW04R-041625	WA	DOD EPA 1633	04/16/2025 09:30	04/17/2025 09:00	6	NA
J2505849002	WWLF-WW04R-041625	WA	DoD EPA 300.0	04/16/2025 09:30	04/17/2025 09:00	3	NA
J2505849002	WWLF-WW04R-041625	WA	DoD EPA 310.1	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849002	WWLF-WW04R-041625	WA	DoD EPA 410.4	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849002	WWLF-WW04R-041625	WA	DoD SM 2540 C-2015	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849002	WWLF-WW04R-041625	WA	DoD SW-846 6010C	04/16/2025 09:30	04/17/2025 09:00	7	NA
J2505849002	WWLF-WW04R-041625	WA	DoD SW-846 6020A	04/16/2025 09:30	04/17/2025 09:00	16	NA
J2505849002	WWLF-WW04R-041625	WA	DoD SW-846 7470A	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849002	WWLF-WW04R-041625	WA	DoD SW-846 8260C	04/16/2025 09:30	04/17/2025 09:00	47	NA
J2505849002	WWLF-WW04R-041625	WA	DoD SW-846 8260C (SIM)	04/16/2025 09:30	04/17/2025 09:00	2	NA
J2505849002	WWLF-WW04R-041625	WA	SM 2130 B-2011	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849002	WWLF-WW04R-041625	WA	SM 2510 B-2011	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849002	WWLF-WW04R-041625	WA	SM 4500 H+B-2011	04/16/2025 09:30	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	DOD EPA 1633	04/16/2025 10:45	04/17/2025 09:00	6	NA
J2505849003	WWLF-WW05-041625	WA	DoD EPA 300.0	04/16/2025 10:45	04/17/2025 09:00	3	NA
J2505849003	WWLF-WW05-041625	WA	DoD EPA 310.1	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	DoD EPA 410.4	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	DoD SM 2540 C-2015	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	DoD SW-846 6010C	04/16/2025 10:45	04/17/2025 09:00	7	NA
J2505849003	WWLF-WW05-041625	WA	DoD SW-846 6020A	04/16/2025 10:45	04/17/2025 09:00	16	NA
J2505849003	WWLF-WW05-041625	WA	DoD SW-846 7470A	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	DoD SW-846 8260C	04/16/2025 10:45	04/17/2025 09:00	47	NA
J2505849003	WWLF-WW05-041625	WA	DoD SW-846 8260C (SIM)	04/16/2025 10:45	04/17/2025 09:00	2	NA
J2505849003	WWLF-WW05-041625	WA	SM 2130 B-2011	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	SM 2510 B-2011	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849003	WWLF-WW05-041625	WA	SM 4500 H+B-2011	04/16/2025 10:45	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	DOD EPA 1633	04/16/2025 08:40	04/17/2025 09:00	6	NA
J2505849004	WWLF-WW09-041625	WA	DoD EPA 300.0	04/16/2025 08:40	04/17/2025 09:00	3	NA
J2505849004	WWLF-WW09-041625	WA	DoD EPA 310.1	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	DoD EPA 410.4	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	DoD SM 2540 C-2015	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	DoD SW-846 6010C	04/16/2025 08:40	04/17/2025 09:00	7	NA
J2505849004	WWLF-WW09-041625	WA	DoD SW-846 6020A	04/16/2025 08:40	04/17/2025 09:00	16	NA

Wednesday, May 14, 2025 10:24:19 AM
Dates and times are displayed using (-04:00)
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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
J2505849004	WWLF-WW09-041625	WA	DoD SW-846 7470A	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	DoD SW-846 8260C	04/16/2025 08:40	04/17/2025 09:00	47	NA
J2505849004	WWLF-WW09-041625	WA	DoD SW-846 8260C (SIM)	04/16/2025 08:40	04/17/2025 09:00	2	NA
J2505849004	WWLF-WW09-041625	WA	SM 2130 B-2011	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	SM 2510 B-2011	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849004	WWLF-WW09-041625	WA	SM 4500 H+B-2011	04/16/2025 08:40	04/17/2025 09:00	1	NA
J2505849005	WWLF-WW09-041625fb	WA	DOD EPA 1633	04/16/2025 08:40	04/17/2025 09:00	6	NA
J2505849006	WWLF-WW10-041625	WA	DOD EPA 1633	04/16/2025 12:15	04/17/2025 09:00	6	NA
J2505849006	WWLF-WW10-041625	WA	DoD EPA 300.0	04/16/2025 12:15	04/17/2025 09:00	3	NA
J2505849006	WWLF-WW10-041625	WA	DoD EPA 310.1	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849006	WWLF-WW10-041625	WA	DoD EPA 410.4	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849006	WWLF-WW10-041625	WA	DoD SM 2540 C-2015	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849006	WWLF-WW10-041625	WA	DoD SW-846 6010C	04/16/2025 12:15	04/17/2025 09:00	7	NA
J2505849006	WWLF-WW10-041625	WA	DoD SW-846 6020A	04/16/2025 12:15	04/17/2025 09:00	16	NA
J2505849006	WWLF-WW10-041625	WA	DoD SW-846 7470A	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849006	WWLF-WW10-041625	WA	DoD SW-846 8260C	04/16/2025 12:15	04/17/2025 09:00	47	NA
J2505849006	WWLF-WW10-041625	WA	DoD SW-846 8260C (SIM)	04/16/2025 12:15	04/17/2025 09:00	2	NA
J2505849006	WWLF-WW10-041625	WA	SM 2130 B-2011	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849006	WWLF-WW10-041625	WA	SM 2510 B-2011	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849006	WWLF-WW10-041625	WA	SM 4500 H+B-2011	04/16/2025 12:15	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	DOD EPA 1633	04/16/2025 00:00	04/17/2025 09:00	6	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD EPA 300.0	04/16/2025 00:00	04/17/2025 09:00	3	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD EPA 310.1	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD EPA 410.4	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD SM 2540 C-2015	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD SW-846 6010C	04/16/2025 00:00	04/17/2025 09:00	7	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD SW-846 6020A	04/16/2025 00:00	04/17/2025 09:00	16	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD SW-846 7470A	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD SW-846 8260C	04/16/2025 00:00	04/17/2025 09:00	47	NA
J2505849007	WWLF-WW10-041625dup	WA	DoD SW-846 8260C (SIM)	04/16/2025 00:00	04/17/2025 09:00	2	NA
J2505849007	WWLF-WW10-041625dup	WA	SM 2130 B-2011	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	SM 2510 B-2011	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849007	WWLF-WW10-041625dup	WA	SM 4500 H+B-2011	04/16/2025 00:00	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	DOD EPA 1633	04/16/2025 10:40	04/17/2025 09:00	6	NA
J2505849008	WWLF-WW11R-041625	WA	DoD EPA 300.0	04/16/2025 10:40	04/17/2025 09:00	3	NA

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
J2505849008	WWLF-WW11R-041625	WA	DoD EPA 310.1	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	DoD EPA 410.4	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	DoD SM 2540 C-2015	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	DoD SW-846 6010C	04/16/2025 10:40	04/17/2025 09:00	7	NA
J2505849008	WWLF-WW11R-041625	WA	DoD SW-846 6020A	04/16/2025 10:40	04/17/2025 09:00	16	NA
J2505849008	WWLF-WW11R-041625	WA	DoD SW-846 7470A	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	DoD SW-846 8260C	04/16/2025 10:40	04/17/2025 09:00	47	NA
J2505849008	WWLF-WW11R-041625	WA	DoD SW-846 8260C (SIM)	04/16/2025 10:40	04/17/2025 09:00	2	NA
J2505849008	WWLF-WW11R-041625	WA	SM 2130 B-2011	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	SM 2510 B-2011	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849008	WWLF-WW11R-041625	WA	SM 4500 H+B-2011	04/16/2025 10:40	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	DOD EPA 1633	04/16/2025 13:20	04/17/2025 09:00	6	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD EPA 300.0	04/16/2025 13:20	04/17/2025 09:00	3	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD EPA 310.1	04/16/2025 13:20	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD EPA 410.4	04/16/2025 13:20	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD SM 2540 C-2015	04/16/2025 13:20	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD SW-846 6010C	04/16/2025 13:20	04/17/2025 09:00	7	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD SW-846 6020A	04/16/2025 13:20	04/17/2025 09:00	16	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD SW-846 7470A	04/16/2025 13:20	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD SW-846 8260C	04/16/2025 13:20	04/17/2025 09:00	47	NA
J2505849009	WWLF-WW10-041625rb	WA	DoD SW-846 8260C (SIM)	04/16/2025 13:20	04/17/2025 09:00	2	NA
J2505849009	WWLF-WW10-041625rb	WA	SM 2130 B-2011	04/16/2025 13:20	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	SM 2510 B-2011	04/16/2025 13:20	04/17/2025 09:00	1	NA
J2505849009	WWLF-WW10-041625rb	WA	SM 4500 H+B-2011	04/16/2025 13:20	04/17/2025 09:00	1	NA

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Workorder Summary

Batch Comments

WCAj/18680 - .PH,SM4500H+B, Water

All samples were received by the lab past the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is qualified to indicate the holding time violation.

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results Qualifiers

Parameter Qualifiers

- U The compound was analyzed for but not detected.
- J The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Q One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).
- Q Missed Hold Time
- J The analyte is an estimated value. The reported value is below the Limits of Quantitation (LOQ), but above the DL. Also, an acceptance criterion is not met (e.g., MS/MSD recovery or dual column confirmation was outside 40% RPD).

Lab Qualifiers

- J DOH Certification #E82574 (FL NELAC) AEL-Jacksonville
DOD-ELAP Certification #L23-514 (ISO/IEC 17025:2017) AEL-Jacksonville

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849001	Date Collected:	04/16/2025 07:00				Matrix:	Water	
Sample ID:	WWLF-TB-041625	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/23/2025 23:22	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/23/2025 23:22	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Acetone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 16:15	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849001 **Date Collected:** 04/16/2025 07:00 **Matrix:** Water
Sample ID: WWLF-TB-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 16:15	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/23/2025 23:22	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/23/2025 23:22	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Toluene-d8 (S)	ug/L	50	49.70	99	89 - 112	J
Bromofluorobenzene (S)	ug/L	50	50.40	101	85 - 114	J
1,2-Dichloroethane-d4 (S)	ug/L	50	50.20	100	81 - 118	J
Toluene-d8 (S)	ug/L	50	49	98	89 - 112	J
Bromofluorobenzene (S)	ug/L	50	52	104	85 - 114	J
1,2-Dichloroethane-d4 (S)	ug/L	50	52	104	81 - 118	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849002	Date Collected:					04/16/2025 09:30			Matrix:	Water
Sample ID:	WWLF-WW04R-041625	Date Received:					04/17/2025 09:00				
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab		
(DOD EPA 1633)											
HFPO-DA	0.46U	ng/L	0.23	0.46	0.91	1	04/29/2025 09:30	05/01/2025 07:40	J		
PFBS	0.73U	ng/L	0.36	0.73	1.5	1	04/29/2025 09:30	05/01/2025 07:40	J		
PFHxS	0.82U	ng/L	0.64	0.82	1.6	1	04/29/2025 09:30	05/01/2025 07:40	J		
PFNA	0.73U	ng/L	0.36	0.73	1.5	1	04/29/2025 09:30	05/01/2025 07:40	J		
PFOS	0.64U	ng/L	0.32	0.64	1.3	1	04/29/2025 09:30	05/01/2025 07:40	J		
PFOA	0.73U	ng/L	0.36	0.73	1.5	1	04/29/2025 09:30	05/01/2025 07:40	J		
METALS (SW-846 3010A/DoD SW-846 6010C)											
Aluminum	22J	ug/L	20	40	80	1	04/25/2025 05:00	04/26/2025 00:30	J		
Calcium	3000	ug/L	200	400	800	1	04/25/2025 05:00	04/26/2025 00:30	J		
Iron	400U	ug/L	200	400	800	1	04/25/2025 05:00	04/26/2025 00:30	J		
Magnesium	2600	ug/L	100	200	400	1	04/25/2025 05:00	04/26/2025 00:30	J		
Potassium	610J	ug/L	500	1000	2000	1	04/25/2025 05:00	04/26/2025 00:30	J		
Sodium	4200	ug/L	800	1600	3200	1	04/25/2025 05:00	04/26/2025 00:30	J		
Total Hardness (as CaCO3)	18	mg/L	0.91	1.8	3.6	1	04/25/2025 05:00	04/26/2025 00:30	J		
METALS (SW-846 3010A/DoD SW-846 6020A)											
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Arsenic	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Barium	18	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Chromium	1.3J	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Cobalt	0.28J	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Copper	1.7J	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Manganese	6.5	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Nickel	4.9J	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:26	J		
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:26	J		

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849002 **Date Collected:** 04/16/2025 09:30 **Matrix:** Water
Sample ID: WWLF-WW04R-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:26	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:26	J
Vanadium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:26	J
Zinc	7.5J	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 18:26	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.032J	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 14:48	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 03:00	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 03:00	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Acetone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849002 **Date Collected:** 04/16/2025 09:30 **Matrix:** Water
Sample ID: WWLF-WW04R-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 16:39	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 16:39	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849002	Date Collected:	04/16/2025 09:30				Matrix:	Water	
Sample ID:	WWLF-WW04R-041625	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:00	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:00	J
WET CHEMISTRY (DoD EPA 300.0)									
Chloride	3.7J	mg/L	2.0	4.0	8.0	1	04/17/2025 22:34	04/17/2025 22:34	J
Nitrate (as N)	0.24J	mg/L	0.20	0.40	0.80	1	04/17/2025 22:34	04/17/2025 22:34	J
Sulfate	13	mg/L	2.0	4.0	8.0	1	04/17/2025 22:34	04/17/2025 22:34	J
WET CHEMISTRY (DoD EPA 310.1)									
Alkalinity, Total	10	mg/L	5.0	5.0	5.0	1	04/28/2025 17:22	04/28/2025 17:22	J
WET CHEMISTRY (DoD EPA 410.4)									
Chemical Oxygen Demand	360	mg/L	10	20	40	2	04/29/2025 11:01	04/29/2025 11:01	J
WET CHEMISTRY (DoD SM 2540 C-2015)									
Total Dissolved Solids	49	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J
WET CHEMISTRY (SM 2130 B-2011)									
Turbidity	0.84	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J
WET CHEMISTRY (SM 2510 B-2011)									
Conductivity	66	umhos/c m @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J
WET CHEMISTRY (SM 4500 H+B-2011)									
pH	5.8	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
Bromofluorobenzene (S)	ug/L	50	52	105	85 - 114	J
13C3-PFBS (S)	ng/L	18.20	16.90	93	40 - 135	J
13C8-PFOA (S)	ng/L	18.20	16.40	90	40 - 130	J
13C2-8:2FTS (S)	ng/L	36.40	33.40	92	40 - 300	J
13C2-6:2FTS (S)	ng/L	36.40	30.40	83	40 - 200	J
1,2-Dichloroethane-d4 (S)	ug/L	50	51	101	81 - 118	J
D9-NETFOSE (S)	ng/L	182	104	57	10 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	48.80	98	81 - 118	J
13C8-PFOS (S)	ng/L	18.20	16.30	89	40 - 130	J
13C2-PFTEDA (S)	ng/L	9.11	7.90	87	10 - 130	J
13C3-HFPO-DA (S)	ng/L	72.80	68.20	94	40 - 130	J
D7-NMEFOSE (S)	ng/L	182	112	62	10 - 130	J
13C3-PFHXS (S)	ng/L	18.20	17.10	94	40 - 130	J
13C5-PFPEA (S)	ng/L	36.40	34.30	94	40 - 130	J
13C9-PFNA (S)	ng/L	9.11	8.51	93	40 - 130	J
13C2-4:2FTS (S)	ng/L	36.40	41.10	113	40 - 200	J
Toluene-d8 (S)	ug/L	50	49	98	89 - 112	J
D3-NMEFOSA (S)	ng/L	18.20	10.60	58	10 - 130	J
D5-NETFOSA (S)	ng/L	18.20	9.90	54	10 - 130	J
13C2-PFDOA (S)	ng/L	9.11	7.11	78	10 - 130	J
13C8-FOSA (S)	ng/L	18.20	13.20	72	40 - 130	J
D5-NETFOSAA (S)	ng/L	36.40	28.60	79	25 - 135	J
13C4-PFBA (S)	ng/L	72.80	66.80	92	10 - 130	J
Bromofluorobenzene (S)	ug/L	50	50.90	102	85 - 114	J
13C4-PFHFA (S)	ng/L	18.20	16.10	88	40 - 130	J
D3-NMEFOSAA (S)	ng/L	36.40	28.40	78	40 - 170	J
13C6-PFDA (S)	ng/L	9.11	9.74	107	40 - 130	J
13C7-PFUNA (S)	ng/L	9.11	7.33	81	30 - 130	J





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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C5-PFHXA (S)	ng/L	18.20	16.60	91	40 - 130	J
Toluene-d8 (S)	ug/L	50	49.80	100	89 - 112	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849003	Date Collected:					04/16/2025 10:45			Matrix:	Water
Sample ID:	WWLF-WW05-041625	Date Received:					04/17/2025 09:00				
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab		
(DOD EPA 1633)											
HFPO-DA	0.57U	ng/L	0.29	0.57	1.1	1	04/29/2025 09:30	05/01/2025 08:11	J		
PFBS	0.92U	ng/L	0.46	0.92	1.8	1	04/29/2025 09:30	05/01/2025 08:11	J		
PFHxS	1.0U	ng/L	0.80	1.0	2.1	1	04/29/2025 09:30	05/01/2025 08:11	J		
PFNA	0.92U	ng/L	0.46	0.92	1.8	1	04/29/2025 09:30	05/01/2025 08:11	J		
PFOS	0.80U	ng/L	0.40	0.80	1.6	1	04/29/2025 09:30	05/01/2025 08:11	J		
PFOA	0.92U	ng/L	0.46	0.92	1.8	1	04/29/2025 09:30	05/01/2025 08:11	J		
METALS (SW-846 3010A/DoD SW-846 6010C)											
Aluminum	940	ug/L	20	40	80	1	05/02/2025 04:41	05/02/2025 15:59	J		
Calcium	2700	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 15:59	J		
Iron	21000	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 15:59	J		
Magnesium	3200	ug/L	100	200	400	1	05/02/2025 04:41	05/02/2025 15:59	J		
Potassium	630J	ug/L	500	1000	2000	1	05/02/2025 04:41	05/02/2025 15:59	J		
Sodium	16000	ug/L	800	1600	3200	1	05/02/2025 04:41	05/02/2025 15:59	J		
Total Hardness (as CaCO3)	20	mg/L	0.91	1.8	3.6	1	05/02/2025 04:41	05/02/2025 15:59	J		
METALS (SW-846 3010A/DoD SW-846 6020A)											
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Arsenic	0.38J	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Barium	28	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Chromium	0.72J	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Cobalt	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Copper	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Manganese	250	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Nickel	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:32	J		
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:32	J		

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849003 **Date Collected:** 04/16/2025 10:45 **Matrix:** Water
Sample ID: WWLF-WW05-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:32	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:32	J
Vanadium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:32	J
Zinc	12U	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 18:32	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.040U	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 14:52	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 03:25	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 03:25	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Acetone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849003 **Date Collected:** 04/16/2025 10:45 **Matrix:** Water
Sample ID: WWLF-WW05-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 17:04	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849003	Date Collected:	04/16/2025 10:45				Matrix:	Water	
Sample ID:	WWLF-WW05-041625	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:25	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:25	J
WET CHEMISTRY (DoD EPA 300.0)									
Chloride	16	mg/L	2.0	4.0	8.0	1	04/17/2025 23:49	04/17/2025 23:49	J
Nitrate (as N)	0.21J	mg/L	0.20	0.40	0.80	1	04/17/2025 23:49	04/17/2025 23:49	J
Sulfate	3.2J	mg/L	2.0	4.0	8.0	1	04/17/2025 23:49	04/17/2025 23:49	J
WET CHEMISTRY (DoD EPA 310.1)									
Alkalinity, Total	34	mg/L	5.0	5.0	5.0	1	04/29/2025 17:03	04/29/2025 17:03	J
WET CHEMISTRY (DoD EPA 410.4)									
Chemical Oxygen Demand	16J	mg/L	6.2	12	25	1.2 5	04/29/2025 11:01	04/29/2025 11:01	J
WET CHEMISTRY (DoD SM 2540 C-2015)									
Total Dissolved Solids	87	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J
WET CHEMISTRY (SM 2130 B-2011)									
Turbidity	35	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J
WET CHEMISTRY (SM 2510 B-2011)									
Conductivity	130	umhos/c m @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J
WET CHEMISTRY (SM 4500 H+B-2011)									
pH	6.1	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Analysis Results Comments

Aluminum

J|The analyte is an estimated value. The reported value is below the Limits of Quantitation (LOQ), but above the DL. Also, an acceptance criterion is not met (e.g., MS/MSD recovery or dual column confirmation was outside 40% RPD).

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iron

J|The analyte is an estimated value. The reported value is below the Limits of Quantitation (LOQ), but above the DL. Also, an acceptance criterion is not met (e.g., MS/MSD recovery or dual column confirmation was outside 40% RPD).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C2-6:2FTS (S)	ng/L	45.90	40.70	89	40 - 200	J
13C3-PFBS (S)	ng/L	23	21.80	95	40 - 135	J
13C9-PFNA (S)	ng/L	11.50	10.50	91	40 - 130	J
13C2-8:2FTS (S)	ng/L	45.90	44.40	97	40 - 300	J
13C2-PFDOA (S)	ng/L	11.50	7.99	70	10 - 130	J
Bromofluorobenzene (S)	ug/L	50	49.80	100	85 - 114	J
13C8-FOSA (S)	ng/L	23	19.40	84	40 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	49	98	81 - 118	J
13C5-PFHXA (S)	ng/L	23	21.30	93	40 - 130	J
13C2-4:2FTS (S)	ng/L	45.90	50.90	111	40 - 200	J
13C6-PFDA (S)	ng/L	11.50	9.82	86	40 - 130	J
13C8-PFOS (S)	ng/L	23	22.60	98	40 - 130	J
Toluene-d8 (S)	ug/L	50	49.60	99	89 - 112	J
1,2-Dichloroethane-d4 (S)	ug/L	50	47.80	96	81 - 118	J
D5-NETFOSA (S)	ng/L	23	10.60	46	10 - 130	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C7-PFUNA (S)	ng/L	11.50	9.35	81	30 - 130	J
Toluene-d8 (S)	ug/L	50	49	97	89 - 112	J
13C3-PFHXS (S)	ng/L	23	21.10	92	40 - 130	J
13C3-HFPO-DA (S)	ng/L	91.80	84	91	40 - 130	J
13C2-PFTEDA (S)	ng/L	11.50	8.78	76	10 - 130	J
13C4-PFHPA (S)	ng/L	23	20.10	88	40 - 130	J
D9-NETFOSE (S)	ng/L	230	133	58	10 - 130	J
D3-NMEFOSA (S)	ng/L	23	13.60	59	10 - 130	J
Bromofluorobenzene (S)	ug/L	50	51	102	85 - 114	J
13C8-PFOA (S)	ng/L	23	19.90	87	40 - 130	J
D3-NMEFOSAA (S)	ng/L	45.90	40.50	88	40 - 170	J
D5-NETFOSAA (S)	ng/L	45.90	35.60	77	25 - 135	J
D7-NMEFOSE (S)	ng/L	230	139	60	10 - 130	J
13C5-PFPEA (S)	ng/L	45.90	43.20	94	40 - 130	J
13C4-PFBA (S)	ng/L	91.80	84	91	10 - 130	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849004	Date Collected:	04/16/2025 08:40				Matrix:	Water	
Sample ID:	WWLF-WW09-041625	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
(DOD EPA 1633)									
HFPO-DA	0.53U	ng/L	0.26	0.53	1.1	1	04/29/2025 09:30	05/01/2025 08:42	J
PFBS	3.0	ng/L	0.42	0.84	1.7	1	04/29/2025 09:30	05/01/2025 08:42	J
PFHxS	32	ng/L	0.74	0.95	1.9	1	04/29/2025 09:30	05/01/2025 08:42	J
PFNA	0.84U	ng/L	0.42	0.84	1.7	1	04/29/2025 09:30	05/01/2025 08:42	J
PFOS	0.74U	ng/L	0.37	0.74	1.5	1	04/29/2025 09:30	05/01/2025 08:42	J
PFOA	31	ng/L	0.42	0.84	1.7	1	04/29/2025 09:30	05/01/2025 08:42	J
METALS (SW-846 3010A/DoD SW-846 6010C)									
Aluminum	120	ug/L	20	40	80	1	05/02/2025 04:41	05/02/2025 16:21	J
Calcium	5700	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:21	J
Iron	63000	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:21	J
Magnesium	7100	ug/L	100	200	400	1	05/02/2025 04:41	05/02/2025 16:21	J
Potassium	850J	ug/L	500	1000	2000	1	05/02/2025 04:41	05/02/2025 16:21	J
Sodium	32000	ug/L	800	1600	3200	1	05/02/2025 04:41	05/02/2025 16:21	J
Total Hardness (as CaCO3)	43	mg/L	0.91	1.8	3.6	1	05/02/2025 04:41	05/02/2025 16:21	J
METALS (SW-846 3010A/DoD SW-846 6020A)									
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Arsenic	0.70J	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Barium	37	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Chromium	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Cobalt	77	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Copper	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Manganese	8100	ug/L	50	100	200	50	04/30/2025 05:00	05/08/2025 09:01	J
Nickel	4.8J	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:38	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849004 **Date Collected:** 04/16/2025 08:40 **Matrix:** Water
Sample ID: WWLF-WW09-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Vanadium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:38	J
Zinc	12U	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 18:38	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.068J	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 14:56	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 03:49	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 03:49	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Acetone	0.83J	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849004 **Date Collected:** 04/16/2025 08:40 **Matrix:** Water
Sample ID: WWLF-WW09-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 17:28	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 17:28	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849004	Date Collected:		04/16/2025 08:40			Matrix: Water		
Sample ID:	WWLF-WW09-041625	Date Received:		04/17/2025 09:00					
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 03:49	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 03:49	J
WET CHEMISTRY (DoD EPA 300.0)									
Chloride	47	mg/L	2.0	4.0	8.0	1	04/17/2025 22:16	04/17/2025 22:16	J
Nitrate (as N)	0.27J	mg/L	0.20	0.40	0.80	1	04/17/2025 22:16	04/17/2025 22:16	J
Sulfate	49	mg/L	2.0	4.0	8.0	1	04/17/2025 22:16	04/17/2025 22:16	J
WET CHEMISTRY (DoD EPA 310.1)									
Alkalinity, Total	28	mg/L	5.0	5.0	5.0	1	04/28/2025 17:22	04/28/2025 17:22	J
WET CHEMISTRY (DoD EPA 410.4)									
Chemical Oxygen Demand	20J	mg/L	8.0	16	32	1.6	04/29/2025 11:01	04/29/2025 11:01	J
WET CHEMISTRY (DoD SM 2540 C-2015)									
Total Dissolved Solids	240	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J
WET CHEMISTRY (SM 2130 B-2011)									
Turbidity	110	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J
WET CHEMISTRY (SM 2510 B-2011)									
Conductivity	330	umhos/c m @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J
WET CHEMISTRY (SM 4500 H+B-2011)									
pH	6.3	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C2-8:2FTS (S)	ng/L	42.10	36.30	86	40 - 300	J
13C2-PFTEDA (S)	ng/L	10.50	9.16	87	10 - 130	J
13C5-PFPEA (S)	ng/L	42.10	39.10	93	40 - 130	J
13C2-6:2FTS (S)	ng/L	42.10	32.10	76	40 - 200	J
13C4-PFHFA (S)	ng/L	21	19.60	93	40 - 130	J
13C7-PFUNA (S)	ng/L	10.50	9.34	89	30 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	49.30	99	81 - 118	J
13C3-PFBS (S)	ng/L	21	19.70	94	40 - 135	J
D5-NETFOSAA (S)	ng/L	42.10	37	88	25 - 135	J
Toluene-d8 (S)	ug/L	50	50	100	89 - 112	J
13C9-PFNA (S)	ng/L	10.50	8.79	84	40 - 130	J
D9-NETFOSE (S)	ng/L	210	141	67	10 - 130	J
13C5-PFHXA (S)	ng/L	21	19.30	92	40 - 130	J
Toluene-d8 (S)	ug/L	50	50.70	101	89 - 112	J
1,2-Dichloroethane-d4 (S)	ug/L	50	51	102	81 - 118	J
13C3-PFHXS (S)	ng/L	21	18.60	88	40 - 130	J
D5-NETFOSA (S)	ng/L	21	12.90	61	10 - 130	J
13C8-PFOA (S)	ng/L	21	18.90	90	40 - 130	J
Bromofluorobenzene (S)	ug/L	50	51.40	103	85 - 114	J
13C2-4:2FTS (S)	ng/L	42.10	55.70	132	40 - 200	J
D3-NMEFOSA (S)	ng/L	21	14.40	69	10 - 130	J
13C8-PFOS (S)	ng/L	21	20.50	98	40 - 130	J
13C3-HFPO-DA (S)	ng/L	84.10	77.80	92	40 - 130	J
Bromofluorobenzene (S)	ug/L	50	53	107	85 - 114	J
13C2-PFDOA (S)	ng/L	10.50	8.92	85	10 - 130	J
13C8-FOSA (S)	ng/L	21	19.90	94	40 - 130	J
13C4-PFBA (S)	ng/L	84.10	77.20	92	10 - 130	J
D7-NMEFOSE (S)	ng/L	210	151	72	10 - 130	J





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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
D3-NMEFOSAA (S)	ng/L	42.10	39	93	40 - 170	J
13C6-PFDA (S)	ng/L	10.50	11.20	107	40 - 130	J

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Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849005	Date Collected: 04/16/2025 08:40	Matrix: Water
Sample ID: WWLF-WW09-041625fb	Date Received: 04/17/2025 09:00	

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
(DOD EPA 1633)									
HFPO-DA	0.51U	ng/L	0.25	0.51	1.0	1	04/29/2025 09:30	05/01/2025 09:13	J
PFBS	0.81U	ng/L	0.41	0.81	1.6	1	04/29/2025 09:30	05/01/2025 09:13	J
PFHxS	0.92U	ng/L	0.71	0.92	1.8	1	04/29/2025 09:30	05/01/2025 09:13	J
PFNA	0.81U	ng/L	0.41	0.81	1.6	1	04/29/2025 09:30	05/01/2025 09:13	J
PFOS	0.71U	ng/L	0.36	0.71	1.4	1	04/29/2025 09:30	05/01/2025 09:13	J
PFOA	0.81U	ng/L	0.41	0.81	1.6	1	04/29/2025 09:30	05/01/2025 09:13	J

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
D5-NETFOSA (S)	ng/L	20.30	12.30	61	10 - 130	J
13C2-PFTEDA (S)	ng/L	10.20	7.38	73	10 - 130	J
13C8-PFOA (S)	ng/L	20.30	17.40	86	40 - 130	J
13C4-PFHPA (S)	ng/L	20.30	18.50	91	40 - 130	J
D7-NMEFOSE (S)	ng/L	203	134	66	10 - 130	J
D9-NETFOSE (S)	ng/L	203	123	60	10 - 130	J
D3-NMEFOSA (S)	ng/L	20.30	12.70	63	10 - 130	J
13C9-PFNA (S)	ng/L	10.20	8.50	84	40 - 130	J
13C3-PFBS (S)	ng/L	20.30	19	94	40 - 135	J
13C5-PFPEA (S)	ng/L	40.70	38.30	94	40 - 130	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C8-PFOS (S)	ng/L	20.30	20.50	101	40 - 130	J
13C6-PFDA (S)	ng/L	10.20	9.82	97	40 - 130	J
13C3-PFHXS (S)	ng/L	20.30	18.60	91	40 - 130	J
13C2-6:2FTS (S)	ng/L	40.70	41	101	40 - 200	J
13C5-PFHXA (S)	ng/L	20.30	19.60	96	40 - 130	J
13C8-FOSA (S)	ng/L	20.30	20.90	103	40 - 130	J
13C3-HFPO-DA (S)	ng/L	81.40	76.60	94	40 - 130	J
13C4-PFBA (S)	ng/L	81.40	76.20	94	10 - 130	J
D5-NETFOSAA (S)	ng/L	40.70	35	86	25 - 135	J
13C2-8:2FTS (S)	ng/L	40.70	40.30	99	40 - 300	J
13C2-PFDOA (S)	ng/L	10.20	7.55	74	10 - 130	J
D3-NMEFOSAA (S)	ng/L	40.70	37	91	40 - 170	J
13C2-4:2FTS (S)	ng/L	40.70	46	113	40 - 200	J
13C7-PFUNA (S)	ng/L	10.20	8.06	79	30 - 130	J

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Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849006	Date Collected:	04/16/2025 12:15				Matrix:	Water	
Sample ID:	WWLF-WW10-041625	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
(DOD EPA 1633)									
HFPO-DA	0.45U	ng/L	0.23	0.45	0.90	1	04/29/2025 09:30	05/01/2025 09:44	J
PFBS	1.5	ng/L	0.36	0.72	1.4	1	04/29/2025 09:30	05/01/2025 09:44	J
PFHxS	16	ng/L	0.63	0.81	1.6	1	04/29/2025 09:30	05/01/2025 09:44	J
PFNA	0.72U	ng/L	0.36	0.72	1.4	1	04/29/2025 09:30	05/01/2025 09:44	J
PFOS	3.0	ng/L	0.32	0.63	1.3	1	04/29/2025 09:30	05/01/2025 09:44	J
PFOA	18	ng/L	0.36	0.72	1.4	1	04/29/2025 09:30	05/01/2025 09:44	J
METALS (SW-846 3010A/DoD SW-846 6010C)									
Aluminum	180	ug/L	20	40	80	1	05/02/2025 04:41	05/02/2025 16:25	J
Calcium	5800	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:25	J
Iron	400U	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:25	J
Magnesium	5600	ug/L	100	200	400	1	05/02/2025 04:41	05/02/2025 16:25	J
Potassium	920J	ug/L	500	1000	2000	1	05/02/2025 04:41	05/02/2025 16:25	J
Sodium	8400	ug/L	800	1600	3200	1	05/02/2025 04:41	05/02/2025 16:25	J
Total Hardness (as CaCO3)	38	mg/L	0.91	1.8	3.6	1	05/02/2025 04:41	05/02/2025 16:25	J
METALS (SW-846 3010A/DoD SW-846 6020A)									
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Arsenic	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Barium	34	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Chromium	1.2J	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Cobalt	0.44J	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Copper	2.0J	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Manganese	18	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Nickel	7.4	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:44	J

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Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849006 **Date Collected:** 04/16/2025 12:15 **Matrix:** Water
Sample ID: WWLF-WW10-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Vanadium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:44	J
Zinc	14J	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 18:44	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.22	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 15:00	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 04:13	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 04:13	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Acetone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849006 **Date Collected:** 04/16/2025 12:15 **Matrix:** Water
Sample ID: WWLF-WW10-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 17:52	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 17:52	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849006	Date Collected:	04/16/2025 12:15				Matrix:	Water	
Sample ID:	WWLF-WW10-041625	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:13	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:13	J
WET CHEMISTRY (DoD EPA 300.0)									
Chloride	26	mg/L	2.0	4.0	8.0	1	04/18/2025 01:21	04/18/2025 01:21	J
Nitrate (as N)	0.23J	mg/L	0.20	0.40	0.80	1	04/18/2025 01:21	04/18/2025 01:21	J
Sulfate	14	mg/L	2.0	4.0	8.0	1	04/18/2025 01:21	04/18/2025 01:21	J
WET CHEMISTRY (DoD EPA 310.1)									
Alkalinity, Total	8.0	mg/L	5.0	5.0	5.0	1	04/29/2025 17:03	04/29/2025 17:03	J
WET CHEMISTRY (DoD EPA 410.4)									
Chemical Oxygen Demand	16J	mg/L	6.2	12	25	1.2 5	04/29/2025 11:01	04/29/2025 11:01	J
WET CHEMISTRY (DoD SM 2540 C-2015)									
Total Dissolved Solids	91	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J
WET CHEMISTRY (SM 2130 B-2011)									
Turbidity	16	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J
WET CHEMISTRY (SM 2510 B-2011)									
Conductivity	150	umhos/cm @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J
WET CHEMISTRY (SM 4500 H+B-2011)									
pH	5.7	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
D3-NMEFOSAA (S)	ng/L	36.10	31.80	88	40 - 170	J
D7-NMEFOSE (S)	ng/L	181	97.30	54	10 - 130	J
13C4-PFBA (S)	ng/L	72.20	66.60	92	10 - 130	J
13C8-FOSA (S)	ng/L	18.10	16	89	40 - 130	J
13C5-PFPEA (S)	ng/L	36.10	33.60	93	40 - 130	J
13C2-4:2FTS (S)	ng/L	36.10	43.20	120	40 - 200	J
Toluene-d8 (S)	ug/L	50	50	100	89 - 112	J
13C5-PFHXA (S)	ng/L	18.10	16.40	91	40 - 130	J
13C3-PFHXS (S)	ng/L	18.10	16.50	91	40 - 130	J
Bromofluorobenzene (S)	ug/L	50	53	106	85 - 114	J
1,2-Dichloroethane-d4 (S)	ug/L	50	46.80	94	81 - 118	J
13C7-PFUNA (S)	ng/L	9.03	7.25	80	30 - 130	J
13C2-8:2FTS (S)	ng/L	36.10	34.20	95	40 - 300	J
13C8-PFOA (S)	ng/L	18.10	17	94	40 - 130	J
Toluene-d8 (S)	ug/L	50	49	98	89 - 112	J
13C2-PFDOA (S)	ng/L	9.03	6.59	73	10 - 130	J
13C8-PFOS (S)	ng/L	18.10	17.80	99	40 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	48	97	81 - 118	J
13C9-PFNA (S)	ng/L	9.03	7.15	79	40 - 130	J
D5-NETFOA (S)	ng/L	18.10	10.30	57	10 - 130	J
13C2-PFTEDA (S)	ng/L	9.03	6.34	70	10 - 130	J
13C2-6:2FTS (S)	ng/L	36.10	29.60	82	40 - 200	J
D3-NMEFOA (S)	ng/L	18.10	12	66	10 - 130	J
13C6-PFDA (S)	ng/L	9.03	7.59	84	40 - 130	J
Bromofluorobenzene (S)	ug/L	50	51	102	85 - 114	J
13C3-PFBS (S)	ng/L	18.10	17.30	96	40 - 135	J
13C3-HFPO-DA (S)	ng/L	72.20	67.10	93	40 - 130	J
13C4-PFHFA (S)	ng/L	18.10	16.30	90	40 - 130	J





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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
D5-NETFOSAA (S)	ng/L	36.10	31.20	86	25 - 135	J
D9-NETFOSE (S)	ng/L	181	76.60	42	10 - 130	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849007	Date Collected:	04/16/2025 00:00				Matrix:	Water	
Sample ID:	WWLF-WW10-041625dup	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
(DOD EPA 1633)									
HFPO-DA	0.47U	ng/L	0.24	0.47	0.94	1	04/29/2025 09:30	05/01/2025 10:14	J
PFBS	1.5J	ng/L	0.38	0.75	1.5	1	04/29/2025 09:30	05/01/2025 10:14	J
PFHxS	17	ng/L	0.66	0.85	1.7	1	04/29/2025 09:30	05/01/2025 10:14	J
PFNA	0.75U	ng/L	0.38	0.75	1.5	1	04/29/2025 09:30	05/01/2025 10:14	J
PFOS	0.66U	ng/L	0.33	0.66	1.3	1	04/29/2025 09:30	05/01/2025 10:14	J
PFOA	17	ng/L	0.38	0.75	1.5	1	04/29/2025 09:30	05/01/2025 10:14	J
METALS (SW-846 3010A/DoD SW-846 6010C)									
Aluminum	140	ug/L	20	40	80	1	05/02/2025 04:41	05/02/2025 16:30	J
Calcium	5700	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:30	J
Iron	400U	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:30	J
Magnesium	5600	ug/L	100	200	400	1	05/02/2025 04:41	05/02/2025 16:30	J
Potassium	930J	ug/L	500	1000	2000	1	05/02/2025 04:41	05/02/2025 16:30	J
Sodium	8300	ug/L	800	1600	3200	1	05/02/2025 04:41	05/02/2025 16:30	J
Total Hardness (as CaCO3)	37	mg/L	0.91	1.8	3.6	1	05/02/2025 04:41	05/02/2025 16:30	J
METALS (SW-846 3010A/DoD SW-846 6020A)									
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Arsenic	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Barium	35	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Chromium	1.2J	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Cobalt	0.45J	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Copper	1.8J	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Manganese	19	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Nickel	7.3	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:49	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849007 **Date Collected:** 04/16/2025 00:00 **Matrix:** Water
Sample ID: WWLF-WW10-041625dup **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Vanadium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:49	J
Zinc	16J	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 18:49	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.23	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 15:04	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 04:38	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 04:38	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Acetone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849007 **Date Collected:** 04/16/2025 00:00 **Matrix:** Water
Sample ID: WWLF-WW10-041625dup **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 18:17	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 18:17	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849007	Date Collected:	04/16/2025 00:00				Matrix:	Water	
Sample ID:	WWLF-WW10-041625dup	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 04:38	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 04:38	J
WET CHEMISTRY (DoD EPA 300.0)									
Chloride	26	mg/L	2.0	4.0	8.0	1	04/17/2025 21:02	04/17/2025 21:02	J
Nitrate (as N)	0.23J	mg/L	0.20	0.40	0.80	1	04/17/2025 21:02	04/17/2025 21:02	J
Sulfate	14	mg/L	2.0	4.0	8.0	1	04/17/2025 21:02	04/17/2025 21:02	J
WET CHEMISTRY (DoD EPA 310.1)									
Alkalinity, Total	10	mg/L	5.0	5.0	5.0	1	04/28/2025 17:22	04/28/2025 17:22	J
WET CHEMISTRY (DoD EPA 410.4)									
Chemical Oxygen Demand	13J	mg/L	5.0	10	20	1	04/29/2025 11:01	04/29/2025 11:01	J
WET CHEMISTRY (DoD SM 2540 C-2015)									
Total Dissolved Solids	92	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J
WET CHEMISTRY (SM 2130 B-2011)									
Turbidity	26	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J
WET CHEMISTRY (SM 2510 B-2011)									
Conductivity	140	umhos/cm @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J
WET CHEMISTRY (SM 4500 H+B-2011)									
pH	6.2	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C2-PFDOA (S)	ng/L	9.42	5.93	63	10 - 130	J
13C5-PFPEA (S)	ng/L	37.70	37.40	99	40 - 130	J
13C8-FOSA (S)	ng/L	18.80	18.70	99	40 - 130	J
Toluene-d8 (S)	ug/L	50	50.50	101	89 - 112	J
13C4-PFBA (S)	ng/L	75.30	72.50	96	10 - 130	J
13C2-4:2FTS (S)	ng/L	37.70	45.20	120	40 - 200	J
13C3-HFPO-DA (S)	ng/L	75.30	73.60	98	40 - 130	J
D7-NMEFOSE (S)	ng/L	188	117	62	10 - 130	J
13C9-PFNA (S)	ng/L	9.42	8.53	91	40 - 130	J
D3-NMEFOSAA (S)	ng/L	37.70	32.90	87	40 - 170	J
1,2-Dichloroethane-d4 (S)	ug/L	50	51	102	81 - 118	J
13C3-PFBS (S)	ng/L	18.80	18.60	99	40 - 135	J
13C2-6:2FTS (S)	ng/L	37.70	41.30	110	40 - 200	J
D5-NETFOSAA (S)	ng/L	37.70	30.10	80	25 - 135	J
D5-NETFOSA (S)	ng/L	18.80	10.40	55	10 - 130	J
Bromofluorobenzene (S)	ug/L	50	53	106	85 - 114	J
Bromofluorobenzene (S)	ug/L	50	51.40	103	85 - 114	J
13C2-8:2FTS (S)	ng/L	37.70	30.50	81	40 - 300	J
13C4-PFHPA (S)	ng/L	18.80	18.30	97	40 - 130	J
13C5-PFHXA (S)	ng/L	18.80	18.30	97	40 - 130	J
13C6-PFDA (S)	ng/L	9.42	9.76	104	40 - 130	J
13C8-PFOS (S)	ng/L	18.80	20	106	40 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	49.70	99	81 - 118	J
13C2-PFTEDA (S)	ng/L	9.42	6.19	66	10 - 130	J
13C7-PFUNA (S)	ng/L	9.42	6.65	71	30 - 130	J
D9-NETFOSE (S)	ng/L	188	108	57	10 - 130	J
13C3-PFHXS (S)	ng/L	18.80	17.90	95	40 - 130	J
Toluene-d8 (S)	ug/L	50	50	99	89 - 112	J





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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
D3-NMEFOSA (S)	ng/L	18.80	11.60	62	10 - 130	J
13C8-PFOA (S)	ng/L	18.80	16.60	88	40 - 130	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849008 **Date Collected:** 04/16/2025 10:40 **Matrix:** Water
Sample ID: WWLF-WW11R-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
(DOD EPA 1633)									
HFPO-DA	0.49U	ng/L	0.24	0.49	0.97	1	04/29/2025 09:30	05/01/2025 10:45	J
PFBS	0.78U	ng/L	0.39	0.78	1.6	1	04/29/2025 09:30	05/01/2025 10:45	J
PFHxS	0.87U	ng/L	0.68	0.87	1.7	1	04/29/2025 09:30	05/01/2025 10:45	J
PFNA	0.78U	ng/L	0.39	0.78	1.6	1	04/29/2025 09:30	05/01/2025 10:45	J
PFOS	0.68U	ng/L	0.34	0.68	1.4	1	04/29/2025 09:30	05/01/2025 10:45	J
PFOA	0.78U	ng/L	0.39	0.78	1.6	1	04/29/2025 09:30	05/01/2025 10:45	J
METALS (SW-846 3010A/DoD SW-846 6010C)									
Aluminum	810	ug/L	20	40	80	1	05/02/2025 04:41	05/02/2025 16:43	J
Calcium	4600	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:43	J
Iron	12000	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:43	J
Magnesium	3700	ug/L	100	200	400	1	05/02/2025 04:41	05/02/2025 16:43	J
Potassium	650J	ug/L	500	1000	2000	1	05/02/2025 04:41	05/02/2025 16:43	J
Sodium	5800	ug/L	800	1600	3200	1	05/02/2025 04:41	05/02/2025 16:43	J
Total Hardness (as CaCO3)	27	mg/L	0.91	1.8	3.6	1	05/02/2025 04:41	05/02/2025 16:43	J
METALS (SW-846 3010A/DoD SW-846 6020A)									
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Arsenic	0.68J	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Barium	1.7J	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Chromium	1.6J	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Cobalt	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Copper	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Manganese	300	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Nickel	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 18:55	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849008 **Date Collected:** 04/16/2025 10:40 **Matrix:** Water
Sample ID: WWLF-WW11R-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Vanadium	1.4J	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 18:55	J
Zinc	12U	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 18:55	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.016J	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 15:08	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 05:02	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 05:02	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
2-Butanone (MEK)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Acetone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849008 **Date Collected:** 04/16/2025 10:40 **Matrix:** Water
Sample ID: WWLF-WW11R-041625 **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 18:41	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 18:41	J
Methyl tert-butyl Ether (MTBE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Methylene Chloride	2.5U	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Tetrachloroethylene (PCE)	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849008	Date Collected:	04/16/2025 10:40				Matrix:	Water		
Sample ID:	WWLF-WW11R-041625	Date Received:	04/17/2025 09:00							
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab	
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J	
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:02	J	
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:02	J	
WET CHEMISTRY (DoD EPA 300.0)										
Chloride	5.0J	mg/L	2.0	4.0	8.0	1	04/17/2025 23:30	04/17/2025 23:30	J	
Nitrate (as N)	0.20J	mg/L	0.20	0.40	0.80	1	04/17/2025 23:30	04/17/2025 23:30	J	
Sulfate	5.1J	mg/L	2.0	4.0	8.0	1	04/17/2025 23:30	04/17/2025 23:30	J	
WET CHEMISTRY (DoD EPA 310.1)										
Alkalinity, Total	32	mg/L	5.0	5.0	5.0	1	04/29/2025 17:03	04/29/2025 17:03	J	
WET CHEMISTRY (DoD EPA 410.4)										
Chemical Oxygen Demand	16J	mg/L	6.2	12	25	1.2 5	04/29/2025 11:01	04/29/2025 11:01	J	
WET CHEMISTRY (DoD SM 2540 C-2015)										
Total Dissolved Solids	68	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J	
WET CHEMISTRY (SM 2130 B-2011)										
Turbidity	16	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J	
WET CHEMISTRY (SM 2510 B-2011)										
Conductivity	91	umhos/c m @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J	
WET CHEMISTRY (SM 4500 H+B-2011)										
pH	6.4	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J	

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C2-4:2FTS (S)	ng/L	38.90	45.80	118	40 - 200	J
13C4-PFHPA (S)	ng/L	19.40	18	93	40 - 130	J
D5-NETFOSAA (S)	ng/L	38.90	28.10	72	25 - 135	J
1,2-Dichloroethane-d4 (S)	ug/L	50	48.70	97	81 - 118	J
13C9-PFNA (S)	ng/L	9.72	8.51	88	40 - 130	J
13C3-PFHXS (S)	ng/L	19.40	18	93	40 - 130	J
D3-NMEFOSAA (S)	ng/L	38.90	30.30	78	40 - 170	J
Toluene-d8 (S)	ug/L	50	50.50	101	89 - 112	J
13C8-PFOS (S)	ng/L	19.40	18.80	96	40 - 130	J
13C7-PFUNA (S)	ng/L	9.72	6.90	71	30 - 130	J
Bromofluorobenzene (S)	ug/L	50	54	109	85 - 114	J
D5-NETFOSA (S)	ng/L	19.40	9.49	49	10 - 130	J
13C5-PFPEA (S)	ng/L	38.90	36.70	94	40 - 130	J
13C2-PFTEDA (S)	ng/L	9.72	5.17	53	10 - 130	J
13C2-8:2FTS (S)	ng/L	38.90	33.50	86	40 - 300	J
D7-NMEFOSE (S)	ng/L	194	86	44	10 - 130	J
13C6-PFDA (S)	ng/L	9.72	9.08	93	40 - 130	J
13C2-PFDOA (S)	ng/L	9.72	5.69	59	10 - 130	J
13C3-PFBS (S)	ng/L	19.40	18.70	96	40 - 135	J
D3-NMEFOSA (S)	ng/L	19.40	9.75	50	10 - 130	J
13C8-PFOA (S)	ng/L	19.40	17.70	91	40 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	50	100	81 - 118	J
Bromofluorobenzene (S)	ug/L	50	52.50	105	85 - 114	J
Toluene-d8 (S)	ug/L	50	50	99	89 - 112	J
D9-NETFOSE (S)	ng/L	194	64.50	33	10 - 130	J
13C5-PFHXA (S)	ng/L	19.40	18.30	94	40 - 130	J
13C8-FOSA (S)	ng/L	19.40	18.10	93	40 - 130	J
13C4-PFBA (S)	ng/L	77.80	71.50	92	10 - 130	J





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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C2-6:2FTS (S)	ng/L	38.90	36	93	40 - 200	J
13C3-HFPO-DA (S)	ng/L	77.80	73.30	94	40 - 130	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849009	Date Collected:	04/16/2025 13:20				Matrix:	Water	
Sample ID:	WWLF-WW10-041625rb	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
(DOD EPA 1633)									
HFPO-DA	0.52U	ng/L	0.26	0.52	1.0	1	04/29/2025 09:30	05/01/2025 11:16	J
PFBS	0.83U	ng/L	0.41	0.83	1.7	1	04/29/2025 09:30	05/01/2025 11:16	J
PFHxS	0.93U	ng/L	0.72	0.93	1.9	1	04/29/2025 09:30	05/01/2025 11:16	J
PFNA	0.83U	ng/L	0.41	0.83	1.7	1	04/29/2025 09:30	05/01/2025 11:16	J
PFOS	0.72U	ng/L	0.36	0.72	1.4	1	04/29/2025 09:30	05/01/2025 11:16	J
PFOA	0.83U	ng/L	0.41	0.83	1.7	1	04/29/2025 09:30	05/01/2025 11:16	J
METALS (SW-846 3010A/DoD SW-846 6010C)									
Aluminum	40U	ug/L	20	40	80	1	05/02/2025 04:41	05/02/2025 16:47	J
Calcium	400U	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:47	J
Iron	400U	ug/L	200	400	800	1	05/02/2025 04:41	05/02/2025 16:47	J
Magnesium	200U	ug/L	100	200	400	1	05/02/2025 04:41	05/02/2025 16:47	J
Potassium	1000U	ug/L	500	1000	2000	1	05/02/2025 04:41	05/02/2025 16:47	J
Sodium	1600U	ug/L	800	1600	3200	1	05/02/2025 04:41	05/02/2025 16:47	J
Total Hardness (as CaCO3)	1.8U	mg/L	0.91	1.8	3.6	1	05/02/2025 04:41	05/02/2025 16:47	J
METALS (SW-846 3010A/DoD SW-846 6020A)									
Antimony	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Arsenic	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Barium	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Beryllium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Cadmium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Chromium	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Cobalt	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Copper	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Lead	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Manganese	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Nickel	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Selenium	2.5U	ug/L	1.2	2.5	5.0	1	04/30/2025 05:00	05/01/2025 19:01	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849009 **Date Collected:** 04/16/2025 13:20 **Matrix:** Water
Sample ID: WWLF-WW10-041625rb **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Silver	1.0U	ug/L	0.50	1.0	2.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Thallium	0.50U	ug/L	0.25	0.50	1.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Vanadium	2.0U	ug/L	1.0	2.0	4.0	1	04/30/2025 05:00	05/01/2025 19:01	J
Zinc	12U	ug/L	6.0	12	24	1	04/30/2025 05:00	05/01/2025 19:01	J
METALS (SW-846 7470A/DoD SW-846 7470A)									
Mercury	0.025J	ug/L	0.011	0.040	0.10	1	05/01/2025 10:01	05/01/2025 15:12	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C (SIM))									
1,2-Dibromo-3-Chloropropane	0.10U	ug/L	0.050	0.10	0.20	1	04/23/2025 20:32	04/24/2025 05:26	J
Ethylene Dibromide (EDB)	0.050U	ug/L	0.019	0.050	0.10	1	04/23/2025 20:32	04/24/2025 05:26	J
VOLATILES (SW-846 5030B/DoD SW-846 8260C)									
1,1,1,2-Tetrachloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,1,1-Trichloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,1,2,2-Tetrachloroethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,1,2-Trichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,1-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,1-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,2,3-Trichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,2-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,2-Dichloroethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,2-Dichloropropane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
1,4-Dichlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
2-Butanone (MEK)	0.48J	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
2-Hexanone	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
4-Methyl-2-pentanone (MIBK)	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Acetone	16	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Acrylonitrile	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Benzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID: J2505849009 **Date Collected:** 04/16/2025 13:20 **Matrix:** Water
Sample ID: WWLF-WW10-041625rb **Date Received:** 04/17/2025 09:00

Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
Bromochloromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Bromodichloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Bromoform	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Bromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 19:05	J
Carbon Disulfide	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Carbon Tetrachloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Chlorobenzene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Chloroethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Chloroform	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Chloromethane	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Dibromochloromethane	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Dibromomethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Ethylbenzene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Iodomethane (Methyl Iodide)	1.0U	ug/L	0.50	1.0	2.0	1	04/26/2025 11:23	04/26/2025 19:05	J
Methyl tert-butyl Ether (MTBE)	0.50J	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Methylene Chloride	8.5	ug/L	1.2	2.5	5.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Styrene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Tetrachloroethylene (PCE)	0.98J	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Toluene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Trichloroethene	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Trichlorofluoromethane	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Vinyl Acetate	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Vinyl Chloride	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Xylene-mp	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
Xylene-o	0.50U	ug/L	0.25	0.50	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
cis-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
cis-1,3-Dichloropropene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Lab ID:	J2505849009	Date Collected:	04/16/2025 13:20				Matrix:	Water	
Sample ID:	WWLF-WW10-041625rb	Date Received:	04/17/2025 09:00						
Parameter	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	Lab
trans-1,2-Dichloroethylene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
trans-1,3-Dichloropropylene	0.40U	ug/L	0.20	0.40	1.0	1	04/23/2025 20:32	04/24/2025 05:26	J
trans-1,4-Dichloro-2-butene	1.0U	ug/L	0.50	1.0	2.0	1	04/23/2025 20:32	04/24/2025 05:26	J
WET CHEMISTRY (DoD EPA 300.0)									
Chloride	4.0U	mg/L	2.0	4.0	8.0	1	04/18/2025 02:17	04/18/2025 02:17	J
Nitrate (as N)	0.20J	mg/L	0.20	0.40	0.80	1	04/18/2025 02:17	04/18/2025 02:17	J
Sulfate	4.0U	mg/L	2.0	4.0	8.0	1	04/18/2025 02:17	04/18/2025 02:17	J
WET CHEMISTRY (DoD EPA 310.1)									
Alkalinity, Total	5.0U	mg/L	5.0	5.0	5.0	1	04/29/2025 17:03	04/29/2025 17:03	J
WET CHEMISTRY (DoD EPA 410.4)									
Chemical Oxygen Demand	13J	mg/L	5.0	10	20	1	04/29/2025 11:01	04/29/2025 11:01	J
WET CHEMISTRY (DoD SM 2540 C-2015)									
Total Dissolved Solids	10U	mg/L	10	10	10	1	04/18/2025 17:30	04/18/2025 17:30	J
WET CHEMISTRY (SM 2130 B-2011)									
Turbidity	0.35J	NTU	0.10	0.20	0.40	1	04/17/2025 19:01	04/17/2025 19:01	J
WET CHEMISTRY (SM 2510 B-2011)									
Conductivity	4.0U	umhos/cm @ 25.0°C	2.0	4.0	8.0	1	05/05/2025 14:16	05/05/2025 14:16	J
WET CHEMISTRY (SM 4500 H+B-2011)									
pH	6.2	SU	1.0	1.0	1.0	1	04/25/2025 14:54	04/25/2025 14:54	J

Analysis Results Comments

Bromomethane

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Iodomethane (Methyl Iodide)

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Vinyl Acetate

Q|One or more of the quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

pH

Q|Missed Hold Time





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates						
Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C3-PFHXS (S)	ng/L	20.70	19.80	96	40 - 130	J
Toluene-d8 (S)	ug/L	50	50.20	100	89 - 112	J
13C8-FOSA (S)	ng/L	20.70	19	92	40 - 130	J
13C6-PFDA (S)	ng/L	10.30	9.51	92	40 - 130	J
Bromofluorobenzene (S)	ug/L	50	52	105	85 - 114	J
13C2-PFTEDA (S)	ng/L	10.30	10.10	97	10 - 130	J
13C8-PFOS (S)	ng/L	20.70	25	121	40 - 130	J
Toluene-d8 (S)	ug/L	50	50	100	89 - 112	J
Bromofluorobenzene (S)	ug/L	50	50.60	101	85 - 114	J
D5-NETFOSA (S)	ng/L	20.70	15.10	73	10 - 130	J
13C2-PFDOA (S)	ng/L	10.30	11.60	113	10 - 130	J
13C4-PFBA (S)	ng/L	82.70	80.90	98	10 - 130	J
D3-NMEFOSAA (S)	ng/L	41.30	46.20	112	40 - 170	J
D7-NMEFOSE (S)	ng/L	207	145	70	10 - 130	J
13C7-PFUNA (S)	ng/L	10.30	11.60	112	30 - 130	J
13C9-PFNA (S)	ng/L	10.30	10.60	102	40 - 130	J
D9-NETFOSE (S)	ng/L	207	132	64	10 - 130	J
13C3-PFBS (S)	ng/L	20.70	21.10	102	40 - 135	J
D3-NMEFOSA (S)	ng/L	20.70	18.50	90	10 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	48	95	81 - 118	J
13C2-4:2FTS (S)	ng/L	41.30	47.40	115	40 - 200	J
D5-NETFOSAA (S)	ng/L	41.30	42.10	102	25 - 135	J
13C2-8:2FTS (S)	ng/L	41.30	42.70	103	40 - 300	J
13C3-HFPO-DA (S)	ng/L	82.70	83	100	40 - 130	J
13C2-6:2FTS (S)	ng/L	41.30	45.20	109	40 - 200	J
13C4-PFHPA (S)	ng/L	20.70	19.30	93	40 - 130	J
1,2-Dichloroethane-d4 (S)	ug/L	50	46	92	81 - 118	J
13C5-PFPEA (S)	ng/L	41.30	40.10	97	40 - 130	J





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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

Analytical Results

Surrogates

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery	Control Limits	Lab
13C8-PFOA (S)	ng/L	20.70	20.40	99	40 - 130	J
13C5-PFHXA (S)	ng/L	20.70	19.70	95	40 - 130	J

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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
CVAj/2936 - DoD SW-846 7470A			
J2505849002	WWLF-WW04R-041625	DGMj/10533	SW-846 7470A
J2505849003	WWLF-WW05-041625	DGMj/10533	SW-846 7470A
J2505849004	WWLF-WW09-041625	DGMj/10533	SW-846 7470A
J2505849006	WWLF-WW10-041625	DGMj/10533	SW-846 7470A
J2505849007	WWLF-WW10-041625dup	DGMj/10533	SW-846 7470A
J2505849008	WWLF-WW11R-041625	DGMj/10533	SW-846 7470A
J2505849009	WWLF-WW10-041625rb	DGMj/10533	SW-846 7470A
HPLj/3381 - DOD EPA 1633			
J2505849002	WWLF-WW04R-041625	EXTj/11719	DOD EPA 1633
J2505849003	WWLF-WW05-041625	EXTj/11719	DOD EPA 1633
J2505849004	WWLF-WW09-041625	EXTj/11719	DOD EPA 1633
J2505849005	WWLF-WW09-041625fb	EXTj/11719	DOD EPA 1633
J2505849006	WWLF-WW10-041625	EXTj/11719	DOD EPA 1633
J2505849007	WWLF-WW10-041625dup	EXTj/11719	DOD EPA 1633
J2505849008	WWLF-WW11R-041625	EXTj/11719	DOD EPA 1633
J2505849009	WWLF-WW10-041625rb	EXTj/11719	DOD EPA 1633
ICMj/5368 - DoD SW-846 6020A			
J2505849002	WWLF-WW04R-041625	DGMj/10519	SW-846 3010A
J2505849003	WWLF-WW05-041625	DGMj/10519	SW-846 3010A
J2505849004	WWLF-WW09-041625	DGMj/10519	SW-846 3010A
J2505849006	WWLF-WW10-041625	DGMj/10519	SW-846 3010A
J2505849007	WWLF-WW10-041625dup	DGMj/10519	SW-846 3010A
J2505849008	WWLF-WW11R-041625	DGMj/10519	SW-846 3010A
J2505849009	WWLF-WW10-041625rb	DGMj/10519	SW-846 3010A
ICPj/4324 - DoD SW-846 6010C			
J2505849002	WWLF-WW04R-041625	DGMj/10495	SW-846 3010A
ICPj/4349 - DoD SW-846 6010C			
J2505849003	WWLF-WW05-041625	DGMj/10546	SW-846 3010A
J2505849004	WWLF-WW09-041625	DGMj/10546	SW-846 3010A
J2505849006	WWLF-WW10-041625	DGMj/10546	SW-846 3010A
J2505849007	WWLF-WW10-041625dup	DGMj/10546	SW-846 3010A
J2505849008	WWLF-WW11R-041625	DGMj/10546	SW-846 3010A
J2505849009	WWLF-WW10-041625rb	DGMj/10546	SW-846 3010A

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Dates and times are displayed using (-04:00)
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FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
MSVj/12557 - DoD SW-846 8260C			
J2505849001	WWLF-TB-041625	MSVj/12556	SW-846 5030B
J2505849002	WWLF-WW04R-041625	MSVj/12556	SW-846 5030B
J2505849003	WWLF-WW05-041625	MSVj/12556	SW-846 5030B
J2505849004	WWLF-WW09-041625	MSVj/12556	SW-846 5030B
J2505849006	WWLF-WW10-041625	MSVj/12556	SW-846 5030B
J2505849007	WWLF-WW10-041625dup	MSVj/12556	SW-846 5030B
J2505849008	WWLF-WW11R-041625	MSVj/12556	SW-846 5030B
J2505849009	WWLF-WW10-041625rb	MSVj/12556	SW-846 5030B
MSVj/12559 - DoD SW-846 8260C (SIM)			
J2505849001	WWLF-TB-041625	MSVj/12558	SW-846 5030B
J2505849002	WWLF-WW04R-041625	MSVj/12558	SW-846 5030B
J2505849003	WWLF-WW05-041625	MSVj/12558	SW-846 5030B
J2505849004	WWLF-WW09-041625	MSVj/12558	SW-846 5030B
J2505849006	WWLF-WW10-041625	MSVj/12558	SW-846 5030B
J2505849007	WWLF-WW10-041625dup	MSVj/12558	SW-846 5030B
J2505849008	WWLF-WW11R-041625	MSVj/12558	SW-846 5030B
J2505849009	WWLF-WW10-041625rb	MSVj/12558	SW-846 5030B
MSVj/12599 - DoD SW-846 8260C			
J2505849001	WWLF-TB-041625	MSVj/12598	SW-846 5030B
J2505849002	WWLF-WW04R-041625	MSVj/12598	SW-846 5030B
J2505849003	WWLF-WW05-041625	MSVj/12598	SW-846 5030B
J2505849004	WWLF-WW09-041625	MSVj/12598	SW-846 5030B
J2505849006	WWLF-WW10-041625	MSVj/12598	SW-846 5030B
J2505849007	WWLF-WW10-041625dup	MSVj/12598	SW-846 5030B
J2505849008	WWLF-WW11R-041625	MSVj/12598	SW-846 5030B
J2505849009	WWLF-WW10-041625rb	MSVj/12598	SW-846 5030B
WCAj/18541 - DoD EPA 300.0			
J2505849002	WWLF-WW04R-041625		
J2505849004	WWLF-WW09-041625		
J2505849007	WWLF-WW10-041625dup		
J2505849008	WWLF-WW11R-041625		





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAj/18559 - DoD EPA 300.0			
J2505849003	WWLF-WW05-041625		
J2505849006	WWLF-WW10-041625		
J2505849009	WWLF-WW10-041625rb		
WCAj/18564 - SM 2130 B-2011			
J2505849002	WWLF-WW04R-041625		
J2505849003	WWLF-WW05-041625		
J2505849004	WWLF-WW09-041625		
J2505849006	WWLF-WW10-041625		
J2505849007	WWLF-WW10-041625dup		
J2505849008	WWLF-WW11R-041625		
J2505849009	WWLF-WW10-041625rb		
WCAj/18588 - DoD SM 2540 C-2015			
J2505849002	WWLF-WW04R-041625		
J2505849003	WWLF-WW05-041625		
J2505849004	WWLF-WW09-041625		
J2505849006	WWLF-WW10-041625		
J2505849007	WWLF-WW10-041625dup		
J2505849008	WWLF-WW11R-041625		
J2505849009	WWLF-WW10-041625rb		
WCAj/18680 - SM 4500 H+B-2011			
J2505849002	WWLF-WW04R-041625		
J2505849003	WWLF-WW05-041625		
J2505849004	WWLF-WW09-041625		
J2505849006	WWLF-WW10-041625		
J2505849007	WWLF-WW10-041625dup		
J2505849008	WWLF-WW11R-041625		
J2505849009	WWLF-WW10-041625rb		
WCAj/18713 - DoD EPA 310.1			
J2505849002	WWLF-WW04R-041625		
J2505849004	WWLF-WW09-041625		
J2505849007	WWLF-WW10-041625dup		





FINAL

Workorder: Westwood LF LTM - April 2025 (J2505849)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAj/18742 - DoD EPA 310.1			
J2505849003	WWLF-WW05-041625		
J2505849006	WWLF-WW10-041625		
J2505849008	WWLF-WW11R-041625		
J2505849009	WWLF-WW10-041625rb		
WCAj/18752 - DoD EPA 410.4			
J2505849002	WWLF-WW04R-041625		
J2505849003	WWLF-WW05-041625		
J2505849004	WWLF-WW09-041625		
J2505849006	WWLF-WW10-041625		
J2505849007	WWLF-WW10-041625dup		
J2505849008	WWLF-WW11R-041625		
J2505849009	WWLF-WW10-041625rb		
WCAj/18843 - SM 2510 B-2011			
J2505849002	WWLF-WW04R-041625		
J2505849003	WWLF-WW05-041625		
J2505849004	WWLF-WW09-041625		
J2505849006	WWLF-WW10-041625		
J2505849007	WWLF-WW10-041625dup		
J2505849008	WWLF-WW11R-041625		
J2505849009	WWLF-WW10-041625rb		





- ☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048, FL 32701 • 407.937.1594 • Lab ID: E53076
- ☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
- ☒ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
- ☐ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095



Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☒ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 4.0 °C Temp. when received (corrected) 4.0 °C

DCN: AD-D051web Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

Relinquished by:		Date	Time	Received by:		Date	Time
1	<i>[Signature]</i>	4/16/25	16:00	<i>[Signature]</i>			
2	<i>Fedex</i>			<i>R/L</i>		4-12-25	900
3							
4							

FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____

Supplier of Water: _____

Site-Address: _____



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Sample Receiving Checklist

☒ JAX ☐ TPA ☐ MIA ☐ ALS
☐ FTM ☐ GNV ☐ LPD ☐ SEM



Client: ECC

Log-In request number. _____

Received by: Ryan Bennett

Project name: Westwood LF LTM Apr. 1 2012

Date/Time: 4-17-25 900

Completed by: [Signature]

Cooler/Shipping Information: Type: ☒ Cooler ☐ Box ☐ Other (describe) 885 2483 5090

Courier: ☐ AEL ☐ Client ☐ UPS ☐ Blue Streak ☒ FedEx ☐ Other Tracking # 8185 2483 5078
8185 2483 5089
8185 2483 5104

Cooler temperature: Identify the cooler and document the temperature blank (bottle) or ice water (cooler) measurement

Cooler/Container ID	1	2	3	4	
Temp (°C)	4.0	4.0	4.0	4.0	
Temp taken from	<input checked="" type="checkbox"/> Bottle <input type="checkbox"/> Cooler	<input checked="" type="checkbox"/> Bottle <input type="checkbox"/> Cooler	<input checked="" type="checkbox"/> Bottle <input type="checkbox"/> Cooler	<input checked="" type="checkbox"/> Bottle <input type="checkbox"/> Cooler	<input type="checkbox"/> Bottle <input type="checkbox"/> Cooler
Temp measured with	IR gun/Therm (ID): <u>J9A</u>	IR gun/Therm (ID): <u>J9A</u>	IR gun/Therm (ID): <u>J9A</u>	IR gun/Therm (ID): <u>J9A</u>	IR gun/Therm (ID): _____

Other Information: Any discrepancies should be explained in the "Comments" section below.

CHECKLIST	YES	NO	NA
1. Were custody seals on shipping container(s) intact?	<input checked="" type="checkbox"/>		
2. Were custody papers properly included with samples?	<input checked="" type="checkbox"/>		
3. Were custody papers properly filled out (ink, signed, match labels)?	<input checked="" type="checkbox"/>		
4. Did all bottles arrive in good condition (unbroken)?	<input checked="" type="checkbox"/>		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	<input checked="" type="checkbox"/>		
6. Did the sample labels agree with the chain of custody?	<input checked="" type="checkbox"/>		
7. Were correct bottles used for the tests indicated?	<input checked="" type="checkbox"/>		
8. Were proper sample preservation techniques indicated on the label?	<input checked="" type="checkbox"/>		
9. Were samples received within holding times?	<input checked="" type="checkbox"/>		
10. Were all VOA vials free of the presence of air bubbles?	<input checked="" type="checkbox"/>		
11. Have all Soil VOA Vials and Encores been placed in a freezer within 48 hours of collection?			<input checked="" type="checkbox"/>
12. Were samples in direct contact with wet ice? If "No," check one: <input type="checkbox"/> NO ICE <input type="checkbox"/> BLUE ICE	<input checked="" type="checkbox"/>		
13. Was the cooler temperature less than 6°C?	<input checked="" type="checkbox"/>		
14. Where pH preservation required, are sample pHs checked and any anomalies recorded by Sample control? Are all <2 or >10? Note: VOA samples are checked by laboratory analysts.	<input checked="" type="checkbox"/>		
15. Was sufficient sample volume provided to perform all tests?	<input checked="" type="checkbox"/>		
16. If for Bacteriological testing, were containers supplied by AEL? (See QA officer if answer is no)			<input checked="" type="checkbox"/>
17. Were all sample containers provided by AEL? (Other than Bacteriological)	<input checked="" type="checkbox"/>		
18. Were samples accepted into the laboratory?	<input checked="" type="checkbox"/>		
19. When necessary to split samples into other bottles, is it noted in the comments?	<input checked="" type="checkbox"/>		
20. Where Encores received and if so, how many?			<input checked="" type="checkbox"/>

Comments: (Note all sample(s) and container (s) with a "No" checklist response in this comment section)



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18559

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD EPA 300.0
Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: A matrix spike (MS) and duplicate matrix spike (MSD) was performed on a sample not associated with this SDG.

Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18588

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: DoD SM 2540 C-2015

Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18752

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: DoD EPA 410.4

Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18541

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD EPA 300.0
Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: A matrix spike (MS) and duplicate matrix spike (MSD) was performed on a sample not associated with this SDG.

A matrix spike (MS) and duplicate matrix spike (MSD) was performed on a sample not associated with this SDG.

Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 12599

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 8260C
Preparation: SW-846 5030B

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: The upper control criterion was exceeded for Chloromethane, Bromomethane and Iodomethane in Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) standards for analytical batch 12599, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. The data were qualified accordingly.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: The spike recoveries of Bromomethane and Iodomethane for the Laboratory Control Sample (LCS) were outside the upper control criterion. The analyte in question was not detected in the associated client samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. The data were qualified accordingly.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 12557

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 8260C
Preparation: SW-846 5030B

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: The upper control criterion was exceeded for Vinyl Acetate in Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) standards for analytical batch 12557, indicating increased sensitivity. The client samples reported in this batch did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. The data were qualified accordingly.

The Continuing Calibration Verification (CCV) standards were below the method acceptance of 80-120% for Iodomethane. The samples were reanalyzed and confirmed results. As the analytes in question were not detected in the field samples, the results are deemed acceptable. The data were qualified accordingly.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes

The spike recovery of Vinyl Acetate for the Laboratory Control Sample (LCS) and the Laboratory Control Sample Duplicate (LCSD) was outside the upper control criterion. The analyte in question was not detected in the associated client samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. The data were qualified accordingly.

The spike recovery of Iodomethane for the Laboratory Control Sample (LCS) was outside the lower control criterion. The error associated with the recovery equates to a low bias. The samples were reanalyzed and confirmed results. All batch samples were qualified accordingly.

Internal Standard:	All acceptance criteria were met.
Samples:	All acceptance criteria were met.
Other:	All acceptance criteria were met.
Serial Dilution:	All acceptance criteria were met.
Duplicates:	All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 2936

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 7470A
Preparation: SW-846 7470A

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: A matrix spike (MS) and duplicate matrix spike (MSD) was performed on a sample not associated with this SDG.

Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18843

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: SM 2510 B-2011

Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 4349

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 6010C
Preparation: SW-846 3010A

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: The matrix spike (MS) and/or matrix spike duplicate (MSD) recoveries of Aluminum and Iron for J2505849003 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control.

Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



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Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 5368

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 6020A
Preparation: SW-846 3010A

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: A matrix spike (MS) and duplicate matrix spike (MSD) was performed on a sample not associated with this SDG.

Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 3381

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: DOD EPA 1633

Preparation: DOD EPA 1633

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 4324

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 6010C
Preparation: SW-846 3010A

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: A matrix spike (MS) and duplicate matrix spike (MSD) was performed on a sample not associated with this SDG.

Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18713

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: DoD EPA 310.1

Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18742

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD EPA 310.1
Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: All acceptance criteria were met.
Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 12559

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.
Analysis: All holding times were met.

III. Method

Analysis: DoD SW-846 8260C (SIM)
Preparation: SW-846 5030B

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.
Blanks: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Spikes: All acceptance criteria were met.
Internal Standard: All acceptance criteria were met.
Samples: All acceptance criteria were met.
Other: All acceptance criteria were met.
Serial Dilution: All acceptance criteria were met.
Duplicates: All acceptance criteria were met.



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Environmental Laboratories, Inc.

Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18680

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: SM 4500H+B

Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.



Work Order: J2505849
Client: Environmental Chemical Co.
Project ID: Westwood LF LTM - April 2025
Batch Number: 18564

I. Receipt

No Exceptions were encountered.

II. Holding Times

Preparation: All holding times were met.

Analysis: All holding times were met.

III. Method

Analysis: SM 2130B

Preparation:

IV. Preparation

Sample preparation proceeded normally.

V. Analysis

Calibration: All acceptance criteria were met.

Blanks: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Spikes: All acceptance criteria were met.

Internal Standard: All acceptance criteria were met.

Samples: All acceptance criteria were met.

Other: All acceptance criteria were met.

Serial Dilution: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary (if applicable)
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

ANALYTICAL SAMPLE DATA

AEL, INC.
 CRAIG MYERS
 6681 SOUTHPOINT PKWY
 JACKSONVILLE, FL 32216

Project Name: WESTWOOD LF LTM - APRIL 2025
 Project Phase:
 Project #: AEL WO # J2505849
 Folder #: 194398
 Purchase Order #: J-PO-36004
 Contract #: 3532

Arrival Temperature: 2.5
 Report Date: 5/5/2025
 Date Received: 4/18/2025
 Reprint Date: 5/5/2025

CT LAB#: 1574770	Sample Description: WWLF-WW04R-041625	Client Sample #: J2505849002	Sampled: 4/16/2025 09:30
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Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	<0.30	mg/L	0.13	0.30	0.50	0.50	1.00	U			4/23/25 10:02	RLB	EPA 350.1 ^

CT LAB#: 1574771	Sample Description: WWLF-WW05-041625	Client Sample #: J2505849003	Sampled: 4/16/2025 10:45
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Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	0.68	mg/L	0.13	0.30	0.50	0.50	1.00				4/23/25 10:06	RLB	EPA 350.1 ^

CT LAB#: 1574772	Sample Description: WWLF-WW09-041625	Client Sample #: J2505849004	Sampled: 4/16/2025 08:40
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Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	0.28	mg/L	0.13	0.30	0.50	0.50	1.00	J			4/23/25 10:08	RLB	EPA 350.1 ^

CT LAB#: 1574773 Sample Description: WWLF-WW10-041625 Client Sample #: J2505849006 Sampled: 4/16/2025 12:15

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	<0.30	mg/L	0.13	0.30	0.50	0.50	1.00	U			4/23/25 10:09	RLB	EPA 350.1 ^

CT LAB#: 1574774 Sample Description: WWLF-WW10-041625dup Client Sample #: J2505849007 Sampled: 4/16/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	<0.30	mg/L	0.13	0.30	0.50	0.50	1.00	U			4/23/25 10:10	RLB	EPA 350.1 ^

CT LAB#: 1574775 Sample Description: WWLF-WW11R-041625 Client Sample #: J2505849008 Sampled: 4/16/2025 10:40

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	0.17	mg/L	0.13	0.30	0.50	0.50	1.00	J			4/23/25 10:14	RLB	EPA 350.1 ^

CT LAB#: 1574776 Sample Description: WWLF-WW10-041625rb Client Sample #: J2505849009 Sampled: 4/16/2025 13:20

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Ammonia Nitrogen	<0.30	mg/L	0.13	0.30	0.50	0.50	1.00	U			4/23/25 10:15	RLB	EPA 350.1 ^

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030

Wisconsin (DATCP) Bacteriology ID# 289

Louisiana NELAP (primary) ID# 115843

Illinois NELAP Lab ID# 200073

Kansas NELAP Lab ID# E-10368

Virginia NELAP Lab ID# 460203

Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -

PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -

PJLA Testing Accreditation # 78929

QC Summary Report

AEL, INC.

Project Name: WESTWOOD LF LTM - APRIL 2025

SDG #: 0

Folder #: 194398

Project #: AEL WO # J2505849

Duplicate

Analytical Run #:	291052	Analysis Date:	4/23/2025	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	1577049	Analysis Time:	10:03	Prep Date/Time:	Method:	E350.1
Parent Sample #:	1574770	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ammonia Nitrogen	0.13	mg/L	<DL	U				0	20

AEL, INC.

Project Name: WESTWOOD LF LTM - APRIL 2025

SDG #: 0

Folder #: 194398

Project #: AEL WO # J2505849

Lab Control Spike Water

Analytical Run #:	291052	Analysis Date:	4/23/2025	Prep Batch #:	Matrix:	LIQUID
CTLab #:	1575955	Analysis Time:	09:59	Prep Date/Time:	Method:	E350.1
Parent Sample #:		Analyst:	RLB	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ammonia Nitrogen	1.23	mg/L			1.25	98	90 --- 110		

AEL, INC.

Project Name: WESTWOOD LF LTM - APRIL 2025

SDG #: 0

Folder #: 194398

Project #: AEL WO # J2505849

Method Blank Water

Analytical Run #:	291052	Analysis Date:	4/23/2025	Prep Batch #:	Matrix:	LIQUID
CTLab #:	1575956	Analysis Time:	10:00	Prep Date/Time:	Method:	E350.1
Parent Sample #:		Analyst:	RLB	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ammonia Nitrogen	0.13	mg/L		U	0		0.25		

AEL, INC.

Project Name: WESTWOOD LF LTM - APRIL 2025

SDG #: 0

Folder #: 194398

Project #: AEL WO # J2505849

Matrix Spike Duplicate Water

Analytical Run #:	291052	Analysis Date:	4/23/2025	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	1577051	Analysis Time:	10:05	Prep Date/Time:	Method:	E350.1
Parent Sample #:	1577050	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ammonia Nitrogen	1.27	mg/L	<DL		1.25	102	90 --- 110	7	20

AEL, INC.

Project Name: WESTWOOD LF LTM - APRIL 2025

SDG #: 0

Folder #: 194398

Project #: AEL WO # J2505849

Matrix Spike Water

Analytical Run #:	291052	Analysis Date:	4/23/2025	Prep Batch #:	Matrix:	GROUND WATER
CTLab #:	1577050	Analysis Time:	10:04	Prep Date/Time:	Method:	E350.1
Parent Sample #:	1574770	Analyst:	DC	Prep Analyst:		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ammonia Nitrogen	1.36	mg/L	<DL		1.25	109	90 --- 110		20

Sample Condition Report

Folder #:	194398	Print Date / Time:	04/18/2025	12:08
Client:	AEL, INC.	Received Date / Time / By:	04/18/2025	10:32 erc
Project Name:	WESTWOOD LF LTM - APRIL 2025	Log-In Date / Time / By:	04/18/2025	12:08 erc
Project Phase:		Project #:	AEL WO # J2505849	PM: BMS
Coolers:	1-UNMARKED	Temperature:	2.5 C	On Ice: Y
Custody Seals Present :	N	COC Present:?	Y	Complete? Y
Seal Intact?	N	Numbers:	N/A	
Ship Method:	FEDEX EXPRESS	Tracking Number:	416751224985	
Adequate Packaging:	Y	Temp Blank Enclosed?	Y	

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

NO CUSTODY SEALS WERE PRESENT ON THE COOLER UPON RECEIPT; HOWEVER, THE PACKAGING TAPE WAS INTACT.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1574770 WWLF-WW04R-041625				
	H2SO4 PL	1	Y / N	NH3N
	Total # of Containers of Type (H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1574771 WWLF-WW05-041625				
	H2SO4 PL	1	Y / N	NH3N
	Total # of Containers of Type (H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1574772 WWLF-WW09-041625				
	H2SO4 PL	1	Y / N	NH3N
	Total # of Containers of Type (H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1574773 WWLF-WW10-041625				
	H2SO4 PL	1	Y / N	NH3N
	Total # of Containers of Type (H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1574774 WWLF-WW10-041625dup				
	H2SO4 PL	1	Y / N	NH3N
	Total # of Containers of Type (H2SO4 PL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

		H2SO4 PL	1	Y	/	N	NH3N
		Total # of Containers of Type (H2SO4 PL) = 1					
Sample ID / Description		Container Type	Cond. Code	pH OK?/Filtered?		Tests	
1574776 WWLF-WW10-041625rb		H2SO4 PL	1	Y	/	N	NH3N
		Total # of Containers of Type (H2SO4 PL) = 1					

<u>Condition Code</u>	<u>Condition Description</u>
1	Sample Received OK

Standard



Results Requested By: ~~5/6/2025~~

Thursday, April 17, 2025 12:33:18 PM
Dates and times are displayed using (-04:00) US/Eastern.
Page 1 of 2

Lm usx 109L 25C
Lm usx 121 46

Chain of Custody



Document: 419166 - HBN 329740

Preservative H2SO4 = H2SO4 HNO3 = HNO3	Transfers	Released By	Date/Time	Received By	Date/Time
	1		4/17/25 14:55	for	4/17/25 18:32
	2				
	3				
	4				
	5				

Ice Present YES NO

Cooler Receipt Form

Observed Temperature 25

Actual Temperature _____

IR Gun # 33

Initials E

Date 4/8/25 Time 10:22

Cooler #: X XX

ORIGIN ID: NFBA (904) 363-9350
JASON GEBHARDT
AEL, INC.
6681 SOUTHPOINT PARKWAY
JACKSONVILLE, FL 32216
UNITED STATES US

SHIP DATE: 17APR25
ACTWGT: 23.65 LB
CAD: 0581870/CAFE3906

BILL SENDER

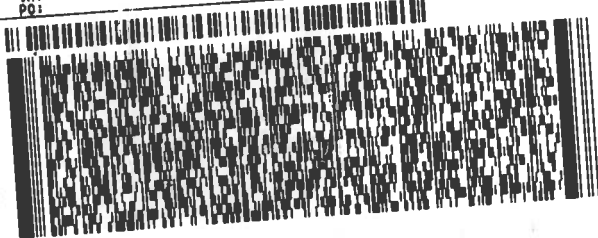
TO **SAMPLE RECEIVING
CT LABORATORIES
1230 LANGE COURT**

BARA00 WI 53913

(800) 368-2760
TNU:
P01

REF:

DEPT:



**FedEx
Express**



J2510241114014V

TRK# 4167 5122 4985
0201

**FRI - 18 APR 5:00P
STANDARD OVERNIGHT**

XH LNRA

**53913
WI-US MSN**



Advanced Environmental Laboratories, Inc.
DOD Level 2- Myers
SDG: J2505849

Case Narrative

DOD-QSM Cover Sheet

DOD Level 2- Myers

April 23, 2025

GEL Laboratories, LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Project Manager: Delaney Stonesmith
Phone Extension: 1614
Email: Delaney.Stonesmith@gel.com

Contract Purchase Order: Signed Quote J-Req-36006

Work Order: 720273 **SDG:** J2505849

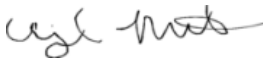
Client Contact:
Craig Myers
Advanced Environmental Laboratories, Inc.
6681 Southpoint Pkwy
Jacksonville, Florida 32216

Project Identification: DOD Level 2- Myers

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

GEL appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 18, 2025. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures. If you have any questions, please do not hesitate to contact me at the phone number or e-mail address listed above.

Sincerely,



Abigail Martin for
Delaney Stonesmith
Project Manager

Certificates of Analysis and QC Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

AELS001 Advanced Environmental Laboratories, Inc.

Client SDG: J2505849 GEL Work Order: 720273

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stonesmith.

Reviewed by



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216

Report Date: April 23, 2025

Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Client Sample ID: WWLF-WW04R-041625
Sample ID: 720273001
Matrix: Water
Collect Date: 16-APR-25 09:30
Receive Date: 18-APR-25
Collector: Client

Project: AELS00818
Client ID: AELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha	U	ND	2.15		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta	U	ND	2.98		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216
Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Report Date: April 23, 2025

Client Sample ID: WWLF-WW05-041625
Sample ID: 720273002
Matrix: Water
Collect Date: 16-APR-25 10:45
Receive Date: 18-APR-25
Collector: Client
Project: AELS00818
Client ID: AELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha	U	ND	2.53		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta		2.64	2.56		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216
Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Report Date: April 23, 2025

Client Sample ID: WWLF-WW09-041625
Sample ID: 720273003
Matrix: Water
Collect Date: 16-APR-25 08:40
Receive Date: 18-APR-25
Collector: Client
Project: AELS00818
Client ID: AELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha	U	ND	2.85		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta		2.37	2.15		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216

Report Date: April 23, 2025

Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Client Sample ID: WWLF-WW10-041625
Sample ID: 720273004
Matrix: Water
Collect Date: 16-APR-25 12:15
Receive Date: 18-APR-25
Collector: Client

Project: AELS00818
Client ID: AELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha		3.24	2.09		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta	U	ND	2.83		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216

Report Date: April 23, 2025

Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Client Sample ID: WWLF-WW10-041625dup
Sample ID: 720273005
Matrix: Water
Collect Date: 16-APR-25 00:00
Receive Date: 18-APR-25
Collector: Client

Project: AEELS00818
Client ID: AEELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha	U	ND	2.43		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta		7.31	3.85		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216

Report Date: April 23, 2025

Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Client Sample ID: WWLF-WW11R-041625
Sample ID: 720273006
Matrix: Water
Collect Date: 16-APR-25 10:40
Receive Date: 18-APR-25
Collector: Client

Project: AELS00818
Client ID: AELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha	U	ND	2.17		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta	U	ND	2.62		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Advanced Environmental
Laboratories, Inc.
Address : 6681 Southpoint Pkwy
Jacksonville, Florida 32216

Report Date: April 23, 2025

Contact: Mr. Craig Myers
Project: **DOD Level 2- Myers**

Client Sample ID: WWLF-WW10-041625RB
Sample ID: 720273007
Matrix: Water
Collect Date: 16-APR-25 13:20
Receive Date: 18-APR-25
Collector: Client

Project: AELS00818
Client ID: AELS001

Parameter	Qualifier	Result	DL	LOD	LOQ	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>													
Alpha	U	ND	2.19		3.00	pCi/L			DH1	04/21/25	1623	2784173	1
Beta	U	ND	2.63		4.00	pCi/L							

The following Analytical Methods were performed :

Method	Description	Analyst Comments
1	EPA 900.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 23, 2025

Page 1 of 2

Advanced Environmental Laboratories, Inc.

6681 Southpoint Pkwy

Jacksonville, Florida

Contact: Mr. Craig Myers

Workorder: 720273

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2784173										
QC1206076094	717169019	DUP									
Alpha		U	0.204	U	0.228	pCi/L	NA		N/A	DH1	04/22/25 11:12
Beta			2.05	U	1.36	pCi/L	40.6		(0% - 100%)		
QC1206076097	LCS										
Alpha	9.80				10.0	pCi/L		102	(80%-120%)		04/21/25 18:18
Beta	23.1				27.6	pCi/L		119	(80%-120%)		
QC1206076093	MB										
Alpha			U	-0.739	pCi/L						04/21/25 16:23
Beta			U	-0.444	pCi/L						
QC1206076095	717169019	MS									
Alpha	20.0	U	0.204		15.8	pCi/L		79.2	(70%-130%)		04/21/25 16:23
Beta	47.1		2.05		49.1	pCi/L		99.7	(70%-130%)		
QC1206076096	717169019	MSD									
Alpha	19.8	U	0.204		19.4	pCi/L	20.5 J	98	(0%-20%)		04/22/25 11:12
Beta	46.8		2.05		48.5	pCi/L	1.14	99.2	(0%-20%)		

Notes:

The Qualifiers in this report are defined as follows:

- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- UI Gamma Spectroscopy--Uncertain identification
- BD Results are either below the MDC or tracer recovery is low
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- M M if above MDC and less than LLD
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- FA Failed analysis.
- UJ Gamma Spectroscopy--Uncertain identification
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 720273

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.										
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
**	Analyte is a Tracer compound										
F	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
J	Value is estimated										
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.										
M	REMP Result > MDC/CL and < RDL										
J	See case narrative for an explanation										
G	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier.										
FG	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier.										
XG	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier.										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Radiochemistry
Technical Case Narrative
Advanced Environmental Laboratories, Inc.
SDG #: J2505849
Work Order #: 720273

Product: Gross Alpha/Beta in Drinking Water EPA 900.0

Analytical Method: EPA 900.0

Analytical Procedure: GL-RAD-A-001D REV# 5

Analytical Batch: 2784173

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
720273001	WWLF-WW04R-041625
720273002	WWLF-WW05-041625
720273003	WWLF-WW09-041625
720273004	WWLF-WW10-041625
720273005	WWLF-WW10-041625dup
720273006	WWLF-WW11R-041625
720273007	WWLF-WW10-041625RB
1206076093	Method Blank (MB)
1206076094	717169019(NonSDG) Sample Duplicate (DUP)
1206076095	717169019(NonSDG) Matrix Spike (MS)
1206076096	717169019(NonSDG) Matrix Spike Duplicate (MSD)
1206076097	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between MS and MSD

The Matrix Spike and Matrix Spike Duplicate (See Below) do not meet the duplication requirement; however, they both meet the spiked recovery requirement.

Sample	Analyte	Value
1206076095MS and 1206076096MSD (Non SDG 717169019)	Alpha	RPD 20.5* (0%-20%) RER 1.06 (0-2)

RDL Met

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

Sample	Analyte	Value
1206076093 (MB)	Alpha	Result -0.739 < MDA 1.61 > RDL 1.5 pCi/L

Technical Information

Gross Alpha/Beta Preparation Information

None of the samples have been flamed.

Recounts

Sample 1206076096 (Non SDG 717169019MSD) was recounted due to low recovery. The recount is reported.

Sample 1206076094 (Non SDG 717169019DUP) was recounted due to high MDC. The recount is reported.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Chain of Custody

120273



Standard

Results Requested By: 5/6/2025

Document: 419166 - HBN 329740

Report To		Subcontract To		Requested Analysis										
Advanced Environmental Laboratories, Inc 6681 Southpoint Pkwy Jacksonville, FL 32216 Phone (904) 363-9350 Fax (904) 363-9354		GEL		<div style="display: flex; justify-content: space-between;"> <div>Ammonia, F350.1 Water</div> <div>Gross Beta, EPA 900, Drinking Water</div> <div>Gross Alpha 900.1</div> </div>										
		J-Leg - 36004												
Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers				LAB USE ONLY					
1	WWLF-WW04R-041625	04/16/2025 09:30	J2505849002	Water	H2SO4	1	1	2						
2	WWLF-WW05-041625	04/16/2025 10:45	J2505849003	Water		1	1							
3	WWLF-WW09-041625	04/16/2025 08:40	J2505849004	Water		1	1							
4	WWLF-WW10-041625	04/16/2025 12:15	J2505849006	Water		1	1							
5	WWLF-WW10-041625dup	04/16/2025 00:00	J2505849007	Water		1	1							
6	WWLF-WW11R-041625	04/16/2025 10:40	J2505849008	Water		1	1							
7	WWLF-WW10-041625rb	04/16/2025 13:20	J2505849009	Water		1	1							
<div> <input type="checkbox"/> Standard (Results Only) <input type="checkbox"/> Standard with Batch QC <input checked="" type="checkbox"/> CLP <input checked="" type="checkbox"/> Other </div>				<div> <input type="checkbox"/> Stage 2A <input type="checkbox"/> Stage 2B <input checked="" type="checkbox"/> Stage 3 <input type="checkbox"/> Other </div>				Comments J2505849 Westwood LF LTM - April 2025 Craig Myers CMyers@aellab.com						
Report DOD Level 2				Electronic Data Deliverables Excel EDD										

Chain of Custody

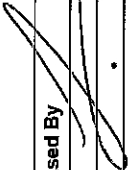



Document: 419166 - HBN 329740

Preservative

H2SO4 = H2SO4

HNO3 = HNO3

Transfers	Released By	Date/Time	Received By	Date/Time
1		4/18/25		4/18/25
2				
3				
4				
5				

915



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: **AEIS** SDG/AR/COC/Work Order: **720273** GEL PM: _____
Received By: **Shay L Boone** Date Received at GEL: **April 18, 2025**

Carrier (Circle Applicable)

FedEx Express FedEx Ground UPS Field Services Courier Client Other: _____

IR Temp gun # **184-24** Daily Calibration Performed? ☒ Y ☐ N

Tracking Number

4167 5122 4996Temp
(C)**1°**If over 6 °C, check if
samples do not
require cold
preservation (to
radiochem only).

Tracking Number

Temp
(C)If over 6 °C, check if
samples do not
require cold
preservation (to
radiochem only).

Suspected Hazard Information

Yes

No

*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous?

☒

Hazard Class Shipped:

UN#:

If UN2910, is the Radioactive Shipment Survey Compliant? Yes ___ No ___

B) Did the client designate the samples are to be received as radioactive?

☒

COC notation for radioactive: _____

C) Did the RSO classify the samples as radioactive?

☒

Maximum Net Counts Observed* (Observed Counts - Area Background Counts):

Classified as: Rad 1 Rad 2 Rad 3

CPM mR/hr

D) Are there any sample hazards to document?

☒

If yes, select Hazards below: PCDs Flammable Foreign Soil RCRA Asbestos Beryllium Corrosive Other: _____

E) Was a SDS received and reviewed by Lab Safety?

☒

Circle Applicable: See additional Comments below. No additional comments needed after review.

Sample Receipt Criteria

Yes

NA

No

Comments/Qualifiers (Required for Non-Conforming Items)

1 Shipping containers received intact and sealed?

☒☒☒

Circle Applicable: Direct client dropoff Seals broken Damaged container Leaking container Other (describe)

2 Chain of custody documents included with shipment?

☒☒☒

Circle Applicable: Client contacted and provided COC COC created upon receipt

3 If there are samples requiring cold preservation, did they arrive within (0 < 6 °C)?

☒☒☒

Preservation Method: Wet Ice Ice Packs Dry Ice None Other: _____

*all temperatures recorded next to tracking numbers are in Celsius

4 Sample containers intact and sealed?

☒☒☒

Circle Applicable: Seals broken Damaged container Leaking container Other (describe)

5 Samples requiring chemical preservation at proper pH?

☒☒☒

Preserved per COC request or list Sample IDs and Containers Affected:

If Preservation added, List#:

6 Do any samples require Volatile Analysis?

☒☒☒

If Yes, are Encores or Soil Kits present? Yes ___ No ___ (If yes, take to VOA Freezer)

(If yes, answer all three additional questions.)

Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)

Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___

Sample IDs and containers affected:

7 Samples received within holding time?

☒☒☒

IDs and tests affected:

8 Sample IDs on COC match IDs on bottles?

☒☒☒

IDs and containers affected:

9 Date & time on COC match date & time on bottles?

☒☒☒

Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)

10 Number of containers received match number indicated on COC?

☒☒☒

Circle Applicable: No container count on COC Missing Container (provide details) Other (describe)

11 Are sample containers identifiable as GEL provided by use of GEL labels?

☒☒☒

Circle Applicable: Not relinquished Other (describe)

12 COC form is properly signed in relinquished/received sections?

☒☒☒

Comments:

PM (or PMA) review: Initials

ShmDate **4/21/25**

Continuation Form Required when selected

GL-CHL-SR-001 Rev 0

List of current GEL Certifications as of 23 April 2025

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808
Phone/Fax: (407) 599-5887 / (407) 599-9063
<http://www.EMSL.com> / orlandolab@emsl.com

EMSL Order ID: 342508005
Customer ID: ADEN52
Customer PO:
Project ID:

Attn: Craig Myers
Advanced Environmental Lab. Inc.
6681 Southpoint Parkway
Jacksonville, FL 32216

Phone: (904) 363-9350
Fax: (904) 363-9354
Received: 04/17/2025
Analyzed: 04/30/2025

Proj: WWLF LTM-April 2025

Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS				
					Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
					MFL (million fibers per liter)				
WWLF-WW04R-041 625 342508005-0001 Collection Date/Time:	4/17/2025 02:41 PM 04/16/2025 00:00 AM	100	1288	0.0738	None Detected	ND	0.17	<0.17	0.00 - 0.64
Analyzed on 4/30/25 10:34pm									
WWLF-WW05-0416 25 342508005-0002 Collection Date/Time:	4/17/2025 02:43 PM 04/16/2025 00:00 AM	50	1288	0.1353	None Detected	ND	0.19	<0.19	0.00 - 0.70
Analyzed on 4/30/25 10:53am									
WWLF-WW09-0416 25 342508005-0003 Collection Date/Time:	4/17/2025 02:45 PM 04/16/2025 00:00 AM	55	1288	0.1230	None Detected	ND	0.19	<0.19	0.00 - 0.70
Analyzed on 4/30/25 11:17 am									
WWLF-WW10-0416 25 342508005-0004 Collection Date/Time:	4/17/2025 02:47 PM 04/16/2025 00:00 AM	100	1288	0.0738	None Detected	ND	0.17	<0.17	0.00 - 0.64
Analzyed on 4/30/25 11:26am									

Analyst(s)

Jason Stuhr (7)

Laura Vera, Asbestos Supervisor
or Other Approved Signatory

Any questions please contact Laura Vera.

Initial report from: 05/01/2025 08:32:34

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Estimation of uncertainty is available on request. Sample collection performed by the client. Pre-cleaned sample containers are available for purchase from EMSL. Note if sample containers are provided by the client, acceptable bottle blank level is defined as ≤0.01MFL for ≥10µm fibers. ND=None Detected. No Fibers Detected: the value will be reported as less than 369% of the concentration equivalent to one fiber. 1 to 4 fibers: The result will be reported as less than the corresponding upper 95% confidence limit (Poisson), 5 to 30 fibers: Mean and 95% confidence intervals will be reported on the basis of the Poisson assumption. When more than 30 fibers are counted, both the Gaussian 95% confidence interval and the Poisson 95% confidence interval will be calculated. The large of these two intervals will be selected for data reporting. When the Gaussian 95% confidence interval is selected for data reporting, the Poisson will also be noted.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NELAC FL DOH E87804, EPA No. FL01176





EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808
Phone/Fax: (407) 599-5887 / (407) 599-9063
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Jacksonville, FL 32216

Phone: (904) 363-9350
Fax: (904) 363-9354
Received: 04/17/2025
Analyzed: 04/30/2025

Proj: WWLF LTM-April 2025

Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS				
					Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
					MFL (million fibers per liter)				
WWLF-WW10-0416 25DUP 342508005-0005 Collection Date/Time:	4/17/2025 02:59 PM 04/16/2025 00:00 AM	100	1288	0.0738	None Detected	ND	0.17	<0.17	0.00 - 0.64
Analyzed on 4/30/25 11:33am									
WWLF-WW11R-041 625 342508005-0006 Collection Date/Time:	4/17/2025 03:01 PM 04/16/2025 00:00 AM	100	1288	0.0738	None Detected	ND	0.17	<0.17	0.00 - 0.64
Analyzed on 4/30/25 11:45am									
WWLF-WW10-0416 25RB 342508005-0007 Collection Date/Time:	4/17/2025 03:04 PM 04/16/2025 00:00 AM	100	1288	0.0738	None Detected	ND	0.17	<0.17	0.00 - 0.64
Analyzed on 4/30/25 11:55am									

Analyst(s)

Jason Stuhr

(7)

Laura Vera, Asbestos Supervisor
or Other Approved Signatory

Any questions please contact Laura Vera.

Initial report from: 05/01/2025 08:32:34

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Estimation of uncertainty is available on request. Sample collection performed by the client. Pre-cleaned sample containers are available for purchase from EMSL. Note if sample containers are provided by the client, acceptable bottle blank level is defined as ≤0.01MFL for ≥10µm fibers. ND=None Detected. No Fibers Detected: the value will be reported as less than 369% of the concentration equivalent to one fiber. 1 to 4 fibers: The result will be reported as less than the corresponding upper 95% confidence limit (Poisson). 5 to 30 fibers: Mean and 95% confidence intervals will be reported on the basis of the Poisson assumption. When more than 30 fibers are counted, both the Gaussian 95% confidence interval and the Poisson 95% confidence interval will be calculated. The large of these two intervals will be selected for data reporting. When the Gaussian 95% confidence interval is selected for data reporting, the Poisson will also be noted.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NELAC FL DOH E87804, EPA No. FL01176





EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos in Water - Chain of Custody Form

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

PHONE: (800) 220-3675

EMAIL: CinnAsblab@EMSL.com

342508005

Customer Information	Customer ID:	Billing ID:
	Company Name: Advanced Environmental Labs (for ECC)	Company Name:
	Contact Name: Craig Myers	Billing Contact:
	Street Address: 6684 Southpoint Pkwy.	Street Address:
	City, State, Zip: Jacksonville, FL 32216 Country: US	City, State, Zip: Country:
	Phone: 904-363-9350	Phone:
Email(s) for Report: cmyers@aellab.com	Email(s) for Invoice:	

Project Information	
Project Name/No: WWLF LTM - April 2025	Purchase Order:
EMSL LIMS Project ID: (If applicable, EMSL will provide)	US State where samples collected: MD
	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable)
Sampled By Name:	Sampled By Signature:
	No. of Samples in Shipment

Turn-Around-Time (TAT)	
<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 32 Hour
<input type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour
<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week
<input checked="" type="checkbox"/> 2 Week	
<input checked="" type="checkbox"/> EPA Method 100.2 (>10um only)	<input type="checkbox"/> EPA Method 100.2 (All fiber sizes ≥ 0.5µm)
	<input type="checkbox"/> EPA Method 100.1 (≥ 0.5µm only)

☐ DRINKING WATER COMPLIANCE - BOTTLE ACKNOWLEDGEMENT: If samples are being submitted for drinking water compliance testing under this Chain of Custody, Client acknowledges that certified, pre-cleaned, asbestos-free sampling bottle(s) as outlined in EPA 100.2 were utilized in the collection of the drinking water samples submitted.

Report results directly to the State? ☐ YES If checked, complete all fields below:

State: Water System ID: Facility Code: Entry Point Number:

Sample Number	Sample Location	Sample Type (Potable / Non-Potable)	Volume	Date Collected	Time Collected	Temperature (C) Laboratory Use Only
	WWLF-WW04R-041625	GW	1 L	4/16/25	0930	
	WWLF-WW05-041625	GW	1 L	4/16/25	1045	
	WWLF-WW09-041625	GW	1 L	4/16/25	0840	
	WWLF-WW10-041625	GW	1 L	4/16/25	1215	
	WWLF-WW10-041625dup	GW	1 L	4/16/25	0000	
	WWLF-WW11R-041625	GW	1 L	4/16/25	1040	
	WWLF-WW10-041625rb	DI	1 L	4/16/25	1320	

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: Fed Ex	Sample Condition Upon Receipt:
Relinquished by: [Signature]	Received by: [Signature]
Date/Time: 4/16/25 16:00	Date/Time: APR 17 2025
Relinquished by:	Received by:
Date/Time:	Date/Time:

Controlled Document - COC-06 Asbestos in Water R4 3/12/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

APPENDIX H

Historical Groundwater Monitoring Results

WW-04R, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Aug. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2011 (dup)
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	µg/L	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15	ND	ND	ND	0.38	ND	ND	ND	ND	ND	ND	4
Barium	2,000	µg/L	20.2	17.1	ND	ND	ND	ND	23.4	19.4	16	14.7	18	14.7	16.2	17.8	24	15	15.4	15.7	19 J	18.4	18.2
Beryllium	4	µg/L	ND	0.133	ND	ND	ND	ND	ND	0.085	NA	0.14	ND	0.15	0.15	0.15	0.12	0.19	0.16	0.16	ND	0.14 J	0.12 J
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.046	0.058	ND	0.061	0.03	ND	ND	ND
Calcium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,720	3,600
Chromium	100	µg/L	ND	3.56	ND	ND	ND	ND	2.9	2.4	1.1	1	ND	0.91	1	2.8	5.5	1.4	0.7	1.4	2.4 J	3.3 *	4 *
Cobalt	----	µg/L	4.9	1.22	ND	ND	ND	ND	ND	1.1	NA	0.44	ND	0.54	1.6	0.44	2.5	1.9	0.47	12.3	ND	0.33 J	0.32 J
Copper	1,300	µg/L	ND	2.31	ND	ND	ND	ND	8.8	2.9	3.3	4.1	4	2.4	5.9	3.5	11.2	6.4	3.4	17.6	ND	2.2	1.9 J
Iron	300 (s)	µg/L	ND	114	40	30	50	30	ND	11.6	21.8	67.9	ND	14.2	17.8	74.8	537	53.1	13.1	16.6	700	73.7 J	99.5 J
Lead	15	µg/L	ND	ND	ND	ND	ND	ND	ND	1.2	ND	0.58	ND	ND	0.28	0.28	0.82	ND	ND	0.74	ND	0.18 J	0.38 J
Magnesium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,320 N	3,160 N
Manganese	50 (s)	µg/L	13	12.1	ND	10	ND	ND	10.6	11.6	NA	8.6	10	6.5	7.9	6.8	10.2	9.3	5.9	6.2	18	8.5	7.4
Mercury	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.045	ND	ND	ND	ND	ND	ND
Nickel	100	µg/L	5.8	8.49	ND	ND	ND	ND	9.9	6.9	NA	5.2	6.7	4.8	5.1	5.8	7.7	5.5	6.2	8.4	5.7 J	5.5 *	6.1 *
Potassium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	754	737
Selenium	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15	ND	ND	ND	ND	ND	2.3	ND	ND	ND	0.45 J	0.66 J
Silver	100 (s)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.031	ND	ND	0.13	ND	ND	ND	0.71	ND	ND	ND	ND
Sodium	20,000 (g)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,780 N	4,540 N
Thallium	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.23 J
Vanadium	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	0.69	0.69	1.8	ND	ND	ND	ND	ND	ND
Zinc	5,000 (s)	µg/L	8.7	8.47	ND	20	ND	ND	16.2	14.3	12.2	9.8	ND	7.5	12.8	16.7	14.8	18.7	9.2	13.2	ND	10.8 N*	15.4 N*
Wet Chemistry																							
Alkalinity	----	mg/L	6	3.92	6	4	4	9	ND	4	7	4.6	4.5	1.9	ND	ND	9	1	4.7	3.9	ND	10	10
Ammonia	----	mg/L	0.11	ND	ND	ND	ND	2	ND	0.04	ND	ND	ND	ND	ND	ND	0.11	ND	ND	ND	ND	0.042 J	ND
Asbestos	7	MF/L	NA	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	ND	ND
Chemical Oxygen Demand	----	mg/L	6.82	ND	20	ND	ND	ND	13	ND	ND	ND	ND	ND	27	ND	ND	ND	ND	7	ND	7.41	ND
Chloride	250 (s)	mg/L	11.6	7.66	5	6	7	6	11	8.2	6.8	5.8	7.5	5.2	8	6.6	7.4	5.2	7.2	11	ND	5.5	5.5
Gross Alpha	15	pCi/L	NA	NA	ND	ND	ND	1.1	8.1	0.69	0.06	-9.5	0.4 ± 0.3	0.23	-0.15	-0.6	0.247	0.896	1.45	1.84 ± 1.98	ND	ND	ND
Gross Beta	50	pCi/L	NA	NA	1	1.5	ND	ND	9.9	1.99	5.365	8.6	1.5 ± 0.6	-0.998	1.0867	0.99	2.67	2.544	1.06	1.96 ± 1.22	ND	ND	ND
Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Nitrate (N)	10	mg/L	0.23	0.13	0.1	0.09	0.17	0.2	0.22	0.18	0.14	0.14	0.29	0.16	0.12	0.11	0.1	0.1	0.11	0.11	ND	0.34	0.34
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	0.093	ND	NA	NA
pH	6.5-8.5 (s)	----	4.98	5.16	5.29	5.41	5.85	5.47	4.7	5.1	5	5.2	5.5	4.8	4.7	5.8	4.8	4.4	5.2	5.2	ND	4.63	4.86
Specific Conductivity	----	µmho/cm	130	78.7	67	68	52	59	110	91	87	74	85	70	68	77	100	70	72	72	ND	NA	NA
Conductivity	---	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	76.5	76.6
Sulfate	250 (s)	mg/L	30.2	18	3	13	11	13	26	26	19	13	14	12	15	1.9	28	14	NA	14	ND	17	17
Total Dissolved Solids	500 (s)	mg/L	45	33	50	61	59	64	120	63	81	67	57	48	ND	53	ND	60	59	66	ND	413	35
Total Hardness	----	mg/L	32.7	20.5	17	21	17	20	28	24	20	15	15	18	26	27	38	17	19	25	ND	22.95	6.615
Turbidity	----	NTU	0.76	7.82	2.6	2.5	2.5	1	4.7	2.7	ND	3.6	7	0.5	1.7	0.91	14	0.6	2.8	140	ND	3.3	3.1
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	1.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	----	µg/L	ND	ND	ND	ND	ND	ND	4.8	ND	ND	ND	ND	ND	ND	9.5	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

WW-04R, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Aug. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2011 (dup)
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND	4.2	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	5	µg/L	ND	1.93	ND	ND	ND	ND	ND	2.6	13	1.1	ND	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.59	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Red shaded area denotes concentration greater than the primary MCL
Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable
MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

* Total metals, except for 2010 analyses which were for dissolved metals
** Resampled for asbestos due to an anomalous detection

---- = no regulatory limit

(s) = secondary MCL

(g) = guidance level

B = analyte was detected in method blank

D = diluted out

dup = duplicate quality control sample

J = estimated value > MDL but < RL

µg/L = microgram per liter

µmho/cm = micro mho per centimeter

MF/L = million fibers per liter

N = insufficient BOD oxygen depletion

NA = not analyzed

NAD = no available data

ND = non-detect

NTU = nephelometric turbidity unit

mg/L = milligram per liter

pCi/L = picocuries per liter

Q = laboratory control samples outside acceptance limits

Y = replicate/duplicate precision outside acceptance limits

WW-04R, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2012**	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Oct. 2016	Oct. 2018	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	221	21.7 J	36.5	295	54.7	ND	ND	38 J	270	32 J	ND	64 J	NA	22 J
Antimony	6	µg/L	0.33 J	ND	1.5 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Arsenic	10	µg/L	1.7 J	ND	1.6 B	ND	483	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.36 J	ND	ND	ND	ND	NA	ND
Barium	2,000	µg/L	46.3	15	26.2	32.8	30.1	17.8	36.1 B	17.1	14.8	14.3	17	16.3	17	17	15	18	16	15	15	NA	18
Beryllium	4	µg/L	0.34 J	ND	0.186 B	0.34	ND	0.51	0.23 J	ND	0.15 J	0.14 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	0.76 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Calcium	---	µg/L	2,270 N	2,440	3,080	6,870	8,590	3,110	12,600	3,200	2,380	2,780	2810	3,200	2,900	2,800	2,400	4,500	2,700	3,100	2,400	NA	3,000
Chromium	100	µg/L	8.9 J	ND	6.6 B	1.3	1.1	ND	2.1 J	1.3	1.6 J	2.4 J	7.5	22.4	1.7 J	5.8	2.9	4.3	4.8	3.2	5.6	NA	1.3 J
Cobalt	----	µg/L	1 J	ND	0.525 B	ND	0.92	ND	ND	ND	ND	ND	ND	ND	0.39 J	0.39 J	0.84 J	0.57 J	2.2	2.6	0.87 J	NA	0.28 J
Copper	1,300	µg/L	9.1 J	ND	3.4 B	2.2	2.5	ND	3.8 J	ND	ND	1.5 J	ND	ND	ND	1.1 J	1.1 J	1.6 J	1 J	ND	1.2 J	NA	1.7 J
Iron	300 (s)	µg/L	19,700	ND	2,190	283	856	846	2,890	788	41.1 J	97.3 J	2,380	146	ND	ND	ND	690 J	230 J	ND	ND	NA	ND
Lead	15	µg/L	3.8 *	ND	1.8 B	ND	ND	2.8	3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Magnesium	---	µg/L	2,740	2,600	2,950	2,780	3,230	2,960	3,020	3,910	2,680	3,700	2,870	3,860	2,700	2,600	2,500	2,700	2,700	3,400	2,600	NA	2,600
Manganese	50 (s)	µg/L	225	ND	7.8 B	7.8	13.5	11.6	47.6	11	5.5	6	29.3	6	6.3	6.6	6.3	8.3	6.4	5.9	5.8	NA	6.5
Mercury	2	µg/L	ND	ND	0.045 B	ND	ND	0.055	ND	0.13	ND	ND	ND	ND	ND	ND	ND	0.017 J	0.016 J	ND	ND	NA	0.032 J
Nickel	100	µg/L	4.8 J	ND	5.5 B	5.1	5	5.3	5.9 J	5.4	4.8 J	5.3 J	8.6	5.9	5.7	13	6.1	6.3	7.3	6.4	9.3	NA	4.9 J
Potassium	---	µg/L	617	648	1050	837	942	862	793	642	661	578	713	821	ND	820 J	540 J	710 J	850 J	720 J	730 J	NA	610 J
Selenium	50	µg/L	1.6 J	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Silver	100 (s)	µg/L	0.045 J	ND	ND	0.88	ND	ND	ND	ND	1 J	0.87 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Sodium	20,000 (g)	µg/L	14,200	4,150	4,050	3,760	5,200	3,600	4,750	4,190	3,380	3,450	3,830	4,130	3,900	3,900	3,700	3,900	4,800	3,700	4,300	NA	4,200
Thallium	2	µg/L	0.74 J*	ND	0.771 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vanadium	----	µg/L	8 J	ND	5.7 B	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Zinc	5,000 (s)	µg/L	48.3 N*	37.1	12.2	10.3	14.5	9.5	19.3	9.4	8.4 J	7.4	9 J	6.1 J	7.1 J	7.9 J	22 J	6.9 J	8.2 J	ND	14 J	NA	7.5 J
Wet Chemistry																							
Alkalinity	----	mg/L	5.7	7.72	ND	12	32	13	24 J	8.1 J	8 J	ND	ND	ND	8	8	10	15	8	6	6	NA	10
Ammonia	----	mg/L	0.038 J	ND	ND	ND	ND	ND	ND	0.1 U	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Asbestos	7	MF/L	288	ND	ND	ND	NAD	NAD	ND	NAD	<0.19	<0.17	<2.60	<0.22	<0.2	ND	ND	ND	ND	ND	ND	NA	ND
Chemical Oxygen Demand	----	mg/L	ND	ND	ND	20	ND	160	ND	49 J	ND	ND	ND	ND	ND	ND	ND	ND	6.8 J	52	ND	NA	360
Chloride	250 (s)	mg/L	5.4 D	5.2	ND	5.7	5.8	5	4.7	4.8	4.7	4.8	5.2	4.2	4 J	5 J	4.9 J	3.8 J	4.4 J	4 J	4.1 J	NA	3.7 J
Gross Alpha	15	pCi/L	ND	ND	ND	ND	NAD	ND	ND	NAD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Gross Beta	50	pCi/L	ND	ND	ND	ND	NAD	6.88	ND	NAD	ND	ND	3.07	ND	ND	4.4	ND	ND	ND	ND	ND	NA	ND
Nitrite	10	mg/L	NA	ND	NA	NA	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	0.14	0.154	0.137	1.8	0.2	0.17	ND	0.13 J	0.15 J	ND	ND	0.17 J	ND	0.2 J	ND	0.24 J	0.3 J	0.21 J	0.23 J	NA	0.24 J
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	6.5-8.5 (s)	----	4.3	5.45	4.78	NA	NA	5.8	5.78	6.52	5.24	5.4	5.28	6.58	5.14	5	5.5	5.5	5.6	5.9	7.2	NA	5.8
Specific Conductivity	----	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NAD	94.8	76.3	69.39	85.15	58	62	64	68	60	76	66	NA	66
Conductivity	---	µmho/cm	62	81.9	60.4	91.3	123	83.5	95.5	79.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250 (s)	mg/L	13 D	13.2	13.2	13	18	13	15	16	13	16	14	17	11	14	15	14	14	18	14	NA	13
Total Dissolved Solids	500 (s)	mg/L	46	43	62	110	42	48	71	41	41	68	39	120	63	56	49	64	62	61	60	NA	49
Total Hardness	----	mg/L	16.96	16.8	19.9	28	NA	20	44	19	17	22	19	ND	18	17	17	22	18	22	17	NA	18
Turbidity	----	NTU	14	0.27	27.5	1.6	NA	2.9	25	1.8	1	2.9	21	1.4	0.5	0.7	0.49	15	0	0.32 J	1.1	NA	0.84
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Acetone	----	µg/L	ND	ND	3.05 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	0.64 J	ND	2 J	ND	ND	NA	ND
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND

WW-04R, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2012**	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Oct. 2016	Oct. 2018	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
Bromochloromethane	----	µg/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5 J	NA	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.017 J	0.023 J	0.043 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	2.9 JYQB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
tert-butyl methyl ether (MTBE)	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.033 J	0.1	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.062 J	0.139	0.182	0.039	ND	ND	ND	ND	ND	ND	ND	NA	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND

Notes:

Red shaded area denotes concentration greater than the primary MCL

Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

* Total metals, except for 2010 analyses which were for dissolved metals

** Resampled for asbestos due to an anomalous detection

---- = no regulatory limit

(s) = secondary MCL

(g) = guidance level

B = analyte was detected in method blank

D = diluted out

dup = duplicate quality control sample

J = estimated value > MDL but < RL

µg/L = microgram per liter

µmho/cm = micro mho per centimeter

mg/L = milligram per liter

MF/L = million fibers per liter

N = insufficient BOD oxygen depletion

NA = not analyzed

NAD = no available data

ND = non-detect

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter

Q = laboratory control samples outside acceptance limits

Y = replicate/duplicate precision outside acceptance limits

WW-05, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Aug. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2012**
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	µg/L	ND	ND	ND	NA	ND	ND	ND	ND	NA	0.072	ND	ND	ND	ND	0.49	ND	ND	ND	ND	0.18 J	0.43 J
Arsenic	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.53	ND	0.65	0.43	0.37	ND	ND	ND	0.51	0.75 J	5.6	2.1 *
Barium	2,000	µg/L	6.8	8.54	ND	ND	210	60	17.3	12.2	14.1	14.2	15	13.7	12.9	13.5	15.5	15.7	16.6	19	22 J	24.4	39.6
Beryllium	4	µg/L	ND	ND	ND	0.7	0.6	0.6	ND	ND	NT	0.028	ND	0.021	0.028	0.026	0.062	ND	ND	ND	ND	0.069 J	0.11 J
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.049	0.026	ND	ND	ND
Calcium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1990	NA	2,210	2,200 N
Chromium	100	µg/L	ND	ND	ND	10	40	30	ND	0.73	0.26	ND	ND	ND	ND	0.72	0.72	0.58	ND	ND	ND	2.3 *	3.8 J
Cobalt	----	µg/L	ND	3.93	ND	ND	ND	ND	ND	ND	NA	0.19	ND	0.15	0.095	0.14	2	1.2	0.3	0.44	ND	0.31 J	0.42 J
Copper	1,300	µg/L	ND	2.06	ND	ND	50	20	ND	ND	ND	ND	ND	0.49	ND	1.2	0.58	ND	0.57	0.8	ND	2.6	4.2 J
Iron	300 (s)	µg/L	5,590	6,930	6,700	14,000	40,000	31,000	9,610	11,300	13,500	14,700	12,000	14,200	12,800	13,800	13,400	15,500	14,300	16,500	17,000	18,600	25,700
Lead	15	µg/L	ND	ND	ND	7	9	7	ND	ND	ND	0.12	ND	ND	ND	0.34	ND	ND	ND	0.072	ND	0.77 J	0.93 J*
Magnesium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,750 N	2,720
Manganese	50 (s)	µg/L	93.3	122	130	160	230	250	200	175	NA	223	210	223	219	209	238	242	209	248	260	243	223
Mercury	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.049	ND	ND	ND	ND	0.09 J
Nickel	100	µg/L	ND	ND	ND	20	ND	ND	ND	1.6	NA	1.7	6.4	1.2	0.25	1.6	2.3	0.97	0.48	0.6	ND	1.2 *	2.7 J
Potassium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	480 J	565
Selenium	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.43 J	0.44 J
Silver	100 (s)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	0.04	0.56	ND	ND	ND	0.044	ND	ND	ND	ND
Sodium	20,000 (g)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,400 N	12,900
Thallium	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.43 J	0.25 J*
Vanadium	----	µg/L	ND	0.932	ND	10	40	30	ND	ND	NA	ND	ND	0.78	ND	0.73	0.36	ND	ND	ND	ND	ND	0.85 J*
Zinc	5,000 (s)	µg/L	7.6	7.47	10	20	50	30	10.1	9	1.5	2.7	ND	ND	ND	4.9	5.9	ND	6.1	ND	ND	10.8 N*	32.8 N*
Wet Chemistry																							
Alkalinity	----	mg/L	2	3.84	8	16	9	24	11	10	6.2	13	31.5	25	6.5	20	21	10	29	42	ND	26	31
Ammonia	----	mg/L	0.103	0.307	ND	ND	ND	0.4	0.3	0.33	0.26	0.35	ND	0.32	0.16	0.31	0.29	0.3	0.29	ND	ND	0.579	0.499 J
Asbestos	7	MF/L	NA	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	ND	2,832
Chemical Oxygen Demand	----	mg/L	ND	12.9	ND	24	ND	ND	5.2	ND	ND	8.5	23	ND	ND	6.9	ND	ND	ND	7.6	ND	9.41	ND
Chloride	250 (s)	mg/L	4	5.26	4	11	17	17	11	8.7	13	13	14	11	12	12	11	16	14	19	ND	15 D	15 D
Gross Alpha	15	pCi/L	NA	NA	1.1	2.4	4	12.2	9.6	3.49	-0.013	0	0.2 ± 0.4	0.421	-0.0204	0.94	1.156	6.828	2.07	0.253 ± 0.985	ND	ND	ND
Gross Beta	50	pCi/L	NA	NA	1.8	1.9	4.3	10	6	2.7	0.18	5.1	1.4 ± 0.6	-0.199	2.0924	-0.49	2.66	3.229	1.21	0.387 ± 0.600	ND	ND	ND
Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Nitrate (N)	10	mg/L	ND	ND	ND	ND	ND	40	0.08	0.09	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	0.113
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA
pH	6.5-8.5 (s)	----	6.14	5.54	6.07	6.13	6.3	6.58	5.7	5.9	5	6	5.96	5.8	5.4	5.4	5.6	5.7	6	6.4	ND	5.42	5.14
Specific Conductivity	----	µmho/cm	39.7	38.9	49	44	59	77	86	60	79	74	87	73	72	81	84	86	120	120	ND	NA	NA
Conductivity	---	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	118	131
Sulfate	250 (s)	mg/L	4.1	35.8	1	2	7.5	12	68	5.9	44	5	5	22	9.1	18	14	1.8	8.4	7.6	ND	10	7.5 JD
Total Dissolved Solids	500 (s)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86	88	93	84	130	110	110	120	ND	77	103
Total Hardness	----	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16	20	40	97	22	21	18	36	ND	16.82	16.68
Turbidity	----	NTU	71.4	964	38	460	660	900	130	37	9.2	10	27	9	8.5	7	33	7.5	6.4	8.4	ND	40	110
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	----	µg/L	ND	6.05	ND	ND	ND	ND	8	ND	ND	ND	ND	ND	ND	ND	40	ND	ND	ND	ND	ND	ND
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

WW-05, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Aug. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2012**
Bromochloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	5	µg/L	ND	1.86	ND	ND	ND	ND	ND	8.6	3.7	ND	ND	0.51	ND	ND	5	ND	ND	ND	ND	ND	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	6.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Red shaded area denotes concentration greater than the primary MCL
Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable
MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)
* Total metals, except for 2010 analyses which were for dissolved metals
** Resampled for asbestos due to an anomalous detection
---- = no regulatory limit
(s) = secondary MCL
(g) = guidance level
B = analyte was detected in method blank
dup = duplicate quality control sample
H = holding time exceeded
J = estimated value > MDL but < RL
U = analyte concentration was below detection limit
M = matrix spike and/or matrix spike duplicate recovery outside acceptance limits
µg/L = microgram per liter
µmho/cm = micro mho per centimeter
mg/L = milligram per liter

MF/L = million fibers per liter
NA= not analyzed
NAD = no available data
ND= non-detect
ng/L = nanograms per liter
NTU = nephelometric turbidity unit
pCi/L = picocuries per liter

WW-05, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Oct. 2016	Oct. 2016 (dup)	Oct. 2018	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	323	1,710	1,590	93.1	777	110	ND	240	590	210	10,000	2,500	NA	940
Antimony	6	µg/L	ND	4	ND	ND	ND	ND	2.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Arsenic	10	µg/L	ND	5.7	ND	ND	ND	ND	ND	ND	0.81 J	ND	ND	ND	0.48 J	0.38 J	0.36 J	0.44 J	0.41 J	0.69 J	0.41 J	NA	0.38 J
Barium	2,000	µg/L	25.1	61.3	70.3	29.9	28.1	26.6	24.2 B	39.9	35.9	30.4	25.6	28.1	26	26	27	26	28	45	30	NA	28
Beryllium	4	µg/L	ND	0.233 B	0.34	ND	0.31	0.36	ND	ND	0.23 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Calcium	---	µg/L	2,000	2,580	2,740	2,390	2,440	2,500	2,430	2,850	2,480	2,560	2470	2,560	2,300	2,400	2,400	2,400	2,800	2,800	2,900	NA	2,700
Chromium	100	µg/L	ND	2.7 B	3.6	0.76	ND	ND	ND	ND	3.7 J	2.8 J	ND	ND	ND	ND	ND	0.59 J	0.63 J	5.2	1.9 J	NA	0.72 J
Cobalt	----	µg/L	ND	2.65 B	3.1	ND	ND	ND	ND	ND	0.72 J	ND	ND	ND	ND	ND	ND	ND	ND	0.84 J	ND	NA	ND
Copper	1,300	µg/L	ND	3.5 B	74,400	ND	ND	ND	ND	ND	2.7 J	3.6 J	ND	ND	ND	ND	ND	1 J	1 J	3.2 J	1.2 J	NA	ND
Iron	300 (s)	µg/L	8,410	50,000	ND	42,700	21,300	20,600	19,300	30,300	19,100	20,300	20,400	21,300	19,000	17,000	19,000	20,000	21,000	18,000	22,000	NA	21,000
Lead	15	µg/L	10	1.2 B	2.8	2.2	5.6	4.5	3.4 J	ND	2.3 J	3.2 J	2.1 J	3.6 J	ND	ND	ND	ND	1.6 J	0.56 J	NA	ND	
Magnesium	---	µg/L	2,300	3,150	3,090	2,892	3,070	3,000	2,930	4,560	3,170	3,500	2,940	3,410	3,700	2,900	2,700	2,900	3,200	3,700	3,400	NA	3,200
Manganese	50 (s)	µg/L	162	263	292	273	260	257	236	350	284	258	271	273	290	280	250	260	260	270	220	NA	250
Mercury	2	µg/L	ND	ND	0.057	ND	0.044	0.046	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.024 J	ND	NA	ND
Nickel	100	µg/L	ND	3.2 B	2.1	ND	ND	ND	ND	ND	1 J	ND	ND	ND	ND	ND	ND	ND	ND	1.9 J	ND	NA	ND
Potassium	---	µg/L	593	588	543	480	451	431	523	451	712	629	429 J	703	510 J	580 J	ND	550 J	650 J	1,600 J	810 J	NA	630 J
Selenium	50	µg/L	ND	1.7 B	ND	2.3	ND	3.9	4.1 JB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Silver	100 (s)	µg/L	ND	ND	0.89	ND	ND	ND	ND	ND	2.4 J	1.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Sodium	20,000 (g)	µg/L	13,600	15,800	13,800	13,700	14,700	14,400	15,200	12,300	13,900	14,400	16,800	14,700	15,000	17,000	16,000	16,000	17,000	15,000	18,000	NA	16,000
Thallium	2	µg/L	ND	ND	4.3	ND	ND	ND	ND	5.4 J	0.53 J	ND	0.28 J	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Vanadium	----	µg/L	ND	3.4 B	2.2	1.4	ND	ND	ND	ND	4.1 J	1.5 J	ND	ND	ND	ND	ND	ND	ND	5.6	2.1 J	NA	ND
Zinc	5,000 (s)	µg/L	52.4	22.3	6.2	11.7	ND	ND	2.9 J	ND	11.3	3.8 J	ND	12.4 J	ND	ND	ND	ND	11 J	ND	ND	NA	ND
Wet Chemistry																							
Alkalinity	----	mg/L	23.2	37.4	28	24	45	51	48 M	26 J	40	32 J	45 J	45 J	46	44	36	48	36	34	38	NA	34
Ammonia	----	mg/L	0.364	0.634	0.61	0.48	0.5	0.51	0.61	0.53	0.58	0.47	0.56	0.5	0.687	0.444	0.666	0.63	0.5 M	0.57	0.62	NA	0.68
Asbestos	7	MF/L	ND	ND	ND	NAD	ND	ND	<0.98	NAD	<5.1	<5.1	<2.60	<11	<0.2	ND	ND	ND	ND	ND	ND	NA	ND
Chemical Oxygen Demand	----	mg/L	ND	12	56	<35	ND	ND	ND	22 J	ND	18 J	15 J	ND	ND	ND	ND	ND	8.9 J	33	ND	NA	16 J
Chloride	250 (s)	mg/L	15.5	17.2	18	17	17	17	16	19	18	17	18	16	14	17	17	15	15	15	14	NA	16
Gross Alpha	15	pCi/L	1	ND	ND	NAD	ND	ND	1.47 U	NAD	ND	ND	ND	ND	6.07	ND	ND	ND	ND	ND	ND	NA	ND
Gross Beta	50	pCi/L	1.6	2.1	ND	NAD	ND	ND	2.11 U	NAD	ND	ND	ND	53.1	3.53	ND	ND	ND	ND	3.11	ND	NA	2.64
Nitrite	10	mg/L	ND	NA	ND	NA	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	1.27	ND	0.36	0.21	ND	ND	ND	0.2 UH	ND	ND	ND	0.13 J	ND	0.4 J	ND	0.21 J	0.2 J	ND	ND	NA	0.21 J
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	6.5-8.5 (s)	----	5.94	5.68	NA	NA	6.18	6.09	6.25	6.01	6.13	6.16	6.27	6.37	6.22	6	6.2	6.2	6.2	6.2	7	NA	6.1
Specific Conductivity	----	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NAD	199.9	134.5	171.3	163.5	151	146	170	110	150	130	170	NA	130
Conductivity	---	µmho/cm	138.6	188.6	160	115	173	173	149	133	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250 (s)	mg/L	8.16	7.36	6.2	6.4	11	8.2	6.4	15	8.6	8.8	7.8	5.9	5 J	5 J	5.9 J	4.6 J	4.8 J	4.1 J	2.8 J	NA	3.2 J
Total Dissolved Solids	500 (s)	mg/L	75	85	300	62	82	87	100	92	150	150	110	150	104	84	95	140	120	140	120	NA	87
Total Hardness	----	mg/L	14.5	19.4	19	NA	19	19	18	26	19	21	18	20.4	21	18	17	18	20	22	21	NA	20
Turbidity	----	NTU	18.1	510	670	NA	140	120	1.7	100	130	200	53	34	16	8	27	31	33	230	94	NA	35
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA				

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Parameters	MCL	Units	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Oct. 2016	Oct. 2016 (dup)	Oct. 2018	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromochloromethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.024 J	0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27 J	ND	ND	ND	NA	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.016 J	0.019 J	0.029 J	0.015 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
tert-butyl methyl ether (MTBE)	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.021 J	0.024 J	0.051 J	0.021 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.122	0.112	0.184	0.091	ND	ND	ND	ND	ND	ND	ND	NA	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND

Notes:

Red shaded area denotes concentration greater than the primary MCL

Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

* Total metals, except for 2010 analyses which were for dissolved metals

** Resampled for asbestos due to an anomalous detection

---- = no regulatory limit

(s) = secondary MCL

(g) = guidance level

B = analyte was detected in method blank

dup = duplicate quality control sample

H = holding time exceeded

J = estimated value > MDL but < RL

U = analyte concentration was below detection limit

M = matrix spike and/or matrix spike duplicate recovery outside acceptance limits

µg/L = microgram per liter

µmho/cm = micro mho per centimeter

mg/L = milligram per liter

MF/L = million fibers per liter

NA= not analyzed

NAD = no available data

ND= non-detect

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter

WW-09, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009*	Oct. 2010	Oct. 2011	Oct. 2012	Oct. 2013	Oct. 2013 (dup)	
Metals*																									
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Antimony	6	µg/L	ND	ND	N	NA	ND	ND	2.1	NA	ND	ND	ND	ND	ND	ND	ND	0.18	ND	ND	ND	ND	ND	ND	
Arsenic	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	1.2	2.1	1.1	1.6	1	ND	ND	1.1	1	1.3 J	4	1.1 J	ND	ND	
Barium	2,000	µg/L	13.4	ND	ND	ND	ND	14.8	24.4	26.3	42.2	44	39.1	36.8	35.6	0.45	33.2	27.6	32.1	54	48.9	44.8	41.3	39.3	
Beryllium	4	µg/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	0.015	ND	0.014	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	0.16	0.17	0.18	ND	ND	0.092	0.18	ND	0.26 J	ND	ND	ND	
Calcium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11200	9520 N	9360	9330	
Chromium	100	µg/L	ND	ND	ND	ND	ND	ND	0.76	ND	ND	2.5	ND	0.22	0.47	ND	ND	0.7	1.1	3.2 J	2 J*	5.9 J	ND	ND	
Cobalt	----	µg/L	3.1	ND	ND	ND	ND	4.1	7.5	NA	67.2	80	75.9	71.2	66.4	ND	70.2	50.6	60.2	98	120	68.6	45.6	38.5	
Copper	1,300	µg/L	ND	ND	ND	10	10	ND	ND	ND	ND	ND	0.71	0.54	4.1	ND	ND	1.4	0.62	0.7	ND	27.5	2.2 J	ND	ND
Iron	300 (s)	µg/L	33,400	47,000	48,000	50,000	45,000	56,800	60,200	103,000	96,600	95,000	95,300	97,800	84,400	14.6	101,000	103,000	74,000	93,000	75,100 D	10,1000	87,100	95,700	
Lead	15	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.13	ND	0.22	ND	0.5	ND	ND	ND	ND	ND	0.27 J	0.36 J*	ND	ND	
Magnesium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16700 N	1,5000	11,600	12,000	
Manganese	50 (s)	µg/L	410	670	680	670	560	584	780	NA	3,650	4,900	4,640	4,460	4,390	0.16	5,300	NA	5,410	10,000	10,600 D	8,030 D	7,700	7,040	
Mercury	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.038	ND	ND	ND	ND	ND	ND	0.19 J	0.215	0.233	
Nickel	100	µg/L	ND	ND	ND	ND	ND	ND	2.9	NA	3.8	47	8.3	7.8	7.4	0.54	5.4	5.3	6	7.6 J	10.2 *	8 J	ND	ND	
Potassium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1120	1010	957	977	
Selenium	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.55	ND	ND	0.57	0.58	ND	1.6	ND	ND	ND	0.7 J	ND	ND	ND	
Silver	100 (s)	µg/L	ND	ND	ND	ND	ND	ND	ND	NA	0.039	0.039	ND	0.42	ND	0.083	ND	0.43	ND	ND	0.088 J	--	ND	ND	
Sodium	20,000 (g)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36,500 N	35,000	35,000	33,300	
Thallium	2	µg/L	ND	120	ND	ND	ND	ND	4	NA	0.056	ND	0.084	ND	ND	ND	ND	ND	ND	ND	0.096 J	0.082 J*	ND	ND	
Vanadium	----	µg/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	1.1	0.67	0.68	ND	ND	1.1	ND	ND	ND	ND	ND	ND	
Zinc	5,000 (s)	µg/L	ND	ND	ND	50	ND	ND	ND	8	4	ND	11.7	ND	9.9	ND	14.7	5.7	6.6	ND	23.7 N*	50.3 N*	ND	ND	
Wet Chemistry																									
Alkalinity	----	mg/L	60	110	140	88	85	47	140	140	170	69	21	130	150	ND	130	100	160	180	110	160	131	173	
Ammonia	----	mg/L	0.559	ND	ND	ND	0.5	0.27	0.37	0.42	0.52	ND	0.3	ND	0.32	ND	0.33	0.32	0.37	0.312	0.305	0.36 J	0.488	0.503	
Asbestos	7	MF/L	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	ND	ND	ND	ND	
Chemical Oxygen Demand	----	mg/L	9.09	ND	ND	ND	18	5.2	25	ND	32	22	8.9	9.9	18	ND	13	6.9	20	ND	21.4	18.5	19.4	18.3	
Chloride	250 (s)	mg/L	62.5	74	75	75	77	74	76	81	80	72	69	38	61	ND	59	67	98	63 D	57 D	56 D	57.6	62.3	
Gross Alpha	15	pCi/L	NA	2.1	3	1.4	1.4	1.3	2.71	1.024	9.3	3.5 ± 0.8	0.229	1.1996	3.76	1.253	0.558	2.97	2.85 ± 2.56	ND	2.2	2.6 J	4.2	3.4	
Gross Beta	50	pCi/L	NA	2.9	2.8	ND	1.9	9.8	4.04	2.86	4	3.1 ± 1.0	0.22	0.342	2.23	1.344	2.18	1.14	0.718 ± 0.823	ND	ND	2.8 J	ND	3.7	
Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	
Nitrate (N)	10	mg/L	0.125	0.08	0.04	0.11	0.12	0.11	0.1	ND	ND	0.22	0.09	0.12	0.062	ND	0.083	0.37	NA	ND	0.365	0.108	0.101	0.0551	
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	
pH	6.5-8.5 (s)	----	6.43	6.6	6.7	6.78	7.09	6.2	6.1	6.4	6.3	NA	5.8	6	5.9	5	5.8	6.3	6.5	6.19	5.62	6	6.2	6.19	
Specific Conductivity	----	µmho/cm	386	500	450	380	430	380	510	610	590	540	50	530	520	ND	570	490	510	639	NA	NA	NA	NA	
Conductivity	---	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	583	550	628	704	
Sulfate	250 (s)	mg/L	17.8	27	29	21	23	31	40	280	83	120	93	79	91	2.9	82	NA	54	102 D	130 E	93 D	90.3	97.9	
Total Dissolved Solids	500 (s)	mg/L	168	300	320	130	280	210	310	390	370	370	320	220	300	ND	370	360	330	441	334	391	271	294	
Total Hardness	----	mg/L	45.4	43	46	41	48	39	78	110	120	96	140	85	160	ND	90	76	480	196 D	96.52	85.62	71.1	72.7	
Turbidity	----	NTU	84	29	51	90	120	120	45	150	140	490	96	84	50	0.15	110	82	110	33.2	240	110	91	198	
Volatile Organic Compounds																									
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Acetone	----	µg/L	ND	ND	ND	ND	ND	4.5	ND	5.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

WW-09, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009*	Oct. 2010	Oct. 2011	Oct. 2012	Oct. 2013	Oct. 2013 (dup)
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	ND	ND	ND	ND	ND	ND	ND	0.5 J	ND	0.420 J	0.450 J
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	ND	3.3	14	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																								
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Red shaded area denotes concentration greater than the primary MCL

Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

¹ WW-09 was resampled on 2 Jun 2022 to verify the first-time exceedance of arsenic above the MCL. Resampling detected arsenic at 50 µg/L in WW-09.

* Total metals, except for 2010 analyses which were for dissolved metals

---- = No regulatory limit

(s) = secondary MCL

(g) = guidance level

B = analyte was detected in method blank

D = diluted out

dup = duplicate quality control sample

E = safe, no total coliform detected

H = holding time exceeded

J = estimated value > MDL but < RL

µg/L = microgram per liter

mg/L = milligram per liter

MF/L = million fibers per liter

N = insufficient BOD oxygen depletion

NA= not analyzed

NAD = no available data

ND = non-detect

ng/L= nanograms per liter

Q = laboratory control samples outside acceptance limits

Y = replicate/duplicate precision outside acceptance limits

Parameters	MCL	Units	Oct. 2014	Oct. 2014 (dup)	Nov. 2015	Apr. 2016	Oct. 2016	Oct. 2018	Oct. 2018 (dup)	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	463	125	120	101	242	49 J	23 J	140	130	110	150	100	NA	120
Antimony	6	µg/L	2.1	1.7 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Arsenic	10	µg/L	1.7 B	1.2 B	ND	ND	ND	ND	ND	5 J	ND	ND	ND	ND	0.89 J	42 ¹	45	0.88 J	0.81 J	0.67 J	0.72 J	NA	0.7 J
Barium	2,000	µg/L	52.5	50.8	41.6	52.1	50.6	61.7 B	61.7 B	38.3	41.4	40.5	39.2	49.4	44	44	39	38	42	38	35	NA	37
Beryllium	4	µg/L	ND	ND	0.48	ND	0.69	0.28 J	0.31 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Cadmium	5	µg/L	0.245 B	0.229 B	ND	0.38	ND	0.83 J	0.74 J	ND	ND	1.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Calcium	---	µg/L	12,000	11,600	2,380	3,190	2,290	3,060	3,150	10,200	9,310	9,940	9,090	9,580	4,300	7,100	6,300	7,100	6,500	6,400	6,700	NA	5,700
Chromium	100	µg/L	0.645 B	0.526 B	0.74	8.5	ND	3.6 J	4.1	ND	ND	ND	ND	ND	1.6 J	3.2	4.6	2.3	3.2	1.9 J	4.4	NA	ND
Cobalt	----	µg/L	114	111	1.6	1.8	1.2	1.9 J	1.9 J	67	134	148	128	151	120	120	130	110	100	89	84	NA	77
Copper	1,300	µg/L	2.6 B	2.2 B	3.8	4.7	ND	5.5 J	4.3 J	ND	1.2 J	6.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Iron	300 (s)	µg/L	108,000	102,000	343	955	134	2,040	2,010	130,000	94,300	104,000	102,000	90,600	58,000	74,000	69,000	80,000	69,000	67,000	77,000	NA	63,000
Lead	15	µg/L	0.759 B	0.738 B	ND	ND	1.7	6.2	5.5	6.2	4.2	5.1	5.6	7.7	ND	ND	ND	ND	ND	ND	ND	NA	ND
Magnesium	---	µg/L	1,7000	16,200	2,490	2,540	2,800	3,220	3,200	16,200	13,900	15,400	12600	13,100	9,300	8,800	8,100	9,000	8,000	8,000	8,600	NA	7,100
Manganese	50 (s)	µg/L	11,300	11,000	28.2	29	27.9	41.5	43.2	7,580	8,400	7,820	7,970	8,810	8,300	8,500	6,800	7,800	8,400	8,000	7,600	NA	8,100
Mercury	2	µg/L	0.277	0.283	0.052	ND	ND	ND	ND	0.34	0.17	0.12	0.05 J	0.054 J	0.048 J	0.057 J	0.095 J	0.044 J	0.05 J	0.058 J	0.057 J	NA	0.068 J
Nickel	100	µg/L	9.6 B	9.2 B	4.6	10.1	6.3	8.3	8.4	1.5 J	4.2 J	5.6 J	3.2 J	8.2	8.5	9.6	12	8.4	8.6	7.6	8.4	NA	4.8 J
Potassium	---	µg/L	1,210	1,160	1,470	1,270	1,430	1,720	1,770	1,100	1,080	999	956	1,280	ND	1,100 J	740 J	990 J	970 J	990 J	1,000 J	NA	850 J
Selenium	50	µg/L	0.863 B	1.1 B	ND	ND	ND	ND	4.7 JB	ND	ND	6.4 J	ND	12.3 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Silver	100 (s)	µg/L	ND	ND	ND	0.81	ND	ND	ND	ND	8.4	1.2 J	0.96 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Sodium	20,000 (g)	µg/L	40,300	39,000	4,060	4,790	4,010																

WW-09, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2014	Oct. 2014 (dup)	Nov. 2015	Apr. 2016	Oct. 2016	Oct. 2018	Oct. 2018 (dup)	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Acetone	----	µg/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	4.6	ND	4.2	2.9	ND	ND	NA	0.83 J
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.15	0.11	0.13	0.097 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromochloromethane	----	µg/L	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.026 J	0.037 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	0.43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	0.43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,2-Dichloroethene	70	µg/L	0.460 J	0.480 J	ND	ND	ND	ND	ND	0.45 J	0.4	0.32	0.32	0.29	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3 J	NA	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	<0.50	ND	ND	ND	0.015 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	2.9 JYQB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
tert-butyl methyl ether (MTBE)	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.045 J	0.042 J	0.053 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.026 J	ND	0.015 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.065 J	0.062 J	0.050 J	0.038 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.051 J	0.043 J	0.038 J	0.036 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.039 J	0.044 J	ND	0.061	ND	ND	ND	ND	ND	ND	ND	NA	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	31
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38	32
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6	3
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND

Notes:

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MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

¹ WW-09 was resampled on 2 Jun 2022 to verify the first-time exceedance of arsenic above the MCL. Resampling detected arsenic at 50 µg/L in WW-09.

* Total metals, except for 2010 analyses which were for dissolved metals

---- = No regulatory limit

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J = estimated value > MDL but < RL

µg/L = microgram per liter

µmho/cm = micro mho per centimeter

mg/L = milligram per liter

MF/L = million fibers per liter

N = insufficient BOD oxygen depletion

NA= not analyzed

NAD = no available data

ND = non-detect

ng/L= nanograms per liter

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter

Q = laboratory control samples outside acceptance limits

Y = replicate/duplicate precision outside acceptance limits

WW-10, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Aug. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2012
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	µg/L	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND	ND
Arsenic	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	3.6	ND
Barium	2,000	µg/L	15.9	21.1	ND	ND	ND	ND	29.2	11.6	12	15.4	17	14.7	15.5	14.6	15.4	13.8	16.3	22.3	21 J	19.2	27.5
Beryllium	4	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.054	ND	0.056	0.054	0.055	0.025	0.095	0.058	0.086	ND	0.052 J	0.077 J
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.039	0.045	ND	0.085	0.046	ND	0.31 J	ND
Calcium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,790	NA	3280	3690 N
Chromium	100	µg/L	ND	1.46	ND	ND	ND	ND	2.6	4.2	2	0.46	ND	0.93	0.88	1.4	12.7	1.8	2.1	1.8	2 J	2.7 *	3.2 J
Cobalt	----	µg/L	ND	5.78	ND	ND	ND	ND	ND	ND	NA	0.22	ND	0.22	0.74	0.22	24.5	1.6	1.7	4.5	ND	0.24 J	0.26 J
Copper	1,300	µg/L	ND	1.52	ND	ND	90	90	ND	3.1	2.9	2.6	3.1	2.9	4.8	3.6	29.1	4.8	6.9	12.6	ND	2.2	3.1 J
Iron	300 (s)	µg/L	51	52,800	150	90	430	920	241	20.5	31.5	48.4	ND	6	12	13.9	362	43.9	109	45	ND	64.2 J	169 J
Lead	15	µg/L	ND	ND	ND	ND	ND	ND	ND	1.3	ND	0.4	ND	0.26	0.28	0.35	1.7	ND	0.53	1.2	ND	0.54 J	0.38 J*
Magnesium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2800 N	3120	
Manganese	50 (s)	µg/L	7.9	616	10	ND	20	20	31.5	8.6	NA	10.9	12	9	10	8.1	13.4	10.5	10.6	12.8	11	12.1	14
Mercury	2	µg/L	ND	ND	1.2	ND	2.2	0.9	ND	ND	ND	ND	ND	ND	ND	0.047	0.11	ND	ND	ND	ND	ND	ND
Nickel	100	µg/L	4.6	4.44	ND	ND	ND	ND	15.3	4.2	NA	3.9	4.9	3.5	3.8	3.7	12.4	3.9	7	8.3	4.4 J	4.5 *	6 J
Potassium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	782	728
Selenium	50	µg/L	ND	ND	ND	ND	ND	ND	ND	1.7	ND	0.53	ND	ND	0.4	ND	ND	2	ND	ND	ND	1.1 J	0.9 J
Silver	100 (s)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	0.22	ND	0.49	ND	ND	ND	ND
Sodium	20,000 (g)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7510 N	7650
Thallium	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.083 J*
Vanadium	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	0.69	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	5,000 (s)	µg/L	8.4	ND	ND	20	10	10	15.1	8.3	16.3	9.9	ND	8.3	10.8	27.5	29.9	15.7	14.4	15.6	ND	18.9 N*	76.2 N*
Wet Chemistry																							
Alkalinity	----	mg/L	2	116	14	5	9	19	10	6	8	4.6	4	3	4	ND	2	7	3.9	4	3	8.6	7.4
Ammonia	----	mg/L	ND	0.385	ND	ND	ND	0.6	ND	0.03	0.42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.063 J	0.048 J
Asbestos	7	MF/L	NA	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	ND	ND
Chemical Oxygen Demand	----	mg/L	ND	7.45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.43 J	ND
Chloride	250 (s)	mg/L	13.6	74.7	20	11	27	24	18	7.7	8.9	11	11	7	11	7.1	7.7	10	9.3	17	11.8 D	11	16 D
Gross Alpha	15	pCi/L	NA	NA	1.5	1.5	ND	1.5	1.7	1.62	0.858	7	0.4 ± 0.4	0.234	-0.632	1.5	0.76	1.009	1.93	2.34 ± 2.03	ND	ND	ND
Gross Beta	50	pCi/L	NA	NA	2.2	1.5	2.4	3.7	3.1	3.11	2.04	1	1.0 ± 0.6	0.548	1.0125	1.26	2.083	1.724	1.04	0.483 ± 0.745	ND	ND	ND
Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	0.281	0.058	0.15	0.15	0.13	0.18	0.15	0.31	0.25	0.2	0.2	0.26	0.18	0.14	0.1	0.18	0.16	0.16	0.35	0.385	0.188
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17	NA	NA	NA
pH	6.5-8.5 (s)	----	5.09	6.18	5.41	5.63	5.78	5.62	4.8	5.1	5.4	5.1	5.51	4.9	4.7	6.2	4.7	4.2	5.2	4.9	5.09	4.49	4.24
Specific Conductivity	----	µmho/cm	105	409	130	75	130	170	140	70	74	74	79	70	73	69	73	75	80	100	86.9	NA	NA
Conductivity	---	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.1	92
Sulfate	250 (s)	mg/L	11	32.7	7	13	19	32	43	8.5	8.2	12	8	5	8	1.2	13	ND	NA	13	9.91 D	13	10 JD
Total Dissolved Solids	500 (s)	mg/L	40	214	93	69	110	140	55	74	75	ND	55	61	ND	72	24	60	73	67	39	21	44
Total Hardness	----	mg/L	21.8	65.1	27	16	33	56	39	20	16	13	ND	16	26	14	24	21	18	38	35.3	19.71	22.05
Turbidity	----	NTU	1.61	65.1	0.95	3.2	9.3	7.4	33	2.1	13	1.4	3	0.9	0.9	0.5	5.3	1.1	29	10	ND	0.9 J	6.1
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	----	µg/L	11.10 J	3.95	ND	ND	ND	ND	6.8	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

WW-10, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000	Aug. 2000	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Sep. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2012
Bromochloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	5	µg/L	ND	2.06	ND	ND	ND	ND	ND	3.1	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.39	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	8.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Red shaded area denotes concentration greater than the primary MCL
Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable
MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)
*Total metals, except for 2010 analyses which were for dissolved metals
---- = no regulatory limit
(s) = secondary MCL
(g) = guidance level
B = analyte was detected in method blank
D = diluted out
dup = duplicate quality control sample
H = holding time exceeded
J = estimated value > MDL but < RL
µg/L = microgram per liter
µmho/cm = micro mho per centimeter
mg/L = milligram per liter
MF/L = million fibers per liter
N = insufficient BOD oxygen depletion

NA = not analyzed
NAD = no available data
ng/L= nanograms per liter
ND = non-detect
pCi/L = picocuries per liter
Q = laboratory control samples outside acceptance limits
Y = replicate/duplicate precision outside acceptance limits

WW-10, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Oct 2016	Oct. 2018	Apr. 2019	Nov. 2019	Nov. 2019 (dup)	Jun. 2020	Jun. 2020 (dup)	Oct. 2020	Oct. 2020 (dup)	Apr. 2021	Apr. 2021 (dup)	Nov. 2021	Nov. 2021 (dup)	Apr. 2022	Apr. 2022 (dup)
Metals*																					
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	13.5	14.7 J	13.3 J	13.4 J	14.3 J	ND	ND	109	109	21 J	24 J	ND	ND
Antimony	6	µg/L	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	10	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	2,000	µg/L	17.7	19.1	16.5	18.6	19.6	18.1 B	7.8	22.3	21.6	21.1	17.1	20.4	21.2	17.9	18.9	22	21	30	29
Beryllium	4	µg/L	ND	ND	0.25	ND	0.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	5	µg/L	ND	ND	ND	ND	ND	0.81 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	---	µg/L	3,060	3,460	3,160	3,380	3,640	3,250	2,580	3,850	3,700	3,320	3,260	3720	3700	3,370	3,450	3,800	4,000	4,900	5,000
Chromium	100	µg/L	ND	1.5 B	1.7	7.3	1	2.3 J	5.2	4.3	4.5	1.7 J	1.5 J	3.3 J	2.9 J	2.5 J	3 J	1.6 J	1.7 J	1.8 J	2.1
Cobalt	----	µg/L	ND	0.216 B	ND	1.1	ND	ND	ND	0.73 J	ND	ND	ND	ND	ND	ND	ND	0.3 J	0.3 J	0.35 J	0.35 J
Copper	1,300	µg/L	ND	3.4 B	ND	3.6	ND	1.4 J	1.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	300 (s)	µg/L	111	45.7 B	374	2,660	664	709	36.3	43.3 J	37.8 J	47.7 J	18.1 J	33.5 J	ND	80.7 J	74.5 J	ND	ND	ND	ND
Lead	15	µg/L	ND	ND	ND	ND	2.1	2.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	---	µg/L	2,590	30.5	2,630	2,440	3,060	2,950	2,980	3,390	3,300	3,180	3,100	3300	3720	3,070	3,100	3,000	3,200	4,300	4,400
Manganese	50 (s)	µg/L	10	9 B	16.1	32.1	20.1	16.7	6.6	12.4	11.9	9	8.8	10.9	10.8	9.7	9.8	11	11	16	15
Mercury	2	µg/L	ND	ND	0.66	0.86	0.29	ND	0.14	ND	ND	ND	ND	ND	ND	0.033 J	0.043 J	ND	ND	ND	0.011 J
Nickel	100	µg/L	ND	5.1 B	2.9	2.8	4.4	4.6 J	2.1	7.5	7.4	3.9 J	3.8 J	5.9	5.3	5	5	5.1	5.2	8.1	9.2
Potassium	---	µg/L	639	735	733	815	763	767	505	630	562	565	561	773	780	796	798	750 J	760 J	920 J	990 J
Selenium	50	µg/L	ND	1.4 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	100 (s)	µg/L	ND	ND	ND	ND	ND	ND	ND	0.92 J	0.8 J	0.87 J	1.2 J	ND	ND	ND	0.78 J	ND	ND	ND	ND
Sodium	20,000 (g)	µg/L	6,040	6,460	6,400	6,320	5,790	5,210	4,850	6,300	6,060	5,650	5,610	6670	6740	5,610	5,780	6,100	6,200	7,900	8,100
Thallium	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.44 J	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	----	µg/L	ND	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	5,000 (s)	µg/L	37.9	22.6	5.7	9.3	6.8	12.3	3.4 J	9 J	10	8 J	7.4 J	6.4 J	6.5 J	7.7 J	8 J	6.3 J	6.3 J	10 J	8.1 J
Wet Chemistry																					
Alkalinity	----	mg/L	7.56	6.6	ND	8.4	ND	7.0 J	8.1 J	6.6 J	6.8 J	ND	ND	ND	ND	ND	ND	8	6	8	8
Ammonia	----	mg/L	ND	ND	ND	ND	ND	ND	0.072 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Asbestos	7	MF/L	ND	ND	ND		ND	ND	NAD	<0.17	<0.17	<0.18	<0.18	<0.17	<0.17	<1.1	<1.1	<0.2	<0.2	ND	ND
Chemical Oxygen Demand	----	mg/L	ND	ND	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	27 J	ND	ND	99	62	ND	ND
Chloride	250 (s)	mg/L	10.6	10.6	12	11	13	9.6	7.1	17	18	11	11	14	14	8.8	8.7	13	ND	21	22
Gross Alpha	15	pCi/L	1.9	1	ND	NAD	ND	ND	NAD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gross Beta	50	pCi/L	2.8	2.2	ND	NAD	ND	ND	NAD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite	10	mg/L	ND	NA	ND	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	0.26	0.198	ND	0.24	0.3	0.16 JH	0.26 J	0.25 J	0.23 J	ND	ND	0.12 J	ND	0.19 J	0.19 J	0.2 J	ND	0.3 J	0.4 J
Nitrate/Nitrite	10	mg/L	NA	NA	0.28	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	6.5-8.5 (s)	----	5.33	5.01	ND	NA	5.17	5.32	5.75	5.26	5.22	5.34	5.28	5.28	5.22	6.09	6.09	5.26	5.2	5	5
Specific Conductivity	----	µmho/cm	NA	NA	ND	NA	NA	NA	NAD	145.1	146.2	83.5	81	95.99	96.63	90.06	90.38	84	83	113	116
Conductivity	---	µmho/cm	100.4	120.7	89.4	83.3	94.4	85.2	80.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250 (s)	mg/L	11.2	10.4	11	11	11	13	9.5	9.7	9.8	13	13	13	13	13	14	10	ND	14	14
Total Dissolved Solids	500 (s)	mg/L	54	54	97	44	49	38	41	60	45	70	71	83	48	82	110	50	72	68	71
Total Hardness	----	mg/L	18.3	21.2	19	NA	22	20	19	24	23	21	21	23	23	21.1	26.4	22	23	30	31
Turbidity	----	NTU	1.19	0.776	2.1	NA	28	10	1.8	ND	ND	1.9	1.8	ND	ND	9.2	7.8	0.2 J	0.2 J	ND	0.5
Volatile Organic Compounds																					
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	---	µg/L	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	4.1
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Parameters	MCL	Units	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Oct 2016	Oct. 2018	Apr. 2019	Nov. 2019	Nov. 2019 (dup)	Jun. 2020	Jun. 2020 (dup)	Oct. 2020	Oct. 2020 (dup)	Apr. 2021	Apr. 2021 (dup)	Nov. 2021	Nov. 2021 (dup)	Apr. 2022	Apr. 2022 (dup)
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	----	µg/L	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	0.02 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	0.018 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	2.9 JYQB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	0.019 J	0.017 J	0.022 J	0.019 J	0.032 J	0.026 J	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	0.11	0.077 J	0.031 J	ND	ND	ND	0.033 J	0.033 J	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																					
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Red shaded area denotes concentration greater than the primary MCL
Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable
MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)
*Total metals, except for 2010 analyses which were for dissolved metals
---- = no regulatory limit
(s) = secondary MCL
(g) = guidance level
B = analyte was detected in method blank
D = diluted out
dup = duplicate quality control sample
H = holding time exceeded
J = estimated value > MDL but < RL
µg/L = microgram per liter
µmho/cm = micro mho per centimeter
mg/L = milligram per liter
MF/L = million fibers per liter
N = insufficient BOD oxygen depletion
NA = not analyzed
NAD = no available data
ND = non-detect
ng/L= nanograms per liter
NTU = nephelometric turbidity unit
pCi/L = picocuries per liter
Q = laboratory control samples outside acceptance limits
Y = replicate/duplicate precision outside acceptance limits

WW-10, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2022	Oct. 2022 (dup)	Apr. 2023	Apr. 2023 (dup)	Oct. 2023	Oct. 2023 (dup)	Apr. 2024	Apr. 2024 (dup)	Nov. 2024	Nov. 2024 (dup)	Dec. 2024	Dec. 2024 (dup)	Apr. 2025	Apr. 2025 (dup)
Metals*																
Aluminum	50-200 (s)	µg/L	20 J	ND	ND	ND	55 J	44 J	36 J	ND	ND	77 J	NA	NA	180	140
Antimony	6	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Arsenic	10	µg/L	0.34 J	0.3 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Barium	2,000	µg/L	23	21	23	22	30	30	20	19	27	27	NA	NA	34	35
Beryllium	4	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Calcium	---	µg/L	3,900	3,900	3,800	3,900	5,000	5,200	3,300	3,200	5,300	5,500	NA	NA	5,800	5,700
Chromium	100	µg/L	3.5	3.5	2.7	2.5	8.2	5.4	2.1	2 J	2.6	2.2	NA	NA	1.2 J	1.2 J
Cobalt	----	µg/L	0.79 J	0.68 J	0.51 J	0.43 J	3.6	2.5	1.6	1.7	0.61 J	0.48 J	NA	NA	0.44 J	0.45 J
Copper	1,300	µg/L	ND	ND	ND	ND	2 J	1.2 J	ND	ND	3.3 J	4.7	NA	NA	2 J	1.8 J
Iron	300 (s)	µg/L	220 J	ND	ND	ND	260 J	ND	ND	ND	ND	ND	NA	NA	ND	ND
Lead	15	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Magnesium	---	µg/L	3,600	3,600	3,500	3,600	4,500	4,700	3,000	2,900	4,900	5,000	NA	NA	5,600	5,600
Manganese	50 (s)	µg/L	12	12	12	12	18	18	11	10	15	14	NA	NA	18	19
Mercury	2	µg/L	ND	ND	ND	ND	0.037 J	0.018 J	ND	0.014 J	0.016 J	0.017 J	NA	NA	0.22	0.23
Nickel	100	µg/L	6.7	6.6	6.1	5.8	13	10	5.5	5.4	7.1	7	NA	NA	7.4	7.3
Potassium	---	µg/L	580 J	620 J	800 J	800 J	920 J	970 J	760 J	750 J	920 J	1,000 J	NA	NA	920 J	930 J
Selenium	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Silver	100 (s)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Sodium	20,000 (g)	µg/L	6,200	6,200	5,800	5,900	7,400	7,600	5,300	5,100	7,700	8,100	NA	NA	8,400	8,300
Thallium	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Vanadium	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Zinc	5,000 (s)	µg/L	8.7 J	8.1 J	8.4 J	8.3 J	14 J	18 J	ND	ND	13 J	15 J	NA	NA	14 J	16 J
Wet Chemistry																
Alkalinity	----	mg/L	8	8	8.4	8.4	6	8	6	130	10	6	NA	NA	8	10
Ammonia	----	mg/L	ND	ND	0.15 J	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Asbestos	7	MF/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Chemical Oxygen Demand	----	mg/L	ND	ND	ND	41	11 J	22	52	52	ND	ND	NA	NA	16 J	13 J
Chloride	250 (s)	mg/L	15	15	ND	14	22	22	11	10	22	22	NA	NA	26	26
Gross Alpha	15	pCi/L	ND	ND	ND	ND	ND	ND	ND	3.97	ND	1.92	NA	NA	3.24	ND
Gross Beta	50	pCi/L	ND	ND	ND	ND	ND	5.29	ND	4.53	ND	4.87	NA	NA	ND	7.31
Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	ND	ND	0.24 J	0.23 J	0.35 J	0.38 J	0.23 J	0.22 J	0.29 J	0.29 J	NA	NA	0.23 J	0.23 J
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	6.5-8.5 (s)	----	5.4	5.1	5.7	5.5	5.4	5.4	6	5.9	6.5	6.4	NA	NA	5.7	6.2
Specific Conductivity	----	µmho/cm	96	96	80	80	120	110	85	82	120	130	NA	NA	150	140
Conductivity	---	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250 (s)	mg/L	15	15	13	13	11	11	14	14	11	12	NA	NA	14	14
Total Dissolved Solids	500 (s)	mg/L	75	54	57	54	60	72	75	68	76	90	NA	NA	91	92
Total Hardness	----	mg/L	24	24	24	25	31	32	21	20	33	34	NA	NA	38	37
Turbidity	----	NTU	0.94	ND	0.56	0.58	3.1	1.3	2.2	0.21 J	0.99	1.7	NA	NA	16	26
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
2-Butanone	----	µg/L	ND	ND	0.29 J	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Acetone	----	µg/L	ND	ND	2.5	4	ND	6.3	ND	ND	ND	ND	NA	NA	ND	ND
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND

WW-10, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2022	Oct. 2022 (dup)	Apr. 2023	Apr. 2023 (dup)	Oct. 2023	Oct. 2023 (dup)	Apr. 2024	Apr. 2024 (dup)	Nov. 2024	Nov. 2024 (dup)	Dec. 2024	Dec. 2024 (dup)	Apr. 2025	Apr. 2025 (dup)
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Bromochloromethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND	NA	NA	ND	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.2	9.3	18	17
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	2.3	3	ND
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	13	16	17
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.96 J	0.8 J	1.5	1.5 J
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND

Notes:

Red shaded area denotes concentration greater than the primary MCL

Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals> (USEPA, 2025)

*Total metals, except for 2010 analyses which were for dissolved metals

---- = no regulatory limit

(s) = secondary MCL

(g) = guidance level

B = analyte was detected in method blank

D = diluted out

dup = duplicate quality control sample

H = holding time exceeded

J = estimated value > MDL but < RL

µg/L = microgram per liter

µmho/cm = micro mho per centimeter

mg/L = milligram per liter

MF/L = million fibers per liter

N = insufficient BOD oxygen depletion

NA = not analyzed

NAD = no available data

ND = non-detect

ng/L= nanograms per liter

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter

Q = laboratory control samples outside acceptance limits

Y = replicate/duplicate precision outside acceptance limits

WW-11R, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Mar. 2000*	Aug. 2000*	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2012	Oct. 2012 (dup)
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	µg/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	0.15	ND	ND	0.56 J	ND	ND
Arsenic	10	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	0.8	ND	1.1	1.1	0.82	0.93	0.64	0.15	1.3 J	7	1.4 J	1.7 J
Barium	2,000	µg/L	NA	NA	ND	ND	ND	ND	ND	0.78	0.79	0.46	ND	0.48	0.71	0.56	1	1.3	1.6	2.9 J	2 J	9.4 J	10.3
Beryllium	4	µg/L	NA	NA	ND	ND	ND	1.5	ND	ND	NA	0.038	ND	0.033	0.041	0.042	0.028	0.028	0.018	ND	0.2 J	0.12 J	0.1 J
Cadmium	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.055	ND	0.12 J	ND	ND
Calcium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,600	NA	3,480	3,790 N	3,950 N
Chromium	100	µg/L	NA	NA	30	10	130	350	ND	1.3	0.63	0.33	ND	0.55	0.39	1.2	1.1	ND	ND	ND	3.9 *	12.1	11.2
Cobalt	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	0.2	ND	0.22	0.21	0.23	1.1	0.4	0.49	0.84 J	0.32 J	0.27 J	0.27 J
Copper	1,300	µg/L	NA	NA	30	ND	60	30	ND	ND	ND	ND	ND	0.56	ND	1.2	ND	0.64	1.3	ND	1.5 J	2.4 J	2.5 J
Iron	300 (s)	µg/L	NA	NA	7,700	4,700	11,000	23,000	7,070	6,570	5,890	6,580	7,500	6,790	6,140	6,470	5,790	3,710	2,220	6,200	11,100	7,680	7,910
Lead	15	µg/L	NA	NA	8	ND	ND	16	ND	0.71	ND	0.088	ND	0.19	ND	0.55	ND	ND	0.21	ND	1.2	0.84 J*	0.73 J*
Magnesium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,670 N	3,170	3,280
Manganese	50 (s)	µg/L	NA	NA	180	80	130	190	126	89.7	NA	84.3	110	137	168	125	100	91.6	85	180	156	129	134
Mercury	2	µg/L	NA	NA	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.09 J	ND
Nickel	100	µg/L	NA	NA	ND	ND	ND	ND	ND	2.7	NA	1.3	12	0.72	0.71	1.6	2.1	3.2	1	1 J	1.2 *	1.9 J	2 J
Potassium	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	545	558	574
Selenium	50	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9 J	ND	ND
Silver	100 (s)	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	0.046	ND	ND	ND	ND	ND	0.082 J	ND	ND
Sodium	20,000 (g)	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,530 N	6,670	6,980
Thallium	2	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND
Vanadium	----	µg/L	NA	NA	80	ND	60	130	ND	0.5	NA	0.62	ND	0.9	ND	0.94	1.5	1.2	ND	0.9 J	ND	6.7 J	5.8 J
Zinc	5,000 (s)	µg/L	NA	NA	30	20	30	20	ND	11.4	3.6	2.5	ND	ND	ND	4.8	3.8	5.6	7.8	ND	10.1 N*	29.7 N*	32.4 N*
Wet Chemistry																							
Alkalinity	----	mg/L	NA	NA	20	22	22	20	9	14	11	16	30	20	14	13	29	15	23	27	27	27	27
Ammonia	----	mg/L	NA	NA	ND	ND	ND	0.3	0.16	0.19	ND	0.15	ND	0.14	0.12	ND	ND	ND	ND	ND	0.216	0.138 J	0.14 J
Asbestos	7	MF/L	NA	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	ND	NAD	NAD	NAD	2	NAD	NAD	ND	ND	ND	ND
Chemical Oxygen Demand	----	mg/L	NA	NA	87	21	ND	13	ND	22	ND	ND	ND	ND	ND	9.2	ND	ND	ND	ND	10.4	ND	ND
Chloride	250 (s)	mg/L	NA	NA	11	6	13	9	6.1	6.3	6.3	6.4	8	6	8	6.6	6.6	8.2	12	ND	6.5	6.9 D	6.9 D
Gross Alpha	15	pCi/L	NA	NA	44	1.3	12.1	32.6	1.8	14.7	-0.163	6.1	0.2 ± 0.3	0.173	1.1835	0.88	1.118	2.27	0.681 ± 1.13	ND	ND	3	3.4
Gross Beta	50	pCi/L	NA	NA	25	1.8	7.9	21.8	6.3	10.2	0.265	9.7	0.5 ± 0.6	0.316	-0.194	0.77	0.978	1.51	0.337 ± 0.660	ND	ND	3.8 J	5.7
Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	NA	NA	ND	ND	ND	0.02	ND	0.14	ND	ND	ND	ND	ND	ND	ND	0.13	NA	ND	ND	ND	ND
Nitrate/Nitrite	10	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
pH	6.5-8.5 (s)	----	NA	NA	6.04	6.1	6.41	6.12	5.8	5.5	6.1	5.9	6.39	5.6	5.5	5.5	5.4	5.8	6	5.49	4.92	4.98	5.39
Specific Conductivity	----	µmho/cm	NA	NA	74	66	69	84	67	65	70	62	110	73	79	78	76	78	80	77.1	NA	NA	NA
Conductivity	---	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.4	89	89
Sulfate	250 (s)	mg/L	NA	NA	16	2	7.2	12	25	22	14	6.1	3	25	27	7.9	38	8.5	6.4	ND	5.8	8.4 D	8.4 D
Total Dissolved Solids	500 (s)	mg/L	NA	NA	78	53	70	92	160	43	83	ND	68	33	77	57	30	62	67	59	35	56	62
Total Hardness	----	mg/L	NA	NA	24	21	24	40	21	16	18	17	20	18	32	72	26	18	40	39.2	19.7	22.51	23.38
Turbidity	----	NTU	NA	NA	2,500	67	880	1,900	170	13	2.3	8.8	27	28	120	5.7	120	280	39	14.9	23	88	100
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	7	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,2,3-Trichloropropane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
1,4-Dichlorobenzene	75	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

WW-11R, Downgradient, Summary of Data Since March 2000																							
Parameters	MCL	Units	Mar. 2000*	Aug. 2000*	Feb. 2001	Aug. 2001	Feb. 2002	Aug. 2002	Mar. 2003	Aug. 2003	Mar. 2004	Sep. 2004	Feb. 2005	Sep. 2005	Mar. 2006	Sep. 2006	Mar. 2007	Oct. 2008	Feb. 2009	Oct. 2010	Oct. 2011	Oct. 2012	Oct. 2012 (dup)
4-Methyl-2-Pentanone	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	----	µg/L	NA	NA	ND	ND	ND	ND	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Bromodichloromethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.47	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	70	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	5	µg/L	NA	NA	ND	ND	ND	ND	ND	8.9	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	700	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-butyl methyl ether (MTBE)	----	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	NA	NA	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10,000	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Red shaded area denotes concentration greater than the primary MCL
Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable
MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and [https://www.epa.gov/dwstandardsregulations/ secondary-drinking-water-standards-guidance-nuisance-chemicals](https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals) (USEPA, 2025)
* Total metals, except for 2010 analyses which were for dissolved metals
---- = no regulatory limit
(s) = secondary MCL
(g) = guidance level
D = diluted out
dup = duplicate quality control sample

J = estimated value > MDL but < RL	mg/L = milligram per liter	ND = non-detect
µg/L = microgram per liter	N = insufficient BOD oxygen depletion	NTU = nephelometric turbidity unit
µmho/cm = micro mho per centimeter	NA= not analyzed	pCi/L = picocuries per liter
MF/L = million fibers per liter	NAD = no available data	Y = replicate/duplicate precision outside acceptance limits

WW-11R, Downgradient, Summary of Data Since March 2000

Parameters	MCL	Units	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Apr. 2016 (dup)	Oct. 2016	Oct. 2018	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
Metals*																							
Aluminum	50-200 (s)	µg/L	NA	NA	NA	NA	NA	NA	NA	223	39.8	48.9	285	53.6	150	530	1,500	220	360	380	290	NA	810
Antimony	6	µg/L	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Arsenic	10	µg/L	ND	1.2	ND	4.4	5.4	ND	ND	ND	ND	ND	1.3 J	ND	0.67 J	0.8 J	0.66 J	0.98 J	0.65 J	0.55 J	0.33 J	NA	0.68 J
Barium	2,000	µg/L	ND	1.7	4.7	3.8	3.3	3.7	2.8	0.84 J	1.1 J	0.79 J	2 J	0.95 J	2.5	3.7	2.8	2.4	3.9	3.1	3	NA	1.7 J
Beryllium	4	µg/L	ND	ND	0.53	ND	ND	0.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Cadmium	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Calcium	---	µg/L	3,140	3,790	3,610	3,710	3,740	3,910	2,860	3,490	3,740	4,540	4,310	4,630	4,500	4,700	4,600	4,400	4,100	4,500	4,900	NA	4,600
Chromium	100	µg/L	ND	1.2	3.8	5.4	4.5	ND	1.7 J	1.7	2 J	1.5 J	11.2	2 J	3	4.4	3.7	2.8	18	2.8	4.3	NA	1.6 J
Cobalt	----	µg/L	ND	0.152	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 J	0.49 J	1.1	0.54 J	0.39 J	1.9	0.7 J	1	NA	ND
Copper	1,300	µg/L	ND	1.7	1.9	ND	ND	ND	ND	ND	ND	1.5 J	ND	ND	ND	ND	ND	ND	1.3 J	ND	ND	NA	ND
Iron	300 (s)	µg/L	5,720	6,130	14,400	29,500	20,800	1,990	8,390	8,380	5,270	10,100	12,300	8,560	7,700	6,000	7,200	9,500	5,000	6,700	6,300	NA	12,000
Lead	15	µg/L	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	2.8 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Magnesium	---	µg/L	2,500	3,130	3,390	2,850	2,890	3,480	2,420	3,180	3,070	3,870	3450	3,610	3,900	3,900	4,200	3,700	3,500	3,600	4,100	NA	3,700
Manganese	50 (s)	µg/L	99.8	137	15.5	93.4	108	12.1	183	176	169	229	210	204	210	200	220	230	150	210	220	NA	300
Mercury	2	µg/L	ND	ND	ND	ND	ND	ND	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.013 J	ND	NA	0.016 J
Nickel	100	µg/L	ND	1.7	ND	ND	ND	1.2	1.5 J	ND	1.7 J	ND	3 J	1.4 J	1.5 J	2.5 J	1.7 J	1.6 J	14	2.1 J	3.5 J	NA	ND
Potassium	---	µg/L	540	567	563	653	612	614	574	605	536	442 J	624	656	620 J	770 J	790 J	570 J	720 J	760 J	730 J	NA	650 J
Selenium	50	µg/L	ND	1.5	6.5	<6.5	<6.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Silver	100 (s)	µg/L	ND	0.091	ND	ND	ND	ND	ND	ND	1.9 J	ND	ND	ND	ND	ND	ND	ND	0.6 J	ND	ND	NA	ND
Sodium	20,000 (g)	µg/L	5,640	6,900	6,130	6,230	6,280	5,230	5,080	6,470	5,980	5,940	6,410	6,530	6,400	6,500	9,900	5,900	6,300	5,900	6,700	NA	5,800
Thallium	2	µg/L	ND	ND	9.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vanadium	----	µg/L	ND	1.5	12	18.3	12.8	ND	2.5 J	2.8	2.1 J	2.1 J	13.6	ND	1.9 J	2.9 J	3.8 J	2.2 J	2.1 J	1.5 J	ND	NA	1.4 J
Zinc	5,000 (s)	µg/L	31.2	12.1	1.7	2.2	2	6.6	6.2 J	ND	3.6 J	2.4 J	17.9	20	ND	ND	ND	ND	ND	ND	11 J	NA	ND
Wet Chemistry																							
Alkalinity	----	mg/L	25	33	9.3	21	21	15	16 J	26 J	36	28 J	28 J	40 J	32	26	36	32	34	ND	30	NA	32
Ammonia	----	mg/L	ND	ND	ND	ND	ND	ND	0.060 J	0.069 J	0.064 J	ND	0.082 J	ND	0.222	0.132 J	0.185 J	ND	ND	ND	ND	NA	0.17 J
Asbestos	7	MF/L	ND	ND	ND	NAD	NAD	ND	NA	NAD	<1.7	<5.1	<2.60	<1.8	<0.2	ND	ND	ND	ND	ND	ND	NA	ND
Chemical Oxygen Demand	----	mg/L	ND	ND	20	24	ND	ND	ND	17 J	ND	ND	ND	ND	76	ND	ND	ND	18 J	28	ND	NA	16 J
Chloride	250 (s)	mg/L	6.13	6.48	9.5	8.4	8.5	8.3	6	5.8	6.2	6.7	7	6	5 J	6 J	6.3 J	5.3 J	6 J	5.7 J	5.4 J	NA	5 J
Gross Alpha	15	pCi/L	0.8	ND	ND	NAD	NAD	31	ND	NAD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Gross Beta	50	pCi/L	1.7	ND	ND	NAD	NAD	14.9	ND	NAD	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.16	ND	NA	ND
Nitrite	10	mg/L	ND	NA	NA	NA	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate (N)	10	mg/L	0.0584	ND	ND	0.24	0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.21 J	ND	ND	NA	0.2 J
Nitrate/Nitrite	10	mg/L	NA	NA	0.095	NA	NA	NA	NA	NAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	6.5-8.5 (s)	----	5.81	5.82	NA	NA	NA	5.59	5.88	6.63	6.14	5.88	6.22	5.79	6.13	6	5.9	6.3	6.1	5.9	6.8	NA	6.4
Specific Conductivity	----	µmho/cm	NA	NA	NA	NA	NA	NA	NA	NAD	139.6	94.5	95.25	108.9	95	103	110	72	82	89	110	NA	91
Conductivity	---	µmho/cm	87.9	142.5	87.5	85.4	83.3	88.7	71.3	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250 (s)	mg/L	4.79	1.95	6.6	8.1	8.1	9.6	6.5	3.1	4.1	7.5	4.8	4.4	4 J	9	7.6 J	4 J	2.9 J	5.1 J	4.2 J	NA	5.1 J
Total Dissolved Solids	500 (s)	mg/L	58	40	150	45	37	45	17 Y	27	32	85	42	110	46	57	49	55	66	71	68	NA	68
Total Hardness	----	mg/L	18.1	22.4	24	NA	NA	24	17	22	22	27	25	21.4	27	28	29	26	25	26	29	NA	27
Turbidity	----	NTU	19.5	10.2	110	NA	NA	5.1	4.4	59	9.6	15	57	3.4	13	24	12	45	14	11	13	NA	16
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2,2-Tetrachloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2-Trichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloroethene	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1-Dichloropropene	---	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,2,3-Trichlorobenzene	---	µg/L	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,2,3-Trichloropropane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dibromo-3-Chloropropane	0.2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dibromoethane	0.05	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichlorobenzene	600	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichloroethane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichloropropane	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,3-Dichlorobenzene	----	µg/L	NA	NA	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,4-Dichlorobenzene	75	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
2-Butanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND

WW-11R, Downgradient, Summary of Data Since March 2000																							
Parameters	MCL	Units	Oct. 2013	Oct. 2014	Nov. 2015	Apr. 2016	Apr. 2016 (dup)	Oct. 2016	Oct. 2018	Apr. 2019	Nov. 2019	Jun. 2020	Oct. 2020	Apr. 2021	Nov. 2021	Apr. 2022	Oct. 2022	Apr. 2023	Oct. 2023	Apr. 2024	Nov. 2024	Dec. 2024	Apr. 2025
2-Hexanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
4-Methyl-2-Pentanone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Acetone	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	ND	3	4.6	ND	ND	NA	ND
Acrylonitrile	----	µg/L	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Benzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromochloromethane	----	µg/L	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromodichloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromoform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Bromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Disulfide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.054 J	0.036 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon Tetrachloride	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorobenzene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorodibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloroform	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,2-Dichloroethene	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dibromomethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dichloromethane	5	µg/L	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Ethyl Benzene	700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.037 J	ND	0.073 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Methyl Iodide	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Styrene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
tert-butyl methyl ether (MTBE)	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Tetrachloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Toluene	1,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.025 J	0.083 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,3-Dichloropropene	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,4-Dichloro-2-butene	----	µg/L	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
trans-1,2-Dichloroethene	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichloroethene	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichlorofluoromethane	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Acetate	----	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Vinyl Chloride	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Xylenes	10,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.103	0.033 J	0.429	0.038 J	ND	ND	ND	ND	ND	ND	ND	NA	ND
Per- and Polyfluoroalkyl Substances (PFAS)																							
Perfluorooctanoic acid (PFOA)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorononanoic acid (PFNA)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorohexanesulfonic acid (PFHxS)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Perfluorobutanesulfonic acid (PFBS)	----	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Hexafluoropropylene oxide dimer acid (HFPO-DA; GenX)	10	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND

Notes:

Red shaded area denotes concentration greater than the primary MCL

Yellow shaded area denotes concentration greater than the secondary MCL or Guidance Levels which are non-enforceable

MCL = Maximum Contaminant Level; Analytes detected in groundwater were compared to primary or secondary MCLs for drinking water supplies from <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> and [https://www.epa.gov/dwstandardsregulations/ secondary-drinking-water-standards-guidance-nuisance-chemicals](https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals) (USEPA, 2025)

* Total metals, except for 2010 analyses which were for dissolved metals

---- = no regulatory limit

(s) = secondary MCL

(g) = guidance level

D = diluted out

dup = duplicate quality control sample

J = estimated value > MDL but < RL

µg/L = microgram per liter

µmho/cm = micro mho per centimeter

MF/L = million fibers per liter

mg/L = milligram per liter

N = insufficient BOD oxygen depletion

NA= not analyzed

NAD = no available data

ND = non-detect

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter

Y = replicate/duplicate precision outside acceptance limits