# Annual Monitoring Report: 2024-2025

Former Landfill Site – Harrietsfield, Nova Scotia
**FINAL REPORT**

Build Nova Scotia

60718540

November 2025

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November 6, 2025

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**Subject: Annual Monitoring Report: 2024-2025 – Former Landfill Site – Harrietsfield, Nova Scotia**

Dear Kelly Henderson:

AECOM Canada ULC (AECOM) is pleased to present this draft Annual Monitoring Report, associated with the Former Landfill Site - Harrietsfield, located at 1275 Old Sambro Road, Harrietsfield, NS, to Build Nova Scotia (BNS).

If you have any questions about the information presented within this report, please do not hesitate to contact me directly.

Sincerely,

**AECOM Canada ULC**

Janice Shea
Project Manager
janice.shea@aecom.com

Encl.

cc:

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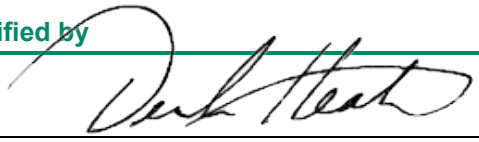
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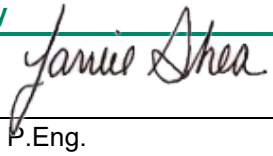
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# Revision History

| Rev # | Revision Date | Revised By: | Revision Description |
|---|---|---|---|
| 01 | 2025-10-29 | JS/DH | Addressed client comments on draft report |
| | | | |

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# Table of Contents

**1. Introduction ..... 4**

**2. Background ..... 5**

2.1 Reference Documents ..... 6
2.2 Geology, Topography and Drainage ..... 6
2.2.1 Pre-existing Conditions ..... 6
2.3 Sampling Locations ..... 7
2.3.1 Groundwater ..... 7
2.3.2 Surface Water ..... 9
2.4 Applicable Criteria ..... 10

**3. Methodology ..... 12**

3.1 Sample Collection and Analyses ..... 12
3.1.1 Groundwater ..... 12
3.1.2 Surface Water ..... 12
3.2 Laboratory Facilities ..... 13
3.2.1 AGAT Laboratories ..... 13
3.2.2 Bureau Veritas Laboratories ..... 13
3.2.3 ALS Laboratories ..... 14
3.3 Quality Assurance and Quality Control ..... 14
3.4 Containment Cell Leachate Measurements ..... 14

**4. Results ..... 15**

4.1 Groundwater ..... 15
4.1.1 Trend Analysis and Analytical Data Summary ..... 15
4.1.1.1 Background Sample Location Upward Trends ..... 15
4.1.1.2 Background Sample Location Analytical Exceedances ..... 15
4.1.1.3 Landfill Cell Area (LCA) Upwards Trends ..... 16
4.1.1.4 Landfill Cell Area (LCA) Analytical Exceedances ..... 17
4.1.1.5 Former Buried Debris Areas (BDAs) Upward Trends ..... 18
4.1.1.6 Former Buried Debris Areas (BDAs) Analytical Exceedances ..... 19
4.1.1.7 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Upward Trends ..... 23
4.1.1.8 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Analytical Exceedances ..... 23
4.2 Surface Water ..... 25
4.2.1 Trend Analysis and Analytical Data Summary ..... 25
4.2.1.1 Background Surface Water Trends ..... 25
4.2.1.2 Background Surface Water Analytical Exceedances ..... 25
4.2.1.3 Landfill Cell Area (LCA) Trends ..... 26
4.2.1.4 Landfill Cell Area (LCA) Analytical Exceedances ..... 26
4.2.1.5 Former Buried Debris Areas (BDAs) Trends ..... 27
4.2.1.6 Former Buried Debris Areas (BDAs) Analytical Exceedances ..... 28
4.2.1.7 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Trends ..... 29
4.2.1.8 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Analytical Exceedances ..... 29

4.3 Quality Assurance / Quality Control ....30
4.4 Containment Cell Leachate Measurements ....33

**5. Review of the Groundwater/ Surface Water Monitoring Program and Recommendations .... 35**

5.1 Groundwater Review ....35
5.1.1 Landfill Cell Area (LCA) ....35
5.1.2 Former Buried Debris Areas (BDAs) ....35
5.1.3 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) ....36
5.2 Surface Water Review ....37
5.2.1 Landfill Cell Area (LCA) ....37
5.2.2 Former Buried Debris Areas (BDAs) ....38
5.2.3 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) ....38
5.3 Recommendations ....39

**6. References .... 41**

**Appendix A. Figures .... 1**

**Appendix B. Monitoring Well Logs .... 2**

**Appendix C. Analytical Summary Tables .... 3**

**Appendix D. Laboratory Certificate of Analysis .... 4**

**Appendix E. Outlier Summary .... 5**

**Appendix F. Time Series Plots .... 6**

**Appendix G. Field Data Summary Tables .... 7**

**Appendix H. Trend Analysis Summary Tables .... 8**

**Appendix I. QA/QC Summary Tables .... 9**

# Tables

Table 1: Groundwater Properties ..... 7
Table 2: Groundwater Monitoring Network Details ..... 8
Table 3: Surface Water Monitoring Location Details ..... 10
Table 4: Groundwater - Background Sample Location Metal Analytical Exceedances ..... 16
Table 5: Groundwater - Landfill Cell Area (LCA) Metal Analytical Exceedances ..... 17
Table 6: Groundwater - Former Buried Debris Areas (BDAs) Metal Analytical Exceedances ..... 19
Table 7: Groundwater - Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Metal Analytical Exceedances ..... 23
Table 8: Surface Water - Background Surface Water Locations Metal Analytical Exceedances ..... 26
Table 9: Surface Water - Landfill Cell Area (LCA) Metal Analytical Exceedances ..... 26
Table 10: Surface Water - Former Buried Debris Areas (BDAs) Metal Analytical Exceedances ..... 28
Table 11: Surface Water - Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Metal Analytical Exceedances ..... 30
Table 12: Groundwater Field Duplicate Sample Submission ..... 30
Table 13: Surface Water Field Duplicate Sample Submission ..... 32
Table 14: Cell Leachate Elevation and Leachate Thickness ..... 33

# Appendices

Appendix A. Figures
Appendix B. Monitoring Well Logs
Appendix C. Analytical Summary Tables
Appendix D. Laboratory Certificate of Analysis
Appendix E. Outlier Summary
Appendix F. Time Series Plots
Appendix G. Field Data Summary Tables
Appendix H. Trend Analysis Summary Tables
Appendix I. QA/QC Summary Tables

# 1. Introduction

Build Nova Scotia (BNS) retained AECOM Canada ULC (AECOM) in September 2018 to assist with the development of effective solutions to the closure of the Former Harrietsfield Landfill site located at 1275 Old Sambro Road (PID: 41056102), Harrietsfield, Nova Scotia (NS) (hereafter referred to as "the Site"). The Site was a former Construction and Debris (C&D) Waste Disposal Facility and is currently under the care of Nova Scotia Environment and Climate Change (NSECC). The location of the Site is provided on **Figure 1 (Appendix A)** and details of the Site are provided on **Figure 2 (Appendix A)**.

On June 22, 2020, Nova Scotia Environment and Climate Change (NSECC) provided an Industrial Approval to BNS under the Municipal - Solid Waste Activity for a Construction and Demolition Debris Disposal Facility (NSECC Approval No. 2020-2664911-00). As mentioned in the above noted NSECC Approval document, supporting documents include:

- Specifications Issued for Tender for Harrietsfield C&D Landfill: Cap Replacement and Site Closure, Harrietsfield, NS; and
- Groundwater and Surface Water Monitoring Plan for the Former Harrietsfield Landfill Site (AECOM, June 16, 2020).

As stated in the above noted Specification document, contractor remediation work completed at the Site is generally comprised of existing hazardous materials abatement, deconstruction of site structures and offsite recycling and/or disposal to a NSECC approved facility, buried C&D waste excavation with onsite and offsite disposal to an NSECC approved facility, existing landfill cap removal, landfill berm construction, waste placement and compaction, landfill cap construction, groundwater interceptor trench construction, surface water management system construction, and associated works.

Under this contractor work program, AECOM acted as the owners engineer and provided the on-site environmental services required under the above noted Groundwater and Surface Water Monitoring Plan and NSECC Approval No. 2020-2664911-00. It should be noted that contractor preparation for remedial activities commenced at the Site on August 24, 2020 and work was completed October 2021.

As of May 1, 2024, NSECC issued a renewed Industrial Approval for Reclamation to BNS under the Municipal - Solid Waste Activity for a Construction and Demolition Debris Disposal Facility (NSECC Approval No. 2023-3356677-00). Based on this new approval, select surface water locations (SW1 SW3, LDO) were removed. The scope of work for this Annual Report is followed as per NSECC Approval No. 2023-3356677-00. The time span that this Annual Report (2024-2025) covers is 1 September 2024 to 1 September 2025. A summary and interpretation of any instances of provincial environmental non-compliance action(s) that occurred, along with corrective action(s) taken, that took place within the time span the Annual Report (2024-2025) is not provided in this report as these types of occurrences did not happen within this time frame.

# 2. Background

The former RDM Recycling C&D Facility landfill is located at Civic No. 1275 Old Sambro Road in Harrietsfield, NS, approximately 20 km South of Halifax, NS. The only entrance to the Site is from the Old Sambro Road. Vehicle access to the Site is currently restricted as the gate/entrance is blocked by boulders. The Site is approximately 66 hectares (ha) in size, of which 22 ha was used for Site activities with the most recent operator having used approximately 10 ha of the 22 ha for Site operations. The Site is owned by the Province of Nova Scotia and maintained by BNS. The Site is bound to the north and east by residential properties, to the south by Sheas Lake, and to the west by undeveloped woodland. The area is serviced by a mixture of private dug and drilled wells for potable water.

Site features include the following: landfill containment cell; paved sorting area; drainage control ditches; sedimentation ponds; and access roads. The Site did contain five (5) former building structures that were removed from site during the Fall 2020. Areas throughout the subject property area (beyond the landfill containment cell area) contained fill material with debris that was either added to the existing landfill cell (C&D Waste Material) or disposed offsite to a NSECC approved facility. On-site debris material identified on-site mainly consisted of concrete, brick, metal, wood, and asphalt shingles.

There is a significant history with this Site between the Site operators, the province, and the surrounding property owners dating back over 20 years (since 2000), when RDM initially sought approval for a C&D waste facility. There have been numerous orders and actions on behalf of the province, and numerous defences and successful appeals to the orders on behalf of the former owners of the property.

Two (2) previous intrusive field investigations have been completed at the Site by EarthTech (2002) and Conestoga-Rovers and Associates (2011), which included borehole drilling, monitoring well installation, water level measurement, aquifer test analysis, along with water quality sampling and analysis.

A 2015 Annual Monitoring Report was completed by GHD (2016), which included the assessment of 2015 and historical monitoring data for groundwater flow, leachate composition, groundwater quality, and surface water quality in the vicinity of the Site. The results of these investigations provide a background assessment of hydrogeological conditions on-site and in the immediate area surrounding the former landfill Site.

In early 2019, AECOM completed a report for the Site to further assess field, geochemical and hydrogeological conditions and to provide closure options for the Site: “Summary Letter on Site Assessment and Closure Option Development for the Former Harrietsfield Landfill Site, Harrietsfield, Nova Scotia (March 2019)”.

Upon completion of the 2019 report, the province chose the closure option, which included capping the existing landfill Site. Overall, this option involved leaving the landfill waste cell in place (no footprint expansion), covering the landfill cell with a better performing cap, controlling the groundwater surrounding the cell, mitigating groundwater intrusion into the landfill cell, and removing the landfill leachate. As provided in the AECOM Tender documentation (provided as part of the Municipal Approval Application), associated remaining waste material and contaminated soils on-site (outside of the landfill cell area) were either removed and disposed of at an approved facility or added to the upper portions of the landfill cell (completed) before new landfill cap construction (completed). The Site was then graded and contoured post waste and contaminated soil removal (completed).

This closure option required the removal of leachate liquid from the existing landfill cell prior to the new cap construction. Leachate from the landfill cell was to be treated and disposed to environment based on a provincial approval for pilot-scale and full-scale treatment (Wastewater Treatment Facility Industrial Approval (No. 2011-075771-04)). The location of the former leachate treatment area is shown on **Figure 2 (Appendix A)**. On-site leachate wastewater treatment was initiated in late June 2020.

On-Site construction activities to initiate the above noted site closure commenced on August 24, 2020. The on-Site leachate wastewater treatment contractor was also used to treat on-site excavation water that potentially contacted any impacted soil material (contact water) during remedial activities. All soil excavation remedial activities were completed in January 2021. The construction of the landfill cell cap was completed in October 2021.

## 2.1 Reference Documents

This report uses information from multiple reference documents. Reference documents provided below are referenced within this report for the purpose of pointing the reader to expanded descriptions and histories:

- Soil Remediation Report; and
- Operation Post Closure Plan (OPCP).

A complete list of documents used to generate this report is provided in **Section 7**.

## 2.2 Geology, Topography and Drainage

### 2.2.1 Pre-existing Conditions

The overburden material near the Site is the clayey to sandy till of the Lawrencetown Till, which is reported to occur as both ground moraines (1 to 2 metres (m) thick) and drumlins (2 to 30 m thick) (Finck et al, 1992). The Site is underlain by fine to coarse grained Harrietsfield Muscovite-Biotite Monzogranite and fracture orientation is not provided on geological mapping for the area (White, Macdonald and Horne, 2014). Horne, et al, (1992) suggest that aerial photos of the area (areas with the limited overburden coverage) suggest that there are several regionally significant joint patterns within the South Mountain Batholith and three of these joint sets trend northwest/ southeast and the other two trend northeast/ southwest.

As per the above noted GHD report (2016), three (3) residential wells are located within 500 m of the site. Domestic well data available from NSECC indicates there are numerous drilled wells in the Harrietsfield area typically installed to total depths that range from 31 m below ground surface (bgs) to 100 m bgs. Dug wells exist at older residential properties.

Groundwater in the granite bedrock occurs in fractures at depths ranging from 4 m bgs to 88.4 m bgs. Static groundwater depths measured in these wells range from 1.8 m bgs to 7.3 m bgs. Well yield is variable with estimates ranging from 0.1 litres per minute (L/min) to 182 L/min. The transmissivity estimates for the granite aquifer as derived from the pumping tests range from 0.4 meters squared per day ($m^2$/day) to 5.8 $m^2$/day. There is no existing information with respect to regional groundwater flow directions in the area. Groundwater flow directions may be influenced by local physiographic features such as streams, lakes and topography but the fact that groundwater occurs in fractured granite suggests fracture orientation could control or strongly influence local and/or regional groundwater flow directions in the bedrock.

The Phase II Report (CRA, 2011) included a discussion of hydraulic conductivity, hydraulic gradients and groundwater velocity. Based on the groundwater elevation data shown and the average hydraulic conductivity the horizontal groundwater velocity in the till and bedrock south of the disposal cell and the asphalt pad area are as follows:

### Table 1: Groundwater Properties

| Area/Media | Horizontal Hydraulic Gradient (m/m) | Hydraulic Conductivity (cm/sec) | Groundwater Velocity (m/year) |
|---|---|---|---|
| **Disposal Cell/Till** | 0.1 | $2.2 \times 10^{-6}$ | 0.5 |
| **Disposal Cell/Bedrock** | 0.1 | $2.0 \times 10^{-5}$ | 6 |
| **Asphalt Pad Area/Till** | 0.06 | $2.2 \times 10^{-6}$ | 0.3 |
| **Asphalt Pad Area/Bedrock** | 0.06 | $2.0 \times 10^{-5}$ | 4 |

The results of the pumping tests conducted at PW19-01 (AECOM, July 2019) in the overburden aquifer (silty gravelly till) provide the following results:

- **Hydraulic Conductivity** = (4.2 x 10-8 – 1.0 x 10-6) m/s; and
- **Storativity** ~ 0.060 m/m.

Regional topography in the Harrietsfield area appears to be largely bedrock controlled and generally slopes downward from north to south. Glacial deposits of Lawrencetown Till and Granite Till are present, along with areas of thin soil cover and exposed granite bedrock. Bedrock exposure ranges from 10 to 90 percent within a 5-kilometre radius of Site. Slopes are classified as undulating. Steep slopes and level areas exist within the terrain; however, most slopes vary between 15 and 30 percent gradient.

The Site elevation range, based on a recent topographic survey (Allnorth, 2019), ranges from a high of 114 m relative to mean sea level (m MSL) in the northeastern portion of the site to 70 m MSL at Sheas Lake in the south. At the active Site area, the topography ranges from 90 m MSL to 105 m MSL and is considered to be hummocky with various cut and fill areas.

Regional drainage, like topography, is from a north to south direction. Normally drainage occurs through pre-glaciated valleys or in surface features created by faulting in the underlying bedrock. There are numerous lake and stream systems present in the area. Some of these include Spruce Hill Lake, Narrow Lake, Cranberry Lakes, Sheas Lake, French Lake, Silver Lake, Run Lake, Bennett Lake, Moody Lake, First Lake, Second Lake, and Grover Lake. The ultimate receiving environment for this water is the Atlantic Ocean. Biophysical mapping describes the development area as well-drained (i.e., 80 percent) with the remaining area described as imperfectly drained (i.e., 20 percent). Based on geophysical mapping, surficial flow in the surrounding area appears to occur from Narrow Lake along the boundary of the Site to Sheas Lake and eventually to Moody Lake. There are no streams within the confines of Site, only man-made ditches and pond areas. Only moderate amounts of intermittent surficial flow are expected about the Site due to extensive vegetation cover.

## 2.3 Sampling Locations

### 2.3.1 Groundwater

Monitoring wells that end with the letter “S” indicate a shallow monitoring well installed in overburden material and the well screen extends to the top of bedrock surface. Monitoring wells that end with the letter “M” or “D” represent wells that have screens that are isolated within the bedrock horizon.

Historical monitoring wells that were installed by others as part of previous environmental site investigation include: MW1-S, MW1-D, MW2-S, MW2-M, MW2-D, MW3, MW5-S, MW5-D, MW6-S, MW6-D, MW7-S, MW7-D, MW8-S and MW8-D. In 2018, all of these previously installed monitoring wells were refurbished by placing a bentonite

surface seal around each well to prevent surface water from entering the wells. A historical monitoring well MW4, which was intended as an upgradient monitoring well location, was discontinued to be used as part of the monitoring well network as this well provided irregular analytical data that was not similar to other upgradient monitoring wells.

A description of the groundwater monitoring network with respect to the different Site areas relative to potentially/ known impacted source areas is provided in in **Table 2** below.

## Table 2: Groundwater Monitoring Network Details

| Monitoring Well (MW) ID | Shallow (Overburden) or Deep (Bedrock) MW | Background MW | Landfill Cell Area | Former Buried Debris Areas (BDAs) | Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) |
|---|---|---|---|---|---|
| **MW1-S** | Shallow | No | **Downgradient** | Cross-Gradient | Cross-Gradient |
| **MW1-D** | Deep | No | **Downgradient** | Cross-Gradient | Cross-Gradient |
| **MW2-S** | Shallow | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW2-M** | Deep | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW2-D** | Deep | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW3** | Shallow | **Yes** | **Upgradient** | **Upgradient** | **Upgradient** |
| **MW5-S** | Shallow | No | Upgradient | **Downgradient** | Cross-Gradient |
| **MW5-D** | Deep | No | Upgradient | **Downgradient** | Cross-Gradient |
| **MW6-S** | Shallow | No | **Downgradient** | Cross-Gradient | Cross-Gradient |
| **MW6-D** | Deep | No | **Downgradient** | Cross-Gradient | Cross-Gradient |
| **MW7-S** | Shallow | No | Cross-Gradient | **Downgradient** | **Downgradient** |
| **MW7-D** | Deep | No | Cross-Gradient | **Downgradient** | **Downgradient** |
| **MW8-S** | Shallow | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW8-D** | Deep | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW19-03D *** | Deep | **Yes** | **Upgradient** | **Upgradient** | **Upgradient** |
| **MW19-09S** | Shallow | No | Upgradient | Cross-Gradient | **Downgradient** |
| **MW19-10S** | Shallow | No | Upgradient | **Downgradient** | Cross-Gradient |
| **MW19-11M** | Deep | No | **Downgradient** | **Downgradient** | Cross-Gradient |
| **MW19-11D** | Deep | No | **Downgradient** | **Downgradient** | Cross-Gradient |
| **MW19-12S** | Shallow | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW19-12D** | Deep | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW19-13S** | Shallow | No | Cross-Gradient | **Downgradient** | **Downgradient** |
| **MW19-13D** | Deep | No | Cross-Gradient | **Downgradient** | **Downgradient** |
| **MW20-14S** | Shallow | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW20-14D** | Deep | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW20-15S** | Shallow | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **MW20-15D** | Deep | No | Cross-Gradient | **Downgradient** | Cross-Gradient |

| Monitoring Well (MW) ID | Shallow (Overburden) or Deep (Bedrock) MW | Background MW | Landfill Cell Area | Former Buried Debris Areas (BDAs) | Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) |
|---|---|---|---|---|---|
| **MW20-16 **** | Deep | **Yes** | **Upgradient** | **Upgradient** | **Upgradient** |
| **MW20-17S** | Shallow | **Yes** | **Upgradient** | **Upgradient** | **Upgradient** |
| **MW20-17D** | Deep | **Yes** | **Upgradient** | **Upgradient** | **Upgradient** |
| **PW19-01 ***** | Shallow | No | Upgradient | Cross-Gradient | **Downgradient** |

Notes:
* - Nested pair monitoring well associated with MW3
** - Bedrock at ground surface
*** - 102 mm diameter monitoring well constructed for hydraulic conductivity pump testing associated with the groundwater interceptor trench design
Green monitoring Well IDs represent background monitoring well locations
Grey – not sampled during 2024-2025 Annual Report time period.

Monitoring wells starting with MW19 or MW20 were installed as part of recent environmental investigations completed by AECOM and monitoring well logs associated with these wells are provided in **Appendix B**. Monitoring wells that were included in the groundwater monitoring program are shown on **Figure 3 (Appendix A)**.

It should be noted that monitoring wells MW19-13S and MW19-13D were specifically installed to monitor potential groundwater impacts associated with treated water discharged to one of the two furthest down-gradient sedimentation ponds west of the landfill area. Treated leachate water was discharged to the western most sedimentation pond (isolated from the other ponds) during the months of August and September 2020.

Monitoring wells MW19-09S and MW19-10S were not sampled as part of the 2024-2025 Annual Report time period, as directed by BNS. As per the 2022-2023 annual report, it was recommended that MW19-09S be removed from the program and decommissioned based on the analytical results and the positioning of this monitoring well (downgradient of the former leachate treatment pad area). It was also recommended that MW19-10S be removed from the program and decommissioned as the groundwater levels at MW19-10S are not typically present above the bedrock horizon at this overburden well location. It should be noted that these wells locations were presented as wells to be sampled in the new NSECC Approval No. 2023-3356677-00.

### 2.3.2 Surface Water

Historical surface water locations sampled as part of previous environmental site investigations include: SW1, SW2, SW3 and SW4. Surface water samples labelled as SW1 and SW4 that were collected within 2018 and 2019 are not included in the overall data set as these samples were not collected in the same location as the historical surface water sample set. In September 2022, AECOM added an additional surface water sample location, labelled LDO (Landfill Drainage Outfall), which is associated with an upgradient groundwater collection system and a upgradient/ cross-gradient surface water collection system.

A description of the surface water monitoring locations with respect to the different Site areas relative to potentially/ known impacted source areas is provided in in **Table 3** below.

It should be noted that the diffusor was removed from Sheas Lake on September 16, 2021, and the point was no longer sampled after November 2, 2021, as construction was completed in October 2021. SW-14 location was not sampled during the 2024-2025 annual report time period as it is typically dry and only contains water during and shortly after heavy rain events (removed from sampling program). As per the updated Approval, the sampling program was reduced in May 2024 to the following locations: SW4, SW13 and SW19-20. As such, trends analysis associated with these removed sample locations (SW-14, Diffuser, SW1, SW2, SW3, LDO) are not provided in this annual report.

### Table 3: Surface Water Monitoring Location Details

| Surface Water (SW) Sample Location ID *** | SW Source: Sheas Lake or Land-based Drainage | Background SW Location | Landfill Cell Area | Former Buried Debris Areas (BDAs) | Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) |
|---|---|---|---|---|---|
| ***SW1*** | Sheas Lake | Yes | Upgradient | Upgradient | Upgradient |
| **SW2** | Sheas Lake | No | Upgradient | **Downgradient** | **Downgradient** |
| ***SW3*** | Sheas Lake | No | **Downgradient** | **Downgradient** | **Downgradient** |
| **SW4** | Sheas Lake | No | **Downgradient** | **Downgradient** | **Downgradient** |
| **Diffuser *** | Sheas Lake | No | Cross-Gradient | Cross-Gradient | **Downgradient** |
| **SW-13** | Land-based drainage | No | Upgradient | **Downgradient** | Cross-Gradient |
| **SW-14 **** | Land-based drainage | No | Cross-Gradient | **Downgradient** | Cross-Gradient |
| **SW19-20** | Land-based drainage | No | **Downgradient** | **Downgradient** | Cross-Gradient |
| ***LDO*** | Land-based drainage | No | Upgradient / Cross-Gradient | **Downgradient** | **Downgradient** |

Notes:
* - Treated Contact Water discharged to Diffuser location between Mid-October 2020 to Early December 2020.
** - Typically, dry and only contains water during and shortly after heavy rain events
*** - Surface water sample location may be labelled differently in tables and text of report (i.e. SW01 vs. SW1). In these instances, please assume that they are the same sample name (i.e. SW01 = SW1).
The SW1 surface water sample location represents the background surface water conditions
Grey/Italized – not sampled during 2024-2025 Annual Report time period as these locations were not required to be sampled as per Approval # 2023-3356677-00

As shown in the **Table 3**, there were seven (7) surface water sample location included as part of the surface water monitoring program up until May 2024, which then reduced the program to only three (3) surface water locations., as per Approval # 2023-3356677-00. These sample locations are shown on **Figure 2 (Appendix A)**.

## 2.4 Applicable Criteria

The 2013 Nova Scotia Environment and Climate Change (NSECC) Contaminated Site Regulations are the applicable criteria for the Site. Site characteristics are as follows: residential/ parkland land use, potable water supply and coarse-grained soils. The following guidelines are used for the evaluation of Metals, General Chemistry and Petroleum Hydrocarbons (PHCs) parameters in the following sampling media:

**Groundwater Guidelines:**

- Health Canada Guidelines for Canadian Drinking Water Quality. 2024 (maximum acceptable concentrations (MAC) only); and
- Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface freshwater body at a greater distance than 10m, Section 5, Table 5, September 30, 2021.

**Surface Water Guidelines:**

- Nova Scotia Environment and Climate Change (NSECC) Tier I Environmental Quality Standards (EQSs) for Surface Water (fresh water); Table 3, September 30, 2021.

As further discussed in **Section 3.1**, established site-specific background groundwater and surface water data have been incorporated into this report. The above noted background data and discharge criteria are provided for reference purposes.

# 3. Methodology

## 3.1 Sample Collection and Analyses

### 3.1.1 Groundwater

Prior to groundwater sampling, static groundwater level measurements were collected from the well after allowing the water levels in the monitoring wells to stabilize. A Solinst™ Interface Probe was used to monitor for the presence of light non-aqueous phase liquids (LNAPL) and dense non-aqueous phase liquids (DNAPL), depth to water, and total depth. All groundwater samples were collected from a monitoring well dedicated Waterra tubing and foot valve sampling system. Groundwater samples were collected upon purging three (3) well volumes of groundwater to remove standing water and to draw a representative sample from the formation. If the monitoring well went dry during purging, it was allowed to recharge sufficiently before immediately collecting a groundwater sample.

A representative groundwater sample from each well was placed in laboratory supplied sampling bottles and submitted to the analytical laboratory for chemical analysis within a chilled container. The groundwater samples collected from the monitoring wells were analyzed for metals (including mercury), general chemistry (including TSS, phenols, DOC and COD) and petroleum hydrocarbons. Each metal groundwater sample was field filtered using a single use 0.45-micron filter. Field duplicates were collected during each sampling event. After sample collection, field parameters (pH, conductivity and temperature) were collected from each well with a YSI-650MDS multi meter.

The laboratory results for groundwater samples analyzed for metals, general chemistry and petroleum hydrocarbons are presented in analytical summary tables provided in **Appendix C** and the supporting laboratory certificates of analysis are provided in **Appendix D**. The groundwater results provided in **Appendix C** represent the analytical data that was collected by AECOM between November 2018 and July 2024. The groundwater analytical summary tables illustrate individual analytical parameter exceedances with respect to the above noted criteria along with showing background level exceedances and providing which values were considered to be outliers. It should be noted that groundwater background concentrations provided in this report are representative of historical digital data (2001-2015) provided by NSECC and additional analytical groundwater data (up to June 2020), which were added to this database. Background concentrations were based on the entire 2001 to June 2020 analytical data set that was collected from available data associated with the upgradient MW3, MW19-03D, MW20-16, MW20-17S and MW20-17D sample locations with outliers removed from this data set. Further details on the removal of outliers are provided in **Appendix E**. It should be noted that there are instances of elevated laboratory detection limits for select analytical results that are greater than the applicable criteria for the Site. These instances, also known as outliers, are represented with a red box surrounding the elevated results within the time series plots presented in **Appendix F**.

Time series plots of groundwater sample locations that had enough analytical data to establish trends is provided in **Appendix F**.

Trending methodology follows the methodology within the USEPA Data Quality Assessment: Statistical Methods for Practitioners (USEPA, 2006).

### 3.1.2 Surface Water

Surface water samples were collected from each station using the direct-dip technique. The direct dip technique is a discrete sampling technique conducted by placing the sample container directly under the water surface. It has the advantage of using the laboratory-provided sample container as the collection device, alleviating any concerns that improper contact materials were used during sample collection. This technique also alleviates the need for

sample equipment decontamination and is appropriate for sampling all types of water bodies when shallow (less than 0.5 metres) or surface layer water samples are needed. For sample bottles that contained preservative, a larger preservative free bottle was used to transfer the sample into the preservative containing bottles by pouring the water into them. This helped to prevent preservative from being lost during sample collection.

Surface water samples were placed in laboratory supplied sampling bottles and submitted to the analytical laboratory for chemical analysis within a chilled container. The surface water samples collected were analyzed for metals (including mercury), general chemistry (including TSS, phenols, DOC and COD) and petroleum hydrocarbons. Field duplicates were collected during each sampling event. Field parameters (pH, conductivity and temperature) were collected from each surface water station with a YSI-650MDS multi meter.

The laboratory results for surface water samples analyzed for metals, general chemistry and petroleum hydrocarbons are summarized analytical summary tables provided in **Appendix C**. The surface water results provided in **Appendix C** represent the analytical data that was collected by AECOM between November 8, 2018, and June 2025. These surface water analytical summary tables illustrate individual analytical parameter exceedances with respect to the above noted criteria along with showing background level exceedances and providing which values were considered to be outliers. It should be noted that surface water background concentrations provided in this report are representative of historical digital data (2003-2015) provided by NSECC and additional analytical groundwater data (up to October 2021), which were added to this database. Background concentrations were based on the entire 2003 to August 24, 2020, analytical data set that was collected from the SW1 sample location with outliers removed from this data set. Further details on the removal of outliers are provided in **Appendix E**.

Time series plots of surface water sample locations that had enough analytical data to establish trends is provided in **Appendix F**.

Trending methodology follows the methodology within the USEPA Data Quality Assessment: Statistical Methods for Practitioners (USEPA, 2006).

## 3.2 Laboratory Facilities

Analytical data associated with this Annual Report contains data from prior to the reporting requirements of this report (June 2020 to July 27, 2021) to provide the entire set groundwater and surface water analytical data collected by AECOM between November 2018 and June 2025.

### 3.2.1 AGAT Laboratories

Between November 2018 and June 2020, groundwater and surface water samples collected as part of this program were submitted to AGAT Laboratories, located in Dartmouth, Nova Scotia, for chemical analysis. AGAT labs is accredited to ISO/IEC 17025 standards by the Standards Council of Canada (SCC).

### 3.2.2 Bureau Veritas Laboratories

Between June 2020 and June 2024, groundwater and surface water samples collected as part of this program were submitted to Bureau Veritas Laboratories (BV Labs), formally known as Maxxam Analytics (Maxxam), located in Bedford, Nova Scotia, for chemical analyses. BV Labs is accredited to ISO/IEC 17025 standards by the Standards Council of Canada (SCC).

### 3.2.3 ALS Laboratories

The samples collected as part of the 2024-2025 monitoring program were submitted to ALS Canada Ltd, located in Dartmouth, Nova Scotia, for chemical analysis. ALS is accredited by the Canadian Association of Laboratory Accreditation (CALA).

## 3.3 Quality Assurance and Quality Control

AECOM's quality assurance (QA) / quality control (QC) program associated with the NSECC approval activities followed standard QA/QC procedures in accordance with AECOM standard operating procedures (SOPs) to minimize any cross-contamination between soil and/or groundwater samples. Clean nitrile gloves were used throughout the investigation program to eliminate cross-contamination between sampling points.

All field and supervisory personnel were instructed in proper sampling handling, documentation, and chain-of-custody (COC) procedures before beginning field activities. The field sampler was personally responsible for the care and custody of samples until transferred to the laboratory. A COC record was provided to the analytical laboratory at the time of sample submission. When transferring the possession of samples, the individuals relinquishing and receiving the samples completed the appropriate laboratory forms with the required signature, date and note the time on the record.

AECOM field personnel followed strict sample collecting handling practices, including changing disposable gloves for each sample collected and decontamination of field sampling equipment between samples, to ensure the integrity of sample collection. All samples were collected in pre-cleaned laboratory supplied containers with the appropriate preservatives provided within the sample containers and all samples were submitted for individual analysis within the laboratory prescribed hold times. Samples were packaged in coolers with sufficient packing material to ensure safe shipment of glass containers and ice was placed in coolers to maintain sample temperatures. All samples were kept at or below a temperature of 10$^{o}$C once sampled until submission to the laboratory.

AGAT, BV Labs and ALS also undertake internal duplicate analyses for QA/QC purposes using laboratory duplicates, process blanks, process recovery and matrix spike analyses. AECOM's detailed QAQC report is provided in **Appendix I** and duplicate samples are discussed in **Section 4.3**.

## 3.4 Containment Cell Leachate Measurements

As per direction by BNS and Section 11 of the NSECC approval, AECOM completed leachate measurements using an interface probe on between November 2024 and June 2025. A summary of the leachate measurements collected to date by AECOM is provided in **Section 4.4**.

# 4. Results

## 4.1 Groundwater

Sheen and free product thickness were not evident in any of the monitoring wells sampled during the monitoring events. Petroleum hydrocarbon odours were also not evident at any monitoring well locations.

Groundwater elevation data is provided in **Tables G1 to G4 (Appendix G)**. Groundwater field parameters (pH, conductivity and temperature) were collected from each well with a YSI-650MDS multi meter and this data is presented within **Tables G1** to **G4 (Appendix G)**.

Based on groundwater elevation data associated with the two (2) bi-annual sampling events completed in December 2024 and June 2025, surficial (overburden) groundwater flow generally follows the overall topography across the Site and deeper groundwater flow through bedrock also follows a similar flow pattern. **Figure 4 (Appendix A)** provides the Groundwater Contour Maps for shallow (overburden) while **Figure 5** illustrates deep (bedrock) monitoring wells (as per **Table 2**) for the two (2) bi-annual sampling events completed between in December 2024 and June 2025.

### 4.1.1 Trend Analysis and Analytical Data Summary

A full depiction of the groundwater trend analysis (upward, downward, no change) is provided in **Table H1 (Appendix H)** with focus on metals (arsenic, boron, cadmium, cobalt, chromium, iron, lead, manganese, uranium), general chemistry (alkalinity, calcium, chloride, conductivity, hardness, pH, sulphate, total dissolved solids (TDS), and select additional parameters only if results exceed applicable EQS: petroleum hydrocarbon (benzene, toluene, ethyl benzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH) and phenol parameters, and all organics and field parameters as listed in Table 2 of the NSECC Approval 2023-3356677-00. **Table H1 (Appendix H)** describes changes in trend since 2015 and any changes in direction since 2020.

The section below provides groundwater upward trends summary tables that focus on upward trend changes that occurred since 2020 with respect to potentially/ known impacted source areas at the Site along with background monitoring well locations (presented first). Each presented source areas summary table focuses on the respective downgradient monitoring wells as provided in **Table 2** in **Section 2.0**.

The groundwater analytical summary tables in **Appendix C** provide data comparison to applicable guidelines and background levels for groundwater samples collected on-site since 2018. As presented in these groundwater analytical summary tables, benzene, toluene, ethyl benzene, xylenes (BTEX), total petroleum hydrocarbons (TPH) and phenols in groundwater did not exceed the applicable guidelines; and therefore, these parameters were not included in the groundwater trend analysis discussion.

#### 4.1.1.1 Background Sample Location Upward Trends

A summary of the trends analysis is presented in Table H1 (**Appendix H**). All parameters from the background sample locations appear to be within a stable, no trend or downwards trend post-2020. No upward trends were identified pre-2015 or post-2020.

#### 4.1.1.2 Background Sample Location Analytical Exceedances

Background sample location metal analytical exceedances are presented in **Table 4** below. Each monitoring well metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of

exceedances within this sample set.

### Table 4: Groundwater - Background Sample Location Metal Analytical Exceedances

| | | | MW3 | MW19-03D | MW20-16 | MW20-17D | MW20-17S |
|---|---|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 290 (12-2020) | 152 (02-2019) | 55 (03-2022) | - | 73 (12-2022) |
| | **NS-PSS[2]** | **50** | 1 of 17 | 1 of 18 | 2 of 19 | | 1 of 15 |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | - | 17 (12-2022) | - | - |
| | **CDWQ[1]** | **10** | | | 1 of 24 | | |
| **Cadmium** | **Max. Conc.** | **(Date)** | - | 0.158 (12-2024) | - | | |
| | **NS-PSS[2]** | **0.1** | | 1 of 22 | | | |
| **Lead** | **Max. Conc.** | **(Date)** | - | 30 (10-2023) | - | - | - |
| | **CDWQ[1]** | **5** | | 1 of 22 | | | |
| | **NS-PSS[2]** | **10** | | 1 of 22 | | | |
| **Manganese** | **Max. Conc.** | **(Date)** | - | - | - | 730 (12-2022) | 270 (12-2022) |
| | **CDWQ[1]** | **120** | | | | 9 of 20 | 1 of 19 |
| **Uranium** | **Max. Conc.** | **(Date)** | - | 30.5 (02-2019) | - | - | - |
| | **CDWQ[1]** | **20** | | 8 of 22 | | | |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
1 Canadian Drinking Water Guidelines (CDWG, 2020)
2 NSECC Tier II PSS for groundwater discharge to a surface freshwater body at a greater distance than 10m (2013)
"-": no exceedances for the applicable parameter analyzed for that select well.

- In December 2020 the MW20-17S sample location reported a modified TPH of 1.6 mg/L (fuel/lube resemblance), which exceeds the NSECC-PSS guideline of 0.48 mg/L (lube resemblance) and 0.84 mg/L (fuel resemblance).
- In October 2023, a first time exceedance and maximum concentration for lead (30 ug/L) is noted at MW19-03D which exceeds the CDWQ guideline value of 5 ug/L.
- It should be noted that the maximum manganese exceedance for MW20-17D was from the duplicate sample. The results from the parent sample was 63 ug/L.
- In December 2024, a new exceedance and maximum concentration for cadmium (0.158 ug/L) is noted at MW19-03D, which exceeds the NSECC-PSS guideline of 0.1 mg/L. This is the first time an exceedance in cadmium is noted at this location; however, it is only marginally above the NS-PSS guideline value. An exceedance in uranium (22.5 ug/L) was noted for MW19-03D during the June 2025 event, which exceeded the CDWQ guideline value of 20 ug/; however, it was not the highest concentration reported..

No other metals, general chemistry (including chloride) or petroleum hydrocarbon exceedances have been identified since 2018 based on the analytical data presented on **Appendix C**. All reported pH levels were within background levels.

#### 4.1.1.3 Landfill Cell Area (LCA) Upwards Trends

A summary of the trends analysis is presented in Table H1 (**Appendix H**). All parameters from the LCA sample locations appear to be within a stable, no trend or downwards trend post-2020. No upward trends were identified post-2020.

- Alkalinity, calcium and pH concentrations at sample location MW1-S appear to be upward trending during pre-2015 sampling events, but appear to be within a stable or no trend condition post-2020.
- At sample location MW6-S, pH concentrations appear to be upward trending during pre-2015 sampling events while post-2020 sampling event data presents as a stable or no trend condition.

### 4.1.1.4 Landfill Cell Area (LCA) Analytical Exceedances

LCA sample location metal analytical exceedances are presented in **Table 5** below. Each monitoring well metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of exceedances within this sample set. The late May 2020/ early June 2020 sampling event represents baseline conditions before leachate pumping/ treatment occurred at the landfill cell area.

**Table 5: Groundwater - Landfill Cell Area (LCA) Metal Analytical Exceedances**

| | | | MW1-S | MW1-D | MW6-S | MW6-D |
|---|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 2000 (12-2020) | - | 132 (11-2018) | 94 (06-2022) |
| | **NS-PSS[2]** | **50** | 5 of 13 | | 13 of 14 | 15 of 20 |
| **Arsenic** | **Max. Conc.** | **(Date)** | **-** | - | - | 53 (09-2020) |
| | **CDWQ[1]** | **10** | | | | 27 of 27 |
| **Boron** | **Max. Conc.** | **(Date)** | 6100 (03-2022) | 7160 (11-2018) | - | 14100 (05-2020) |
| | **CDWQ[1]** | **5000** | 2 of 17 | 12 of 21 | | 23 of 27 |
| | **NS-PSS[2]** | **12000** | - | - | | 8 of 27 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.23 (11-2018) | 5.95 (12-2024) | - | 1.91 (05-2020) |
| | **NS-PSS[2]** | **0.1** | 1 of 17 | 21 of 21 | | 1 of 27 |
| **Iron** | **Max. Conc.** | **(Date)** | 5300 (12-2022) | 3960 (11-2018) | - | 15000 (03-2023) * |
| | **NS-PSS[2]** | **3000** | 3 of 17 | 1 of 21 | | 26 of 27 |
| **Manganese** | **Max. Conc.** | **(Date)** | 16000 (10-2023) | 9370 (12-2024) | 3600 (12-2021) | 24000 (09-2020) |
| | **CDWQ[1]** | **120** | 17 of 17 | 21 of 21 | 10 of 18 | 27 of 27 |
| | **NS-PSS[2]** | **8200** | 5 of 17 | 12 of 21 | - | 27 of 27 |
| **Uranium** | **Max. Conc.** | **(Date)** | 450 (06-2021) | 980 (09-2020) | 30 (12-2021) | 280 (06-2021) |
| | **CDWQ[1]** | **20** | 17 of 17 | 21 of 21 | 1 of 18 | 27 of 27 |

| | | | MW19-11M | MW19-11D |
|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 459 (07-2019) | 58 (09-2020) |
| | **NS-PSS[2]** | **50** | 12 of 16 | 1 of 15 |
| **Arsenic** | **Max. Conc.** | **(Date)** | 31 (09-2020) | 40 (06-2020) |
| | **CDWQ[1]** | **10** | 2 of 21 | 16 of 19 |
| **Boron** | **Max. Conc.** | **(Date)** | 7600 (09-2020) | 7720 (06-2020) |
| | **CDWQ[1]** | **5000** | 1 of 21 | 7 of 19 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.41 (10-2021) | 0.37 (02-2019) |
| | **NS-PSS[2]** | **0.1** | 7 of 21 | 5 of 19 |
| **Copper** | **Max. Conc.** | **(Date)** | - | 30 (12-2020) |
| | **NS-PSS[2]** | **20** | | 1 of 15 |
| **Iron** | **Max. Conc.** | **(Date)** | 15000 (09-2020) | 14900 (06-2020) |
| | **NS-PSS[2]** | **3000** | 12 of 21 | 18 of 19 |
| **Manganese** | **Max. Conc.** | **(Date)** | 26000 (09-2020) | 29000 (09-2020) |
| | **CDWQ[1]** | **120** | 21 of 21 | 19 of 19 |
| | **NS-PSS[2]** | **8200** | 15 of 21 | 19 of 19 |

| | | | MW19-11M | MW19-11D |
|---|---|---|---|---|
| **Uranium** | **Max. Conc.** | **(Date)** | 560 (09-2020) | 597 (06-2020) |
| | **CDWQ[1]** | **20** | 20 of 21 | 19 of 19 |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
Green Max. Conc. represents a single parameter exceedance occurrence before on-site construction
* denotes that an identical concentration at an earlier date
1 Canadian Drinking Water Guidelines (CDWG, 2020)
2 NSECC Tier II PSS for groundwater discharge to a surface freshwater body at a greater distance than 10m (2013)

- MW1-S above noted peak value aluminum and uranium concentration are considered to be elevated; however, the above peak value manganese concentrations are considered to be similar concentrations before on-site leachate treatment/ construction.
- MW1-D above noted metals concentrations are considered to be similar to before on-site leachate treatment/ construction and post on-site leachate treatment/ construction concentrations. Note that a new maximum concentration was noted for this location for cadmium (5.95 ug/L) and manganese (9370 ug/L) during the December 2024 event. Both exceedances are only marginally higher in concentration than the previous maximum concentrations for this location (cadmium: 5.1 ug/L, manganese: 9300 ug/L).
- MW6-S metals concentrations are considered to be similar to before on-site leachate treatment/ construction and post on-site leachate treatment/ construction.
- MW6-D above noted metals concentrations are considered to be similar to before on-site leachate treatment/ construction and post on-site leachate treatment/ construction.
- MW19-11M above noted peak value metals concentrations are considered to be similar before on-site leachate treatment/ construction and post on-site leachate treatment/ construction concentrations except for above noted peak values for arsenic, boron, iron, manganese and uranium noted above for the September 2020 sampling event. It is noted that a MTPH concentration of 0.49 mg/L was detected at this location in December 2020. However, the resemblance is noted as “unidentified compound (fuel/lube)”; and therefore, it can not be confirmed as an exceedance.
- MW19-11D above noted peak value metals concentrations are considered to be similar before on-site leachate treatment/ construction and post on-site leachate treatment/ construction concentrations except for the above noted copper concentration the December 2020 sampling event.

No other metals, general chemistry (including chloride) or petroleum hydrocarbon exceedances have been identified since 2018 based on the analytical data presented in **Appendix C**. All reported pH levels were within background levels. It should be noted that the reported detection limit (RDL) for antimony is greater than the CDWG at select events for MW1-S, MW1-2, MW6-D, MW19-11M, MW19-11D, arsenic for MWW1-D. and fluoride for MW6-D.

#### 4.1.1.5 Former Buried Debris Areas (BDAs) Upward Trends

A summary of the trends analysis is presented in Table H1 (**Appendix H**). All parameters from the Former BDA sample locations appear to be within a stable, no trend or downwards trend post-2020. No upward trends were identified post-2020.

- At sample location MW2-M, uranium concentrations present an upward trend during pre-2015 while post-2020 sampling event data presents as a stable or no trend condition.
- At sample location MW2-D, boron concentrations appear to be upward trending during pre-2015 sample events while post-2020 sampling event data presents as a stable or no trend condition.
- At sample location MW7-S, pH concentrations appear to be upward trending during pre-2015 sample events while post-2020 sampling event data presents as a stable or no trend condition.
- At sample location MW7-D, pH concentrations appear to be upward trending during pre-2015 sample events while post-2020 sampling event data presents as a stable or no trend condition.

### 4.1.1.6 Former Buried Debris Areas (BDAs) Analytical Exceedances

Former BDA sample location metal analytical exceedances are presented in **Table 6** below. Each monitoring well metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of exceedances within this sample set.

**Table 6: Groundwater - Former Buried Debris Areas (BDAs) Metal Analytical Exceedances**

| | | | MW2-S | MW2-M | MW2-D |
|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 150 (12-2022) | - | 419 (06-2025) |
| | **NS-PSS[2]** | **50** | 2 of 14 | | 2 of 19 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.108 (06-2025) | - | 0.58 (12-2022) |
| | **NS-PSS[2]** | **0.1** | 1 of 18 | | 1 of 23 |
| **Copper** | **Max. Conc.** | **(Date)** | 25 (12-2022) | - | - |
| | **NS-PSS[2]** | **20** | 1 of 14 | | |
| **Manganese** | **Max. Conc.** | **(Date)** | 308 (06-2025) | - | 1100 (12-2022) |
| | **CDWQ[1]** | **120** | 2 of 18 | | 1 of 23 |
| **Uranium** | **Max. Conc.** | **(Date)** | - | 35 (09-2020) | 250 (09-2020) |
| | **CDWQ[1]** | **20** | | 10 of 20 | 23 of 23 |

| | | | MW5-S | MW5-D | MW7-S | MW7-D |
|---|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 155 (11-2018) | 128 (12-2024) | 3520 (11-2018) | 106 (11-2018) |
| | **NS-PSS[2]** | **50** | 2 of 16 | 3 of 17 | 10 of 13 | 15 of 17 |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | 12.5 (12-2024) | - | - |
| | **CDWQ[1]** | **10** | | 8 of 21 | | |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.75 (11-2018) | 0.62 (11-2018) | - | 4.63 (05-2020) |
| | **NS-PSS[2]** | **0.1** | 18 of 21 | 5 of 21 | | 16 of 21 |
| **Manganese** | **Max. Conc.** | **(Date)** | 2100 (12-2020) | 900 (06-2022) | 3800 (12-2022) | 5100 (10-2021) |
| | **CDWQ[1]** | **120** | 7 of 21 | 4 of 21 | 4 of 17 | 19 of 21 |
| **Uranium** | **Max. Conc.** | **(Date)** | 120 (09-2020) | 460 (09-2020) | - | 47 (09-2020) |
| | **CDWQ[1]** | **20** | 1 of 21 | 9 of 21 | | 4 of 21 |

| | | | MW8-S | MW8-D | MW19-11M | MW19-11D |
|---|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | - | - | 459 (07-2019) | 58 (09-2020) |
| | **NS-PSS[2]** | **50** | | | 12 of 16 | 1 of 15 |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | 10.3 (06-2025) | 31 (09-2020) | 40 (06-2020) |
| | **CDWQ[1]** | **10** | | 1 of 25 | 2 of 21 | 16 of 19 |
| **Boron** | **Max. Conc.** | **(Date)** | - | - | 7600 (09-2020) | 7720 (06-2020) |
| | **CDWQ[1]** | **5000** | | | 1 of 21 | 7 of 19 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.276 (06-2020) | - | 0.41 (10-2021) | 0.37 (02-2019) |
| | **NS-PSS[2]** | **0.1** | 3 of 19 | | 7 of 21 | 5 of 19 |
| **Copper** | **Max. Conc.** | **(Date)** | - | - | - | 30 (12-2020) |
| | **NS-PSS[2]** | **20** | | | | 1 of 15 |

| | | | MW8-S | MW8-D | MW19-11M | MW19-11D |
|---|---|---|---|---|---|---|
| **Iron** | **Max. Conc.** | **(Date)** | - | - | 15000 (09-2020) | 14900 (06-2020) |
| | **NS-PSS[2]** | **3000** | | | 12 of 21 | 18 of 19 |
| **Manganese** | **Max. Conc.** | **(Date)** | 220 (09-2022) | 140 (12-2020) | 26000 (09 2020) | 29000 (09-2020) |
| | **CDWQ[1]** | **120** | 3 of 19 | 1 of 25 | 21 of 21 | 19 of 19 |
| | **NS-PSS[2]** | **8200** | - | - | 15 of 21 | 19 of 19 |
| **Uranium** | **Max. Conc.** | **(Date)** | 260 (03-2023) | 520 (06-2021) | 560 (09-2020) | 597 (06-2020) |
| | **CDWQ[1]** | **20** | 7 of 19 | 22 of 25 | 20 of 21 | 19 of 19 |

| | | | MW19-12S | MW19-12D | MW19-13S | MW19-13D |
|---|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | - | - | 540 (12-2021) | - |
| | **NS-PSS[2]** | **50** | | | 15 of 15 | |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.22 (09-2022) | 0.197 (07-2019) | 0.27 (10-2021) | 0.17 (12-2022)* |
| | **NS-PSS[2]** | **0.1** | 1 of 13 | 13 of 26 | 13 of 19 | 19 of 23 |
| **Copper** | **Max. Conc.** | **(Date)** | - | - | - | 21 (12-2020) |
| | **NS-PSS[2]** | **20** | | | | 2 of 18 |
| **Manganese** | **Max. Conc.** | **(Date)** | 652 (07-2019) | 207 (06-2020) | 1200 (10-2021) | 197 (11-2019) |
| | **CDWQ[1]** | **120** | 2 of 13 | 3 of 26 | 15 of 19 | 5 of 23 |
| **Uranium** | **Max. Conc.** | **(Date)** | - | 371 (12-2024) | - | 20.4 (12-2024) |
| | **CDWQ[1]** | **20** | | 7 of 26 | | 1 **of** 23 |

| | | | MW20-14S | MW20-14D | MW20-15S | MW20-15D |
|---|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 5210 (06-2025) | - | - | 110 (12-2021) |
| | **NS-PSS[2]** | **50** | 5 of 13 | | | 1 of 15 |
| **Cadmium** | **Max. Conc.** | **(Date)** | - | 0.354 (05-2020) | - | 0.25 (10-2021) |
| | **NS-PSS[2]** | **0.1** | | 18 of 18 | | 4 of 19 |
| **Copper** | **Max. Conc.** | **(Date)** | - | - | 21 (03-2023) | - |
| | **NS-PSS[2]** | **20** | | | 1 of 9 | |
| **Iron** | **Max Conc.** | **(Date)** | 7170 (06-2025) | | | |
| | **NS-PSS[2]** | **3000** | 1 of 17 | | | |
| **Manganese** | **Max. Conc.** | **(Date)** | 460 (07-2024) * | 127 (05-2020) | 1290 (05-2020) | 285 (05-2020) |
| | **CDWQ[1]** | **120** | 10 of 17 | 1 of 18 | 2 of 12 | 2 of 19 |
| **Uranium** | **Max. Conc.** | **(Date)** | - | - | - | 380 (10-2023) |
| | **CDWQ[1]** | **20** | | | | 19 of 19 |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
Green Max. Conc. represents a single parameter exceedance occurrence before on-site construction
* denotes that an identical concentration at an earlier date
1 Canadian Drinking Water Guidelines (CDWG, 2020)
2 NSECC Tier II PSS for groundwater discharge to a surface freshwater body at a greater distance than 10m (2013)

- MW2-S – There was first time exceedance and maximum concentration noted at this location during the June 2025 sampling event for cadmium (0.108 ug/L) compared to the NS-PSS guideline value of 0.1 ug/L. This is a first-time exceedance for cadmium at this location; however, it is only marginally higher than the NS-PP guideline value. There was also an exceedance during the June 2025 sampling event in manganese (308 ug/L)

compared to the CDWQ guideline value of 120 ug/L. The previous maximum concentration value for this location was 137 ug/L in June 2020 prior to on-site construction.

- MW2-M - During on-site leachate treatment/ construction, uranium concentrations appear to be diminishing compared to historical trend data.
- MW2-D - During on-site leachate treatment/ construction, uranium concentrations appear to similar to be historical trend data. There is a new maximum concentration noted at this location during the June 2025 sampling event for aluminum (419 ug/L) compared to the NS-PSS guideline value of 50 ug/L. The previous maximum concentration value for this location was 280 ug/L in December 2022.
- MW5-S - Aluminum concentrations peak value/ elevated level only occurs during pre- leachate treatment/ construction activities. Cadmium concentrations are similar during pre and post leachate treatment/ construction activities. A peak value manganese concentration occurred during the December 2020 sampling event; however, other pre and post leachate treatment/ construction manganese levels were similar to historical trend data. A peak value uranium concentration occurred during the December 2020 sampling event; however, other pre and post leachate treatment/ construction manganese levels were below applicable guidelines.
- MW5-D - Aluminum concentrations peak value during the June 2021 sampling event is similar to concentrations observed in November 2018 (during pre leachate treatment/ construction). Cadmium concentrations elevated value during the June 2021 sampling event is lower than the during pre leachate treatment/ construction concentrations observed in November 2018. During on-site leachate treatment/ construction, manganese concentrations appear to similar to historical trend data with the exception of a peak value occurring during the June 2021) sampling event. A peak value uranium concentration occurred during the December 2020 sampling event; however, other pre and post leachate treatment/ construction manganese levels were similar to historical trend data. A new maximum concentration was noted at this location during the December 2024 event for aluminum (128 ug/L) compared to the NS-PSS concentration of 50 ug/L. The previous maximum concentration for this location was 52 ug/L in November 2018. A new maximum concentration for arsenic (12.5 ug/L) compared to the CDWQ guideline value of 10 ug/L was detected during the December 2024 event; however, this is only marginally higher than the previous maximum concentration of 12 ug/L in December 2023.
- MW7-S – The above noted aluminum exceedances are not considered to be a concern based on pre leachate treatment/ construction concentrations. Manganese exceedances do not occur during on-site leachate treatment/ construction period.
- MW7-D – During on-site leachate treatment/ construction, cadmium concentrations appear to similar to pre on-site leachate treatment/ construction trend data. Manganese concentrations are elevated during construction activities (Sept 2020 to June 2020). A peak value uranium concentration occurred during the September 2020 sampling event; however, other pre and post leachate treatment/ construction uranium levels were similar to historical trend data.
- MW8-S - During on-site leachate treatment/ construction, cadmium concentrations appear to be lower when compared to historical trend data. A peak value manganese concentration occurred during the March 2021 sampling event; however, other pre and post leachate treatment/ construction manganese levels were similar to historical trend data. Slightly elevated uranium concentration occurred during the December 2020 and March 2021 sampling events; however, other pre and post leachate treatment/ construction uranium levels were similar to historical trend data.
- MW8-D - The above noted manganese peak value occurred in December 2020; however, other pre and post leachate treatment/ construction manganese levels were below applicable guidelines. During on-site leachate treatment/ construction, uranium concentrations appear to similar to pre on-site leachate treatment/ construction trend data; however, the uranium peak value occurs at the June 2021 sampling event. There is a first-time exceedance and maximum concentration noted at this location during the June 2025 event for arsenic (10.3 ug/L) compared to the CDWQ guideline value of 10 ug/L. This is a first-time exceedance for this parameter at this location; however, it is only marginally higher than the CDWQ guideline value.
- MW19-11M above noted peak value metals concentrations are considered to be similar before on-site leachate treatment/ construction and post on-site leachate treatment/ construction concentrations except for above noted

peak values for arsenic, boron, iron, manganese and uranium noted above for the September 2020 sampling event.

- MW19-11D above noted peak value metals concentrations are considered to be similar pre on-site leachate treatment/ construction and post on-site leachate treatment/ construction concentrations except for the above noted copper concentration for the December 2020 sampling event.
- MW19-12D - During on-site leachate treatment/ construction, cadmium concentrations appear to be similar to or diminishing compared to historical trend data. Manganese concentrations exceed applicable guidelines during pre on-site leachate treatment/ construction but do not during on-site construction activity. A new maximum uranium exceedance occurred during the December 2023 event.
- MW19-12S - Pre and post leachate treatment/ construction parameter levels were similar to historical trend data.
- MW19-13S - During the construction period (September 2020 to June 2021), cadmium, manganese concentrations are marginally elevated when compared to pre on-site leachate treatment/ construction concentrations. Aluminum levels appear to remain similar to historical trend data.
- MW19-13D - Cadmium are slightly elevated at the December 2022 sampling event; however, other pre and post leachate treatment/ construction cadmium levels were similar to historical trend data. Copper concentrations are slightly elevated at the December 2020 sampling event; however, other pre and post leachate treatment/ construction copper levels were similar to historical trend data. Manganese concentrations were elevated during pre on-site leachate treatment/ construction but not during on-site construction activity. There is a first-time exceedance and new maximum concentration noted for this location during the December 2024 event for uranium (20.4 ug/L) compared to the CDWQ guideline value of 20 ug/L. This is a first-time exceedance for this parameter at this location; however, it is only marginally higher than the CDWQ guideline value.
- MW20-14S - A peak value aluminum concentration occurred during the March 2021 sampling event; however, levels returned to below guideline conditions in the June 2021 sampling event. Manganese concentrations were slightly elevated during on-site construction activities when compared to historical concentrations. There is a new maximum concentration noted during the June 2025 event for aluminum (5210 ug/L) compared to the NS-PSS guideline value of 50 ug/L. The previous maximum concentration for this location was 270 ug/L in September 2022. There is a first-time and new maximum concentration noted for iron (7170 ug/L) compared to the NS-PSS guideline value of 3000 ug/L.
- MW20-14D - During on-site leachate treatment/ construction, cadmium concentrations appear to be similar to or diminishing compared to historical trend data.
- MW20-15S - During on-site leachate treatment/ construction, manganese concentrations appear to be diminishing compared to historical trend data.
- MW20-15D Cadmium concentrations appear to similar to or diminishing compared to historical trend data. During on-site leachate treatment/ construction, manganese concentrations appear to be diminishing compared to historical trend data. A peak value uranium concentration occurred during the October 2023 sampling event. First exceedance in aluminum noted in December 2021.

For MW19-11M, it is noted that a MTPH concentration of 0.49 mg/L was detected at this location in December 2020. However, the resemblance is noted as “unidentified compound (fuel/lube)”; and therefore, it can not be confirmed as an exceedance.

During November 2019, the MW19-13D sample location reported a modified TPH of 0.5 mg/L (lube resemblance), which exceeds the NSECC-PSS guideline of 0.48 mg/L (lube resemblance). This was the only groundwater petroleum hydrocarbon exceedances reported within the former BDA.

No other metals, general chemistry (including chloride) or petroleum hydrocarbon exceedances have been identified based on the analytical data presented on **Appendix C**. All reported pH levels were within background

levels. It should be noted that the reported detection limit (RDL) for antimony is greater than the CDWG at select events for MW19-11M and MW19-11D.

#### 4.1.1.7 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Upward Trends

A summary of the trends analysis is presented in Table H1 (**Appendix H**). All parameters from the LTPA and SP sample locations appear to be within a stable, no trend or downwards trend post-2020. No upward trends were identified post-2020.

- At sample location MW7-S, pH concentrations appear to be upward trending during pre-2015 sample events while post-2020 sampling event data presents as a stable or no trend condition
- At sample location MW7-D, pH concentrations appear to be upward trending during pre-2015 sample events while post-2020 sampling event data presents as a stable or no trend condition

#### 4.1.1.8 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Analytical Exceedances

LTPA and SPs sample location metal analytical exceedances are presented in **Table 7** below. Each monitoring well metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of exceedances within this sample set.

**Table 7: Groundwater - Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Metal Analytical Exceedances**

| | | | MW7-S | MW7-D |
|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 3520 (11-2018) | 106 (11-2018) |
| | **NS-PSS[2]** | **50** | 10 of 13 | 15 of 17 |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | - |
| | **CDWQ[1]** | **10** | | |
| **Cadmium** | **Max. Conc.** | **(Date)** | - | 4.63 (05-2020) |
| | **NS-PSS[2]** | **0.1** | | 16 of 21 |
| **Manganese** | **Max. Conc.** | **(Date)** | 3,800 (12-2022) | 5,100 (10-2021) |
| | **CDWQ[1]** | **120** | 4 of 17 | 19 of 21 |
| **Uranium** | **Max. Conc.** | **(Date)** | - | 47 (09-2020) |
| | **CDWQ[1]** | **20** | | 4 of 21 |

| | | | MW19-13S | MW19-13D | PW19-01 |
|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 540 (12-2021) | - | - |
| | **NS-PSS[2]** | **50** | 15 of 15 | | |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | - | 11 (06-2021) |
| | **CDWQ[1]** | **10** | | | 2 of 27 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.27 (10-2021) | 0.17 (12-2021) | - |
| | **NS-PSS[2]** | **0.1** | 13 of 19 | 19 of 23 | |
| **Copper** | **Max. Conc.** | **(Date)** | - | 21 (12-2020) | - |
| | **NS-PSS[2]** | **20** | | 2 of 18 | |
| **Manganese** | **Max. Conc.** | **(Date)** | 1200 (05-2021) | 197 (11-2019) | 3200 (06-2021) |

| | | | MW19-13S | MW19-13D | PW19-01 |
|---|---|---|---|---|---|
| | **CDWQ[1]** | **120** | 15 of 19 | 5 of 23 | 23 of 27 |
| **Uranium** | **Max. Conc.** | **(Date)** | - | 20.4 (12-2024) | 21 (09-2020) |
| | **CDWQ[1]** | **20** | | 1 of 23 | 1 of 27 |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
1 Canadian Drinking Water Guidelines (CDWG, 2020)
2 NSECC Tier II PSS for groundwater discharge to a surface freshwater body at a greater distance than 10m (2013)

- MW7-S – The above noted aluminum exceedances not considered to be a concern based on pre leachate treatment/ construction concentrations. Manganese exceedances do not occur during on-site leachate treatment/ construction period.
- MW7-D – During on-site leachate treatment/ construction, cadmium concentrations appear to similar to pre on-site leachate treatment/ construction trend data. Manganese concentrations are elevated during construction activities (September 2020 to June 2020). A peak value uranium concentration occurred during the September 2020 sampling event; however, other pre and post leachate treatment/ construction manganese levels were similar to historical trend data.
- MW19-13S - During the construction period (September 2020 to June 2021), cadmium and manganese concentrations are marginally elevated when compared to pre on-site leachate treatment/ construction concentrations.
- MW19-13D - Cadmium and copper concentrations are slightly elevated during the December 2021/ 2020 (respectfully) sampling event; however, other pre and post leachate treatment/ construction cadmium and copper levels were similar to historical trend data. Manganese concentrations were elevated during pre on-site leachate treatment/ construction but do not during on-site construction activity. There is a first-time exceedance and new maximum concentration noted for this location during the December 2024 event for uranium (20.4 ug/L) compared to the CDWQ guideline value of 20 ug/L. This is a first-time exceedance for this parameter at this location; however, it is only marginally higher than the CDWQ guideline value.
- PW19-01 - A peak value uranium concentration occurred during the September 2020 sampling event; however, other pre and post leachate treatment/ construction manganese levels were similar to historical trend data. Elevated manganese concentrations occur during the September 2020, December 2020 and June 2021 sampling events. During on-site leachate treatment/ construction, arsenic concentrations appear to similar to pre on-site leachate treatment/ construction trend data; however, the arsenic peak value occurs at the June 2021 sampling event.

During the November 2019 sampling event (pre on-site treatment), the MW19-13D sample location reported a modified TPH of 0.5 mg/L (lube resemblance), which exceeds the NSECC-PSS guideline of 0.48 mg/L (lube resemblance). During the December 2020 sampling event, the PW19-01 sample location reported a modified TPH concentrations of 1.9 mg/L (lube resemblance), which exceeded the NSECC-PSS guideline of 0.48 mg/L (lube resemblance). It should be noted that the above noted PW19-01 sample contained sediment and thus this result is considered to be biased high as the extraction may be pulling analytes from both the water and any sediment present in the sample. These were the only groundwater petroleum hydrocarbon exceedances reported within the LPTA and SPs area.

No other metals, general chemistry (including chloride) or petroleum hydrocarbon exceedances have been identified based on the analytical data presented on **Appendix C**. All reported pH levels were within background levels.

## 4.2 Surface Water

Sheen and free product thickness were not evident in any of the surface water sampling locations during the monitoring events. Petroleum hydrocarbon odours were also not evident at any sampling locations.

Surface water field parameters (pH, conductivity, temperature, and total dissolved solids (TDS)) were collected from each surface water station with a YSI-650MDS multi meter. Conductivity and pH field data is presented within **Table G4 (Appendix G)**.

It should be noted that select parameters (TKN, TSS) from the December 2024 are not available as the lab made an error and did not analyze these parameters that were requested by AECOM.

### 4.2.1 Trend Analysis and Analytical Data Summary

A full depiction of the surface water trend analysis (upward, downward, no change) is provided in **Table H2 (Appendix H)** with focus on metals (aluminum, arsenic, boron, cadmium, cobalt, chromium, iron, lead, manganese, uranium), general chemistry (alkalinity, calcium, chloride, conductivity, hardness, pH, sulphate, , total dissolved solids (TDS), total suspended solids (TSS), and the following additional parameters only if results exceed applicable EQS: petroleum hydrocarbon (benzene, toluene, ethyl benzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH),  and phenol parameters, and all organics and field parameters as listed in Table 1 of the NSECC Approval 2023-3356677-00. **Table H2 (Appendix H)** describes changes in trend since 2015 and any changes in direction since 2020.

The below section provides surface water upward trends summary tables that focus on upward trend changes that occurred since 2020 with respect to potentially/ known impacted source areas at the Site along with the background sample location (SW1) which is presented first. Each presented source areas summary table focuses on the respective downgradient surface water sample locations, as provided in **Table 3** in **Section 2**. As surface water locations SW1, SW3, LDO were removed from the sampling program in March 2024, as per the Approval, trends analysis was not completed on these three locations that were removed for this 2024-2025 Annual Report. A discussion on exceedances for these three locations is still provided below.

The surface water analytical summary tables in **Appendix C (Tables C4, C5, and C6)** provide data comparison to applicable guidelines and background levels for surface water samples collected on-site since 2018. As presented in these surface water analytical summary tables, phenol, benzene, toluene, ethyl benzene, xylenes (BTEX), and total petroleum hydrocarbons (TPH), in surface water did not exceed the applicable guidelines; and therefore, these parameters were not included in the surface water trend analysis discussion.

#### 4.2.1.1 Background Surface Water Trends

There are no surface water analytical parameters at the background surface water location (SW1) that illustrated upward trends that occurred since 2020. As this location (SW1) was removed from the sampling program in March 2024, no additional trends analysis has been completed for this location for the 2024-2025 Annual Report.

#### 4.2.1.2 Background Surface Water Analytical Exceedances

Background surface water sample location metal analytical exceedances are presented in **Table 8** below. Each surface water metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of exceedances within this sample set.

### Table 8: Surface Water - Background Surface Water Locations Metal Analytical Exceedances

| | | | SW1 (former sample location) |
|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 940 (8/11/2021) |
| | **NS-EQS[1]** | **5** | 59 of 59 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.97 (12/14/2020) |
| | **NS-EQS[1]** | **0.01** | 50 of 59 |
| **Iron** | **Max. Conc.** | **(Date)** | 970 (9/8/2021) * |
| | **NS-EQS[1]** | **300** | 55 of 59 |
| **Lead** | **Max. Conc.** | **(Date)** | 1.6 (9/29/2022) |
| | **NS-EQS[1]** | **1** | 22 of 59 |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
* denotes that an identical concentration at an earlier date
1 NSECC Tier I EQS for surface water (fresh water) (2013).

It is noted that a MTPH concentration of 0.31 mg/L was detected at this location on September 2020. However, the resemblance is noted as “unidentified compound (lube)” and therefore it can not be confirmed as an exceedance.

No other metals, general chemistry or petroleum hydrocarbon exceedances have been identified based on the analytical data presented in **Appendix C**.

#### 4.2.1.3 Landfill Cell Area (LCA) Trends

There are no surface water analytical parameters at surface water locations (SW4, SW19-20) positioned downgradient of the Landfill Cell Area (LCA) that illustrated upward trends that occurred since 2020.

As surface water location SW3 was removed from the approval in March 2024, no additional trends analysis has been completed for this location for the 2024-2025 Annual Report.

#### 4.2.1.4 Landfill Cell Area (LCA) Analytical Exceedances

LCA surface water sample location metal analytical exceedances are presented in **Table 9** below. Each surface water metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of exceedances within this sample set.

### Table 9: Surface Water - Landfill Cell Area (LCA) Metal Analytical Exceedances

| | | | SW3 (former sample location) | SW4 | SW19-20 |
|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 1,600 (11/20/2020) | 1,300 (11/30/2020)* | 9,200 (12/28/2020) |
| | **NS-EQS[1]** | **5** | 41 of 48 | 44 of 52 | 43 of 43 |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | - | 6.4 (9/23/2020) |
| | **NS-EQS[1]** | **5** | | | 4 of 43 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.04 (12/14/2022) | 0.04 (5/19/2021) | 0.15 (11/30/2020) |
| | **NS-EQS[1]** | **0.01** | 37 of 48 | 46 of 52 | 40 of 43 |
| **Copper** | **Max. Conc.** | **(Date)** | 2.1 (9/24/2020) | - | 21 (11/2/2021) |

| | | | SW3 (former sample location) | SW4 | SW19-20 |
|---|---|---|---|---|---|
| | **NS-EQS[1]** | **2** | 1 of 48 | | 19 of 43 |
| **Iron** | **Max. Conc.** | **(Date)** | 1,600 (11/20/2020) | 1,300 (6/30/2021) | 9,300 (9/23/2020) |
| | **NS-EQS[1]** | **300** | 47 of 48 | 51 of 52 | 41 of 43 |
| **Lead** | **Max. Conc.** | **(Date)** | 2.0 (11/20/2020) | 2.5 (6/30/2021) | 12 (11/30/2020) * |
| | **NS-EQS[1]** | **1** | 18 of 48 | 23 of 52 | 8 of 43 |
| **Manganese** | **Max. Conc.** | **(Date)** | - | - | 7,500 (9/23/2021) |
| | **NS-EQS[1]** | **820** | | | 29 of 43 |
| **Selenium** | **Max. Conc.** | **(Date)** | - | - | 2 (6/1/2020) |
| | **NS-EQS[1]** | **1** | | | 1 of 42 |
| **Vanadium** | **Max. Conc.** | **(Date)** | - | - | 14 (12/28/2020) |
| | **NS-EQS[1]** | **6** | | | 4 of 43 |
| **Zinc** | **Max. Conc.** | **(Date)** | - | - | 51 (11/30/2020) |
| | **NS-EQS[1]** | **30** | | | 4 of 43 |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
* denotes that an identical concentration at an earlier date
1 NSECC Tier I EQS for surface water (fresh water) (2013).

- For SW3 and SW4 aluminum, cadmium iron and lead trends track similarly between Sept 2020 to December 2020 with concentrations slightly rising in within this period and returning back after this point; however, concentrations for these parameters appear to be similar (but slightly greater) to the upgradient background concentrations observed at SW1 within the same time periods. The above noted copper exceedance at SW3 is a one-time occurrence and marginally exceeds the applicable guideline.
- At SW19-20, aluminum, arsenic, cadmium, copper, iron, lead, manganese, vanadium and zinc concentration exceedances appear to mainly be elevated between September 2020 to December 2020 with the exception of manganese that reports its highest concentration on the last sampling event in late September 2021. The above noted selenium exceedance at SW19-20 occurs in early June 2020 before on-site construction commences.
- On December 28, 2020, the SW4 sample location reported a modified TPH of 0.11 mg/L (lube resemblance), which exceeds the NSECC-EQS guideline of 0.1 mg/L (lube resemblance). This was the only surface water petroleum hydrocarbon exceedance reported within the LCA. It is noted that an MTPH concentration of 0.27 mg/L was detected at SW4 in December 2020, and 0.25 mg/L in July 2021, as well as at location SW3 with an MTPH concentration 0.12 mg/L in August 2020, 0.22 mg/L in November 2020, 0.24 mg/L in December 2020, and 1.0 mg/L in July 2021. However, all of these resemblances are noted as “unidentified compound (lube)” and therefore it can not be confirmed as exceedances.

No other metals, general chemistry or petroleum hydrocarbon exceedances have been identified based on the analytical data presented on **Appendix C**. It should be noted that the reported detection limit (RDL) for general chemistry parameters are greater than the background concentrations for the site at select events for SW19-20.

#### 4.2.1.5 Former Buried Debris Areas (BDAs) Trends

There are no surface water analytical parameters at surface water locations (SW4, SW13, SW19-20,) positioned downgradient of the Former BDAs that illustrated upward trends that occurred since 2020.

As surface water location SW3 and LDO were removed from the sampling program in March 2024, no additional trends analysis has been completed for this location for the 2024-2025 Annual Report.

### 4.2.1.6 Former Buried Debris Areas (BDAs) Analytical Exceedances

Former BDA surface water sample location metal analytical exceedances are presented in **Table 10** below. Each surface water metal parameter with an associated exceedance provides a peak value (maximum concentration) and the date it occurred **(DD-MM-YYYY)** along with the number of samples collected in the set since 2018 and number of exceedances within this sample set.

**Table 10: Surface Water - Former Buried Debris Areas (BDAs) Metal Analytical Exceedances**

| | | | SW3 (former sample location) | SW4 |
|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 1,600 (11/20/2020) | 1,300 (11/30/2020)* |
| | **NS-EQS[1]** | **5** | 41 of 48 | 44 of 52 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.04 (12/14/2022) | 0.04 (5/19/2021) |
| | **NS-EQS[1]** | **0.01** | 37 of 48 | 46 of 52 |
| **Copper** | **Max. Conc.** | **(Date)** | 2.1 (9/24/2020) | - |
| | **NS-EQS[1]** | **2** | 1 of 48 | |
| **Iron** | **Max. Conc.** | **(Date)** | 1,600 (11/20/2020) | 1,300 (6/30/2021) |
| | **NS-EQS[1]** | **300** | 47 of 48 | 51 of 52 |
| **Lead** | **Max. Conc.** | **(Date)** | 2.0 (11/20/2020) | 2.5 (6/30/2021) |
| | **NS-EQS[1]** | **1** | 18 of 48 | 23 of 52 |

| | | | SW13 | SW19-20 | LDO (former sample location) |
|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 1,300 (6/30/2021) | 9,200 (12/28/2020) | 940 (12/14/2022) |
| | **NS-EQS[1]** | **5** | 72 of 72 | 43 of 43 | 8 of 8 |
| **Arsenic** | **Max. Conc.** | **(Date)** | - | 6.4 (9/23/2020) | - |
| | **NS-EQS[1]** | **5** | | 4 of 43 | |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.16 (6/14/2021) | 0.15 (11/30/2020) | 0.56 (12/14/2022) |
| | **NS-EQS[1]** | **0.01** | 71 of 72 | 40 of 43 | 8 of 8 |
| **Cobalt** | **Max. Conc.** | **(Date)** | 16 (7/27/2021) | - | - |
| | **NS-EQS[1]** | **10** | 4 of 72 | | |
| **Copper** | **Max. Conc.** | **(Date)** | 12 (6/1/2020) | 21 (11/2/2021) | 3.3 (9/29/2022) |
| | **NS-EQS[1]** | **2** | 31 of 72 | 19 of 43 | 5 of 8 |
| **Iron** | **Max. Conc.** | **(Date)** | 11,000 (7/27/2021) | 9,300 (9/23/2020) | 790 (4/14/2023) |
| | **NS-EQS[1]** | **300** | 72 of 72 | 41 of 43 | 2 of 8 |
| **Lead** | **Max. Conc.** | **(Date)** | 12.4 (6/1/2020) | 12 (11/30/2020) | - |
| | **NS-EQS[1]** | **1** | 35 of 72 | 8 of 43 | |
| **Manganese** | **Max. Conc.** | **(Date)** | 6,900 (7/14/2021) | 7,500 (9/23/2021) | 1,100 (12/14/2022) |
| | **NS-EQS[1]** | **820** | 9 of 72 | 29 of 43 | 1 of 8 |
| **Selenium** | **Max. Conc.** | **(Date)** | - | 2 (6/1/2020) | - |
| | **NS-EQS[1]** | **1** | | 1 of 42 | |
| **Vanadium** | **Max. Conc.** | **(Date)** | - | 14 (12/28/2020) | - |
| | **NS-EQS[1]** | **6** | | 4 of 43 | |
| **Zinc** | **Max. Conc.** | **(Date)** | 39 (6/1/2020) | 51 (11/30/2020) | - |

| | | | SW13 | SW19-20 | LDO (former sample location) |
|---|---|---|---|---|---|
| | **NS-EQS[1]** | **30** | 2 of 72 | 4 of 43 | |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
* denotes that an identical concentration at an earlier date
1 NSECC Tier I EQS for surface water (fresh water) (2013).

- For the SW3 and SW4 sample locations, aluminum, cadmium iron and lead trends track similarly between Sept 2020 to December 2020 with concentrations slightly rising in within this period and returning back after this point; however, concentrations for these parameters appear to be similar (but slightly greater) to the upgradient background concentrations observed at SW1 within the same time periods. The above noted copper exceedance at SW3 is a one-time occurrence and marginally exceeds the applicable guideline.
- The SW13 sample location is located at a road ditch along the Old Sambro Road. Aluminum concentrations appear to remain relatively isolated from other parameters that appear to move in tandem. The two zinc surface water exceedances exist before the commencement of on-site construction. Cadmium, copper, iron, lead and manganese concentration all appear to elevate after the June 3, 2021 sampling event and continue to July 27, 2021 sampling event. It is believed that these elevated concentrations are attributed to earthwork modifications that were implemented adjacent to the upper eastern edges of the asphalt pad area between the June 3, 2021, and June 14, 2021, sampling events. It should be noted however that the peak values for copper, lead and zinc concentration occurred on June 1, 2020, which is in close time proximity to the period that these elevated parameters occurred (a year before).
- At SW19-20, aluminum, arsenic, cadmium, copper, iron, lead, manganese, vanadium and zinc concentration exceedances appear to mainly elevate between September 2020 to December 2020 with the exception of manganese that reports its highest concentration on the last sampling event in September 2021. The above noted selenium exceedance at SW19-20 occurs in early June 2020 before on-site construction commences.
- At LDO, exceedances are present for aluminum, cadmium, and copper during the 2023-2024 annual report timeline.
- On December 28, 2021, the SW4 sample location reported a modified TPH of 0.11 mg/L (lube resemblance), which exceeds the NSECC-EQS guideline of 0.1 mg/L (lube resemblance). This was the only surface water petroleum hydrocarbon exceedance reported within the LCA. It is noted that an MTPH concentration of 0.12 mg/L was detected at SW13 in December 2020, 2.3 mg/L and 1.6 mg/L (duplicate) in June 2021, and 0.42 mg/L and 0.17 mg/L (duplicate) in July 2021. However, all of these resemblances are noted as “unidentified compound (lube or fuel/lube)” and therefore it can not be confirmed as exceedances.

No other metals, general chemistry or petroleum hydrocarbon exceedances have been identified based on the analytical data presented on **Appendix C**.

#### 4.2.1.7 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Trends

There are no surface water analytical parameters at surface water location (SW4) positioned downgradient of the Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) that illustrated upward trends that occurred since 2020.

As surface water location SW3 and LDO were removed from the sampling program in March 2024, no additional trends analysis has been completed for this location for the 2024-2025 Annual Report.

#### 4.2.1.8 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Analytical Exceedances

LTPA and SPs surface water sample location metal analytical exceedances are presented in **Table 11** below. Each surface water metal parameter with an associated exceedance provides a peak value (maximum concentration)

and the date it occurred (MM-YYYY) along with the number of samples collected in the set since 2018 and number of exceedances within this sample set.

### Table 11: Surface Water - Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) Metal Analytical Exceedances

| | | | SW3 (former sample location) | SW4 | LDO (former sample location) |
|---|---|---|---|---|---|
| **Aluminum** | **Max. Conc.** | **(Date)** | 1,600 (11/20/2020) | 1,300 (11/30/2020)* | 940 (12/14/2022) |
| | **NS-EQS[1]** | **5** | 41 of 48 | 44 of 52 | 8 of 8 |
| **Cadmium** | **Max. Conc.** | **(Date)** | 0.037 (11/20/2020) | 0.04 (5/19/2021) | 0.56 (12/14/2022) |
| | **NS-EQS[1]** | **0.01** | 37 of 48 | 46 of 52 | 8 of 8 |
| **Copper** | **Max. Conc.** | **(Date)** | 2.1 (9/24/2020) | - | 3.3 (9/29/2022) |
| | **NS-EQS[1]** | **2** | 1 of 48 | | 5 of 8 |
| **Iron** | **Max. Conc.** | **(Date)** | 1,600 (11/20/2020) | 1,300 (6/30/2021) | 790 (4/14/2023) |
| | **NS-EQS[1]** | **300** | 47 of 48 | 51 of 52 | 2 of 8 |
| **Lead** | **Max. Conc.** | **(Date)** | 2.0 (11/20/2020) | 2.5 (6/30/2021) | - |
| | **NS-EQS[1]** | **1** | 18 of 48 | 23 of 52 | |
| **Manganese** | **Max. Conc.** | **(Date)** | - | - | 1,100 (12/14/2022) |
| | **NS-EQS[1]** | **820** | | | 1 of 8 |

Notes:
Max. Conc. = Maximum Concentration (Units: ug/L)
* denotes that an identical concentration at an earlier date
1 NSECC Tier I EQS for surface water (fresh water) (2013).

- For the SW3, SW4 sample locations, aluminum, cadmium iron and lead trends track similarly between Sept 2020 to December 2020 with concentrations slightly rising in within this period and returning back after this point; however, concentrations for these parameters appear to be similar (but slightly greater) to the upgradient background concentrations observed at SW1 within the same time periods. The above noted copper exceedance at SW3 is a one-time occurrence and marginally exceeds the applicable guideline.
- At LDO, exceedances are present for aluminum, cadmium, and copper during the 2022-2023 annual report timeline.

No other metals, general chemistry or petroleum hydrocarbon exceedances have been identified based on the analytical data presented on **Appendix C**.

## 4.3 Quality Assurance / Quality Control

AECOM collected field QA/QC samples to determine the precision of analytical results and to assess for laboratory or sampling inconsistencies. **Table 12** below shows the blind field duplicate samples that were submitted for groundwater laboratory analyses.

### Table 12: Groundwater Field Duplicate Sample Submission

| Field Duplicate Sample ID | Date of Sampling Event | Corresponding Sample ID | Laboratory Analyses |
|---|---|---|---|
| **DUP** | 2018-11-22 | MW5-S | Metals, General Chemistry |
| **DUP A** | 2019-07-10 | MW19-12D | |
| **DUP 1** | 2019-11-19 | MW19-13D | PHC Metals |
| **DUP 1** | 2020-04-01 | MW19-03D | |

| Field Duplicate Sample ID | Date of Sampling Event | Corresponding Sample ID | Laboratory Analyses |
|---|---|---|---|
| **DUP 1** | 2020-05-28 | MW19-09S | General Chemistry |
| **DUP 2** | 2020-05-28 | PW19-01 | |
| **DUP 3** | 2020-06-01 | MW2-D | |
| **DUP 4** | 2020-06-01 | MW19-12D | |
| **DUP 1** | 2020-09-15 | MW6-D | |
| **DUP 2** | 2020-09-15 | MW-2M | |
| **DUP 3** | 2020-09-17 | MW19-12D | |
| **DUP 1** | 2020-12-16 | MW-5D | |
| **DUP 2** | 2020-12-16 | MW20-16 | |
| **DUP 3** | 2020-12-16 | MW19-12D | |
| **DUP 1** | 2021-03-25 | MW5-D | |
| **DUP 2** | 2021-03-25 | PW19-01 | |
| **DUP 3** | 2021-03-25 | MW19-09S | |
| **DUP 1** | 2021-06-09 | PW19-01 | |
| **DUP 2** | 2021-06-09 | MW20-16 | |
| **DUP 3** | 2021-06-09 | MW19-3D | |
| **DUP 1** | 2021-10-05 | MW20-17D | |
| **DUP 2** | 2021-10-05 | MW-2D | |
| **DUP 3** | 2021-10-05 | MW20-16 | |
| **DUP 1** | 2021-12-13 | MW20-15D | |
| **DUP 2** | 2021-12-13 | MW20-16 | |
| **DUP 3** | 2021-12-13 | MW8-D | |
| **DUP 1** | 2022-03-28 | MW19-13D | |
| **DUP 2** | 2022-03-28 | MW6-D | |
| **DUP 3** | 2022-03-30 | MW3 | |
| **DUP 1** | 2022-06-02 | MW8-D | |
| **DUP 2** | 2022-06-03 | PW19-01 | |
| **DUP 3** | 2022-06-03 | MW6-D | |
| **DUP 1** | 2022-09-28 | MW19-09S | |
| **DUP 2** | 2022-09-29 | MW8-D | |
| **DUP 3** | 2022-09-30 | MW19-12D | |
| **DUP 1** | 2022-12-16 | MW-2D | |
| **DUP 2** | 2022-12-16 | MW-8D | |
| **DUP 3** | 2022-12-16 | MW20-17D | |
| **DUP 1** | 2023-03-09 | MW6-D | |
| **DUP 2** | 2023-03-10 | MW7-D | |
| **DUP 3** | 2023-03-10 | PW19-01 | |
| **DUP1** | 2023-10-12 | MW6-D | PHCs<br>Metals<br>General Chemistry |
| **DUP2** | 2023-10-13 | PW19-01 | |
| **DUP3** | 2023-10-13 | MW5-S | |
| **DUP1** | 2023-12-01 | MW8-D | Metals<br>General Chemistry |
| **DUP2** | 2023-12-01 | PW19-01 | |
| **DUP3** | 2023-12-01 | MW6-D | |
| **DUP1** | 2024-03-12 | MW6-D | |
| **DUP2** | 2024-03-12 | MW19-12S | |

| Field Duplicate Sample ID | Date of Sampling Event | Corresponding Sample ID | Laboratory Analyses |
|---|---|---|---|
| **DUP3** | 2024-03-14 | MW20-16 | |
| **DUP1** | 2024-07-02 | MW19-11M | |
| **DUP2** | 2024-07-02 | MW19-13D | |
| **DUP3** | 2024-07-02 | MW3 | |
| **DUP1** | 2024-12-10 | MW19-8D | PHCs<br>Metals<br>General Chemistry |
| **DUP2** | 2024-12-10 | MW20-17S | |
| **DUP3** | 2024-12-10 | MW20-16 | |
| **DUP1** | 2025-06-11 | MW19-11M | Metals<br>General Chemistry |
| **DUP2** | 2025-06-11 | MW1-D | |
| **DUP3** | 2025-06-12 | MW19-12D | |

**Appendix I** contains a detailed groundwater QA/QC review that was used to assess the quality of the analytical data gathered during this program, including the acceptable RPD range for groundwater.

**Table 13** below shows the blind field duplicate samples that were submitted for surface water laboratory analyses.

## Table 13: Surface Water Field Duplicate Sample Submission

| Field Duplicate Sample ID | Date of Sampling Event | Corresponding Sample ID | Laboratory Analyses |
|---|---|---|---|
| **DUP A** | 2020-09-24 | SW1 | PHC<br>Metals<br>General Chemistry |
| **DUP 1** | 2020-10-06 | Diffuser | |
| **DUP 1** | 2020-10-23 | SW1 | |
| **DUP 1** | 2020-11-05 | Diffuser | |
| **DUP 1** | 2020-11-20 | SW13 | |
| **DUP 1** | 2020-11-30 | SW1 | |
| **DUP 1** | 2020-12-14 | SW1 | |
| **DUP 1** | 2020-12-28 | SW1 | |
| **DUP 4** | 2021-03-25 | SW1 | |
| **DUP 1** | 2021-04-08 | SW13 | |
| **DUP 1** | 2021-04-21 | SW13 | |
| **DUP 1** | 2021-05-05 | SW13 | |
| **DUP 1** | 2021-05-19 | SW13 | |
| **DUP 1** | 2021-06-03 | SW2 | |
| **DUP 1** | 2021-06-14 | SW13 | |
| **DUP 1** | 2021-06-30 | SW13 | |
| **DUP 1** | 2021-07-14 | SW13 | |
| **DUP 1** | 2021-07-27 | SW13 | |
| **DUP 1** | 2021-08-11 | SW13 | |
| **DUP 1** | 2021-09-08 | SW13 | |
| **DUP 1** | 2021-09-23 | SW1 | |
| **DUP 1** | 2021-10-06 | SW1 | |
| **DUP 1** | 2021-10-19 | Diffuser | |
| **DUP 1** | 2021-11-02 | SW1 | |
| **DUP 1** | 2021-11-21 | SW1 | |

| Field Duplicate Sample ID | Date of Sampling Event | Corresponding Sample ID | Laboratory Analyses |
|---|---|---|---|
| **DUP 1** | 2021-12-01 | SW1 | |
| **DUP 1** | 2021-12-15 | SW4 | |
| **DUP 1** | 2022-03-24 | SW1 | |
| **DUP 1** | 2022-04-06 | SW1 | |
| **DUP 1** | 2022-04-19 | SW3 | |
| **DUP 1** | 2022-05-05 | SW13 | |
| **DUP 1** | 2022-05-19 | SW13 | |
| **DUP 1** | 2022-05-31 | SW13 | |
| **DUP 1** | 2022-06-16 | SW13 | |
| **DUP 1** | 2022-06-27 | SW13 | |
| **DUP 1** | 2022-09-29 | SW13 | |
| **DUP 1** | 2022-12-14 | LDO | |
| **DUP 1** | 2023-04-14 | SW19-20 | |
| **SWDUP1** | 2023-10-12 | SW13 | PHCs<br>Metals<br>General Chemistry |
| **DUP1** | 2023-12-01 | LDO | |
| **DUP1** | 2024-03-14 | LDO | |
| **DUP1** | 2024-06-28 | SW19-20 | |
| **DUP1** | 2024-11-07 | SW13 | |
| **DUP1** | 2025-03-04 | SW13 | |
| **DUP1** | 2025-06-12 | SW13 | |

**Appendix I** contains a detailed surface water QA/QC review that was used to assess the quality of the analytical data gathered during this program, including the acceptable RPD range for surface water.

## 4.4 Containment Cell Leachate Measurements

A summary of the Containment Cell leachate elevation and thickness measurements are provided in **Table 14** below.

### Table 14: Cell Leachate Elevation and Leachate Thickness

| Date | TOC Elevation | Bottom of Cell (mbtoc) | Leachate Depth (m) | Leachate Elevation (mbtoc) | Thickness of Leachate (m) |
|---|---|---|---|---|---|
| **6/15/2020** | 97.00 | 7.88 | 3.45 | 93.55 | 4.43 |
| **7/9/2020** | 97.00 | 7.88 | 3.72 | 93.28 | 4.16 |
| **8/11/2020** | 97.00 | 7.88 | 7.88 | 89.12 | 0.00 |
| **9/15/2020** | 97.00 | 7.88 | 7.88 | 89.12 | 0.00 |
| **10/16/2020** | 97.00 | 7.88 | 7.24 | 89.76 | 0.64 |
| **11/07/2020** | 97.00 | 7.88 | 7.88 | 89.12 | 0.00 |
| **12/2/2020** | 98.09 | 8.97 | 6.02 | 92.07 | 2.95 |
| **1/13/2021** | 98.09 | 8.97 | 5.34 | 92.75 | 3.63 |
| **2/12/2021** | 98.09 | 8.97 | 5.28 | 92.81 | 3.69 |

| Date | TOC Elevation | Bottom of Cell (mbtoc) | Leachate Depth (m) | Leachate Elevation (mbtoc) | Thickness of Leachate (m) |
|---|---|---|---|---|---|
| **3/7/2021** | 98.09 | 8.97 | 5.26 | 92.83 | 3.71 |
| **4/6/2021** | 98.09 | 8.97 | 5.31 | 92.78 | 3.66 |
| **5/12/2021** | 98.09 | 8.97 | 5.33 | 92.76 | 3.64 |
| **6/13/2021** | 98.09 | 8.97 | 5.41 | 92.68 | 3.56 |
| **7/15/2021** | 98.09 | 8.97 | 5.42 | 92.67 | 3.55 |
| **8/09/2021** | 98.09 | 8.97 | 5.40 | 92.69 | 3.57 |
| **9/01/2021** | 98.09 | 8.97 | 5.62 | 92.47 | 3.35 |
| **10/15/2021** | 98.09 | 8.97 | 5.86 | 92.23 | 3.11 |
| **11/17/2021** | 98.09 | 8.97 | 6.04 | 92.05 | 2.93 |
| **12/15/2021** | 98.09 | 8.97 | 6.15 | 91.94 | 2.82 |
| **1/19/2022** | 98.09 | 8.97 | 6.17 | 91.92 | 2.80 |
| **2/25/2022** | 98.09 | 8.97 | 6.20 | 91.89 | 2.77 |
| **3/07/2022** | 98.09 | 8.97 | 6.21 | 91.88 | 2.76 |
| **4/07/2022** | 98.09 | 8.97 | 7.77 | 90.32 | 1.20 |
| **8/02/2024** | 98.09 | 8.97 | 7.71 | 90.38 | 1.26 |
| **11/072024** | 98.09 | 8.97 | 7.75 | 90.34 | 1.22 |
| **12/19/2024** | N/A | N/A | N/A | N/A | N/A |
| **03/04/2025** | 98.09 | 8.97 | 7.79 | 90.30 | 1.18 |
| **06/13/2025** | 98.09 | 8.97 | 7.68 | 90.41 | 1.29 |

Notes:
* - Measurement to the new pipe height (pipe was extended 1.09m).
No measurement was collected in December 2024 due to slippery conditions and health and safety concerns.

# 5. Review of the Groundwater/ Surface Water Monitoring Program and Recommendations

## 5.1 Groundwater Review

### 5.1.1 Landfill Cell Area (LCA)

No post 2020 upward trends were identified at the LCA well locations for the parameters analyzed.

Previous elevated aluminum and uranium concentrations identified in the 2022 Annual Report for sample location MW1-S are considered to be in a stable condition. A new maximum concentration in manganese is noted during the October 2023 event for MW1-S, however manganese concentrations are considered to be similar concentrations before on-site leachate treatment/ construction. A new maximum concentration was noted for MW1-D for cadmium (5.95 ug/L) and manganese (9370 ug/L) during the December 2024 event. Both exceedances are only marginally higher in concentration than the previous maximum concentrations for this location (cadmium: 5.1 ug/L, manganese: 9300 ug/L). The trend is considered stable.

### 5.1.2 Former Buried Debris Areas (BDAs)

No post 2020 upward trends were identified at the BDA well locations for the parameters analyzed.

The following monitoring well sample locations were identified to have metals exceedances identified within the Former BDA during post 2020 on-site activity:

- MW2-S – Aluminum concentrations appear similar to historical trend data with the exception of two peak values occurring during the June and December 2022 sampling events. There was first time exceedance and maximum concentration noted at this location during the June 2025 sampling event for cadmium (0.108 ug/L) compared to the NS-PSS guideline value of 0.1 ug/L. This is a first-time exceedance for cadmium at this location; however, it is only marginally higher than the NS-PP guideline value. There was also an exceedance during the June 2025 sampling event in manganese (308 ug/L) compared to the CDWQ guideline value of 120 ug/L. The previous maximum concentration value for this location was 137 ug/L in June 2020 prior to on-site construction. The trend is considered stable.
- MW2-D - During on-site leachate treatment/ construction, uranium concentrations appear similar to historical trend data. There is a new maximum concentration noted at this location during the June 2025 sampling event for aluminum (419 ug/L) compared to the NS-PSS guideline value of 50 ug/L. The previous maximum concentration value for this location was 280 ug/L in December 2022. The trend is considered stable.
- MW5-D - Manganese concentrations appear similar to historical trend data with the exception of a peak value occurring during June 2022 sampling event. A new maximum value for arsenic is noted at this location during the December 2023 event. This new maximum value (12 ug/L (12-2023)) is only marginally higher than the previous maximum concentration (11 ug/L (12-2021). The trend is considered stable. A new maximum concentration was noted at this location during the December 2024 event for aluminum (128 ug/L) compared to the NS-PSS concentration of 50 ug/L. The previous maximum concentration for this location was 52 ug/L in November 2018. A new maximum concentration for arsenic (12.5 ug/L) compared to the CDWQ guideline value of 10 ug/L was detected during the December 2024 event; however, this is only marginally higher than the previous maximum concentration of 12 ug/L in December 2023. The trend is considered stable.
- MW7-S – A manganese peak value concentration was identified during the December 2022 sampling event and this elevated concentration (3800 mg/L) is considered to be an outlier concentration as the March 2023 appear to be similar to historical trend data.

- MW7-D – Manganese concentrations are elevated during construction activities (Sept 2020 to June 2021), with the exception of a peak value occurring during the October 2021 sampling event.
- MW8-S - Manganese a peak value concentration identified during Sept 2022 are considered to be similar to historical trend data. Uranium peak level concentration was identified during the March 2023 sampling event at this sampling location.
- MW8-D - During on-site leachate treatment/ construction, uranium concentrations appear to similar to pre on-site leachate treatment/ construction trend data; however, the uranium peak value occurs at the June 2021 sampling event. There is a first-time exceedance and maximum concentration noted at this location during the June 2025 event for arsenic (10.3 ug/L) compared to the CDWQ guideline value of 10 ug/L. This is a first-time exceedance for this parameter at this location; however, it is only marginally higher than the CDWQ guideline value. The trend is considered stable.
- MW19-12D – Uranium concentrations are elevated during construction activities (Sept 2020 to June 2021), with the exception of peak values occurring during December 2021 and June 2022 sampling events, and a new maximum uranium exceedance occurring during the December 2023 event. This new maximum value (29 ug/L (12-2023) is only marginally higher than the previous maximum concentration (22 ug/L (06-20220). The trend is considered stable.
- MW19-13S - During the construction period (September 2020 to June 2021), aluminium, cadmium, manganese concentrations are marginally elevated when compared to pre on-site leachate treatment/ construction concentrations, with the highest peak values occurring in December 2021 (aluminum) and October 2021 (cadmium and manganese).
- MW19-13D - Cadmium concentrations appear similar to historical trend data with the exception of a peak value occurring during December 2022 sampling event. There is a first-time exceedance and new maximum concentration noted for this location during the December 2024 event for uranium (20.4 ug/L) compared to the CDWQ guideline value of 20 ug/L. This is a first-time exceedance for this parameter at this location; however, it is only marginally higher than the CDWQ guideline value. The trend is considered stable.
- MW20-14S – Aluminum concentrations appear similar to historical trend data with the exception of a peak value occurring during September 2022 sampling event. A manganese peak level concentration identified during the July 2024 sampling event at this location. There is a new maximum concentration noted during the June 2025 event for aluminum (5210 ug/L) compared to the NS-PSS guideline value of 50 ug/L. The previous maximum concentration for this location was 270 ug/L in September 2022. There is a first-time and new maximum concentration noted for iron (7170 ug/L) compared to the NS-PSS guideline value of 3000 ug/L. The trend is considered stable.
- MW20-15S - A copper peak level concentration identified during the March 2023 sampling event at this sampling location.
- MW20-15D - Uranium peak level concentration was identified during the October 2023 sampling event at this sampling location.

Uranium in groundwater concentrations appear to be increasing over time at monitoring well MW8-S and MW20-15D; however, they are not considered to be an upward trend based on historical concentrations for these wells. Uranium concentrations at these monitoring well locations have consistently been above the background uranium concentration level for the site and the trend is currently considered to be stable. It should be noted that a new maximum uranium exceedance occurring during the December 2023 event for MW19-12D and during the December 2024 event for MW19-13D (first time occurrence); however, the trend is considered stable. At monitoring well MW20-15S, March 2023 copper concentrations are considered to be marginally above applicable criteria.

### 5.1.3 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs)

No post 2020 upward trends were identified at the LTPA and SP well locations for the parameters analyzed.

The following monitoring well sample locations were identified to have metals exceedances identified within the Former BDA during post 2020 on-site activity:

- MW7-D – Manganese concentrations are elevated during construction activities (Sept 2020 to June 2020); however, the highest concentration is noted in October 2021.
- MW19-13S - During the construction period (September 2020 to June 2021), aluminum, cadmium and manganese concentrations are marginally elevated when compared to pre on-site leachate treatment/ construction concentrations. Elevated concentrations in aluminum and cadmium are seen into December 2021 and October 2021 respectively.
- MW19-13D - Cadmium and copper concentrations are slightly elevated at the December 2020 sampling event; however, other pre and post leachate treatment/ construction cadmium and copper levels were similar to historical trend data. Manganese concentrations were elevated during pre on-site leachate treatment/ construction but do not during on-site construction activity. There is a first-time exceedance and new maximum concentration noted for this location during the December 2024 event for uranium (20.4 ug/L) compared to the CDWQ guideline value of 20 ug/L. This is a first-time exceedance for this parameter at this location; however, it is only marginally higher than the CDWQ guideline value. The trend is considered stable.
- PW19-01 - Elevated manganese concentrations occur during the September 2020, December 2020 and June 2021 sampling events. During on-site leachate treatment/ construction, arsenic concentrations appear to similar to pre on-site leachate treatment/ construction trend data; however, the arsenic peak value occurs at the June 2021 sampling event.

As the majority of the above noted LTPA and SPs upward trends and above noted exceedances are considered to be related to completed on-site construction activity, it is likely that the erosion and sediment controls in place (full vegetation growth and full landfill liner installation) have improved the groundwater chemistry.

Overall, the sporadic, marginally detectable petroleum hydrocarbon in groundwater exceedances identified to date during the on-site construction period are not considered to be an environmental or human health concern.

## 5.2 Surface Water Review

Based on the results presented within 2024-2025 Annual Report, surface water trend data are considered to be stable for all surface water samples included in the monitoring program. Therefore, the quarterly surface water monitoring program will remain in place, as per the NSECC Approval Document (NSECC Approval No. 2023-3356677-00).

### 5.2.1 Landfill Cell Area (LCA)

There are no surface water analytical parameters at surface water locations (SW4, SW19-20) positioned downgradient of the Landfill Cell Area (LCA) that illustrated upward trends that occurred since 2020. As surface water location SW3 was removed from the sampling program in March 2024, no additional trends analysis has been completed for this location for the 2024-2025 Annual Report

The following sample locations were identified to have metals exceedances identified within the Former BDA during post 2020 on-site activity:

- For SW3 and SW4 aluminum, cadmium, iron and lead trends track similarly between Sept 2020 to December 2020 with concentrations slightly rising within this period and returning back after this point; however, concentrations for these parameters appear to be similar (but slightly greater) to the upgradient background concentrations observed at SW1 within the same time periods. The above noted copper exceedance presented in **Table 9**, **Section 4.2.1.4** at SW3 is a one-time occurrence and marginally exceeds the applicable guideline.

- At SW19-20, aluminum, arsenic, cadmium, copper, iron, lead, manganese, vanadium and zinc concentration exceedances appear to mainly be elevated between September 2020 to December 2020 with the exception of manganese that reports its highest concentration on the last sampling event in late September 2021. The above noted selenium exceedance presented in **Table 9**, **Section 4.2.1.4** at SW19-20 occurs in early June 2020 before on-site construction commences.
- On December 28, 2021, the SW4 sample location reported a modified TPH of 0.11 mg/L (lube resemblance), which exceeds the NSECC-EQS guideline of 0.1 mg/L (lube resemblance). This was the only surface water petroleum hydrocarbon exceedance reported within the LCA.

As there are no upward trends noted in the Landfill Cell Area (LCA) surface water locations, and the majority of the above noted exceedances are related to the on-site construction activity, it is likely that the erosion and sediment controls in place (full vegetation growth and full landfill liner installation) have improved the surface water chemistry.

### 5.2.2 Former Buried Debris Areas (BDAs)

There are no surface water analytical parameters at surface water locations (SW4, SW13, SW19-20) positioned downgradient of the Former BDAs that illustrated upward trends that occurred since 2020. As surface water location SW3 and LDO were removed from the sampling program in March 2024, no additional trends analysis has been completed for these location for the 2024-2025 Annual Report.

The following surface water sample locations were identified to have metals exceedances identified within the Former BDA during post 2020 on-site activity:

- For the SW3 and SW4 sample locations, aluminum, cadmium, iron and lead trends track similarly between Sept 2020 to December 2020 with concentrations slightly rising within this period and returning back after this point; however, concentrations for these parameters appear to be similar (but slightly greater in some instances) to the upgradient background concentrations observed at SW1 within the same time periods. The above noted copper exceedance presented in **Table 10**, **Section 4.2.1.6** at SW3 is a one-time occurrence (September 24, 2020) and marginally exceeds the applicable guideline.
- The SW13 sample location is located at a road ditch along the Old Sambro Road. Elevated metals and general chemistry parameters identified at this sample location between June and October 2021 reduced significantly after these dates and returned to levels at or below pre-construction levels.
- At SW19-20, aluminum, arsenic, cadmium, copper, iron, lead, manganese, vanadium and zinc concentration exceedances appear to be mainly be elevated between Sept 2020 to December 2020.
- At former sample location LDO, exceedances are present for aluminum, cadmium, and copper during the 2022/2023 annual report timeline.
- On December 28, 2021, the SW4 sample location reported a modified TPH of 0.11 mg/L (lube resemblance), which exceeds the NSECC-EQS guideline of 0.1 mg/L (lube resemblance). This was the only surface water petroleum hydrocarbon exceedance reported within the LCA.

As there are no upward trends noted in the former BDA surface water locations, and the majority of the above noted exceedances are related to the on-site construction activity, it is likely that the erosion and sediment controls in place (full vegetation growth and full landfill liner installation) have improved the surface water chemistry.

### 5.2.3 Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs)

There are no surface water analytical parameters at surface water location (SW4) positioned downgradient of the Leachate Treatment Pad Area (LTPA) and Sedimentation Ponds (SPs) that illustrated upward trends that occurred since 2020. As surface water location SW3 and LDO were removed from the sampling program in March 2024, no additional trends analysis has been completed for these location for the 2024-2025 Annual Report.

The following surface water sample locations were identified to have metals exceedances identified within the Former LTPA and SP during post 2020 on-site activity:

- For the SW3, and SW4 sample locations, aluminum, cadmium, iron and lead trends track similarly between Sept 2020 to December 2020 with concentrations slightly rising in within this period and returning back after this point, with the exception of SW4 which shows its highest concentration to date for cadmium in May 2021, and iron and lead in June 2021.However, concentrations for these parameters appear to be similar (but slightly greater in some instances) to the upgradient background concentrations observed at SW1 within the same time periods. The above noted copper exceedance at SW3 is a one-time occurrence (September 24, 2020) and marginally exceeds the applicable guideline.
- At former sampling location LDO, exceedances are present for aluminum, cadmium, and copper during the 2022-2023 annual report timeline.

As there are no upward trends noted in the LTPA and SP surface water locations, and the majority of the noted exceedances are related to the on-site construction activity, it is likely that the erosion and sediment controls in place (full vegetation growth and full landfill liner installation) have improved the surface water chemistry.

Overall, the sporadic, marginally detectable petroleum hydrocarbon in surface water exceedances identified to date during the on-site construction period are not considered to be an environmental or human health concern.

## 5.3 Recommendations

Based on the results and review of this Annual Report, AECOM provides the following recommendations for the groundwater and surface water monitoring programs:

### Groundwater Monitoring Program

As site disturbance and leachate treatment activities were complete in October 2021 and results trends are considered to be stable (no trend) at all groundwater sampling locations, it is recommended that the groundwater sampling frequency continues to be semi-annual monitoring for metals and general chemistry parameters, which is the current sampling frequency that is laid out in the NSECC Approval No. 2023-3356677-00. Based on the same premise, it is also recommended that the groundwater sampling frequency continues to be annual monitoring for petroleum hydrocarbon parameters, which is the current sampling frequency that is laid out in the NSECC Approval No. 2023-3356677-00. Based on the phenol analytical data gathered for the Site, it is recommended that phenol analysis be removed from the groundwater monitoring program.

The following additional recommendations are provided for select monitoring well locations:

- MW4 - this monitoring well location should be decommissioned as it is not being used as part of the current sampling program due to historical anomalous groundwater characteristics (well installed within a spring/ seep area).

- MW19-09S – this monitoring well should be removed from the program and decommissioned based on the analytical results and the positioning of this monitoring well (downgradient of the former leachate treatment pad area).

- MW19-10S – this monitoring well should be removed from the program and decommissioned as the groundwater levels at MW19-10S are not typically present above the bedrock horizon at this overburden well

location.

- MW19-11M and MW8-S/D should be resurveyed due to previously completed repairs that effected top of casing well elevations at these three sample locations.

- Some wells may require repairs based on deteriorating conditions noted during site visits.

## Surface Water Monitoring Program

As site disturbance and leachate treatment activities were complete in October 2021 and results trends were considered to be stable at all surface water sampling locations, surface water sampling frequency transitioned from bi-weekly monitoring to quarterly monitoring at the end of June 2022 and it is recommended that this quarterly monitoring frequency continues for the surface water monitoring program, which is the current sampling frequency that is laid out in the NSECC Approval No. 2023-3356677-00. Based on the petroleum hydrocarbon and phenol analytical data for the Site, it is recommended that petroleum hydrocarbon and phenol analyses be removed from the surface water monitoring program.

The following additional recommendations are provided for select surface water sample locations:

- Continue on with the quarterly surface water monitoring program at the three (3) surface water locations (SW4, SW13, and SW19-20).

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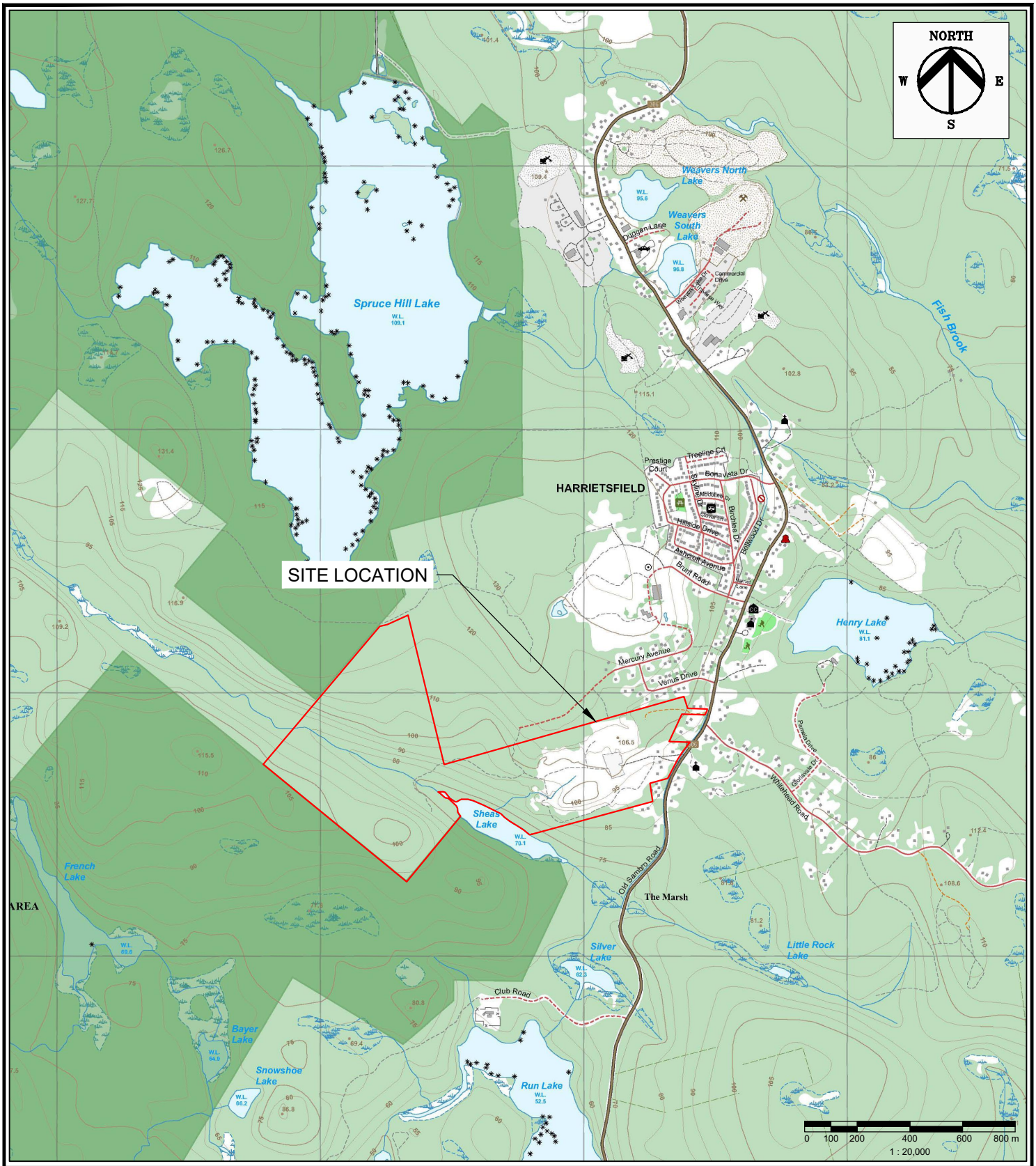
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# Appendix A. Figures




REFERENCE:
REPRODUCED WITH THE PERMISSION OF SERVICE NOVA SCOTIA & MUNICIPAL RELATIONS

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| CLIENT NAME: | PROJECT LOCATION: |
|---|---|
| BUILD NOVA SCOTIA | HARRIETSFIELD, NOVA SCOTIA |

# GENERAL SITE LOCATION

PROJECT NAME: ANNUAL MONITORING REPORT (2024/2025)
FORMER LANDFILL SITE HARRIETSFIELD, NOVA SCOTIA
PROJECT NO.: 60718540

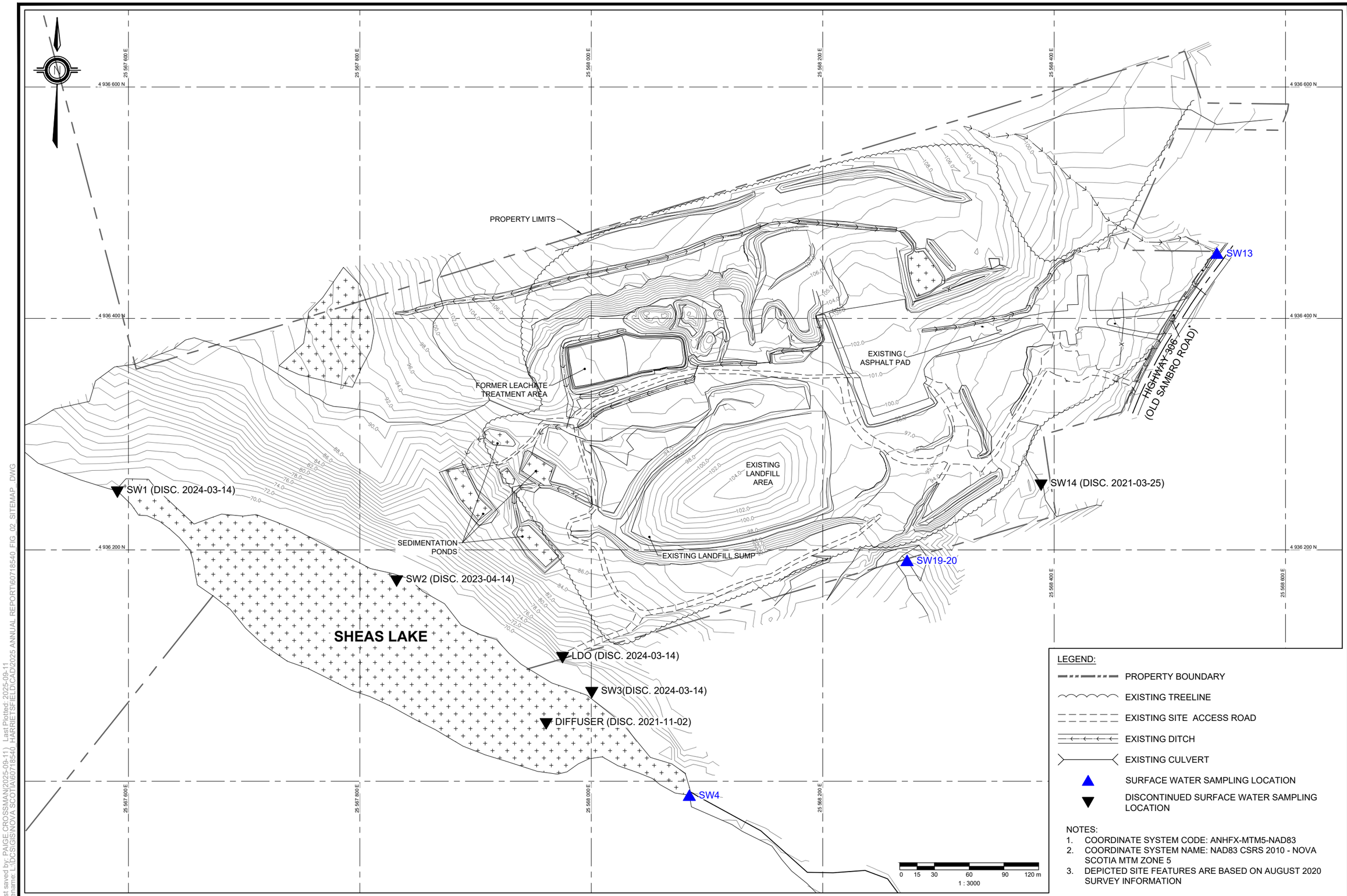
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|---|---|---|
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| CHECKED: JS | DATE: September, 2025 | REVISION 0 |

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AECOM

FIGURE: 2

SURFACE WATER SAMPLE LOCATION MAP




LEGEND:

- PROPERTY BOUNDARY
- EXISTING TREELINE
- EXISTING SITE ACCESS ROAD
- EXISTING DITCH
- EXISTING CULVERT
- SURFACE WATER SAMPLING LOCATION
- DISCONTINUED SURFACE WATER SAMPLING LOCATION

NOTES:

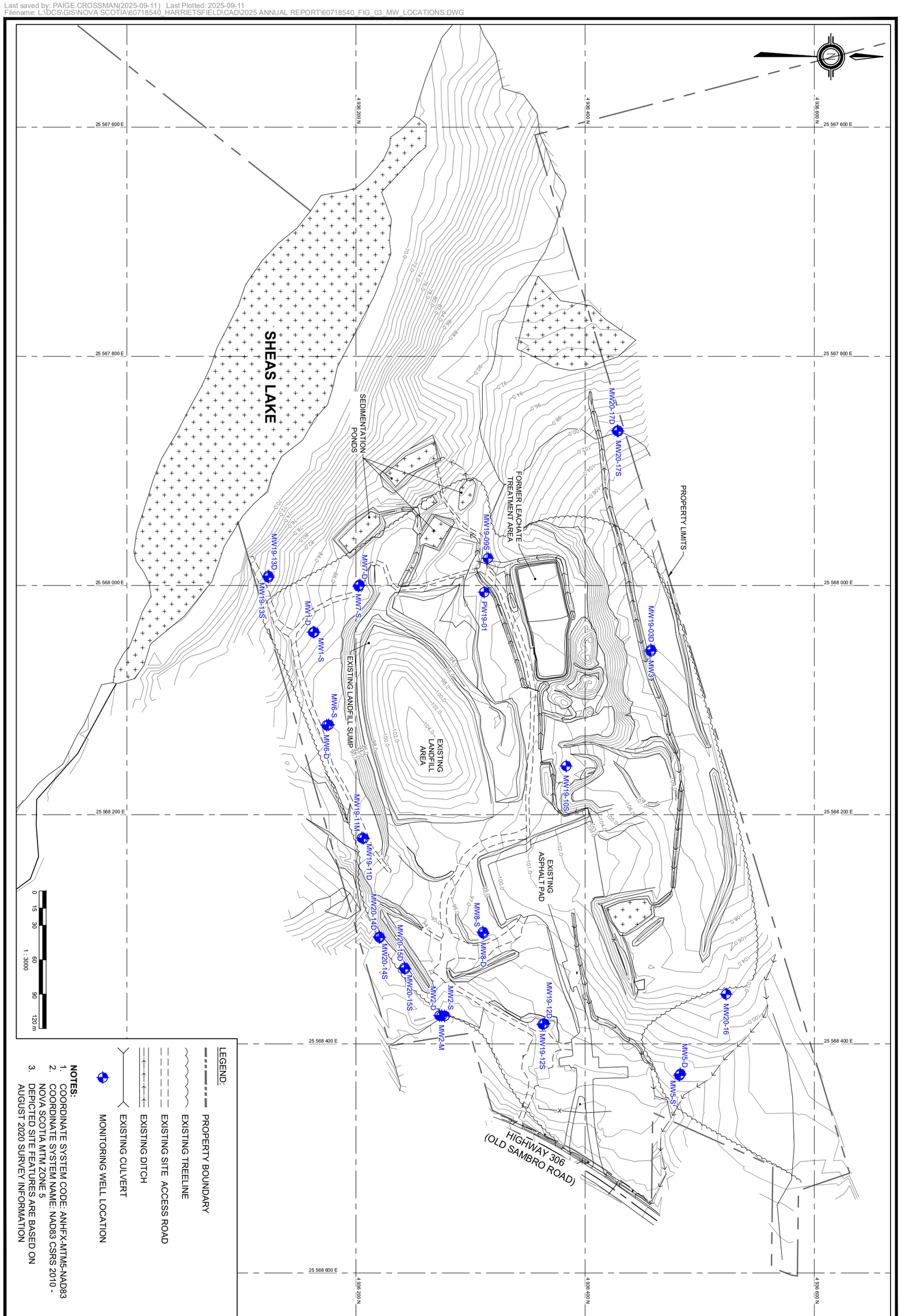
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2. COORDINATE SYSTEM NAME: NAD83 CSRS 2010 - NOVA SCOTIA MTM ZONE 5
3. DEPICTED SITE FEATURES ARE BASED ON AUGUST 2020 SURVEY INFORMATION

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**ANNUAL MONITORING REPORT (2024/2025)**
**Former Landfill Site Harrietsfield, Build Nova Scotia**
Harrietsfield, Nova Scotia
Project No.: 60718540 Date: September, 2025

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**ANNUAL MONITORING REPORT (2024/2025)**
**Former Landfill Site Harrietsfield, Build Nova Scotia**
Harrietsfield, Nova Scotia
Project No.: 60718540 Date: September, 2025

**GROUND WATER SAMPLE LOCATION MAP**

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**FIGURE: 3**

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FIGURE: 4

GROUNDWATER CONTOUR MAP
SHALLOW MONITORING WELLS
(DECEMBER 2024, JUNE 2025)

| | MONITORING WELL GROUND WATER ELEVATIONS (METRES) | |
|---|---|---|
| Well ID | Dec-24 | Jun-25 |
| MW1-S | 84.832 | 85.247 |
| MW2-S | 90.540 | 90.555 |
| MW3 | 111.542 | 111.682 |
| MW5-S | 95.907 | 95.972 |
| MW6-S | 87.376 | 87.666 |
| MW7-S | 87.160 | 87.510 |
| MW8-S | 94.564 | 94.294 |
| MW19-09S | 95.753 | 95.753 |
| MW19-10S | 102.697 | 102.697 |
| PW19-01 | 94.550 | 94.600 |
| MW19-12S | 91.874 | 94.454 |
| MW19-13S | 74.929 | 74.819 |
| MW20-14S | 88.707 | 89.077 |
| MW20-15S | 89.200 | 88.860 |
| MW20-17S | 100.936 | 101.226 |

LEGEND:

- PROPERTY BOUNDARY
- EXISTING TREELINE
- EXISTING SITE ACCESS ROAD
- EXISTING DITCH
- EXISTING CULVERT
- MONITORING WELL
- DECEMBER 2024 GROUNDWATER CONTOUR (5m)
- JUNE 2025 GROUNDWATER CONTOUR (5m)

**NOTES:**

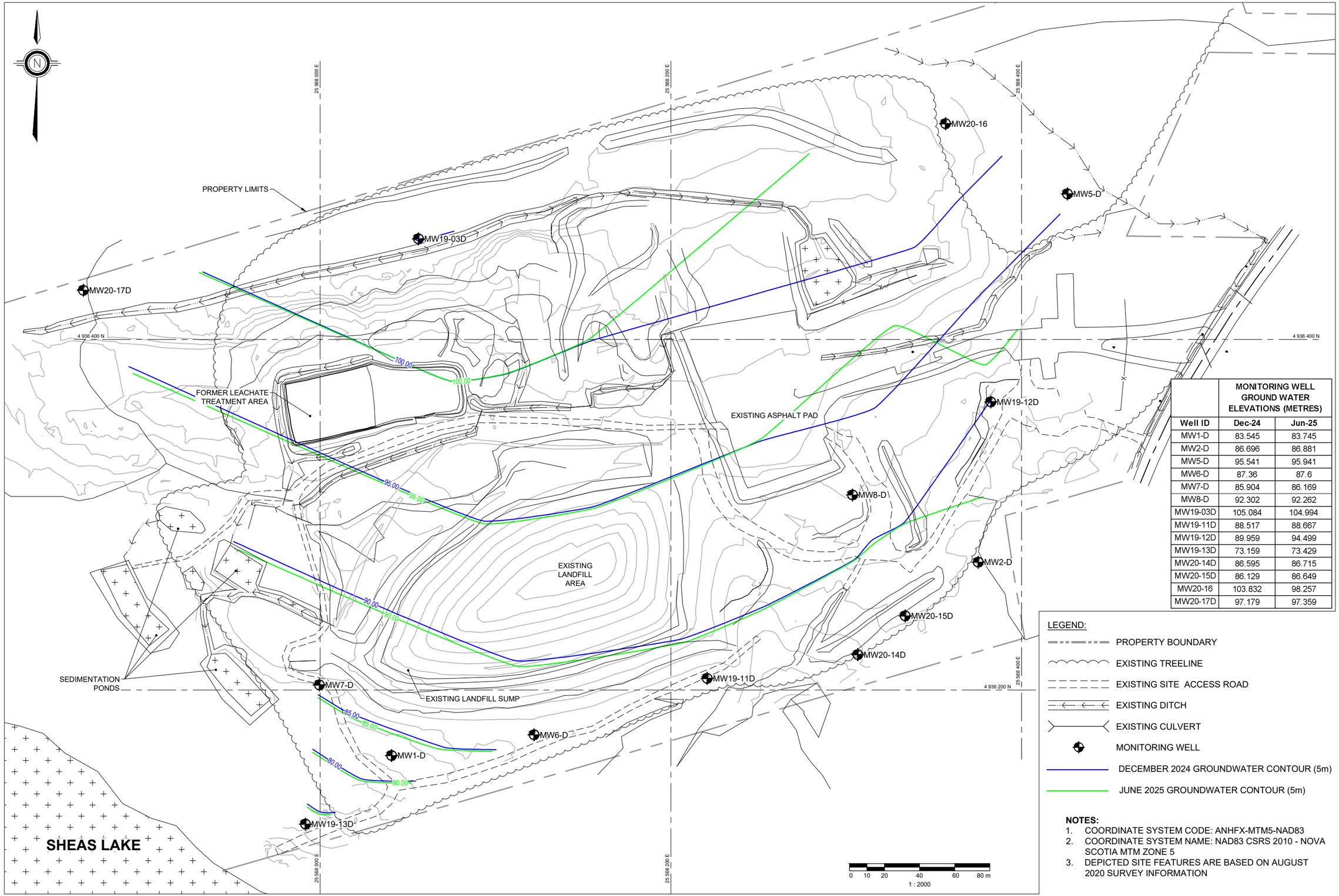
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2. COORDINATE SYSTEM NAME: NAD83 CSRS 2010 - NOVA SCOTIA MTM ZONE 5
3. DEPICTED SITE FEATURES ARE BASED ON AUGUST 2020 SURVEY INFORMATION

0 10 20 40 60 80 m
1 : 2000

**ANNUAL MONITORING REPORT (2024/2025)**
**Former Landfill Site Harrietsfield, Build Nova Scotia**
Harrietsfield, Nova Scotia
Project No.: 60718540 Date: September, 2025

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| | MONITORING WELL GROUND WATER ELEVATIONS (METRES) | |
|---|---|---|
| **Well ID** | **Dec-24** | **Jun-25** |
| MW1-D | 83.545 | 83.745 |
| MW2-D | 86.696 | 86.881 |
| MW5-D | 95.541 | 95.941 |
| MW6-D | 87.36 | 87.6 |
| MW7-D | 85.904 | 86.169 |
| MW8-D | 92.302 | 92.262 |
| MW19-03D | 105.084 | 104.994 |
| MW19-11D | 88.517 | 88.667 |
| MW19-12D | 89.959 | 94.499 |
| MW19-13D | 73.159 | 73.429 |
| MW20-14D | 86.595 | 86.715 |
| MW20-15D | 86.129 | 86.649 |
| MW20-16 | 103.832 | 98.257 |
| MW20-17D | 97.179 | 97.359 |

LEGEND:

- PROPERTY BOUNDARY
- EXISTING TREELINE
- EXISTING SITE ACCESS ROAD
- EXISTING DITCH
- EXISTING CULVERT
- MONITORING WELL
- DECEMBER 2024 GROUNDWATER CONTOUR (5m)
- JUNE 2025 GROUNDWATER CONTOUR (5m)

**NOTES:**

1. COORDINATE SYSTEM CODE: ANHFX-MTM5-NAD83
2. COORDINATE SYSTEM NAME: NAD83 CSRS 2010 - NOVA SCOTIA MTM ZONE 5
3. DEPICTED SITE FEATURES ARE BASED ON AUGUST 2020 SURVEY INFORMATION

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**FIGURE: 5**

**GROUNDWATER CONTOUR MAP**
**DEEP MONITORING WELLS**
**(DECEMBER 2024, JUNE 2025)**

**ANNUAL MONITORING REPORT (2024/2025)**
**Former Landfill Site Harrietsfield, Build Nova Scotia**
Harrietsfield, Nova Scotia
Project No.: 60718540 Date: September, 2025

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# Appendix B. Monitoring Well Logs

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-03D** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,457.4 E 25,568,056.1 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 113.51 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | SILT<br>- Brown sandy silt with some cobble | | | | SPT blows: 12-10-5-4<br>Recovery: 75% | |
| | | | | | | SPT blows: 20-6-4-4<br>Recovery: 75% | 113 |
| 1 | | NO RECOVERY | | | | | |
| | | SILT<br>- Brown silt with some clay, some cobble | | | | SPT blows: 14-4-5-5<br>Recovery: 75% | 112 |
| 2 | | SILT<br>- Brown clayey silt | | | | SPT blows: 7-7-9-10<br>Recovery: 100% | |
| | | NO RECOVERY | | | | | 111 |
| 3 | | CLAY<br>- Brown silty clay with some cobble | | | | SPT blows: 8-8-9-12<br>Recovery: 100% | |
| | | | | | | SPT blows: 49-15-17-15<br>Recovery: 100% | 110 |
| 4 | | NO RECOVERY | | | | | |
| | | CLAY<br>- Brown silty clay with grey stone, wet | | | | SPT blows: 9-11-16-13<br>Recovery: 20% | 109 |
| 5 | | NO RECOVERY | | | | Recovery: 50% | |
| | | | | | | | 108 |
| 6 | | CLAY<br>- Wet brown silty clay | | | | SPT blows: 4-8-13-13<br>Recovery: 60% | |
| | | NO RECOVERY | | | | | 107 |
| 7 | | | | | | | |
| | | | | | | | 106 |
| 8 | | CLAY<br>- Brown sandy clay, some cobble | | | | SPT blows: 8-12-22-25<br>Recovery: 30% | |
| 8.5 | | | | | | | |

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| LOGGED BY: Janice Shea | COMPLETION DEPTH: 15.54 m |
|---|---|
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 2/4/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-03D** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,457.4 E 25,568,056.1 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 113.51 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 8.5 | | NO YIELD | | | | SPT blows: 22-17-17-23<br>Recovery: 0% | |
| 9 | | NO RECOVERY | | | | | 104 |
| 10 | | | | | | | 103 |
| | | CLAY<br>- Brown silty clay, some cobble, some sand | | | | SPT blows: 13-25-50 | |
| 11 | | GRANITE | | | | RQD: 105% | 102 |
| 12 | | | | | | | 101 |
| 13 | | | | | | | 100 |
| 14 | | | | | | RQD: 98% | 99 |
| 15 | | | | | | RQD: 98% | 98 |
| | | End of borehole at 15.54 m below ground surface (bgs)<br>Monitoring well installed upon completion of borehole | | | | | |
| 16 | | | | | | | 97 |
| 17.1 | | | | | | | |

AECOM

| LOGGED BY: Janice Shea | COMPLETION DEPTH: 15.54 m |
|---|---|
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 2/4/2019 |
| PROJECT MANAGER: Derek Heath | Page 2 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-09S** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,315.1 E 25,567,976.2 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 95.75 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | CLAY<br>- Brown, sandy clay, some gravel | | | | SPT blows: 5-9-3-1<br>Recovery: 90% | |
| | | SILT<br>- Brown silt, trace sand | | | | SPT blows: 6-15-15-12<br>Recovery: 90% | 95 |
| 1 | | - very moist<br>- grey-white boulder encountered | | | | SPT blows: 16-23-38-21<br>Recovery: 90% | |
| | | | | | | SPT blows: 8-12-16-23<br>Recovery: 90% | 94 |
| 2 | | | | | | SPT blows: 14-40-35-33<br>Recovery: 90% | |
| | | | | | | | 93 |
| 3 | | | | | | SPT blows: 16-13-17-31<br>Recovery: 90% | |
| | | | | | | SPT blows: 18-22-26-32<br>Recovery: 90% | 92 |
| 4 | | | | | | | |
| | | NO RECOVERY | | | | | 91 |
| 5 | | | | | | | |
| | | | | | | | 90 |
| 6 | | SILT<br>- Brown silt, trace sand<br>- Bedrock encountered at 6.40 m bgs | | | | SPT blows:15-38-50<br>Recovery: 90% | |
| | | End of borehole at 6.4 m below ground surface (bgs)<br>Monitoring well installed upon completion of borehole | | | | | 89 |
| 7 | | | | | | | |
| | | | | | | | 88 |
| 8 | | | | | | | |
| 8.5 | | | | | | | |

AECOM

| LOGGED BY: Janice Shea | COMPLETION DEPTH: 6.40 m |
|---|---|
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 1/30/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-10S** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,383.5 E 25,568,157.6 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 102.7 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | SILT<br>- Brown sandy silt with some black organics | | | | SPT blows: 5-4-3-1<br>Recovery: 80% | |
| | | ORGANICS<br>- Black organics | | | | SPT blows: 7-5-7-7<br>Recovery: 80% | 102 |
| 1 | | SILT<br>- Brown sandy silt<br>- trace gravel | | | | SPT blows: 6-9-11-13<br>Recovery: 80% | |
| | | | | | | | 101 |
| 2 | | | | | | SPT blows: 10-11-10-12<br>Recovery: 80% | |
| | | | | | | SPT blows: 16-10-14-13<br>Recovery: 80% | |
| | | TILL<br>- Brown silty till with some gravel | | | | | 100 |
| 3 | | | | | | Pulled up garbage with auger<br>SPT blows:7-13-13-12<br>Recovery: 80% | |
| | | | | | | SPT blows: 10-30-36-50<br>Recovery: 70% | 99 |
| 4 | | GRAVEL<br>- Moist, sandy gravel till | | | | | |
| | | End of borehole at 4.15 m below ground surface (bgs)<br>Monitoring well installed upon completion of borehole | | | | | 98 |
| 5 | | | | | | | |
| | | | | | | | 97 |
| 6 | | | | | | | |
| | | | | | | | 96 |
| 7 | | | | | | | |
| | | | | | | | 95 |
| 8 | | | | | | | |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: Janice Shea | COMPLETION DEPTH: 4.15 m |
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 1/31/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-11D** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,205.3 E 25,568,220.3 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 90.16 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | CLAY<br>- Moist, brown silty clay | | | | SPT blows: 6-2-1-7<br>Recovery: 75%<br>RQD: 52% | 90 |
| | | GRANITE | | | | | |
| 1 | | | | | | RQD: 65% | 89 |
| 2 | | | | | | | 88 |
| 3 | | - highly fractured | | | | RQD: 30% | 87 |
| 4 | | | | | | | 86 |
| | | | | | | RQD: 75% | |
| 5 | | | | | | | 85 |
| 6 | | | | | | RQD: 93% | 84 |
| 7 | | | | | | | 83 |
| | | | | | | RQD: 68% | |
| 8 | | - Silty seam | | | | | 82 |
| 8.5 | | End of borehole at 8.2 m bgs<br>Monitoring well installed upon completion of borehole | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: Janice Shea | COMPLETION DEPTH: 8.23 m |
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 1/30/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-11M** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,206.6 E 25,568,220.7 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 90.49 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | CLAY<br>- Brown, sandy clay | | | | SPT blows: 5-13-9-10<br>Recovery: 75%<br>RQD: 75% | 90 |
| 1 | | GRANITE<br>- Refusal encountered at 0.6 m below ground surface (bgs) | | | | RQD: 85% | 89 |
| 2 | | | | | | | 88 |
| 3 | | | | | | RQD: 88% | 87 |
| 4 | | - possible seam, water-bearing fracture | | | | | 86 |
| 5 | | End of borehole at 4.57 m bgs<br>Monitoring well installed upon completion of borehole | | | | | 85 |
| 6 | | | | | | | 84 |
| 7 | | | | | | | 83 |
| 8 | | | | | | | |
| 8.5 | | | | | | | |

AECOM

| LOGGED BY: Janice Shea | COMPLETION DEPTH: 4.57 m |
|---|---|
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 1/30/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-12D** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,364.3 E 25,568,382.5 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 95.579 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | Brown silt, trace sand<br>Small boulder / crushed rock from 0.3-0.6 m | | | | SPT blows: 1-1-15-10<br>60% recovery | |
| | | Brown silt with gravel, dry | | | | SPT blows: 14-11-15-15<br>50% recovery | 95 |
| 1 | | | | | | | |
| | | White / grey boulders and cobbles | | | | SPT blows: 11-20-50/4"<br>30% recovery | |
| 2 | | | | | | | 94 |
| | | | | | | | 93 |
| 3 | | Bedrock below 3 m below gound surface | | | | | |
| | | | | | | | 92 |
| 4 | | | | | | | |
| | | | | | | | 91 |
| 5 | | | | | | | |
| | | | | | | | 90 |
| 6 | | | | | | | |
| | | | | | | | 89 |
| 7 | | End of borehole at 7 m bgs<br>Monitoring well installed upon completion of borehole | | | | | |
| | | | | | | | 88 |
| 8 | | | | | | | |
| 8.5 | | | | | | | |

AECOM

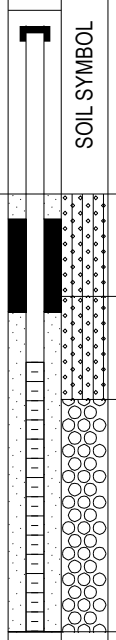
| | |
|---|---|
| LOGGED BY: Janice Shea | COMPLETION DEPTH: 7.00 m |
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 6/27/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-12S** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,362.9 E 25,568,382.9 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 95.684 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND



| DEPTH (m) | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|
| 0 | Brown silt, trace sand<br>Small boulder / crushed rock from 0.3-0.6 m | | | | SPT blows: 1-1-15-10<br>60% recovery | |
| 1 | Brown silt with gravel, dry | | | | SPT blows: 14-11-15-15<br>50% recovery | 95 |
| 2 | White / grey boulders and cobbles | | | | SPT blows: 11-20-50/4"<br>30% recovery | 94 |
| 2.6 | End of borehole<br>Monitoring well installed upon borehole completion<br>Bedrock below 2.6 m bgs | | | | | 93 |
| 3 | | | | | | |
| 4 | | | | | | 92 |
| 5 | | | | | | 91 |
| 6 | | | | | | 90 |
| 7 | | | | | | 89 |
| 8 | | | | | | 88 |
| 8.5 | | | | | | |

AECOM

| LOGGED BY: Janice Shea | COMPLETION DEPTH: 2.60 m |
|---|---|
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 6/27/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **PW19-01** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,311.9 E 25,568,005.7 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 95.98 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | Cobbles with some boulders | | | | | 95 |
| 1 | | | | | | | 94 |
| 2 | | | | | | | 93 |
| 3 | | | | | | | 92 |
| 4 | | - Sand could range from 3.1- 4.3 m due to boulders / cobbles. Could not measure due to interference. | | | | | 91 |
| 5 | | | | | | | 90 |
| 6 | | End of borehole at 6.1 m<br>Production well installed upon completion of the borehole<br>Bedrock below 6.1 m | | | | | 89 |
| 7 | | | | | | | 88 |
| 8 | | | | | | | |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: Janice Shea | COMPLETION DEPTH: 6.10 m |
| REVIEWED BY: Alex Duguay | COMPLETION DATE: 6/27/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-03-08.GPJ UMA_COC.GDT PRINT: 10/11/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-13D** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,123.3 E 25,567,991.5 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 76.156 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | Brown Sandy Silt<br>- some clay<br>- trace cobbles | | | | | 76 |
| 1 | | | | | | | 75 |
| 2 | | | | | | | 74 |
| 3 | | | | | | | 73 |
| 4 | | Bedrock at 4.30 mBGS | | | | | 72 |
| 5 | | | | | | | 71 |
| 6 | | | | | | | 70 |
| 7 | | | | | | | 69 |
| 8 | | - End of borehole at 7.93 mBGS | | | | | 68 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: Derek Heath | COMPLETION DEPTH: 7.93 m |
| REVIEWED BY: Cody Sipkema | COMPLETION DATE: 11/14/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 12/20/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW19-13S** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,123.6 E 25,567,992.8 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 76.469 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | Brown Sandy Silt<br>- some clay<br>- trace cobbles | | | | | 76 |
| 1 | | | | | | | 75 |
| 2 | | | | | | | 74 |
| 3 | | Bedrock at 3.35 mBGS | | | | | 73 |
| | | - End of borehole at 3.66 mBGS | | | | | |
| 4 | | | | | | | 72 |
| 5 | | | | | | | 71 |
| 6 | | | | | | | 70 |
| 7 | | | | | | | 69 |
| 8 | | | | | | | 68 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: Derek Heath | COMPLETION DEPTH: 3.66 m |
| REVIEWED BY: Cody Sipkema | COMPLETION DATE: 11/14/2019 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 12/20/19 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-14D** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,220.2 E 25,568,306.6 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 89.898 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Brown silty sand trace gravel | | | | | |
| | | | | 1 | | SPT blows: 0-0-1-5<br>49% recovery | |
| 1 | | | | | | | 89 |
| | | | | 2 | | SPT blows: 5-8-11-12<br>90% recovery | |
| | | | | 3 | | SPT blows: 13<br>71% recovery<br>45% recovery | |
| 2 | | - Granite bedrock | | | | | 88 |
| | | - Red brown silt seam | | | | | |
| | | - Granite bedrock | | | | | |
| | | - Red brown silt seam | | | | | |
| | | - Granite bedrock | | 4 | | | |
| 3 | | | | | | | 87 |
| | | | | | | 34% recovery | |
| 4 | | | | 5 | | | 86 |
| | | | | 6 | | 92% recovery | |
| 5 | | | | | | 100% recovery | 85 |
| | | | | 7 | | | |
| 6 | | | | | | | 84 |
| | | | | | | 72% recovery | |
| 7 | | | | 8 | | | 83 |
| 8 | | | | | | 92% recovery | 82 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 9.20 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 4/30/2020 |
| PROJECT MANAGER: Derek Heath | Page 1 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-14D** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,220.2 E 25,568,306.6 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 89.898 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 8.5 | | | | 9 | | | 81 |
| 9 | | - End of borehole at 9.20 metres below the ground surface<br>- Monitoring well installed upon completion of borehole | | | | | |
| 10 | | | | | | | 80 |
| 11 | | | | | | | 79 |
| 12 | | | | | | | 78 |
| 13 | | | | | | | 77 |
| 14 | | | | | | | 76 |
| 15 | | | | | | | 75 |
| 16 | | | | | | | 74 |
| 17.1 | | | | | | | 73 |

AECOM

| LOGGED BY: David Bugden | COMPLETION DEPTH: 9.20 m |
|---|---|
| REVIEWED BY: Janice Shea | COMPLETION DATE: 4/30/2020 |
| PROJECT MANAGER: Derek Heath | Page 2 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-14S** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,220.7 E 25,568,307.2 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 90.008 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Brown silty sand trace gravel | | | | | |
| | | | | 1 | | SPT blows: 0-0-1-5<br>49% recovery | |
| 1 | | | | | | | 89 |
| | | | | 2 | | SPT blows: 5-8-11-12<br>90% recovery | |
| | | | | 3 | | SPT blows: 13<br>71% recovery<br>45% recovery | |
| 2 | | - Granite bedrock | | | | | 88 |
| | | - Red brown silt seam | | | | | |
| | | - Granite bedrock | | | | | |
| | | - Red brown silt seam | | | | | |
| | | - Granite bedrock | | 4 | | | |
| 3 | | | | | | | 87 |
| | | | | | | 34% recovery | |
| 4 | | | | 5 | | | 86 |
| | | | | | | 92% recovery | |
| | | - End of borehole at 4.72 metres below the ground surface<br>- Monitoring well installed upon completion of borehole | | | | | |
| 5 | | | | | | | 85 |
| 6 | | | | | | | 84 |
| 7 | | | | | | | 83 |
| 8 | | | | | | | 82 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 4.72 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 5/1/2020 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-15D** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,242.2 E 25,568,333.7 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 92.436 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Brown silty sand trace gravel some cobbles | | 1 | | SPT blows: 0, 3, 9, 12<br>26% recovery | 92 |
| 1 | | - Augered cobbles 1.19 - 1.52 m | | 2 | | SPT blows: 11, 22, 29, 50<br>38% recovery | 91 |
| 2 | | - Granite bedrock | | 3 | | SPT blows: 35, 37, 40, 50<br>89% recovery<br>74% recovery | 90 |
| 3 | | | | 4 | | 57% recovery | 89 |
| 4 | | - Mud seam 3.35 to 3.66 m | | 5 | | | 88 |
| 5 | | | | 6 | | 78% recovery | 87 |
| 6 | | | | | | 60% recovery | 86 |
| 7 | | | | 7 | | | 85 |
| 8 | | | | | | 63% recovery | 84 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 9.30 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 2/5/2020 |
| PROJECT MANAGER: Derek Heath | Page 1 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-15D** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,242.2 E 25,568,333.7 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 92.436 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 8.5 | | | | 8 | | | |
| 9 | | - End of borehole at 9.30 metres below ground surface<br>- Monitoring well installed upon completion of borehole | | | | | 83 |
| 10 | | | | | | | 82 |
| 11 | | | | | | | 81 |
| 12 | | | | | | | 80 |
| 13 | | | | | | | 79 |
| 14 | | | | | | | 78 |
| 15 | | | | | | | 77 |
| 16 | | | | | | | 76 |
| 17.1 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 9.30 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 2/5/2020 |
| PROJECT MANAGER: Derek Heath | Page 2 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-15S** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,242.8 E 25,568,334.5 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 92.425 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Brown silty sand trace gravel some cobbles | | 1 | | SPT blows: 0, 3, 9, 12<br>26% recovery | 92 |
| 1 | | - Augered cobbles 1.19 - 1.52 m | | 2 | | SPT blows: 11, 22, 29, 50<br>38% recovery | 91 |
| 2 | | - Granite bedrock | | 3 | | SPT blows: 35, 37, 40, 50<br>89% recovery | 90 |
| 3 | | | | 4 | | 74% recovery | 89 |
| 4 | | - Mud seam 3.35 to 3.66 m | | | | 57% recovery | 88 |
| 5 | | - End of borehole at 4.88 metres below ground surface<br>- Monitoring well installed upon completion of borehole | | | | | 87 |
| 6 | | | | | | | 86 |
| 7 | | | | | | | 85 |
| 8 | | | | | | | 84 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 4.88 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 1/5/2020 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-16** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,523.1 E 25,568,356.7 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 103.162 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Granite bedrock | | 1 | | Recovery: 69% | 103 |
| 1 | | | | | | | 102 |
| | | | | 2 | | Recovery: 100% | |
| 2 | | | | | | | 101 |
| | | | | | | Recovery: 92% | |
| 3 | | | | 3 | | | 100 |
| 4 | | | | | | Recovery: 100% | 99 |
| | | | | 4 | | | |
| 5 | | | | | | | 98 |
| | | | | | | Recovery: 100% | |
| 6 | | | | 5 | | | 97 |
| 7 | | | | | | Recovery: 100% | 96 |
| | | | | 6 | | | |
| 8 | | | | | | | 95 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 11.58 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 5/2/2020 |
| PROJECT MANAGER: Derek Heath | Page 1 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-16** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,523.1 E 25,568,356.7 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 103.162 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 8.5 | | | | | | Recovery: 100% | |
| 9 | | | | 7 | | | 94 |
| 10 | | | | | | Recovery: 92% | 93 |
| 11 | | | | 8 | | | 92 |
| 11.58 | | - End of borehole at 11.58 metres below ground surface<br>- Monitoring well installed upon completion of borehole | | | | | |
| 12 | | | | | | | 91 |
| 13 | | | | | | | 90 |
| 14 | | | | | | | 89 |
| 15 | | | | | | | 88 |
| 16 | | | | | | | 87 |
| 17.1 | | | | | | | |

AECOM

| LOGGED BY: David Bugden | COMPLETION DEPTH: 11.58 m |
|---|---|
| REVIEWED BY: Janice Shea | COMPLETION DATE: 5/2/2020 |
| PROJECT MANAGER: Derek Heath | Page 2 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-17D** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,428.0 E 25,567,865.0 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 102.294 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Brown silty sand, cobbles, small boulders | | | | | 102 |
| 1 | | | | | | | 101 |
| 2 | | | | | | | 100 |
| 3 | | | | | | | 99 |
| 4 | | | | | | | 98 |
| 5 | | | | | | | 97 |
| 6 | | | | | | | 96 |
| 7 | | | | | | | 95 |
| 8 | | | | | | | 94 |
| 8.5 | | | | | | | |

AECOM

LOGGED BY: David Bugden | COMPLETION DEPTH: 12.50 m

REVIEWED BY: Janice Shea | COMPLETION DATE: 5/3/2020

PROJECT MANAGER: Derek Heath | 

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-17D** |
|---|---|---|
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,428.0 E 25,567,865.0 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 102.294 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 8.5 | | - Granite bedrock | | | | | 93.8 |
| 9 | | | | | | | 93 |
| 10 | | | | | | | 92 |
| 11 | | | | | | | 91 |
| 12 | | | | | | | 90 |
| 12.5 | | - End of borehole at 12.50 metres below ground surface<br>- Monitoring well installed upon completion of borehole | | | | | 89.8 |
| 13 | | | | | | | 89 |
| 14 | | | | | | | 88 |
| 15 | | | | | | | 87 |
| 16 | | | | | | | 86 |
| 17.1 | | | | | | | 84.9 |

AECOM

| LOGGED BY: David Bugden | COMPLETION DEPTH: 12.50 m |
|---|---|
| REVIEWED BY: Janice Shea | COMPLETION DATE: 5/3/2020 |
| PROJECT MANAGER: Derek Heath | Page 2 of 2 |

ENVIRONMENTAL 60585499_HARRIETSFIELD_NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

| | | |
|---|---|---|
| PROJECT: Former Landfill Site, Harrietsfield, NS | CLIENT: Nova Scotia Lands Inc. | TESTHOLE NO: **MW20-17S** |
| LOCATION: 1275 Old Sambro Road, Harrietsfield, NS UTM3 N 4,936,428.9 E 25,567,865.2 | | PROJECT NO.: 60585499 |
| CONTRACTOR: Logan Drilling Group | METHOD: Drilling | ELEVATION (m): 102.189 |

SAMPLE TYPE: GRAB | SHELBY TUBE | SPLIT SPOON | BULK | NO RECOVERY | CORE

BACKFILL TYPE: BENTONITE | GRAVEL | SLOUGH | GROUT | CUTTINGS | SAND

| DEPTH (m) | SOIL SYMBOL | SOIL DESCRIPTION | SAMPLE TYPE | SAMPLE # | ⊗ Vapour Concentration ⊗ (ppm) 100 1000 10000 | COMMENTS | ELEVATION (m) |
|---|---|---|---|---|---|---|---|
| 0 | | - Brown silty sand, cobbles, small boulders | | | | | 102 |
| 1 | | | | | | | 101 |
| 2 | | | | | | | 100 |
| 3 | | | | | | | 99 |
| 4 | | | | | | | 98 |
| 5 | | | | | | | 97 |
| 6 | | | | | | | 96 |
| 7 | | | | | | | 95 |
| 8 | | - End of borehole at 7.92 metres below ground surface<br>- Monitoring well installed upon completion of borehole | | | | | 94 |
| 8.5 | | | | | | | |

AECOM

| | |
|---|---|
| LOGGED BY: David Bugden | COMPLETION DEPTH: 7.92 m |
| REVIEWED BY: Janice Shea | COMPLETION DATE: 5/3/2020 |
| PROJECT MANAGER: Derek Heath | Page 1 of 1 |

ENVIRONMENTAL 60585499_HARRIETSFIELD, NS LOGS_2019-10-11.GPJ UMA_COC.GDT PRINT: 8/7/20 By:younatan.mohammadi@aecom.com

# Appendix C. Analytical Summary Tables

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2019-02-11 | 2020-04-01 | 2020-04-01 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-09 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW19-03D_20190211 | 20X589937-1062421 | 20X589937-1062425 | 20X606071-1154904 | MW19-03D_20200917 | MW19-03D_20201216 | MW19-03D_20210325 | DUP3_20210609 | MW19-03D_20210609 | MW19-03D_20211005 | MW19-03D_20211213 | MW19-03D_20220330 | MW19-03D_20220603 |
| | | | | Lab Sample ID | 9894253 | 1062421 | 1062425 | 1154904 | NRG098 | OLM111 | PEB980 | PUQ387 | PUQ384 | QWF776 | RJM391 | SGA982 | SUS172 |
| | | | | Lab Job Number | 19X436534 | 20X589937 | 20X589937 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F9831 | C1F9831 | C1T0922 | C1Z2957 | C285511 | C2F3070 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 152 | 11 | 9 | 12 | 9.9 | 14 | 8.7 | 8.3 | 8.3 | 14 | 6.5 | 7.4 | 7.3 |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | - | 4 | 3 | < 2 | 3.0 | 4.0 | 3.8 | 4.1 | 4.2 | 4.7 | 4.3 | 5.0 | 4.3 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 11 | 17 | 17 | 15 | 11 | 13 | 12 | 9.1 | 9.3 | 6.0 | 6.7 | 7.7 | 7.1 |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 53 | 49 | 35 | 31 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.10 | < 0.017 | < 0.017 | 0.031 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Calcium | | | 3720-7000 | ug/l | 15200 | 24000 | 24300 | 24400 | 23000 | 23000 | 22000 | 22000 | 22000 | 22000 | 22000 | 22000 | 22000 |
| Chromium | 50 | | <1 - 3 | ug/l | 2 | 2 | < 1 | 3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 1 | < 1 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | < 2 | < 2 | < 2 | < 2 | < 0.50 | 3.3 | < 0.50 | < 0.50 | < 0.50 | 1.9 | < 0.50 | 7.4 | 1.5 |
| Iron | | 3000 | <50 - 62 | ug/l | 91 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 2000 | 3700 | 3600 | 2600 | 3100 | 3200 | 3000 | 3200 | 3200 | 3300 | 3200 | 3200 | 3300 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 21 | 43 | 38 | 42 | 14 | 3.9 | 29 | 15 | 14 | < 2.0 | 12 | 12 | 10 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 94 | 10 | 10 | 18 | 4.7 | 6.2 | 5.7 | 4.8 | 4.9 | 6.0 | 5.2 | 5.6 | 6.1 |
| Nickel | | 250 | < 2 | ug/l | < 2 | < 2 | < 2 | 3 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | 50 | 40 | 30 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | 130 | < 100 | < 100 | 110 |
| Potassium | | | 400 - 3100 | ug/l | 1500 | 1700 | 1500 | 1200 | 1100 | 1100 | 1200 | 1000 | 1000 | 1100 | 1000 | 1000 | 1100 |
| Selenium | 50 | 10 | < 1 | ug/l | < 1 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 28700 | 18100 | 18300 | 20600 | 16000 | 16000 | 16000 | 17000 | 17000 | 16000 | 16000 | 16000 | 16000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 67 | 100 | 91 | 87 | 89 | 85 | 82 | 81 | 83 | 78 | 81 | 78 | 79 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | 4 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 30.5 | 21.8 | 23.3 | 26.7 | 22 | 21 | 19 | 17 | 17 | 15 | 18 | 17 | 17 |
| Vanadium | | 60 | < 2 | ug/l | 3 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5 | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 6.3 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | Sample Location | MW19-03D |
|---|---|---|---|---|
| | | | Sample Date | 2022-09-28 |
| | | | Background | Background |
| | | | Sample ID | MW19-03D_20220928 |
| | | | Lab Sample ID | TWS413 |
| | | | Lab Job Number | C2S3993 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | |
| Aluminum | 2900 | **50** | <5 - 30 | ug/l | 8.8 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 |
| Arsenic | 10 | **50** | <2 - 6 | ug/l | 4.1 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 11 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 |
| Bismuth | | | < 2 | ug/l | < 2.0 |
| Boron | 5000 | **12000** | 9.8 - 53 | ug/l | < 50 |
| Cadmium | 7 | **0.1** | <0.017 - 0.055 | ug/l | < 0.010 |
| Calcium | | | 3720-7000 | ug/l | 23000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 |
| Copper | 2000 | **20** | <2 - 5.1 | ug/l | 3.2 |
| Iron | | **3000** | <50 - 62 | ug/l | < 50 |
| Lead | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 3500 |
| Manganese | 120 | **8200** | <2 - 54 | ug/l | 26 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 6.3 |
| Nickel | | 250 | < 2 | ug/l | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 1200 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 |
| Silver | | **1** | <0.1 | ug/l | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 18000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 78 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 |
| Tin | | | < 2 | ug/l | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 17 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 6.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2023-12-01 | 2024-03-14 | 2024-07-02 | 2024-12-10 | 2025-06-12 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW19-03D_20221216 | MW19-03D_20230310 | MW19-03D_20231013 | MW19-03D_20231201 | MW19-03D_20240314 | MW19-03D_20240702 | MW19-03D_20241210 | MW19-03D_20250612 |
| | | | | Lab Sample ID | UQJ840 | VGT139 | XHD243 | XTQ409 | YQA667 | ZQA458 | HA2403274-010 | HA2501804-003 |
| | | | | Lab Job Number | C2AN796 | C370496 | C3V9312 | C3AS035 | C476965 | C4K2602 | HA2403274 | HA2501804 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 8.7 | 6.0 | - | - | - | - | 21.9 | 8.4 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | - | - | - | - | < 0.10 | < 0.10 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 4.6 | 4.6 | 4.5 | 4.7 | 4.6 | 4.6 | 1.35 | 5.20 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 19 | 10 | - | - | - | - | 59.5 | 9.79 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | - | - | - | - | - | < 0.020 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | - | - | - | - | - | < 0.050 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 209 | 26 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.158 | < 0.0050 |
| Calcium | | | 3720-7000 | ug/l | 22000 | 22000 | 22000 | 22000 | 22000 | 22000 | 13600 | 21900 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | < 0.10 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 0.95 | 3.1 | - | - | - | - | 6.08 | 0.26 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 16 | < 10 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | 30 | < 0.50 | < 0.50 | < 0.50 | 0.083 | < 0.050 |
| Magnesium | | | 1000-6300 | ug/l | 3100 | 3200 | 3400 | 3400 | 3300 | 3300 | 4450 | 3610 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 3.2 | 2.4 | 9.0 | < 2.0 | < 2.0 | < 2.0 | 62.2 | 22.1 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | < 0.0050 | < 0.0050 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 6.2 | 5.9 | - | - | - | - | - | 5.19 |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | - | - | - | - | 1.13 | < 0.50 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | 110 | - | - | - | - | 216 | 91.6 |
| Potassium | | | 400 - 3100 | ug/l | 1000 | 1100 | - | - | - | - | 1070 | 1110 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | - | - | - | - | - | < 0.050 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | - | - | - | - | - | < 0.010 |
| Sodium | | | 8,000 - 34,000 | ug/l | 16000 | 17000 | - | - | - | - | 13900 | 16700 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 75 | 77 | - | - | - | - | - | 79.6 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | - | - | - | - | - | < 0.010 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | - | - | - | - | - | < 0.10 |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | - | - | - | - | - | < 0.30 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 16 | 16 | 22 | 18 | 16 | 17 | 2.95 | 22.5 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5.0 | < 5.0 | - | - | - | - | 14.5 | 1.2 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2019-07-10 | 2020-04-01 | 2020-05-28 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-25 | 2021-03-25 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-03 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | 19X490884-338553 | 20X589937-1062422 | 20X606404-1156941 | 20X606404-1156933 | MW19-09S_20200915 | MW19-09S_20201216 | DUP3_20210325 | MW19-09S_20210325 | MW19-09S_20210609 | MW19-09S_20211005 | MW19-09S_20211213 | MW19-09S_20220329 | MW19-09S_20220603 |
| | | | | Lab Sample ID | 338553 | 1062422 | 1156941 | 1156933 | NQU658 | OLM142 | PEB972 | PEB978 | PUQ380 | QWF777 | RJM392 | SFM286 | SUS173 |
| | | | | Lab Job Number | 19X490884 | 20X589937 | 20X606404 | 20X606404 | C0O2716 | C0X8319 | C179966 | C179966 | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 8 | 26 | 12 | 11 | 7.6 | 7.0 | 420 | 1700 | 13 | 12 | 8.8 | 7.6 | 110 |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 3 | 3 | < 2 | < 2 | 2.1 | 1.3 | 1.7 | 2.4 | 1.5 | 1.8 | 1.4 | 1.2 | 1.1 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 15 | 15 | 14 | 14 | 12 | 27 | 22 | 56 | 14 | 16 | 16 | 16 | 39 |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 30 | 31 | 23 | 24 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 53 | 53 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.017 | 0.022 | 0.025 | 0.020 | < 0.010 | < 0.010 | < 0.010 | 0.024 | 0.016 | 0.012 | < 0.010 | < 0.010 | 0.010 |
| Calcium | | | 3720-7000 | ug/l | 37100 | 30400 | 25400 | 27300 | 23000 | 44000 | 29000 | 36000 | 26000 | 28000 | 28000 | 30000 | 61000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1 | 1 | 3 | 3 | 5.4 | 3.1 | < 1.0 | 3.2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 1 | < 1 | < 1 | < 1 | < 0.40 | 0.86 | 0.43 | 1.8 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 1.4 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | < 2 | < 2 | < 2 | < 2 | < 0.50 | < 0.50 | 1.8 | 4.1 | 2.9 | 2.1 | < 0.50 | 2.8 | 1.7 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | 53 | < 50 | < 50 | 390 | 1700 | < 50 | < 50 | < 50 | < 50 | 120 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | 2.6 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 4000 | 4400 | 3700 | 3700 | 3000 | 7100 | 4000 | 5400 | 3700 | 4000 | 3900 | 4400 | 9500 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 237 | 21 | 5 | 7 | 14 | 4.7 | 21 | 140 | 2.6 | 3.7 | < 2.0 | < 2.0 | 12 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 20 | 12 | 11 | 12 | 9.0 | 6.1 | 6.7 | 3.5 | 6.4 | 7.5 | 6.1 | 5.8 | 3.4 |
| Nickel | | 250 | < 2 | ug/l | < 2 | 4 | < 2 | 2 | 3.1 | 3.0 | < 2.0 | 3.1 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.4 |
| Phosphorus | | | < 100 - 200 | ug/l | < 20 | < 20 | < 20 | 20 | < 100 | < 100 | < 100 | 190 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 2800 | 2400 | 2100 | 2200 | 2000 | 2300 | 2000 | 2400 | 1800 | 2100 | 1900 | 1800 | 2600 |
| Selenium | 50 | 10 | < 1 | ug/l | < 1 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 26000 | 18000 | 16800 | 17900 | 14000 | 18000 | 14000 | 16000 | 15000 | 16000 | 15000 | 15000 | 21000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 73 | 78 | 81 | 82 | 67 | 120 | 82 | 100 | 75 | 77 | 78 | 86 | 160 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | 37 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.8 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.7 | 4.5 | 4.3 | 4.1 | 4.0 | 6.2 | 5.3 | 6.1 | 4.7 | 4.8 | 5.1 | 5.9 | 9.2 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | 3.7 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5 | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | 5.5 | 10 | 11 | 13 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-11D | MW19-11D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-28 | 2022-09-28 | 2022-12-16 | 2023-03-10 | 2019-07-10 | 2020-06-01 | 2020-12-16 | 2022-03-29 | 2022-06-02 | 2022-12-16 | 2023-03-10 | 2019-02-11 | 2020-06-01 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW19-09S_20220928 | DUP1_20220928 | MW19-09S_20221216 | MW19-09S_20230310 | 19X490884-338565 | 20X608058-1165168 | MW19-10S_20201216 | MW19-10S_20220329 | MW19-10S_20220602 | MW19-10S_20221216 | MW19-10S_20230310 | MW19-11D_20190211 | 20X608058-1165165 |
| | | | | Lab Sample ID | TWS414 | TWS411 | UQJ841 | VGT140 | 338565 | 1165168 | OLM143 | SFM287 | SUK073 | UQJ842 | VGT141 | 9894251 | 1165165 |
| | | | | Lab Job Number | C2S3993 | C2S3993 | C2AN796 | C370496 | 19X490884 | 20X608058 | C0X8319 | C282980 | C2F1732 | C2AN796 | C370496 | 19X436534 | 20X608058 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 16 | 6.0 | 16 | 6.3 | < 5 | < 5 | < 5.0 | < 5.0 | < 5.0 | 7.5 | < 5.0 | 8 | 30 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 2 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 1.5 | 1.6 | 1.4 | 1.1 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | 40 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 22 | 18 | 32 | 21 | 36 | 39 | 31 | 25 | 28 | 47 | 39 | 61 | 69 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 2 | < 2 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 2 | < 2 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | 385 | 334 | 340 | 210 | 190 | 180 | 140 | 6350 | 7720 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.010 | 0.018 | < 0.010 | < 0.010 | 0.050 | 0.077 | 0.028 | 0.034 | 0.019 | 0.022 | 0.026 | 0.37 | 0.165 |
| Calcium | | | 3720-7000 | ug/l | 32000 | 32000 | 30000 | 31000 | 64000 | 67800 | 74000 | 45000 | 47000 | 39000 | 40000 | 467000 | 523000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1 | 3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 22 | 40 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | 0.40 | < 0.40 | < 0.40 | 2 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 17 | 20 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 2.6 | < 0.50 | 1.3 | 14 | < 2 | < 2 | 2.3 | 2.1 | 1.7 | 2.3 | 3.3 | 12 | 8 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | 64 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 14900 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.5 | 0.6 |
| Magnesium | | | 1000-6300 | ug/l | 4800 | 4900 | 4600 | 4200 | 10700 | 13700 | 12000 | 7700 | 7700 | 7900 | 8500 | 91900 | 108000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 10 | 9.4 | < 2.0 | < 2.0 | 883 | 98 | 8.5 | < 2.0 | 2.1 | < 2.0 | < 2.0 | 20000 | 22400 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | < 0.026 | < 0.026 | - | - | - | - | - | < 0.026 | < 0.026 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 7.0 | 7.1 | 5.1 | 4.6 | 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3 | 3 |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 4 | 7 | 2.1 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 21 | 46 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 20 | < 20 |
| Potassium | | | 400 - 3100 | ug/l | 2100 | 2100 | 1900 | 1700 | 3100 | 2400 | 3200 | 2100 | 2200 | 2100 | 1700 | 16500 | 19600 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 1 | 2 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 3 | 4 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.1 |
| Sodium | | | 8,000 - 34,000 | ug/l | 18000 | 18000 | 17000 | 16000 | 24800 | 25100 | 21000 | 14000 | 14000 | 15000 | 14000 | 97500 | 105000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 88 | 88 | 79 | 86 | 251 | 263 | 230 | 170 | 170 | 150 | 170 | 1780 | 2760 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.3 | 0.2 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | 2 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 5.5 | 5.5 | 5.4 | 5.7 | 5.4 | 6.1 | 8.8 | 4.0 | 4.2 | 2.6 | 2.2 | 437 | 597 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | 4 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5 | 6 | < 5.0 | 5.0 | < 5.0 | < 5.0 | < 5.0 | 17 | 12 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2023-12-01 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW19-11D_20200915 | MW19-11D_20201216 | MW19-11D_20210323 | MW19-11D_20210607 | MW19-11D_20211005 | MW19-11D_20211213 | MW19-11D_20220328 | MW19-11D_20220603 | MW19-11D_20220929 | MW19-11D_20221216 | MW19-11D_20230310 | MW19-11D_20231012 | MW19-11-D_20231201 |
| | | | | Lab Sample ID | NQU665 | OLM145 | PDR023 | PUI335 | QWF780 | RJM394 | SFM289 | SUS175 | TWL729 | UQJ844 | VGT143 | XHD245 | XTQ411 |
| | | | | Lab Job Number | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S2706 | C2AN796 | C370496 | C3V9312 | C3AS035 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 58 | < 50 | < 50 | < 50 | 34 | 25 | 31 | 29 | 27 | 31 | 27 | - | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 10 | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 10 | < 10 | 22 | 19 | 20 | 27 | 27 | 18 | 34 | 21 | 27 | 28 | 13 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 120 | 76 | 76 | 68 | 67 | 55 | 46 | 47 | 48 | 52 | 67 | - | - |
| **Beryllium** | | 53 | < 2 | ug/l | < 10 | < 10 | < 10 | < 10 | 0.16 | 0.12 | 0.12 | 0.11 | 0.13 | 0.13 | < 0.10 | - | - |
| **Bismuth** | | | < 2 | ug/l | < 20 | < 20 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 6100 | 6100 | 6700 | 5300 | 5500 | 4300 | 3800 | 3000 | 3300 | 2100 | 3300 | 3600 | 1900 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.24** | **0.25** | < 0.10 | **0.18** | 0.061 | 0.037 | 0.017 | 0.036 | 0.014 | 0.042 | 0.035 | 0.035 | 0.047 |
| **Calcium** | | | 3720-7000 | ug/l | 500000 | 470000 | 560000 | 480000 | 460000 | 400000 | 360000 | 320000 | 320000 | 240000 | 340000 | 340000 | 250000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 10 | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | 14 | 12 | 16 | 13 | 12 | 11 | 10 | 9.4 | 8.5 | 6.7 | 8.6 | 9.2 | 6.6 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | < 5.0 | **30** | 9.0 | 16 | 1.5 | 0.67 | 0.95 | 3.4 | 2.4 | 2.8 | 3.3 | - | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | **9300** | **4400** | **14000** | **12000** | **12000** | **13000** | **13000** | **11000** | **10000** | **6900** | **11000** | **9600** | **6800** |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 94000 | 85000 | 100000 | 83000 | 74000 | 60000 | 54000 | 49000 | 48000 | 36000 | 50000 | 50000 | 34000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | **29000** | **22000** | **24000** | **21000** | **20000** | **18000** | **16000** | **15000** | **14000** | **12000** | **15000** | **14000** | **11000** |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 20 | < 20 | < 20 | < 20 | 2.4 | 2.2 | 2.4 | < 2.0 | 2.1 | < 2.0 | < 2.0 | - | - |
| **Nickel** | | 250 | < 2 | ug/l | < 20 | < 20 | < 20 | < 20 | 7.4 | 6.1 | 5.7 | 5.1 | 5.3 | 4.1 | 5.2 | - | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 1000 | < 1000 | < 1000 | < 1000 | < 100 | < 100 | < 100 | < 100 | 100 | < 100 | < 100 | - | - |
| **Potassium** | | | 400 - 3100 | ug/l | 14000 | 14000 | 17000 | 15000 | 15000 | 15000 | 13000 | 11000 | 13000 | 10000 | 13000 | - | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 85000 | 82000 | 96000 | 81000 | 73000 | 60000 | 54000 | 47000 | 50000 | 36000 | 49000 | - | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 1600 | 1900 | 2400 | 2000 | 1800 | 1600 | 1500 | 1200 | 1300 | 920 | 1400 | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.30 | 0.24 | 0.17 | 0.20 | 0.18 | 0.22 | 0.18 | - | - |
| **Tin** | | | < 2 | ug/l | < 20 | < 20 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Titanium** | | | < 2 | ug/l | < 20 | < 20 | < 20 | < 20 | < 2.0 | < 2.0 | 2.5 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 420 | 450 | 550 | 410 | 380 | 300 | 260 | 230 | 230 | 150 | 250 | 250 | 150 |
| **Vanadium** | | 60 | < 2 | ug/l | < 20 | < 20 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 50 | < 50 | < 50 | < 50 | 8.8 | 6.4 | 5.7 | 9.5 | 6.6 | 6.1 | 7.3 | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2019-07-10 | 2020-06-01 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW19-11D_20240312 | MW19-11D_20240702 | MW19-11D_20241210 | MW19-11D_20250611 | 19X490884-338567 | 20X608058-1165164 | MW19-11M_20200915 | MW19-11M_20201216 | MW19-11M_20210323 | MW19-11M_20210607 | MW19-11M_20211005 | MW19-11M_20211213 | MW19-11M_20220328 |
| | | | | Lab Sample ID | YPJ125 | ZQA460 | HA2403274-016 | HA2501779-008 | 338567 | 1165164 | NQU664 | OLM144 | PDR022 | PUI334 | QWF779 | RJM393 | SFM288 |
| | | | | Lab Job Number | C473698 | C4K2602 | HA2403274 | HA2501779 | 19X490884 | 20X608058 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | - | - | 23.7 | 24.6 | 459 | 57 | 54 | 55 | 32 | 53 | 34 | 52 | 100 |
| **Antimony** | 6 | 200 | < 2 | ug/l | - | - | < 1.00 | < 1.00 | < 2 | < 2 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 26 | 32 | 11.2 | 27.0 | 14 | 6 | 31 | < 10 | < 1.0 | < 1.0 | 1.2 | 1.8 | 2.1 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | - | - | 50.6 | 44.4 | 70 | 53 | 110 | 57 | 56 | 57 | 75 | 56 | 40 |
| **Beryllium** | | 53 | < 2 | ug/l | - | - | - | < 0.200 | < 2 | < 2 | < 10 | < 10 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 |
| **Bismuth** | | | < 2 | ug/l | - | - | - | < 0.500 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 2500 | 3300 | 1700 | 2330 | 4890 | 4190 | 7600 | 4400 | 3300 | 2800 | 3800 | 1400 | 1200 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.027 | < 0.010 | < 0.0500 | < 0.0500 | 0.124 | 0.318 | < 0.10 | 0.24 | 0.26 | 0.18 | 0.41 | 0.21 | 0.078 |
| **Calcium** | | | 3720-7000 | ug/l | 270000 | 330000 | 194000 | 226000 | 365000 | 348000 | 600000 | 350000 | 340000 | 260000 | 340000 | 160000 | 150000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 5.00 | < 5.00 | 14 | 19 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | 7.1 | 8.3 | - | 6.09 | 15 | 12 | 16 | 8.4 | 7.4 | 4.5 | 10 | 3.7 | 3.8 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | - | - | < 2.00 | < 2.00 | < 2 | 4 | < 5.0 | < 5.0 | 3.9 | 3.9 | 1.7 | 3.0 | 1.6 |
| **Iron** | | **3000** | <50 - 62 | ug/l | 9500 | 10000 | 5270 | 8450 | 10900 | 4800 | 15000 | 730 | 920 | 450 | 4100 | 940 | 2600 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.500 | < 0.500 | < 0.5 | < 0.5 | < 5.0 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 38000 | 46000 | 30700 | 36000 | 62700 | 64200 | 100000 | 68000 | 59000 | 42000 | 57000 | 23000 | 20000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 12000 | 14000 | 10800 | 9780 | 18700 | 21400 | 26000 | 22000 | 19000 | 14000 | 20000 | 8500 | 8300 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | - | - | 1.64 | 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | 2.0 | < 2.0 | 16 |
| **Nickel** | | 250 | < 2 | ug/l | - | - | < 5.00 | < 5.00 | 12 | 26 | < 20 | < 20 | 4.9 | 3.7 | 6.0 | 2.8 | 2.2 |
| **Phosphorus** | | | < 100 - 200 | ug/l | - | - | 56.1 | < 500 | 50 | < 20 | < 1000 | < 1000 | < 100 | < 100 | < 100 | 110 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | - | - | 8450 | 9930 | 10000 | 8500 | 19000 | 9700 | 8600 | 8300 | 11000 | 7700 | 6100 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | - | - | < 0.500 | 2 | 4 | < 5.0 | < 5.0 | < 0.50 | 0.66 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | - | - | - | < 0.100 | < 0.1 | < 0.1 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | - | - | 29400 | 33800 | 75600 | 62500 | 96000 | 63000 | 54000 | 43000 | 55000 | 22000 | 19000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | 1020 | 1290 | 1150 | 2400 | 1100 | 1100 | 900 | 1100 | 480 | 460 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | - | - | < 0.100 | 0.3 | 0.2 | < 1.0 | < 1.0 | 0.18 | 0.16 | 0.27 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | - | - | - | < 1.00 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | - | - | - | < 3.00 | 4 | < 2 | < 20 | < 20 | < 2.0 | 3.1 | < 2.0 | < 2.0 | 4.3 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 170 | 230 | 122 | 139 | 227 | 272 | 560 | 290 | 260 | 170 | 230 | 85 | 63 |
| **Vanadium** | | 60 | < 2 | ug/l | - | - | < 5.00 | < 5.00 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | - | - | < 10.0 | < 10.0 | 6 | 9 | < 50 | < 50 | < 5.0 | 15 | 8.2 | 10 | 7.3 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2025-06-11 | 2019-07-10 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW19-11M_20220603 | MW19-11M_20220929 | MW19-11M_20221216 | MW19-11M_20230310 | MW19-11M_20231012 | MW19-11M_20231201 | MW19-11M_20240312 | DUP 1_20240702 | MW19-11M_20240702 | MW19-11M_20241210 | DUP1_20250611 | MW19-11M_20250611 | 19X490884-338569 |
| | | | | Lab Sample ID | SUS174 | TWL728 | UQJ843 | VGT142 | XHD244 | XTQ410 | YPJ124 | ZQA473 | ZQA459 | HA2403274-015 | HA2501779-013 | HA2501779-007 | 338569 |
| | | | | Lab Job Number | C2F3070 | C2S2706 | C2AN796 | C370496 | C3V9312 | C3AS035 | C473698 | C4K2602 | C4K2602 | HA2403274 | HA2501779 | HA2501779 | 19X490884 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 340 | 99 | 67 | 22 | - | - | - | - | - | 33.8 | 63.5 | 81.2 | < 5 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | < 0.10 | < 1.00 | < 1.00 | < 2 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 7.1 | 9.2 | 9.4 | < 1.0 | 7.7 | 2.9 | 3.5 | 6.3 | 5.5 | 1.45 | 8.19 | 7.71 | < 2 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 53 | 47 | 55 | 35 | - | - | - | - | - | 47.2 | 43.0 | 44.0 | 27 |
| **Beryllium** | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.200 | < 0.200 | < 2 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.500 | < 0.500 | < 2 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 1500 | 1700 | 960 | 350 | 1500 | 640 | 520 | 1400 | 1400 | 669 | 941 | 904 | 164 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.028 | 0.014 | < 0.010 | 0.018 | 0.012 | 0.012 | 0.048 | < 0.010 | < 0.010 | 0.0217 | < 0.0500 | < 0.0500 | **0.122** |
| **Calcium** | | | 3720-7000 | ug/l | 200000 | 180000 | 170000 | 86000 | 210000 | 130000 | 120000 | 190000 | 180000 | 113000 | 164000 | 144000 | 60600 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | 4.5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 5.00 | < 5.00 | 1 |
| **Cobalt** | | 100 | <1 | ug/l | 5.6 | 4.9 | 4.4 | 1.2 | 4.6 | 2.9 | 2.0 | 3.9 | 3.8 | - | 3.97 | 3.51 | < 1 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 3.7 | 3.4 | 1.1 | 3.9 | - | - | - | - | - | 1.42 | < 2.00 | < 2.00 | 2 |
| **Iron** | | **3000** | <50 - 62 | ug/l | 8400 | 5900 | 7700 | 720 | 6200 | 3000 | 530 | 5800 | 5600 | 627 | 4680 | 4320 | 360 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.066 | < 0.500 | < 0.500 | < 0.5 |
| **Magnesium** | | | 1000-6300 | ug/l | 28000 | 25000 | 20000 | 11000 | 26000 | 17000 | 15000 | 24000 | 23000 | 15700 | 20800 | 19300 | 5900 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | **12000** | **10000** | **9000** | 3600 | **9900** | 6800 | 4400 | **8900** | **8600** | 5620 | 7500 | 6470 | 193 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.0050 | < 0.026 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | 2.2 | < 2.0 | < 2.0 | - | - | - | - | - | - | 1.38 | 1.22 | < 2 |
| **Nickel** | | 250 | < 2 | ug/l | 3.2 | 12 | 2.8 | < 2.0 | - | - | - | - | - | 1.09 | < 5.00 | < 5.00 | 5 |
| **Phosphorus** | | | < 100 - 200 | ug/l | 120 | < 100 | < 100 | < 100 | - | - | - | - | - | 1080 | < 500 | < 500 | < 20 |
| **Potassium** | | | 400 - 3100 | ug/l | 7200 | 7700 | 7000 | 3700 | - | - | - | - | - | 4980 | 6330 | 6000 | 3100 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | - | < 0.500 | < 0.500 | < 1 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.100 | < 0.100 | < 0.1 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 26000 | 26000 | 19000 | 8200 | - | - | - | - | - | 13300 | 18300 | 16500 | 9800 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 680 | 610 | 540 | 270 | - | - | - | - | - | - | 571 | 537 | 192 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.100 | < 0.100 | < 0.1 |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 1.00 | < 1.00 | < 2 |
| **Titanium** | | | < 2 | ug/l | 3.4 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 3.00 | < 3.00 | < 2 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 100 | 94 | 60 | 18 | 69 | 28 | 34 | 61 | 59 | 30.4 | 58.6 | 50.0 | 8.2 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.50 | < 5.00 | < 5.00 | < 2 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 7.0 | 6.0 | < 5.0 | 6.0 | - | - | - | - | - | 5.4 | < 10.0 | < 10.0 | 17 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2019-07-10 | 2020-06-01 | 2020-06-01 | 2020-09-17 | 2020-09-17 | 2020-12-16 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-06 | 2021-12-13 | 2022-03-29 | 2022-06-02 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | 19X490884-338570 | 20X608058-1165163 | 20X608058-1165158 | MW19-12D_20200917 | DUP 3_20200917 | DUP3_20201216 | MW19-12D_20201216 | MW19-12D_20210323 | MW19-12D_20210607 | MW19-12D_20211006 | MW19-12D_20211213 | MW19-12D_20220329 | MW19-12D_20220602 |
| | | | | Lab Sample ID | 338570 | 1165163 | 1165158 | NRG093 | NRG096 | OLM172 | OLM159 | PDR026 | PUI336 | QWS509 | RJM500 | SFM295 | SUK082 |
| | | | | Lab Job Number | 19X490884 | 20X608058 | 20X608058 | C0O4512 | C0O4512 | C0X8319 | C0X8319 | C177930 | C1F8315 | C1T3325 | C1Z2957 | C282980 | C2F1732 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 17 | 6.3 | < 5.0 | 5.6 | < 5.0 |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2 | < 2 | < 2 | 2.1 | 2.1 | 2.5 | 2.3 | 2.0 | < 1.0 | 1.1 | 2.7 | 1.6 | 2.3 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 13 | 9 | 9 | 8.4 | 8.1 | 10 | 11 | 9.7 | 9.6 | 11 | 16 | 20 | 10 |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 146 | 100 | 106 | 93 | 95 | 99 | 97 | 90 | 82 | 78 | 92 | 82 | 76 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.197 | 0.087 | 0.101 | 0.16 | 0.16 | 0.11 | 0.10 | 0.099 | 0.13 | 0.14 | 0.15 | 0.076 | 0.11 |
| Calcium | | | 3720-7000 | ug/l | 49100 | 44300 | 42100 | 39000 | 40000 | 48000 | 47000 | 48000 | 43000 | 42000 | 57000 | 55000 | 49000 |
| Chromium | 50 | | <1 - 3 | ug/l | 1 | 2 | 2 | < 1.0 | < 1.0 | 11 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 1 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.42 | 0.58 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | < 2 | < 2 | < 2 | 1.0 | 1.2 | 0.93 | 0.69 | 0.72 | 0.82 | 2.1 | 2.4 | 1.5 | 2.0 |
| Iron | | 3000 | <50 - 62 | ug/l | 381 | 420 | 337 | < 50 | < 50 | 400 | 540 | 220 | 63 | 72 | 160 | 480 | 290 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 8200 | 7100 | 7300 | 8000 | 8000 | 9000 | 9100 | 9100 | 8600 | 8300 | 10000 | 8900 | 9800 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 109 | 207 | 131 | 7.7 | 8.2 | 44 | 64 | 100 | 59 | 71 | 7.5 | 34 | 19 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | 4 | 4 | 4 | < 2.0 | < 2.0 | 5.1 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | < 20 | < 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 1900 | 1000 | 900 | 1000 | 1000 | 1100 | 1100 | 1100 | 1200 | 1200 | 1700 | 2000 | 1100 |
| Selenium | 50 | 10 | < 1 | ug/l | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 12800 | 8400 | 8300 | 9100 | 9000 | 9500 | 9600 | 10000 | 10000 | 11000 | 11000 | 9900 | 11000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 146 | 110 | 109 | 100 | 100 | 120 | 110 | 110 | 110 | 110 | 150 | 160 | 120 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 19.1 | 11.8 | 14.3 | 10 | 11 | 21 | 19 | 20 | 11 | 10 | 22 | 16 | 22 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 20 | 17 | 20 | 19 | 19 | 15 | 12 | 13 | 18 | 19 | 19 | 13 | 17 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

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# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-30 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2024-12-10 | 2025-06-12 | 2025-06-12 | 2019-07-10 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW19-12D_20220930 | DUP 3_20220930 | MW19-12D_20221216 | MW19-12D_20230313 | MW19-12D_20231012 | MW19-12D_20231201 | MW19-12D_20240312 | MW19-12D_20240702 | DUP 1_20241210 | MW19-12D_20241210 | DUP3_20250612 | MW19-12D_20250612 | 19X490884-338568 |
| | | | | Lab Sample ID | TXM810 | TXM815 | UQJ847 | VHF975 | XHD248 | XTQ414 | YPJ127 | ZQA463 | HA2403274-027 | HA2403274-011 | HA2501804-005 | HA2501804-008 | 338568 |
| | | | | Lab Job Number | C2S7487 | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2403274 | HA2501804 | HA2501804 | 19X490884 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 6.1 | 6.0 | 7.1 | < 5.0 | - | - | - | - | 1.6 | 2.2 | 2.7 | 2.6 | 8 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | < 0.10 | < 0.10 | 0.31 | 0.32 | < 2 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 1.8 | 1.7 | 2.0 | 1.8 | 2.4 | 3.1 | 1.9 | 2.3 | 9.86 | 9.83 | 2.01 | 1.95 | < 2 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 55 | 55 | 24 | 28 | - | - | - | - | 8.62 | 9.08 | 36.0 | 36.6 | 39 |
| **Beryllium** | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | 0.044 | 0.045 | < 2 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.050 | < 0.050 | < 2 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 140 | 140 | 98 | 67 | 100 | 96 | 65 | 90 | 50 | 52 | 71 | 72 | 220 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.099 | **0.11** | 0.095 | 0.091 | **0.13** | **0.16** | 0.098 | 0.095 | 0.0062 | 0.0098 | 0.0713 | 0.0723 | 0.050 |
| **Calcium** | | | 3720-7000 | ug/l | 78000 | 78000 | 60000 | 57000 | 50000 | 53000 | 53000 | 65000 | 61600 | 60700 | 58800 | 59200 | 61300 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 2 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | - | < 0.10 | < 0.10 | 2 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 14 | 14 | 1.3 | 7.9 | - | - | - | - | < 0.20 | 0.36 | 4.61 | 4.58 | 2 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | 590 | < 50 | 260 | < 50 | < 50 | < 50 | < 10 | < 10 | 65 | 76 | 133 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.050 | 0.058 | < 0.050 | < 0.050 | < 0.5 |
| **Magnesium** | | | 1000-6300 | ug/l | 10000 | 10000 | 11000 | 8500 | 10000 | 10000 | 8500 | 7700 | 9960 | 10200 | 7990 | 7990 | 5300 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 23 | 23 | 24 | < 2.0 | 15 | < 2.0 | < 2.0 | 2.7 | 16.0 | 16.2 | 2.76 | 3.14 | 652 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.026 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | 1.03 | 1.03 | 2 |
| **Nickel** | | 250 | < 2 | ug/l | 4.8 | 2.8 | < 2.0 | < 2.0 | - | - | - | - | 0.50 | 0.58 | 0.88 | 0.95 | 6 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 64.3 | 67.5 | 188 | 94.8 | < 20 |
| **Potassium** | | | 400 - 3100 | ug/l | 6300 | 6100 | 2200 | 2700 | - | - | - | - | 1570 | 1560 | 3210 | 3250 | 5900 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | - | 0.127 | 0.119 | < 1 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.010 | < 0.010 | < 0.1 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 10000 | 10000 | 12000 | 7800 | - | - | - | - | 23300 | 24100 | 6800 | 6770 | 13600 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 250 | 250 | 170 | 160 | - | - | - | - | - | - | 191 | 193 | 220 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | 0.011 | 0.011 | < 0.1 |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.10 | < 0.10 | < 2 |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.30 | < 0.30 | < 2 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 9.2 | 9.9 | 19 | 16 | 25 | 29 | 18 | 12 | 367 | 371 | 11.8 | 11.8 | 5.8 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 2 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 13 | 13 | 14 | 14 | - | - | - | - | 1.0 | 4.2 | 8.0 | 7.9 | < 5 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

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# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-12-16 | 2021-12-13 | 2022-03-29 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-12-01 | 2024-03-12 | 2024-03-12 | 2024-07-02 | 2024-12-18 | 2025-06-12 |
| | | | | Background | | | | | | | | | | | | |
| | | | | Sample ID | MW19-12S_20201216 | MW19-12S_20211213 | MW19-12S_20220329 | MW19-12S_20220930 | MW19-12S_20221216 | MW19-12S_20230313 | MW19-12S_20231201 | MW19-12S_20240312 | DUP2_20240312 | MW19-12S_20240702 | MW19-12S_20241218 | MW19-12S_20250612 |
| | | | | Lab Sample ID | OLM146 | RJM396 | SFM294 | TXM809 | UQJ846 | VHF974 | XTQ413 | YPJ126 | YPJ123 | ZQA462 | HA2403375-002 | HA2501804-007 |
| | | | | Lab Job Number | C0X8319 | C1Z2957 | C282980 | C2S7487 | C2AN796 | C372847 | C3AS035 | C473698 | C473698 | C4K2602 | HA2403375 | HA2501804 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 12 | 7.5 | 33 | 8.6 | 11 | 5.5 | - | - | - | - | 4.6 | 5.1 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | - | - | - | - | 0.47 | 0.63 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | < 1.0 | < 1.0 | 1.0 | 2.8 | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 3.0 | 0.90 | 1.06 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 41 | 56 | 56 | 90 | 75 | 52 | - | - | - | - | 67.3 | 85.9 |
| Beryllium | | 53 | < 2 | ug/l | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | < 0.020 | < 0.020 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.050 | < 0.050 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 94 | 190 | 82 | 140 | 83 | < 50 | 63 | < 50 | < 50 | 100 | 44 | 83 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.027 | 0.060 | 0.048 | 0.22 | 0.072 | 0.034 | 0.067 | 0.031 | 0.028 | 0.10 | 0.0437 | 0.0682 |
| Calcium | | | 3720-7000 | ug/l | 78000 | 67000 | 70000 | 96000 | 79000 | 61000 | 81000 | 54000 | 54000 | 84000 | 70000 | 80800 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | 1.9 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.10 | < 0.10 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 7.6 | 7.8 | 11 | 20 | 7.9 | 8.1 | - | - | - | - | 8.36 | 8.16 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | 62 | < 50 | < 50 | < 50 | < 50 | < 50 | 16 | < 10 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.180 | 0.085 |
| Magnesium | | | 1000-6300 | ug/l | 5200 | 8200 | 7800 | 11000 | 8400 | 6700 | 7800 | 4600 | 4400 | 6400 | 6410 | 6730 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | < 2.0 | 2.7 | 3.1 | 290 | 15 | < 2.0 | 2.5 | < 2.0 | < 2.0 | 40 | 0.49 | 1.52 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 2.0 | < 2.0 | < 2.0 | 3.6 | < 2.0 | < 2.0 | - | - | - | - | 1.04 | 1.05 |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | 2.1 | 2.2 | 7.2 | < 2.0 | < 2.0 | - | - | - | - | 1.20 | 1.29 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 88.8 | 523 |
| Potassium | | | 400 - 3100 | ug/l | 3600 | 7100 | 6700 | 9600 | 5900 | 4800 | - | - | - | - | 4660 | 4800 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | 0.100 | 0.122 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | < 0.010 | < 0.010 |
| Sodium | | | 8,000 - 34,000 | ug/l | 8100 | 8500 | 7100 | 9000 | 7500 | 5300 | - | - | - | - | 5710 | 4510 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 240 | 180 | 190 | 260 | 230 | 170 | - | - | - | - | 203 | 245 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | < 0.010 | < 0.010 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.10 | < 0.10 |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.30 | < 0.30 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 3.2 | 2.4 | 2.9 | 4.1 | 3.3 | 2.3 | 2.9 | 1.9 | 1.8 | 2.3 | 2.80 | 2.42 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 8.0 | 38 | 37 | 62 | 35 | 26 | - | - | - | - | 25.5 | 41.6 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2019-11-19 | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-03-28 | 2022-06-03 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | 19X546170-731457 | 19X546170-731459 | 20X589937-1062424 | 20X606404-1156944 | MW19-13D_20200915 | MW19-13D_20201216 | MW19-13D_20210323 | MW19-13D_20210608 | MW19-13D_20211005 | MW19-13D_20211213 | MW19-13D_20220328 | DUP1_20220328 | MW19-13D_20220603 |
| | | | | Lab Sample ID | 731457 | 731459 | 1062424 | 1156944 | NQU662 | OLM161 | PDR028 | PUI338 | QWF783 | RJM502 | SFM297 | SFM277 | SUS186 |
| | | | | Lab Job Number | 19X546170 | 19X546170 | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C282980 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 24 | 6 | 16 | < 5 | 30 | 40 | 21 | 29 | 20 | 18 | 38 | 44 | 19 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 | 1.1 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 7 | 20 | 53 | 40 | 56 | 59 | 56 | 60 | 57 | 57 | 56 | 57 | 60 |
| **Beryllium** | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | 1.3 | 1.6 | 1.4 | 1.3 | 1.3 | 1.1 | 1.4 | 1.4 | 1.3 |
| **Bismuth** | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 76 | 151 | 271 | 235 | 240 | 240 | 220 | 200 | 240 | 230 | 210 | 210 | 210 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | < 0.017 | 0.038 | **0.127** | 0.089 | **0.14** | **0.15** | **0.13** | **0.12** | **0.15** | **0.17** | **0.14** | **0.14** | **0.13** |
| **Calcium** | | | 3720-7000 | ug/l | 8300 | 14200 | 19400 | 16400 | 15000 | 15000 | 15000 | 16000 | 16000 | 16000 | 15000 | 15000 | 16000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1 | 1 | < 1 | < 1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 1 | 2 | 2 | 2 | 1.4 | 0.74 | 0.58 | 0.63 | 0.65 | 5.1 | 0.64 | 0.58 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 5 | 13 | 12 | 4 | 15 | **21** | 15 | 16 | 9.9 | 7.5 | 9.0 | 9.8 | 10 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 1700 | 2900 | 4400 | 3700 | 3900 | 4200 | 4400 | 4500 | 4400 | 4400 | 4500 | 4500 | 4700 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 45 | 197 | 174 | 175 | 110 | 87 | 70 | 58 | 81 | 150 | 48 | 49 | 34 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | 8 | 3 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Nickel** | | 250 | < 2 | ug/l | < 2 | 15 | 7 | 10 | 4.4 | 3.6 | 2.7 | 2.7 | 2.5 | 3.1 | < 2.0 | < 2.0 | 10 |
| **Phosphorus** | | | < 100 - 200 | ug/l | 40 | < 20 | 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | 110 |
| **Potassium** | | | 400 - 3100 | ug/l | 5800 | 4800 | 2400 | 1700 | 1500 | 1300 | 1200 | 1200 | 1300 | 1400 | 1200 | 1100 | 1200 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 1 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.1 | 0.2 | 0.2 | < 0.1 | < 0.10 | 0.24 | 0.83 | 0.89 | 0.71 | < 0.10 | **1.2** | **1.1** | 0.46 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 35300 | 21000 | 17600 | 15100 | 13000 | 13000 | 14000 | 14000 | 14000 | 14000 | 14000 | 14000 | 14000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 49 | 97 | 101 | 109 | 87 | 89 | 88 | 98 | 90 | 93 | 89 | 89 | 94 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 9.9 | 2.9 | 2.9 | 2.2 | 2.3 | 2.6 | 2.3 | 2.2 | 2.4 | 2.5 | 2.3 | 2.4 | 2.4 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 5 | 16 | 14 | 9 | 15 | 12 | 12 | 12 | 14 | 13 | 14 | 22 | 15 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-07-02 | 2024-12-10 | 2025-06-11 |
| | | | | Background | | | | | | | | | | |
| | | | | Sample ID | MW19-13D_20220930 | MW19-13D_20221216 | MW19-13D_20230313 | MW19-13D_20231012 | MW19-13D_20231201 | MW19-13D_20240312 | MW19-13D_20240702 | DUP 2_20240702 | MW19-13D_20241210 | MW19-13D_20250611 |
| | | | | Lab Sample ID | TXM812 | UQJ849 | VHF977 | XHD250 | XTQ416 | YPJ129 | ZQA465 | ZQA468 | HA2403274-023 | HA2501779-006 |
| | | | | Lab Job Number | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | C4K2602 | HA2403274 | HA2501779 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 24 | 24 | 24 | - | - | - | - | - | 4.9 | 49.1 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | < 0.10 | < 0.10 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 1.1 | 1.2 | 1.3 | 1.6 | 1.2 | 1.4 | 1.1 | 1.2 | 5.06 | 1.54 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 63 | 70 | 54 | - | - | - | - | - | 6.35 | 57.7 |
| Beryllium | | 53 | < 2 | ug/l | 1.2 | 1.5 | 0.86 | - | - | - | - | - | - | 0.997 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.050 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 210 | 230 | 220 | 250 | 220 | 200 | 230 | 220 | 29 | 190 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.16 | 0.17 | 0.15 | 0.15 | 0.14 | 0.15 | 0.13 | 0.14 | < 0.0050 | 0.145 |
| Calcium | | | 3720-7000 | ug/l | 17000 | 16000 | 15000 | 15000 | 14000 | 15000 | 14000 | 14000 | 21200 | 13500 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| Cobalt | | 100 | <1 | ug/l | 0.56 | < 0.40 | 0.54 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | 0.46 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 9.2 | 7.7 | 7.1 | - | - | - | - | - | 0.26 | 3.11 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 10 | 47 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.051 | 0.570 |
| Magnesium | | | 1000-6300 | ug/l | 5000 | 4600 | 4200 | 4600 | 4500 | 4400 | 4200 | 4200 | 3420 | 4330 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 69 | 52 | 87 | 47 | 27 | 64 | 38 | 36 | 3.13 | 127 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | 0.709 |
| Nickel | | 250 | < 2 | ug/l | 2.1 | 2.0 | 2.4 | - | - | - | - | - | < 0.50 | 1.06 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | - | - | - | - | - | 92.7 | 626 |
| Potassium | | | 400 - 3100 | ug/l | 1200 | 1200 | 1200 | - | - | - | - | - | 1070 | 1120 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | - | 0.098 |
| Silver | | 1 | <0.1 | ug/l | 0.51 | 0.71 | 0.16 | - | - | - | - | - | - | 0.272 |
| Sodium | | | 8,000 - 34,000 | ug/l | 15000 | 15000 | 14000 | - | - | - | - | - | 16800 | 13200 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 93 | 88 | 85 | - | - | - | - | - | - | 88.8 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | 0.012 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.10 |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | 3.92 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 2.8 | 2.7 | 2.4 | 2.4 | 2.7 | 2.5 | 2.7 | 2.6 | 20.4 | 2.52 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.50 | < 0.50 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 13 | 14 | 15 | - | - | - | - | - | 3.9 | 11.6 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | | | |
| | | | | Sample ID | 19X546170-731456 | 20X589937-1062423 | 20X606404-1156943 | MW19-13S_20201216 | MW19-13S_20210323 | MW19-13S_20210608 | MW19-13S_20211005 | MW19-13S_20211213 |
| | | | | Lab Sample ID | 731456 | 1062423 | 1156943 | OLM160 | PDR027 | PUI337 | QWF782 | RJM501 |
| | | | | Lab Job Number | 19X546170 | 20X589937 | 20X606404 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 154 | 326 | 128 | 370 | 470 | 490 | 480 | 540 |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 26 | 23 | 20 | 37 | 25 | 32 | 40 | 32 |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | 0.49 | 0.37 |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 142 | 437 | 341 | 300 | 260 | 270 | 330 | 250 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.127 | 0.098 | 0.115 | 0.20 | 0.15 | 0.21 | 0.27 | 0.24 |
| Calcium | | | 3720-7000 | ug/l | 12500 | 15500 | 12700 | 28000 | 13000 | 13000 | 12000 | 12000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1 | < 1 | < 1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | 9 | 2 | 3 | 2.7 | 1.5 | 1.4 | 1.3 | 2.0 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 6 | < 2 | < 2 | 1.1 | 1.0 | 1.2 | 3.3 | 1.3 |
| Iron | | 3000 | <50 - 62 | ug/l | 127 | < 50 | 52 | 70 | < 50 | 92 | 93 | 140 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 5000 | 6000 | 4800 | 11000 | 5500 | 4900 | 4700 | 4600 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 221 | 89 | 119 | 500 | 250 | 210 | 1200 | 1100 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | 6 | < 2 | 4 | 2.9 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | < 20 | < 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 900 | 800 | 700 | 1100 | 910 | 960 | 1300 | 970 |
| Selenium | 50 | 10 | < 1 | ug/l | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 12800 | 12800 | 9900 | 13000 | 10000 | 10000 | 11000 | 9500 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 59 | 38 | 41 | 73 | 40 | 39 | 41 | 38 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.5 | 0.4 | 0.3 | 0.29 | 0.15 | 0.19 | 0.21 | 0.27 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 9 | < 5 | < 5 | < 5.0 | < 5.0 | 8.1 | 9.3 | 5.3 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-03-28 | 2022-06-03 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 |
| | | | | Background | | | | | | | | | | | |
| | | | | Sample ID | MW19-13S_20220328 | MW19-13S_20220603 | MW19-13S_20220930 | MW19-13S_20221216 | MW19-13S_20230313 | MW19-13S_20231012 | MW19-13S_20231201 | MW19-13S_20240312 | MW19-13S_20240702 | MW19-13S_20241210 | MW19-13S_20250611 |
| | | | | Lab Sample ID | SFM296 | SUS184 | TXM811 | UQJ848 | VHF976 | XHD249 | XTQ415 | YPJ128 | ZQA464 | HA2403274-024 | HA2501779-005 |
| | | | | Lab Job Number | C282980 | C2F3070 | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 460 | 440 | 490 | 450 | 460 | - | - | - | - | 342 | 193 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | < 0.10 | < 0.10 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.35 | 0.32 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 21 | 26 | 23 | 33 | 25 | - | - | - | - | 11.2 | 16.4 |
| **Beryllium** | | 53 | < 2 | ug/l | 0.20 | 0.23 | 0.10 | 0.19 | 0.26 | - | - | - | - | - | 0.137 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.050 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 240 | 310 | 270 | 250 | 190 | 330 | 240 | 150 | 240 | 134 | 196 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.13** | **0.13** | 0.070 | **0.11** | **0.12** | **0.20** | **0.17** | 0.076 | 0.063 | 0.0456 | 0.0894 |
| **Calcium** | | | 3720-7000 | ug/l | 12000 | 13000 | 11000 | 11000 | 9100 | 11000 | 10000 | 8600 | 8400 | 8060 | 7740 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| **Cobalt** | | 100 | <1 | ug/l | 3.0 | 2.3 | 0.97 | 1.1 | 0.93 | 1.6 | 0.80 | 1.3 | 0.44 | - | 0.54 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 1.8 | 2.3 | 6.7 | 3.6 | 3.1 | - | - | - | - | 1.42 | 0.84 |
| **Iron** | | **3000** | <50 - 62 | ug/l | 920 | 1800 | 550 | 410 | 700 | 750 | 140 | 1800 | 830 | 339 | 162 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.254 | 0.077 |
| **Magnesium** | | | 1000-6300 | ug/l | 4400 | 4400 | 3400 | 3900 | 3300 | 3900 | 3700 | 3100 | 2500 | 2770 | 2820 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 600 | 360 | 300 | 330 | 220 | 560 | 300 | 430 | 100 | 74.5 | 182 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.050 |
| **Nickel** | | 250 | < 2 | ug/l | 2.0 | 2.2 | < 2.0 | 3.3 | < 2.0 | - | - | - | - | 0.81 | 0.78 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 4310 | 2410 |
| **Potassium** | | | 400 - 3100 | ug/l | 780 | 1000 | 1600 | 980 | 780 | - | - | - | - | 660 | 768 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | 0.100 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | < 0.010 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 8900 | 9900 | 9500 | 9800 | 8300 | - | - | - | - | 7670 | 7610 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 32 | 36 | 27 | 30 | 26 | - | - | - | - | - | 24.0 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | 0.011 |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.10 |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | 4.2 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.90 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.19 | 0.22 | 0.25 | 0.19 | 0.13 | 0.22 | 0.16 | 0.24 | 0.25 | 0.195 | 0.169 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 5.6 | 9.3 | 5.6 | 6.7 | 6.8 | - | - | - | - | 4.5 | 2.8 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2018-11-07 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-28 | 2022-12-13 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW1-D_20181107 | 20X589937-1062415 | 20X606404-1156950 | MW1-D_20200915 | MW1-D_20201216 | MW1-D_20210323 | MW1-D_20210608 | MW1-D_20211005 | MW1-D_20211213 | MW1-D_20220328 | MW1-D_20220603 | MW1-D_20220928 | MW1-D_20221213 |
| | | | | Lab Sample ID | 9698371 | 1062415 | 1156950 | NQU661 | OLM106 | PDR006 | PUI324 | QWF765 | RJM313 | SFM273 | SUS185 | TWS374 | UPM103 |
| | | | | Lab Job Number | 18X408633 | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S3993 | C2AJ782 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 9 | 14 | < 5 | < 50 | < 50 | 5.2 | 6.9 | 16 | < 50 | 5.6 | 6.2 | 6.0 | < 50 |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 10 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 6 | 6 | < 2 | < 10 | < 10 | 1.5 | 2.1 | 4.6 | < 10 | 3.9 | 2.1 | 2.6 | < 10 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 27 | 31 | 23 | 35 | 31 | 20 | 24 | 33 | 33 | 25 | 29 | 43 | 42 |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 10 | < 10 | < 1.0 | < 1.0 | 0.15 | < 1.0 | 0.11 | < 0.10 | 0.10 | < 1.0 |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 7160 | 6340 | 6190 | 6600 | 6200 | 4700 | 5300 | 6000 | 5100 | 4800 | 4800 | 5900 | 5100 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.62 | 2.30 | 1.11 | 2.2 | 1.4 | 1.0 | 1.1 | 3.0 | 1.7 | 1.1 | 0.63 | 5.1 | 1.4 |
| Calcium | | | 3720-7000 | ug/l | 342000 | 427000 | 377000 | 390000 | 380000 | 310000 | 330000 | 380000 | 360000 | 330000 | 330000 | 390000 | 330000 |
| Chromium | 50 | | <1 - 3 | ug/l | 20 | 17 | 28 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 10 |
| Cobalt | | 100 | <1 | ug/l | 10 | 12 | 12 | 11 | 12 | 8.4 | 8.5 | 9.4 | 11 | 9.1 | 7.4 | 11 | 9.8 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 2 | 3 | 15 | 8.3 | < 5.0 | 5.6 | 5.6 | 3.9 | < 5.0 | 1.3 | 6.1 | 12 | < 5.0 |
| Iron | | 3000 | <50 - 62 | ug/l | 3960 | 1950 | < 50 | < 500 | 1500 | 520 | 350 | 220 | 2100 | 2200 | 810 | 450 | 2500 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | 0.8 | 1.3 | < 0.5 | < 5.0 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 5.0 | 0.51 | < 0.50 | 0.58 | < 5.0 |
| Magnesium | | | 1000-6300 | ug/l | 116000 | 126000 | 124000 | 110000 | 120000 | 100000 | 100000 | 110000 | 100000 | 98000 | 100000 | 110000 | 100000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 5670 | 8420 | 7520 | 6100 | 8900 | 7100 | 7100 | 7900 | 8900 | 8000 | 7300 | 9300 | 8600 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 |
| Nickel | | 250 | < 2 | ug/l | 31 | 33 | 48 | 27 | 27 | 21 | 21 | 25 | 27 | 21 | 20 | 26 | 20 |
| Phosphorus | | | < 100 - 200 | ug/l | 70 | 40 | < 20 | < 1000 | < 1000 | < 100 | < 100 | < 100 | < 1000 | < 100 | < 100 | < 100 | < 1000 |
| Potassium | | | 400 - 3100 | ug/l | 3100 | 3200 | 2300 | 4200 | 3500 | 2200 | 2700 | 3600 | 3400 | 2600 | 2600 | 3800 | 3000 |
| Selenium | 50 | 10 | < 1 | ug/l | 3 | 2 | 2 | < 5.0 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 5.0 |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 1.0 |
| Sodium | | | 8,000 - 34,000 | ug/l | 125000 | 108000 | 120000 | 100000 | 100000 | 85000 | 92000 | 97000 | 88000 | 78000 | 85000 | 100000 | 84000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 703 | 839 | 800 | 910 | 920 | 690 | 720 | 890 | 860 | 790 | 740 | 940 | 750 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | 0.10 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 1.0 |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 |
| Titanium | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 680 | 935 | 899 | 980 | 950 | 710 | 740 | 870 | 780 | 630 | 710 | 870 | 740 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | < 2 | < 2 | < 20 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 20 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 16 | 143 | 53 | 74 | 99 | 31 | 34 | 110 | 130 | 78 | 12 | 65 | 64 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2025-06-11 |
| | | | | Background | | | | | | | | |
| | | | | Sample ID | MW1-D_20230309 | MW1-D_20231012 | MW1-D_20231201 | MW1-D_20240312 | MW1-D_20240702 | MW1-D_20241210 | DUP2_20250611 | MW1-D_20250611 |
| | | | | Lab Sample ID | VGG619 | XHD229 | XTQ396 | YPJ110 | ZQA445 | HA2403274-002 | HA2501779-014 | HA2501779-002 |
| | | | | Lab Job Number | C368322 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 | HA2501779 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 6.1 | - | - | - | - | 10.7 | 24.5 | 27.4 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | - | - | - | - | < 1.00 | < 1.00 | < 1.00 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 4.7 | 8.6 | 2.6 | 5.3 | 7.0 | 2.82 | 8.60 | 8.61 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 26 | - | - | - | - | 31.0 | 29.3 | 37.8 |
| Beryllium | | 53 | < 2 | ug/l | 0.16 | - | - | - | - | - | 0.206 | < 0.200 |
| Bismuth | | | < 2 | ug/l | < 2.0 | - | - | - | - | - | < 0.500 | < 0.500 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 4400 | 5600 | 5400 | 4100 | 4500 | 4590 | 4190 | 3760 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 1.3 | 4.3 | 3.7 | 0.35 | 3.4 | 5.95 | 1.31 | 1.10 |
| Calcium | | | 3720-7000 | ug/l | 330000 | 370000 | 370000 | 330000 | 350000 | 301000 | 269000 | 231000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 5.00 | < 5.00 | < 5.00 |
| Cobalt | | 100 | <1 | ug/l | 9.4 | 8.9 | 7.5 | 7.4 | 8.2 | - | 8.29 | 7.24 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 1.4 | - | - | - | - | 2.95 | < 2.00 | < 2.00 |
| Iron | | 3000 | <50 - 62 | ug/l | 2400 | 2200 | 670 | 2400 | 2100 | 689 | 1620 | 1360 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | 0.58 | 2.3 | < 0.50 | < 0.50 | 1.1 | < 0.500 | 1.09 | 1.12 |
| Magnesium | | | 1000-6300 | ug/l | 100000 | 100000 | 98000 | 97000 | 91000 | 90400 | 81900 | 70400 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 9600 | 9300 | 9600 | 8500 | 9300 | 9370 | 8270 | 6850 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.0050 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2.0 | - | - | - | - | - | 1.26 | 1.16 |
| Nickel | | 250 | < 2 | ug/l | 19 | - | - | - | - | 19.6 | 18.0 | 15.3 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | - | - | - | - | 107 | < 500 | < 500 |
| Potassium | | | 400 - 3100 | ug/l | 2600 | - | - | - | - | 3070 | 2940 | 2720 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | - | - | - | - | - | < 0.500 | < 0.500 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | - | - | - | - | - | < 0.100 | < 0.100 |
| Sodium | | | 8,000 - 34,000 | ug/l | 75000 | - | - | - | - | 73700 | 67600 | 59100 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 770 | - | - | - | - | - | 701 | 628 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | - | - | - | - | - | < 0.100 | < 0.100 |
| Tin | | | < 2 | ug/l | < 2.0 | - | - | - | - | - | < 1.00 | < 1.00 |
| Titanium | | | < 2 | ug/l | < 2.0 | - | - | - | - | - | < 3.00 | < 3.00 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 700 | 840 | 730 | 620 | 650 | 599 | 497 | 393 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | - | - | - | - | < 5.00 | < 5.00 | < 5.00 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 94 | - | - | - | - | 25.3 | 88.4 | 74.2 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2018-11-08 | 2020-04-01 | 2020-05-28 | 2020-12-16 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-10-12 | 2023-12-01 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW1-S_20181108 | 20X589937-1062401 | 20X606404-1156945 | MW1-S_20201216 | MW1-S_20210608 | MW1-S_20211005 | MW1-S_20211213 | MW1-S_20220328 | MW1-S_20220928 | MW1-S_20221213 | MW1-S_20230309 | MW1-S_20231012 | MW1-S_20231201 |
| | | | | Lab Sample ID | 9698370 | 1062401 | 1156945 | OLM105 | PUI323 | QWF764 | RJM311 | SFM272 | TWS373 | UPM102 | VGG618 | XHD228 | XTQ395 |
| | | | | Lab Job Number | 18X408633 | 20X589937 | 20X606404 | C0X8319 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2S3993 | C2AJ782 | C368322 | C3V9312 | C3AS035 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 19 | 232 | 5 | 2000 | 39 | 20 | < 50 | 1500 | 10 | 760 | 13 | - | - |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | < 2 | < 2 | < 2 | 1.3 | 1.2 | 2.2 | < 10 | 2.9 | 1.6 | 3.1 | < 1.0 | 5.0 | 1.5 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 41 | 23 | 17 | 25 | 48 | 73 | 46 | 58 | 38 | 50 | 34 | - | - |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 0.10 | < 1.0 | 0.15 | < 0.10 | 0.23 | < 0.10 | - | - |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 5090 | 2030 | 1810 | 1400 | 3000 | 4500 | 3300 | 3100 | 6100 | 2400 | 1700 | 2200 | 2000 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.23 | 0.060 | 0.037 | 0.050 | 0.059 | 0.066 | < 0.10 | 0.050 | 0.040 | 0.037 | 0.026 | 0.037 | 0.018 |
| Calcium | | | 3720-7000 | ug/l | 266000 | 171000 | 158000 | 160000 | 400000 | 510000 | 330000 | 300000 | 230000 | 220000 | 250000 | 330000 | 240000 |
| Chromium | 50 | | <1 - 3 | ug/l | 12 | 4 | 12 | < 1.0 | < 1.0 | 1.2 | < 10 | 2.6 | < 1.0 | 1.2 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | 4 | 2 | 1 | 1.1 | 2.5 | 3.5 | < 4.0 | 4.0 | 0.50 | 1.8 | 1.7 | 3.3 | 2.8 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 3 | < 2 | 2 | 3.1 | 1.2 | 3.0 | < 5.0 | 3.6 | 4.6 | 5.9 | 4.0 | - | - |
| Iron | | 3000 | <50 - 62 | ug/l | 56 | 1020 | < 50 | 1400 | 1300 | 260 | 1600 | 2500 | < 50 | 5300 | 1700 | 3100 | 2200 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.5 | 1.2 | < 0.50 | < 0.50 | < 5.0 | 2.5 | < 0.50 | 2.8 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 78800 | 35000 | 28000 | 26000 | 72000 | 94000 | 65000 | 55000 | 41000 | 39000 | 46000 | 51000 | 37000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 2700 | 1260 | 206 | 490 | 3700 | 15000 | 11000 | 9600 | 840 | 3200 | 5600 | 16000 | 11000 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | 2.5 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| Nickel | | 250 | < 2 | ug/l | 21 | 7 | 16 | 5.2 | 9.3 | 12 | < 20 | 9.5 | 8.0 | 6.5 | 5.9 | - | - |
| Phosphorus | | | < 100 - 200 | ug/l | < 20 | < 20 | < 20 | < 100 | < 100 | < 100 | < 1000 | 140 | < 100 | 130 | < 100 | - | - |
| Potassium | | | 400 - 3100 | ug/l | 4900 | 4200 | 3600 | 3900 | 7700 | 12000 | 7900 | 8400 | 7700 | 5800 | 6100 | - | - |
| Selenium | 50 | 10 | < 1 | ug/l | 2 | < 1 | 2 | < 0.50 | 0.52 | 0.61 | < 5.0 | < 0.50 | 0.66 | < 0.50 | < 0.50 | - | - |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - |
| Sodium | | | 8,000 - 34,000 | ug/l | 116000 | 40700 | 35800 | 33000 | 76000 | 82000 | 71000 | 58000 | 56000 | 39000 | 55000 | - | - |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 732 | 626 | 537 | 590 | 1600 | 2100 | 1300 | 1200 | 1000 | 880 | 1000 | - | - |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 20 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| Titanium | | | < 2 | ug/l | < 2 | 8 | < 2 | 39 | 2.1 | < 2.0 | < 20 | 56 | < 2.0 | 31 | < 2.0 | - | - |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 290 | 164 | 151 | 130 | 450 | 380 | 250 | 210 | 120 | 230 | 230 | 180 | 100 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 20 | 3.3 | < 2.0 | 2.6 | < 2.0 | - | - |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 8 | < 5 | < 5 | 6.0 | 12 | 5.8 | < 50 | 19 | 6.7 | 11 | 8.0 | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW1-S | MW1-S | MW1-S | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2020-05-27 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | | | | | | | | | |
| | | | | Sample ID | MW1-S_20240312 | MW1-S_20240702 | MW1-S_20241210 | MW1-S_20250611 | 20X606071-1154898 | MW20-14D_20200915 | MW20-14D_20201216 | MW20-14D_20210323 | MW20-14D_20210608 |
| | | | | Lab Sample ID | YPJ109 | ZQA444 | HA2403274-001 | HA2501779-001 | 1154898 | NQU666 | OLM163 | PDR030 | PUI340 |
| | | | | Lab Job Number | C473698 | C4K2602 | HA2403274 | HA2501779 | 20X606071 | C0O2716 | C0X8319 | C177930 | C1F8315 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | - | - | 12.1 | 116 | < 5 | 12 | 5.6 | 7.7 | 6.8 |
| Antimony | 6 | 200 | < 2 | ug/l | - | - | 0.14 | < 1.00 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2.7 | 1.4 | 0.70 | 1.14 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | - | - | 26.0 | 22.9 | 24 | 27 | 24 | 20 | 15 |
| Beryllium | | 53 | < 2 | ug/l | - | - | - | < 0.200 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | | < 2 | ug/l | - | - | - | < 0.500 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 1100 | 2200 | 1550 | 1070 | 254 | 370 | 340 | 280 | 240 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.010 | 0.018 | 0.0204 | < 0.0500 | 0.354 | 0.27 | 0.29 | 0.26 | 0.24 |
| Calcium | | | 3720-7000 | ug/l | 140000 | 210000 | 182000 | 121000 | 71000 | 100000 | 100000 | 89000 | 76000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 0.50 | < 5.00 | 4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | 1.8 | 1.6 | - | < 1.00 | 1 | 0.50 | 0.68 | 0.61 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | - | - | 0.85 | < 2.00 | 3 | 0.66 | < 0.50 | 2.3 | 0.79 |
| Iron | | 3000 | <50 - 62 | ug/l | 4200 | 280 | 540 | 744 | < 50 | < 50 | 210 | 57 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | 0.066 | < 0.500 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 24000 | 31000 | 32100 | 22000 | 26300 | 32000 | 33000 | 29000 | 26000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 5900 | 7500 | 4580 | 2470 | 127 | 100 | 110 | 72 | 47 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | < 0.0050 | < 0.0050 | < 0.026 | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | - | - | 0.543 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | - | - | 4.81 | < 5.00 | 13 | 3.4 | 4.1 | 3.5 | 2.5 |
| Phosphorus | | | < 100 - 200 | ug/l | - | - | 1840 | < 500 | < 20 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | - | - | 5070 | 3950 | 1400 | 1900 | 1900 | 1700 | 1500 |
| Selenium | 50 | 10 | < 1 | ug/l | - | - | - | < 0.500 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | - | - | - | < 0.100 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | - | - | 32600 | 23000 | 29500 | 30000 | 33000 | 30000 | 28000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | 510 | 299 | 380 | 380 | 320 | 280 |
| Thallium | | 8 | < 0.1 | ug/l | - | - | - | < 0.100 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | - | - | - | < 1.00 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | - | - | - | 3.38 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 40 | 84 | 115 | 50.9 | 1.8 | 4.0 | 2.7 | 2.1 | 1.6 |
| Vanadium | | 60 | < 2 | ug/l | - | - | < 0.50 | < 5.00 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | - | - | 4.6 | < 10.0 | 34 | 29 | 31 | 30 | 29 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW20-14D_20211005 | MW20-14D_20211213 | MW20-14D_20220328 | MW20-14D_20220602 | MW20-14D_20220930 | MW20-14D_20221216 | MW20-14D_20230313 | MW20-14D_20231012 | MW20-14D_20231201 | MW20-14D_20240312 | MW20-14D_20240702 | MW20-14D_20241210 | MW20-14D_20250611 |
| | | | | Lab Sample ID | QWF785 | RJM504 | SFM299 | SUK084 | TXM814 | UQJ851 | VHF979 | XHD252 | XTQ418 | YPJ131 | ZQA467 | HA2403274-017 | HA2501779-003 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 6.7 | 7.1 | 7.2 | 6.2 | 9.3 | < 5.0 | 11 | - | - | - | - | 3.6 | 39.8 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | < 0.10 | < 0.10 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 | 1.0 | < 1.0 | < 1.0 | 1.27 | 0.97 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 15 | 16 | 14 | 15 | 21 | 29 | 20 | - | - | - | - | 19.9 | 16.5 |
| **Beryllium** | | 53 | < 2 | ug/l | 0.24 | 0.29 | 0.26 | 0.28 | 0.25 | 0.14 | 0.24 | - | - | - | - | - | 0.206 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.050 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 280 | 290 | 230 | 200 | 240 | 300 | 210 | 310 | 270 | 210 | 220 | 247 | 210 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.26** | **0.25** | **0.14** | **0.22** | **0.22** | **0.22** | **0.19** | **0.23** | **0.22** | **0.18** | **0.19** | **0.201** | **0.172** |
| **Calcium** | | | 3720-7000 | ug/l | 69000 | 70000 | 61000 | 56000 | 61000 | 54000 | 51000 | 58000 | 52000 | 47000 | 42000 | 43400 | 38200 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | 0.14 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 2.2 | 1.1 | 0.59 | 1.5 | 3.7 | 2.3 | 3.2 | - | - | - | - | 0.79 | 0.92 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | 56 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 10 | 29 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.065 | 0.119 |
| **Magnesium** | | | 1000-6300 | ug/l | 24000 | 25000 | 21000 | 20000 | 22000 | 20000 | 19000 | 22000 | 20000 | 17000 | 15000 | 17100 | 15600 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 18 | 22 | 27 | 7.3 | 12 | 19 | 10 | 5.0 | 4.4 | 6.4 | 4.8 | 4.15 | 5.76 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | 0.084 |
| **Nickel** | | 250 | < 2 | ug/l | 2.6 | 2.5 | 2.1 | 2.1 | 2.7 | 2.3 | 2.2 | - | - | - | - | 1.76 | 1.29 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 108 | 193 |
| **Potassium** | | | 400 - 3100 | ug/l | 1700 | 1700 | 1500 | 1400 | 1600 | 1600 | 1400 | - | - | - | - | 1450 | 1230 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | < 0.050 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | 0.012 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 29000 | 30000 | 24000 | 23000 | 28000 | 50000 | 26000 | - | - | - | - | 25200 | 22300 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 260 | 280 | 240 | 220 | 220 | 220 | 210 | - | - | - | - | - | 180 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | 0.053 |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.10 |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.90 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 1.5 | 1.5 | 1.4 | 1.2 | 1.8 | 1.9 | 1.6 | 1.4 | 1.3 | 1.7 | 1.3 | 1.51 | 1.34 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 34 | 30 | 73 | 28 | 28 | 19 | 27 | - | - | - | - | 26.6 | 24.1 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-05-27 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | 20X606071-1154897 | MW20-14S_20201216 | MW20-14S_20210323 | MW20-14S_20210608 | MW20-14S_20211005 | MW20-14S_20211213 | MW20-14S_20220328 | MW20-14S_20220602 | MW20-14S_20220930 | MW20-14S_20221216 | MW20-14S_20230313 | MW20-14S_20231012 | MW20-14S_20231201 |
| | | | | Lab Sample ID | 1154897 | OLM162 | PDR029 | PUI339 | QWF784 | RJM503 | SFM298 | SUK083 | TXM813 | UQJ850 | VHF978 | XHD251 | XTQ417 |
| | | | | Lab Job Number | 20X606071 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | < 5 | 14 | 120 | 17 | 45 | 25 | 97 | 27 | 270 | 42 | 15 | - | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 27 | 49 | 34 | 37 | 35 | 27 | 21 | 38 | 19 | 48 | 44 | - | - |
| **Beryllium** | | 53 | < 2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - |
| **Bismuth** | | | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 214 | 210 | 220 | 220 | 200 | 73 | < 50 | 130 | < 50 | 91 | 130 | 220 | 110 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.040 | 0.066 | 0.048 | 0.049 | 0.061 | 0.043 | 0.029 | 0.042 | 0.031 | 0.057 | 0.030 | 0.053 | 0.044 |
| **Calcium** | | | 3720-7000 | ug/l | 63300 | 66000 | 81000 | 63000 | 44000 | 24000 | 15000 | 41000 | 6500 | 26000 | 43000 | 44000 | 29000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | 4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | 2 | 2.7 | 1.6 | 1.6 | 0.65 | 2.7 | 2.0 | 2.0 | 0.79 | 0.80 | 0.55 | 1.2 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | < 2 | 1.2 | 1.5 | 1.2 | 3.9 | 1.3 | 2.6 | 3.5 | 11 | 2.9 | 3.5 | - | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | 180 | 62 | 450 | < 50 | 440 | 550 | 250 | 360 | < 50 | < 50 | 230 | 65 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 17100 | 17000 | 20000 | 16000 | 12000 | 6900 | 4600 | 11000 | 2200 | 7900 | 12000 | 13000 | 9000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 123 | 460 | 150 | 230 | 79 | 280 | 190 | 150 | 59 | 52 | 11 | 160 | 20 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Nickel** | | 250 | < 2 | ug/l | 9 | 6.4 | 3.1 | 5.3 | 4.7 | 6.2 | 4.8 | 5.0 | 4.0 | 5.5 | 3.6 | - | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - |
| **Potassium** | | | 400 - 3100 | ug/l | 1700 | 2100 | 2100 | 2200 | 2200 | 1400 | 1400 | 1700 | 1300 | 1500 | 1400 | - | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 18200 | 17000 | 19000 | 18000 | 15000 | 9600 | 7500 | 12000 | 7000 | 10000 | 12000 | - | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 194 | 220 | 250 | 210 | 160 | 100 | 74 | 160 | 35 | 120 | 180 | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - |
| **Tin** | | | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Titanium** | | | < 2 | ug/l | < 2 | < 2.0 | 2.4 | < 2.0 | < 2.0 | < 2.0 | 3.1 | 4.0 | 11 | < 2.0 | < 2.0 | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.3 | 0.20 | 0.28 | 0.17 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.15 | < 0.10 | 0.10 | < 0.10 | < 0.10 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 5 | < 5.0 | < 5.0 | 6.2 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 6.3 | 5.6 | 5.1 | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2020-05-27 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2021-12-13 | 2022-03-29 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW20-14S_20240312 | MW20-14S_20240702 | MW20-14S_20241210 | MW20-14S_20250611 | 20X606071-1154900 | MW20-15D_20200915 | MW20-15D_20201216 | MW20-15D_20210323 | MW20-15D_20210608 | MW20-15D_20211005 | MW20-15D_20211213 | DUP1_20211213 | MW20-15D_20220329 |
| | | | | Lab Sample ID | YPJ130 | ZQA466 | HA2403274-018 | HA2501779-004 | 1154900 | NQU667 | OLM165 | PDR032 | PUI342 | QWF787 | RJM506 | RJM529 | SFM301 |
| | | | | Lab Job Number | C473698 | C4K2602 | HA2403274 | HA2501779 | 20X606071 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C1Z2957 | C282980 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | - | - | 50.1 | 5210 | < 5 | < 5.0 | 5.8 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 110 | < 5.0 |
| Antimony | 6 | 200 | < 2 | ug/l | - | - | < 0.10 | 0.18 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | < 1.0 | 4.4 | 0.49 | 5.44 | < 2 | < 1.0 | 1.3 | 1.5 | 1.5 | 1.1 | 1.3 | 1.5 | 1.7 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | - | - | 23.0 | 81.6 | 56 | 60 | 55 | 52 | 49 | 50 | 48 | 48 | 45 |
| Beryllium | | 53 | < 2 | ug/l | - | - | - | 0.486 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | | < 2 | ug/l | - | - | - | 0.121 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | 65 | 56 | 43 | 64 | 74 | 67 | 64 | 58 | 76 | 65 | 58 | 53 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.019 | 0.015 | 0.0404 | 0.0624 | 0.124 | 0.12 | 0.085 | 0.080 | 0.11 | 0.25 | 0.057 | 0.097 | 0.039 |
| Calcium | | | 3720-7000 | ug/l | 4400 | 9300 | 12600 | 10000 | 198000 | 170000 | 190000 | 190000 | 180000 | 160000 | 160000 | 160000 | 170000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 0.50 | 5.36 | 13 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | 0.75 | 3.3 | - | 4.87 | 3 | 0.78 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | - | - | 3.50 | 16.2 | 4 | 0.61 | 1.7 | 0.97 | 1.1 | 2.0 | 0.90 | 0.78 | 0.76 |
| Iron | | 3000 | <50 - 62 | ug/l | 460 | 2200 | 50 | 7170 | < 50 | 180 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | 0.68 | < 0.50 | 0.172 | 4.95 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 1700 | 2900 | 4720 | 4920 | 48000 | 40000 | 43000 | 43000 | 45000 | 40000 | 38000 | 38000 | 39000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 65 | 460 | 15.2 | 367 | 285 | 150 | 29 | 38 | 83 | 110 | 14 | 15 | 2.1 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | < 0.0050 | < 0.0050 | < 0.026 | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | - | - | 0.199 | 3 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | - | - | 4.36 | 9.83 | 18 | 3.6 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | - | - | 1850 | 1580 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | - | - | 900 | 1910 | 1600 | 2400 | 2300 | 2100 | 2000 | 2200 | 2200 | 2200 | 2000 |
| Selenium | 50 | 10 | < 1 | ug/l | - | - | - | 0.060 | 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | - | - | - | 0.605 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | - | - | 8640 | 9000 | 49500 | 42000 | 43000 | 41000 | 44000 | 49000 | 45000 | 45000 | 40000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | 65.2 | 343 | 310 | 330 | 330 | 320 | 300 | 290 | 290 | 290 |
| Thallium | | 8 | < 0.1 | ug/l | - | - | - | 0.078 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | - | - | - | 0.36 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | - | - | - | 133 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.11 | 0.13 | 0.056 | 1.44 | 257 | 240 | 310 | 250 | 210 | 240 | 260 | 260 | 310 |
| Vanadium | | 60 | < 2 | ug/l | - | - | < 0.50 | 7.34 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | - | - | 6.0 | 20.3 | 14 | 7.3 | 8.5 | 9.0 | 9.4 | 13 | 6.9 | 7.3 | 7.6 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15S | MW20-15S | MW20-15S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2020-05-27 | 2020-12-16 | 2021-06-08 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW20-15D_20220602 | MW20-15D_20220930 | MW20-15D_20221216 | MW20-15D_20230313 | MW20-15D_20231012 | MW20-15D_20231201 | MW20-15D_20240312 | MW20-15D_20240702 | MW20-15D_20241210 | MW20-15D_20250612 | 20X606071-1154899 | MW20-15S_20201216 | MW20-15S_20210608 |
| | | | | Lab Sample ID | SUK085 | TXM816 | UQJ853 | VHF981 | XHD254 | XTQ420 | YPJ133 | ZQA469 | HA2403274-019 | HA2501804-018 | 1154899 | OLM164 | PUI341 |
| | | | | Lab Job Number | C2F1732 | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 | 20X606071 | C0X8319 | C1F8315 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - | - | - | - | 1.8 | 3.2 | < 5 | 8.4 | 18 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | < 0.10 | < 0.10 | < 2 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 1.5 | 1.3 | 1.5 | 1.8 | 1.9 | 2.0 | 1.9 | 1.7 | 1.90 | 2.14 | < 2 | 1.3 | < 1.0 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 45 | 54 | 60 | 55 | - | - | - | - | 50.1 | 48.8 | 71 | 50 | 44 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | 0.062 | < 2 | < 1.0 | < 1.0 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.050 | < 2 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | 73 | 62 | < 50 | 69 | 65 | 65 | 84 | 70 | 55 | 143 | 170 | 130 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.040 | 0.080 | 0.057 | 0.053 | 0.059 | 0.057 | 0.040 | 0.047 | 0.0503 | 0.0527 | 0.086 | 0.027 | 0.016 |
| Calcium | | | 3720-7000 | ug/l | 170000 | 150000 | 160000 | 180000 | 190000 | 180000 | 170000 | 150000 | 144000 | 167000 | 109000 | 100000 | 110000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 10 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | < 0.10 | 5 | 0.91 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 0.52 | 3.6 | 1.3 | 3.1 | - | - | - | - | 0.58 | 0.69 | 3 | 1.6 | 4.3 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 26 | < 10 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.066 | < 0.050 | < 0.5 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 41000 | 40000 | 41000 | 43000 | 45000 | 42000 | 40000 | 36000 | 37400 | 41300 | 23300 | 22000 | 24000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | < 2.0 | 12 | 13 | < 2.0 | < 2.0 | 2.2 | 3.1 | 2.1 | 13.5 | 1.28 | 1290 | 290 | 30 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | 0.360 | 8 | 3.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | 1.26 | 0.86 | 129 | 62 | 21 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 63.9 | 64.0 | < 20 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 2000 | 2200 | 2200 | 2100 | - | - | - | - | 2140 | 2040 | 2300 | 2200 | 2000 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | 0.058 | < 1 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | < 0.010 | < 0.1 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 41000 | 52000 | 48000 | 42000 | - | - | - | - | 46600 | 43600 | 35900 | 36000 | 38000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 300 | 290 | 300 | 320 | - | - | - | - | - | 313 | 203 | 190 | 180 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | 0.039 | < 0.1 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.10 | < 2 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.30 | < 2 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 300 | 250 | 340 | 360 | 380 | 320 | 270 | 250 | 248 | 258 | 5.5 | 4.8 | 5.0 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | 0.79 | 0.77 | < 2 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 11 | 12 | 7.8 | 9.9 | - | - | - | - | 9.8 | 8.0 | 45 | 64 | 39 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2022-03-28 | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-12-10 | 2025-06-12 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2020-12-16 |
| | | | | Background | | | | | | | | | | Background | Background | Background | Background |
| | | | | Sample ID | MW20-15S_20211213 | MW20-15S_20220328 | MW20-15S_20221216 | MW20-15S_20230313 | MW20-15S_20231013 | MW20-15S_20231201 | MW20-15S_20240312 | MW20-15S_20241210 | MW20-15S_20250612 | 20X606071-1154901 | MW20-16_20200917 | DUP2_20201216 | MW20-16_20201216 |
| | | | | Lab Sample ID | RJM505 | SFM300 | UQJ852 | VHF980 | XHD253 | XTQ419 | YPJ132 | HA2403274-020 | HA2501804-017 | 1154901 | NRG097 | OLM171 | OLM166 |
| | | | | Lab Job Number | C1Z2957 | C282980 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | HA2403274 | HA2501804 | 20X606071 | C0O4512 | C0X8319 | C0X8319 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 13 | < 5.0 | 11 | < 5.0 | - | - | - | 2.0 | 3.4 | 20 | 12 | 35 | 45 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | < 0.10 | < 0.10 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.46 | 0.58 | 5 | 7.7 | 6.2 | 6.7 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 33 | 33 | 50 | 35 | - | - | - | 27.0 | 38.2 | 6 | 14 | 11 | 12 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | < 0.020 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.050 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 200 | 150 | 180 | 150 | 240 | 210 | 180 | 194 | 166 | 20 | < 50 | < 50 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.038 | 0.024 | 0.039 | 0.034 | 0.021 | 0.031 | 0.034 | 0.0281 | 0.0256 | 0.055 | 0.032 | 0.032 | 0.036 |
| Calcium | | | 3720-7000 | ug/l | 71000 | 74000 | 73000 | 61000 | 72000 | 51000 | 39000 | 39600 | 76100 | 27400 | 31000 | 29000 | 29000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 3 | < 1.0 | < 1.0 | 9.6 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | 0.14 | < 1 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 5.6 | 15 | 9.5 | 21 | - | - | - | 9.32 | 11.6 | 4 | 1.9 | 2.5 | 2.9 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 10 | < 10 | < 50 | < 50 | < 50 | 69 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.051 | < 0.050 | < 0.5 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 15000 | 16000 | 16000 | 15000 | 17000 | 14000 | 13000 | 12100 | 20600 | 4000 | 5600 | 5300 | 5100 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 51 | 33 | 20 | 30 | 5.1 | 21 | 21 | 11.9 | 6.48 | 22 | 54 | 37 | 39 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2.0 | 58 | < 2.0 | < 2.0 | - | - | - | - | 0.131 | 4 | 6.7 | 4.6 | 4.7 |
| Nickel | | 250 | < 2 | ug/l | 30 | 18 | 13 | 12 | - | - | - | 8.52 | 4.45 | 2 | < 2.0 | < 2.0 | 3.8 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | - | - | - | 225 | 355 | < 20 | < 100 | 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 1900 | 1600 | 1800 | 1600 | - | - | - | 1570 | 1700 | 1000 | 1100 | 1100 | 1100 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | < 0.050 | < 1 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | < 0.010 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 39000 | 35000 | 38000 | 35000 | - | - | - | 32700 | 36200 | 8000 | 11000 | 10000 | 11000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 130 | 140 | 130 | 130 | - | - | - | - | 171 | 70 | 86 | 80 | 81 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | < 0.010 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.10 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.30 | < 2 | < 2.0 | < 2.0 | 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 2.5 | 2.9 | 2.6 | 1.8 | 2.7 | 1.3 | 0.33 | 0.349 | 3.00 | 18.5 | 15 | 13 | 13 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | < 0.50 | < 0.50 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 75 | 59 | 37 | 38 | - | - | - | 20.4 | 12.3 | < 5 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-25 | 2021-06-09 | 2021-06-09 | 2021-10-06 | 2021-10-06 | 2021-12-13 | 2021-12-13 | 2022-03-30 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-10 | 2023-10-13 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20210325 | DUP2_20210609 | MW20-16_20210609 | MW20-16_20211006 | DUP3_20211006 | MW20-16_20211213 | DUP2_20211213 | MW20-16_20220330 | MW20-16_20220602 | MW20-16_20220930 | MW20-16_20221216 | MW20-16_20230310 | MW20-16_20231013 |
| | | | | Lab Sample ID | PEB977 | PUQ386 | PUQ381 | QWS507 | QWS510 | RJM507 | RJM530 | SGA984 | SUK086 | TXM817 | UQJ854 | VGT145 | XHD255 |
| | | | | Lab Job Number | C179966 | C1F9831 | C1F9831 | C1T3325 | C1T3325 | C1Z2957 | C1Z2957 | C285511 | C2F1732 | C2S7487 | C2AN796 | C370496 | C3V9312 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 10 | 21 | 24 | 18 | 14 | 17 | 17 | 55 | 21 | 41 | 52 | 18 | - |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 6.8 | 6.1 | 6.0 | 7.4 | 7.6 | 6.9 | 6.8 | 7.1 | 6.2 | 5.5 | 17 | 8.9 | 6.8 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 9.0 | 9.8 | 10 | 12 | 12 | 9.9 | 10 | 8.0 | 14 | 14 | 22 | 13 | - |
| Beryllium | | 53 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | 0.23 | 0.24 | 0.22 | 0.19 | 0.15 | 0.20 | 0.25 | 0.15 | 0.11 | - |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.016 | 0.027 | 0.025 | 0.034 | 0.032 | 0.023 | 0.025 | 0.015 | 0.027 | 0.027 | 0.020 | 0.018 | 0.047 |
| Calcium | | | 3720-7000 | ug/l | 31000 | 28000 | 28000 | 31000 | 31000 | 28000 | 29000 | 28000 | 27000 | 23000 | 29000 | 30000 | 28000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.46 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 1.5 | 1.9 | 1.7 | 1.2 | 2.6 | 1.6 | 2.7 | 2.4 | 5.3 | 5.0 | 2.0 | 4.2 | - |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 63 | < 50 | < 50 | 57 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 5600 | 5300 | 5100 | 5700 | 5800 | 5300 | 5300 | 5500 | 5200 | 4500 | 5300 | 5600 | 5200 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 2.9 | 13 | 12 | 23 | 23 | 23 | 28 | 4.1 | 75 | 48 | 47 | 9.5 | 16 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 5.5 | 4.7 | 4.7 | 6.4 | 6.6 | 5.6 | 5.4 | 5.1 | 4.7 | 4.6 | 7.1 | 4.7 | - |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | 100 | < 100 | - |
| Potassium | | | 400 - 3100 | ug/l | 1000 | 990 | 1000 | 1300 | 1200 | 1100 | 1100 | 1000 | 1000 | 1000 | 1200 | 1000 | - |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| Sodium | | | 8,000 - 34,000 | ug/l | 11000 | 11000 | 10000 | 12000 | 12000 | 11000 | 11000 | 20000 | 10000 | 10000 | 14000 | 11000 | - |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 82 | 74 | 74 | 87 | 88 | 76 | 75 | 76 | 71 | 60 | 78 | 81 | - |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.5 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 17 | 14 | 14 | 19 | 18 | 15 | 15 | 16 | 14 | 8.4 | 19 | 16 | 12 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5.0 | 5.1 | 5.5 | < 5.0 | 5.1 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-12-01 | 2024-03-14 | 2024-03-14 | 2024-07-02 | 2024-12-10 | 2024-12-10 | 2025-06-12 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-08 | 2021-10-05 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20231201 | MW20-16_20240314 | DUP3_20240314 | MW20-16_20240702 | DUP 3_20241210 | MW20-16_20241210 | MW20-16_20250612 | 20X606071-1154903 | MW20-17D_20200917 | MW20-17D_20201216 | MW20-17D_20210325 | MW20-17D_20210608 | MW20-17D_20211005 |
| | | | | Lab Sample ID | XTQ421 | YQA658 | YQA659 | ZQA470 | HA2403274-029 | HA2403274-006 | HA2501804-012 | 1154903 | NRG101 | OLM168 | PEB969 | PUI344 | QWF789 |
| | | | | Lab Job Number | C3AS035 | C476965 | C476965 | C4K2602 | HA2403274 | HA2403274 | HA2501804 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F8315 | C1T0922 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | - | - | - | - | 15.0 | 16.5 | 34.2 | 27 | 8.1 | 12 | < 5.0 | 5.1 | 6.2 |
| Antimony | 6 | 200 | < 2 | ug/l | - | - | - | - | < 0.10 | < 0.10 | < 0.10 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 6.9 | 7.0 | 7.1 | 5.2 | 7.89 | 7.72 | 8.68 | 5 | 5.2 | 3.0 | 2.9 | 2.3 | 2.5 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | - | - | - | - | 9.99 | 11.0 | 7.80 | < 5 | 6.8 | 9.5 | 11 | 13 | 9.3 |
| Beryllium | | 53 | < 2 | ug/l | - | - | - | - | - | - | 0.243 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 |
| Bismuth | | | < 2 | ug/l | - | - | - | - | - | - | 0.087 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | 19 | 21 | 17 | 23 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.034 | 0.018 | 0.018 | 0.022 | 0.0231 | 0.0235 | 0.0273 | < 0.017 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Calcium | | | 3720-7000 | ug/l | 24000 | 25000 | 25000 | 25000 | 26000 | 26100 | 25800 | 7000 | 9600 | 21000 | 23000 | 24000 | 24000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | < 0.50 | 3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | - | < 0.10 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | - | - | - | - | 1.03 | 1.72 | 2.47 | < 2 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 10 | 16 | 11 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.050 | 0.084 | < 0.050 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 4500 | 4600 | 4600 | 4400 | 5340 | 5400 | 5280 | 1000 | 1300 | 2900 | 3200 | 3500 | 3500 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 31 | 12 | 12 | < 2.0 | 1.39 | 2.50 | 4.16 | 23 | 24 | 64 | 260 | 210 | 19 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | < 0.0050 | < 0.0050 | < 0.0050 | < 0.026 | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | - | - | - | - | - | 3.78 | 7 | 5.6 | 2.1 | 2.1 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | - | - | - | - | 184 | 148 | 228 | < 20 | 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | - | - | - | - | 1090 | 1090 | 995 | 400 | 550 | 440 | 690 | 720 | 700 |
| Selenium | 50 | 10 | < 1 | ug/l | - | - | - | - | - | - | 0.112 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | - | - | - | - | - | - | 0.021 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | - | - | - | - | 11600 | 11600 | 10000 | 39600 | 35000 | 15000 | 14000 | 12000 | 11000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | - | - | - | 75.1 | 39 | 52 | 87 | 81 | 81 | 81 |
| Thallium | | 8 | < 0.1 | ug/l | - | - | - | - | - | - | < 0.010 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | - | - | - | - | - | - | < 0.10 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | - | - | - | - | - | - | 0.40 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 11 | 15 | 15 | 9.2 | 15.4 | 14.5 | 14.8 | 9.7 | 13 | 11 | 13 | 10 | 10 |
| Vanadium | | 60 | < 2 | ug/l | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | 2 | 2.3 | < 2.0 | < 2.0 | 2.1 | 3.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | - | - | - | - | 1.7 | 4.8 | 1.8 | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 | 2022-09-28 | 2022-12-16 | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2023-12-01 | 2024-03-14 | 2024-07-02 | 2024-12-10 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP1_20211005 | MW20-17D_20211213 | MW20-17D_20220330 | MW20-17D_20220603 | MW20-17D_20220928 | MW20-17D_20221216 | DUP3_20221216 | MW20-17D_20230313 | MW20-17D_20231013 | MW20-17D_20231201 | MW20-17D_20240314 | MW20-17D_20240702 | MW20-17D_20241210 |
| | | | | Lab Sample ID | QWF770 | RJM509 | SGA978 | SUS179 | TWS410 | UQJ830 | UQJ833 | VHF982 | XHD257 | XTQ423 | YQA656 | ZQA472 | HA2403274-008 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C285511 | C2F3070 | C2S3993 | C2AN796 | C2AN796 | C372847 | C3V9312 | C3AS035 | C476965 | C4K2602 | HA2403274 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 8.1 | < 5.0 | 5.6 | 5.7 | 7.1 | 12 | 13 | 6.4 | - | - | - | - | 10.0 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | < 0.10 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2.5 | 2.7 | 4.4 | 2.2 | 2.5 | 2.8 | 4.2 | 2.0 | 1.7 | 1.9 | 1.9 | 3.2 | 1.65 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 10 | 14 | 14 | 17 | 18 | 22 | 79 | 22 | - | - | - | - | 24.6 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 18 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.0050 |
| Calcium | | | 3720-7000 | ug/l | 24000 | 25000 | 23000 | 23000 | 24000 | 24000 | 69000 | 24000 | 25000 | 25000 | 24000 | 27000 | 25700 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 1.7 | < 0.50 | < 0.50 | 3.2 | 3.0 | 6.7 | 2.7 | 2.7 | - | - | - | - | 0.35 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | 230 | < 50 | 51 | < 50 | 960 | < 50 | < 50 | < 50 | < 50 | 530 | 642 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.065 |
| Magnesium | | | 1000-6300 | ug/l | 3500 | 3800 | 3500 | 3400 | 3700 | 3700 | 10000 | 3300 | 3600 | 3600 | 3400 | 3800 | 4070 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 24 | 180 | 370 | 310 | 250 | 63 | 730 | 56 | 67 | 69 | 44 | 360 | 538 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | < 0.0050 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2.0 | 2.1 | 2.0 | < 2.0 | < 2.0 | 2.5 | 2.4 | 2.2 | - | - | - | - | - |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.3 | < 2.0 | - | - | - | - | < 0.50 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 628 |
| Potassium | | | 400 - 3100 | ug/l | 790 | 640 | 1000 | 850 | 1000 | 1100 | 1800 | 1100 | - | - | - | - | 1220 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - |
| Sodium | | | 8,000 - 34,000 | ug/l | 11000 | 12000 | 12000 | 11000 | 12000 | 13000 | 15000 | 11000 | - | - | - | - | 11700 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 81 | 83 | 80 | 76 | 80 | 77 | 220 | 79 | - | - | - | - | - |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 10 | 14 | 8.9 | 12 | 10 | 6.3 | 7.5 | 6.2 | 5.6 | 6.2 | 7.3 | 7.9 | 7.97 |
| Vanadium | | 60 | < 2 | ug/l | 3.0 | 2.7 | < 2.0 | 2.1 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.7 | < 5.0 | < 5.0 | < 5.0 | - | - | - | - | 3.4 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | Sample Location | MW20-17D |
|---|---|---|---|---|
| | | | Sample Date | 2025-06-12 |
| | | | Background | Background |
| | | | Sample ID | MW20-17D_20250612 |
| | | | Lab Sample ID | HA2501804-021 |
| | | | Lab Job Number | HA2501804 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 2.8 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 0.10 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 2.49 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 14.8 |
| **Beryllium** | | 53 | < 2 | ug/l | < 0.020 |
| **Bismuth** | | | < 2 | ug/l | < 0.050 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 14 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | < 0.0050 |
| **Calcium** | | | 3720-7000 | ug/l | 24500 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 0.50 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.10 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | < 0.20 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 10 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.050 |
| **Magnesium** | | | 1000-6300 | ug/l | 3660 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 26.8 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | < 0.0050 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | 1.71 |
| **Nickel** | | 250 | < 2 | ug/l | < 0.50 |
| **Phosphorus** | | | < 100 - 200 | ug/l | 365 |
| **Potassium** | | | 400 - 3100 | ug/l | 1140 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.050 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.010 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 10900 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 81.3 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.010 |
| **Tin** | | | < 2 | ug/l | < 0.10 |
| **Titanium** | | | < 2 | ug/l | < 0.30 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 10.5 |
| **Vanadium** | | 60 | < 2 | ug/l | 1.12 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 1.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 | 2022-09-28 | 2022-12-16 | 2023-03-13 | 2023-10-13 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | 20X606071-1154902 | MW20-17S_20200917 | MW20-17S_20201216 | MW20-17S_20210325 | MW20-17S_20210608 | MW20-17S_20211005 | MW20-17S_20211213 | MW20-17S_20220330 | MW20-17S_20220603 | MW20-17S_20220928 | MW20-17S_20221216 | MW20-17S_20230313 | MW20-17S_20231013 |
| | | | | Lab Sample ID | 1154902 | NRG100 | OLM167 | PEB973 | PUI343 | QWF788 | RJM508 | SGA980 | SUS182 | TWS412 | UQJ855 | VHF983 | XHD256 |
| | | | | Lab Job Number | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F8315 | C1T0922 | C1Z2957 | C285511 | C2F3070 | C2S3993 | C2AN796 | C372847 | C3V9312 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 22 | 39 | 12 | 9.2 | 17 | 35 | 10 | < 5.0 | 5.2 | < 5.0 | 73 | 5.3 | - |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2 | 2.9 | 2.5 | 1.5 | 1.4 | 1.3 | < 1.0 | 1.5 | < 1.0 | < 1.0 | 1.1 | < 1.0 | 1.3 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 13 | 21 | 21 | 21 | 14 | 17 | 14 | 13 | 20 | 20 | 30 | 21 | - |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| Bismuth | | | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 16 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.019 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.016 | < 0.010 | < 0.010 |
| Calcium | | | 3720-7000 | ug/l | 20900 | 25000 | 25000 | 25000 | 21000 | 20000 | 23000 | 21000 | 23000 | 25000 | 24000 | 24000 | 26000 |
| Chromium | 50 | | <1 - 3 | ug/l | 3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.64 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | < 2 | 1.1 | < 0.50 | 7.0 | 0.56 | 2.8 | < 0.50 | 0.66 | 3.5 | 2.9 | 2.7 | 3.1 | - |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 110 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 2300 | 3300 | 3200 | 3000 | 2800 | 2800 | 3100 | 2800 | 3200 | 3500 | 3600 | 3300 | 3600 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 50 | 50 | 38 | 2.0 | 45 | 120 | 65 | 55 | 42 | 42 | 270 | 4.1 | 9.5 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | - | - | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 9 | 3.5 | 4.6 | < 2.0 | 2.5 | 5.3 | 3.5 | 6.4 | 4.2 | 3.3 | 4.3 | 4.4 | - |
| Nickel | | 250 | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.0 | - |
| Phosphorus | | | < 100 - 200 | ug/l | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - |
| Potassium | | | 400 - 3100 | ug/l | 800 | 1300 | 1400 | 1200 | 850 | 970 | 1100 | 860 | 1000 | 1200 | 1200 | 1100 | - |
| Selenium | 50 | 10 | < 1 | ug/l | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| Sodium | | | 8,000 - 34,000 | ug/l | 19500 | 9700 | 9800 | 9400 | 15000 | 16000 | 12000 | 12000 | 9800 | 10000 | 10000 | 8900 | - |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 62 | 78 | 80 | 64 | 57 | 55 | 60 | 51 | 59 | 64 | 64 | 65 | - |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| Tin | | | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Titanium | | | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.6 | < 2.0 | - |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 2.5 | 3.3 | 3.2 | 1.8 | 1.4 | 0.82 | 1.3 | 0.38 | 1.3 | 1.7 | 1.5 | 1.4 | 2.0 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.1 | < 5.0 | < 5.0 | < 5.0 | 5.1 | < 5.0 | < 5.0 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-12-01 | 2024-03-14 | 2024-07-02 | 2024-12-10 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-06-01 | 2020-06-01 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | Background | Background | Background | Background | Background | Background | | | | | | | |
| | | | | Sample ID | MW20-17S_20231201 | MW20-17S_20240314 | MW20-17S_20240702 | DUP 2_20241210 | MW20-17S_20241210 | MW20-17S_20250612 | MW2-D_20181108 | 20X608058-1165159 | 20X608058-1165149 | MW-2D_20200915 | MW2-D_20201216 | MW2-D_20210323 | MW2-D_20210608 |
| | | | | Lab Sample ID | XTQ422 | YQA655 | ZQA471 | HA2403274-028 | HA2403274-007 | HA2501804-022 | 9698374 | 1165159 | 1165149 | NQU698 | OLM109 | PDR009 | PUI327 |
| | | | | Lab Job Number | C3AS035 | C476965 | C4K2602 | HA2403274 | HA2403274 | HA2501804 | 18X408633 | 20X608058 | 20X608058 | C0O2716 | C0X8319 | C177930 | C1F8315 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | - | - | - | 9.9 | 6.6 | 1.8 | < 5 | 5 | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Antimony** | 6 | 200 | < 2 | ug/l | - | - | - | < 0.10 | < 0.10 | 0.10 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 1.2 | 1.2 | 1.6 | 1.57 | 1.55 | 1.55 | 2 | 3 | 2 | 2.4 | 2.2 | 2.2 | 2.0 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | - | - | - | 17.0 | 17.2 | 14.7 | 21 | 16 | 16 | 13 | 13 | 14 | 13 |
| **Beryllium** | | 53 | < 2 | ug/l | - | - | - | - | - | < 0.020 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Bismuth** | | | < 2 | ug/l | - | - | - | - | - | < 0.050 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | 11 | 12 | < 10 | 76 | 46 | 47 | < 50 | 52 | < 50 | < 50 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | < 0.010 | < 0.010 | 0.010 | < 0.0050 | < 0.0050 | 0.0114 | < 0.09 | 0.064 | 0.067 | 0.059 | 0.053 | 0.051 | 0.044 |
| **Calcium** | | | 3720-7000 | ug/l | 26000 | 24000 | 25000 | 24000 | 24500 | 24900 | 63000 | 79700 | 75800 | 79000 | 72000 | 70000 | 68000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 0.51 | 0.54 | < 0.50 | 4 | 4 | 4 | < 1.0 | 2.5 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | 0.61 | 0.63 | 3.0 | - | - | 0.40 | < 1 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | - | - | - | 1.42 | 1.50 | 1.63 | < 2 | < 2 | < 2 | < 0.50 | 0.86 | 0.73 | < 0.50 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | 280 | < 10 | < 10 | < 10 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | 0.64 | < 0.050 | < 0.050 | < 0.050 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 3500 | 3200 | 3300 | 3570 | 3630 | 3630 | 17200 | 21400 | 21400 | 21000 | 19000 | 19000 | 18000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 8.1 | 3.5 | 56 | 2.78 | 2.74 | 44.8 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | < 0.0050 | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | - | - | - | - | 2.31 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Nickel** | | 250 | < 2 | ug/l | - | - | - | 7.36 | 7.47 | 5.80 | < 2 | 4 | 5 | < 2.0 | < 2.0 | 2.2 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | - | - | - | 892 | 1120 | 876 | 50 | < 20 | < 20 | 100 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | - | - | - | 1180 | 1200 | 1190 | 1200 | 1100 | 1000 | 1200 | 1200 | 1200 | 1100 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | - | - | - | - | 0.420 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | - | - | - | 8630 | 9000 | 8360 | 22500 | 30300 | 28100 | 27000 | 26000 | 26000 | 24000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | - | - | 64.6 | 200 | 197 | 198 | 190 | 180 | 170 | 170 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | - | - | - | - | - | < 0.10 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | - | - | - | - | - | < 0.30 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 1.8 | 1.5 | 2.0 | 1.94 | 1.99 | 1.83 | 133 | 230 | 244 | 250 | 240 | 220 | 200 |
| **Vanadium** | | 60 | < 2 | ug/l | - | - | - | 0.65 | 0.66 | 0.60 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | - | - | - | 5.2 | 5.5 | 8.6 | < 5 | 5 | 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

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[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2022-12-14 | 2022-12-14 | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW2-D_20211005 | DUP2_20211005 | MW2-D_20211213 | MW2-D_20220329 | MW2-D_20220602 | MW2-D_20220928 | MW2-D_20221214 | DUP1_20221214 | DUP1_20221214 | MW2-D_20230309 | MW2-D_20231012 | MW2-D_20231201 | MW2-D_20240312 |
| | | | | Lab Sample ID | QWF768 | QWF771 | RJM315 | SFM276 | SUK076 | TWS377 | UPM106 | UPB189 | UPM107 | VGG622 | XHD232 | XTQ399 | YPJ113 |
| | | | | Lab Job Number | C1T0922 | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S3993 | C2AJ782 | C2AH933 | C2AJ782 | C368322 | C3V9312 | C3AS035 | C473698 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 7.7 | 6.9 | < 5.0 | 5.2 | < 5.0 | 5.5 | < 5.0 | 280 | < 5.0 | 10 | - | - | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 2.2 | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.2 | 1.3 | 2.1 | 2.0 | 1.9 | 2.4 | 1.8 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 13 | 13 | 13 | 13 | 12 | 16 | 29 | 40 | 15 | 28 | - | - | - |
| **Beryllium** | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 55 | 51 | 57 | 51 | 51 | 62 | 52 | 580 | 51 | < 50 | 61 | 58 | < 50 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.052 | 0.052 | 0.062 | 0.044 | 0.066 | 0.059 | 0.052 | **0.58** | 0.051 | 0.045 | 0.042 | 0.049 | 0.048 |
| **Calcium** | | | 3720-7000 | ug/l | 68000 | 66000 | 65000 | 63000 | 69000 | 69000 | 65000 | 92000 | 66000 | 63000 | 58000 | 66000 | 56000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 1.9 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 2.1 | 0.57 | 1.7 | 1.3 | 0.69 | 3.2 | 1.0 | 2.5 | < 0.50 | 3.0 | - | - | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 400 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.63 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 18000 | 18000 | 17000 | 17000 | 18000 | 19000 | 17000 | 14000 | 18000 | 19000 | 16000 | 18000 | 16000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 1100 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| **Nickel** | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.0 | < 2.0 | < 2.0 | - | - | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - |
| **Potassium** | | | 400 - 3100 | ug/l | 1200 | 1200 | 1100 | 1100 | 1200 | 1200 | 1200 | 3000 | 1200 | 1100 | - | - | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 25000 | 25000 | 24000 | 24000 | 25000 | 27000 | 26000 | 15000 | 26000 | 27000 | - | - | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 170 | 170 | 160 | 160 | 170 | 170 | 160 | 270 | 160 | 160 | - | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 12 | < 2.0 | < 2.0 | - | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 200 | 200 | 200 | 190 | 230 | 210 | 200 | 62 | 200 | 190 | 140 | 190 | 150 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 7.4 | < 5.0 | 5.5 | < 5.0 | 6.4 | 6.8 | 5.6 | 18 | < 5.0 | < 5.0 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-06-01 | 2020-09-15 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-29 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW2-D_20240702 | MW2-D_20241210 | MW2-D_20250612 | MW2-M_20181108 | 20X608058-1165161 | MW-2M_20200915 | DUP2_20200915 | MW2-M_20201216 | MW2-M_20210323 | MW2-M_20210608 | MW2-M_20211005 | MW2-M_20211213 | MW2-M_20220329 |
| | | | | Lab Sample ID | ZQA448 | HA2403274-026 | HA2501804-011 | 9698373 | 1165161 | NQU697 | NQU696 | OLM108 | PDR008 | PUI326 | QWF767 | RJM314 | SFM275 |
| | | | | Lab Job Number | C4K2602 | HA2403274 | HA2501804 | 18X408633 | 20X608058 | C0O2716 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | - | 3.0 | 419 | < 5 | 8 | < 5.0 | < 5.0 | 5.4 | 27 | < 5.0 | 25 | 7.9 | < 5.0 |
| **Antimony** | 6 | 200 | < 2 | ug/l | - | < 0.10 | < 0.10 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 2.3 | 1.82 | 2.87 | < 2 | < 2 | 1.7 | 1.8 | 1.4 | 1.2 | 1.3 | 1.6 | 1.7 | 1.7 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | - | 18.6 | 30.7 | 20 | 15 | 14 | 14 | 17 | 15 | 13 | 14 | 14 | 13 |
| **Beryllium** | | 53 | < 2 | ug/l | - | - | 0.351 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.14 | < 0.10 | < 0.10 |
| **Bismuth** | | | < 2 | ug/l | - | - | < 0.050 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 64 | 58 | 46 | 134 | 102 | 96 | 100 | 110 | 88 | 98 | 110 | 110 | 94 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.058 | 0.0468 | 0.0753 | < 0.09 | 0.097 | 0.085 | 0.087 | 0.070 | 0.068 | 0.071 | 0.073 | 0.086 | 0.065 |
| **Calcium** | | | 3720-7000 | ug/l | 62000 | 47600 | 56400 | 42600 | 52100 | 52000 | 51000 | 46000 | 41000 | 44000 | 46000 | 47000 | 46000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 0.50 | 0.60 | 4 | 3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | - | 0.60 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | - | 1.09 | 2.60 | < 2 | < 2 | < 0.50 | < 0.50 | 0.55 | 0.87 | 0.57 | 1.0 | 1.6 | 3.6 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 10 | 461 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | 0.069 | 2.14 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 17000 | 14200 | 16700 | 14200 | 18300 | 17000 | 18000 | 16000 | 14000 | 15000 | 15000 | 15000 | 15000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | < 2.0 | 0.41 | 40.2 | 4 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | < 0.0050 | 0.0074 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | - | 0.290 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Nickel** | | 250 | < 2 | ug/l | - | < 0.50 | 0.78 | < 2 | 3 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | - | 566 | 1210 | 40 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | - | 1050 | 1200 | 1300 | 900 | 1000 | 1100 | 1100 | 930 | 1100 | 1000 | 1100 | 1000 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | - | 0.050 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | - | - | 0.321 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | - | 18900 | 21200 | 21600 | 24000 | 21000 | 21000 | 19000 | 17000 | 17000 | 19000 | 20000 | 19000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | - | 168 | 180 | 165 | 160 | 160 | 140 | 130 | 140 | 130 | 140 | 140 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | - | 0.029 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | - | - | < 0.10 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | - | - | 10.5 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.4 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 180 | 100 | 158 | 15.8 | 33.4 | 35 | 34 | 21 | 12 | 16 | 17 | 24 | 27 |
| **Vanadium** | | 60 | < 2 | ug/l | - | < 0.50 | 0.99 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | - | 5.6 | 8.3 | < 5 | 6 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.4 | 5.4 | 7.4 | 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-S | MW2-S | MW2-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-06-01 | 2020-12-16 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW2-M_20220602 | MW2-M_20220928 | MW2-M_20221214 | MW2-M_20230309 | MW2-M_20231012 | MW2-M_20231201 | MW2-M_20240312 | MW2-M_20240702 | MW2-M_20241210 | MW2-M_20250612 | MW2-S_20181108 | 20X608058-1165160 | MW2-S_20201216 |
| | | | | Lab Sample ID | SUK075 | TWS376 | UPM105 | VGG621 | XHD231 | XTQ398 | YPJ112 | ZQA447 | HA2403274-025 | HA2501804-010 | 9698372 | 1165160 | OLM107 |
| | | | | Lab Job Number | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 | 18X408633 | 20X608058 | C0X8319 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 5.8 | < 5.0 | < 5.0 | < 5.0 | - | - | - | - | 1.2 | 3.7 | 6 | 14 | < 5.0 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | < 0.10 | < 0.10 | < 2 | < 2 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 1.5 | 1.8 | 1.8 | 1.5 | 1.7 | 1.4 | 1.7 | 1.7 | 1.39 | 0.99 | < 2 | < 2 | < 1.0 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 13 | 19 | 28 | 18 | - | - | - | - | 15.8 | 16.3 | 40 | 39 | 36 |
| **Beryllium** | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | 0.10 | < 0.10 | - | - | - | - | - | 0.051 | < 2 | < 2 | < 1.0 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.050 | < 2 | < 2 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 91 | 99 | 100 | 86 | 100 | 84 | 84 | 95 | 89 | 43 | 232 | 122 | 82 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.066 | 0.073 | 0.079 | 0.060 | 0.073 | 0.054 | 0.069 | 0.070 | 0.0522 | 0.0405 | < 0.09 | 0.048 | 0.031 |
| **Calcium** | | | 3720-7000 | ug/l | 44000 | 49000 | 49000 | 43000 | 45000 | 39000 | 48000 | 48000 | 33600 | 27700 | 74300 | 54900 | 72000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.73 | 0.63 | 4 | 2 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | < 0.10 | < 1 | 1 | 1.1 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 1.5 | 3.0 | 1.3 | 3.4 | - | - | - | - | 0.39 | 0.36 | 3 | 7 | 2.1 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 10 | < 10 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.062 | < 0.050 | < 0.5 | < 0.5 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 15000 | 17000 | 16000 | 15000 | 15000 | 14000 | 17000 | 16000 | 12600 | 10400 | 7100 | 5900 | 5900 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 0.37 | 0.89 | 3 | 137 | 88 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | 0.161 | < 2 | < 2 | < 2.0 |
| **Nickel** | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 | 2 | 5 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | - | - | - | - | 99.7 | 126 | 20 | < 20 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | 950 | 1100 | 1100 | 950 | - | - | - | - | 928 | 796 | 2900 | 1800 | 2000 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | < 0.050 | < 1 | < 1 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | 0.023 | < 0.1 | < 0.1 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 18000 | 22000 | 22000 | 20000 | - | - | - | - | 14100 | 11600 | 12800 | 15000 | 18000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 140 | 150 | 140 | 130 | - | - | - | - | - | 106 | 252 | 213 | 260 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 | < 0.10 |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.10 | < 2 | < 2 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.30 | < 2 | < 2 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 17 | 32 | 27 | 17 | 20 | 12 | 33 | 33 | 9.06 | 3.55 | 2.7 | 0.9 | 0.77 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | < 0.50 | < 0.50 | < 2 | < 2 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 5.8 | 7.5 | 6.5 | < 5.0 | - | - | - | - | 5.3 | 3.0 | 6 | < 5 | 6.2 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW2-S_20210323 | MW2-S_20210608 | MW2-S_20211005 | MW2-S_20211213 | MW2-S_20220329 | MW2-S_20220602 | MW2-S_20220928 | MW2-S_20221214 | MW2-S_20230309 | MW2-S_20231012 | MW2-S_20231201 | MW2-S_20240312 | MW2-S_20240702 |
| | | | | Lab Sample ID | PDR007 | PUI325 | QWF766 | RJM312 | SFM274 | SUK074 | TWS375 | UPM104 | VGG620 | XHD230 | XTQ397 | YPJ111 | ZQA446 |
| | | | | Lab Job Number | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 | C3AS035 | C473698 | C4K2602 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 27 | < 5.0 | 47 | < 5.0 | 8.2 | **87** | 27 | **150** | 15 | - | - | - | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 42 | 50 | 61 | 54 | 45 | 54 | 54 | 69 | 52 | - | - | - | - |
| **Beryllium** | | 53 | < 2 | ug/l | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 84 | 140 | 160 | 110 | 81 | 110 | 100 | 70 | 57 | 85 | 100 | 53 | 69 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.020 | 0.021 | 0.029 | 0.022 | 0.014 | 0.018 | 0.023 | 0.024 | 0.019 | 0.038 | 0.021 | 0.021 | 0.032 |
| **Calcium** | | | 3720-7000 | ug/l | 61000 | 73000 | 74000 | 70000 | 63000 | 57000 | 52000 | 58000 | 54000 | 59000 | 62000 | 53000 | 53000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 2.0 | 1.3 | 4.9 | 2.1 | 1.9 | 4.2 | 8.7 | **25** | 4.7 | - | - | - | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | 59 | < 50 | < 50 | 83 | < 50 | 140 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 1.8 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 6500 | 8300 | 9500 | 8900 | 6900 | 7900 | 5500 | 6300 | 6700 | 6400 | 6900 | 6200 | 6300 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 2.7 | < 2.0 | 11 | 4.3 | 4.2 | 10 | 4.0 | 11 | 2.7 | 15 | 2.6 | < 2.0 | 39 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Nickel** | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - |
| **Potassium** | | | 400 - 3100 | ug/l | 1900 | 2600 | 2800 | 2300 | 2100 | 2200 | 2900 | 2600 | 2000 | - | - | - | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 31000 | 12000 | 12000 | 14000 | 11000 | 14000 | 19000 | 11000 | 8600 | - | - | - | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 220 | 280 | 290 | 270 | 250 | 230 | 200 | 210 | 200 | - | - | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.8 | - | - | - | - |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 1.0 | 0.88 | 0.62 | 0.69 | 0.56 | 0.45 | 0.47 | 0.71 | 0.50 | 0.52 | 0.56 | 0.39 | 0.40 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 5.0 | 7.4 | 9.6 | 7.5 | 76 | 6.8 | 8.4 | 11 | 7.3 | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW2-S | MW2-S | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-04-01 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-03-30 |
| | | | | Background | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW2-S_20241210 | MW2-S_20250612 | MW3_20181108 | 20X589937-1062416 | 20X606071-1154681 | MW3_20200917 | MW3_20201216 | MW-3_20210325 | MW3_20210609 | MW3_20211005 | MW3_20211213 | MW3_20220330 | DUP3_20220330 |
| | | | | Lab Sample ID | HA2403274-012 | HA2501804-009 | 9698375 | 1062416 | 1154681 | NRG099 | OLM110 | PEB979 | PUQ383 | QWF769 | RJM316 | SGA983 | SGA979 |
| | | | | Lab Job Number | HA2403274 | HA2501804 | 18X408633 | 20X589937 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F9831 | C1T0922 | C1Z2957 | C285511 | C285511 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 3.2 | 3.9 | < 5 | 48 | 5 | < 5.0 | 290 | < 5.0 | 13 | 15 | 28 | 9.4 | 6.6 |
| **Antimony** | 6 | 200 | < 2 | ug/l | 0.50 | 0.39 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 0.38 | 0.40 | < 2 | 6 | 3 | 2.7 | 2.6 | 2.8 | 2.5 | 2.7 | 2.5 | 3.1 | 3.6 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 54.0 | 71.8 | 19 | 31 | 22 | 19 | 27 | 20 | 21 | 21 | 21 | 19 | 20 |
| **Beryllium** | | 53 | < 2 | ug/l | - | < 0.020 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Bismuth** | | | < 2 | ug/l | - | < 0.050 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 41 | 41 | 23 | 30 | 11 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.0293 | **0.108** | < 0.09 | < 0.017 | 0.021 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Calcium** | | | 3720-7000 | ug/l | 47700 | 60300 | 29600 | 36200 | 31200 | 30000 | 30000 | 29000 | 29000 | 31000 | 30000 | 29000 | 30000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 0.50 | < 0.50 | 2 | 2 | 3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | - | 1.12 | < 1 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 4.62 | 3.31 | < 2 | < 2 | < 2 | < 0.50 | 3.9 | < 0.50 | 1.1 | 1.8 | 1.0 | 1.5 | < 0.50 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 10 | 13 | < 50 | < 50 | < 50 | < 50 | 230 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | 0.068 | < 0.050 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | 0.58 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 6060 | 6350 | 4700 | 6300 | 4000 | 5200 | 5300 | 4700 | 5000 | 5200 | 5200 | 5000 | 5100 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 2.12 | 308 | 5 | 88 | 9 | 33 | 38 | 7.7 | < 2.0 | 3.1 | 12 | < 2.0 | < 2.0 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | 0.410 | < 2 | 7 | 6 | 2.9 | 2.3 | 2.1 | < 2.0 | < 2.0 | 2.3 | < 2.0 | 2.2 |
| **Nickel** | | 250 | < 2 | ug/l | 0.89 | 1.73 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | 1100 | 4230 | < 20 | < 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | 2410 | 3620 | 1500 | 2000 | 1200 | 1500 | 1500 | 1400 | 1300 | 1500 | 1500 | 1400 | 1400 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | 0.067 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 12900 | 9590 | 11300 | 13900 | 9100 | 11000 | 12000 | 11000 | 12000 | 12000 | 12000 | 11000 | 11000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | 233 | 115 | 121 | 104 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | - | < 0.10 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | - | < 0.30 | < 2 | < 2 | < 2 | < 2.0 | 6.5 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.326 | 0.479 | 9.3 | 18.8 | 10.2 | 11 | 10 | 10 | 9.2 | 9.3 | 10 | 9.8 | 9.9 |
| **Vanadium** | | 60 | < 2 | ug/l | < 0.50 | < 0.50 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 12.0 | 10.1 | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-03 | 2022-09-28 | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2023-12-01 | 2024-03-14 | 2024-07-02 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-05-27 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background | | |
| | | | | Sample ID | MW3_20220603 | MW3_20220928 | MW3_20221216 | MW3_20230310 | MW3_20231013 | MW3_20231201 | MW3_20240314 | DUP 3_20240702 | MW3_20240702 | MW3_20241210 | MW3_20250612 | MW5-D_20181108 | 20X606071-1154896 |
| | | | | Lab Sample ID | SUS183 | TWS378 | UQJ831 | VGT148 | XHD233 | XTQ400 | YQA654 | ZQA474 | ZQA449 | HA2403274-009 | HA2501804-004 | 9698378 | 1154896 |
| | | | | Lab Job Number | C2F3070 | C2S3993 | C2AN796 | C370496 | C3V9312 | C3AS035 | C476965 | C4K2602 | C4K2602 | HA2403274 | HA2501804 | 18X408633 | 20X606071 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 40 | 6.8 | 10 | 11 | - | - | - | - | - | 1.7 | 1.8 | 52 | < 5 |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | < 0.10 | < 0.10 | < 2 | < 2 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2.4 | 2.5 | 2.4 | 2.1 | 2.2 | 2.2 | 1.8 | 1.8 | 1.8 | 2.39 | 2.24 | 8 | 11 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 20 | 24 | 36 | 25 | - | - | - | - | - | 21.8 | 22.0 | 8 | 5 |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.020 | < 2 | < 2 |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.050 | < 2 | < 2 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 15 | 10 | 27 | 16 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.0050 | 0.0085 | 0.62 | 0.037 |
| Calcium | | | 3720-7000 | ug/l | 30000 | 30000 | 30000 | 30000 | 31000 | 31000 | 31000 | 31000 | 30000 | 28800 | 29100 | 23600 | 26400 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 2 | 3 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | < 0.10 | < 1 | < 1 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 0.62 | 3.2 | 1.3 | 2.7 | - | - | - | - | - | 0.30 | 0.37 | < 2 | < 2 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 10 | < 10 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.056 | < 0.050 | < 0.5 | < 0.5 |
| Magnesium | | | 1000-6300 | ug/l | 5100 | 5100 | 5700 | 5300 | 5000 | 5200 | 5100 | 4900 | 4800 | 5430 | 5380 | 4500 | 3800 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 5.3 | < 2.0 | 2.6 | < 2.0 | < 2.0 | < 2.0 | 4.6 | 4.0 | 3.4 | 4.00 | 11.9 | 115 | < 2 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | < 2.0 | 2.3 | < 2.0 | < 2.0 | - | - | - | - | - | - | 1.42 | 6 | 9 |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.50 | < 0.50 | < 2 | < 2 |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | - | - | - | - | - | 708 | 13000 | 50 | < 20 |
| Potassium | | | 400 - 3100 | ug/l | 1500 | 1500 | 1500 | 1400 | - | - | - | - | - | 1490 | 1600 | 1000 | 800 |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | - | 0.058 | < 1 | < 1 |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 |
| Sodium | | | 8,000 - 34,000 | ug/l | 11000 | 12000 | 13000 | 12000 | - | - | - | - | - | 12500 | 11400 | 9900 | 9300 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 110 | 110 | 110 | 110 | - | - | - | - | - | - | 111 | 79 | 74 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.10 | < 2 | < 2 |
| Titanium | | | < 2 | ug/l | 2.3 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - | < 0.30 | < 2 | < 2 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 9.9 | 10 | 9.8 | 9.8 | 9.6 | 10 | 9.8 | 9.7 | 10 | 11.2 | 10.4 | 14.5 | 30.2 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | 0.67 | 1.03 | < 2 | < 2 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5.0 | 5.1 | < 5.0 | < 5.0 | - | - | - | - | - | 3.6 | 1.1 | < 5 | < 5 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-17 | 2020-12-16 | 2020-12-16 | 2021-03-25 | 2021-03-25 | 2021-06-08 | 2021-10-06 | 2021-12-13 | 2022-03-30 | 2022-06-02 | 2022-09-28 | 2022-12-13 | 2023-03-09 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW-5D_20200917 | DUP1_20201216 | MW5-D_20201216 | DUP1_20210325 | MW-5D_20210325 | MW5-D_20210608 | MW5-D_20211006 | MW5-D_20211213 | MW-5D_20220330 | MW5-D_20220602 | MW5-D_20220928 | MW5-D_20221213 | MW5-D_20230309 |
| | | | | Lab Sample ID | NRG095 | OLM170 | OLM113 | PEB970 | PEB974 | PUI329 | QWS514 | RJM318 | SGA985 | SUK079 | TWS380 | UPM109 | VGG625 |
| | | | | Lab Job Number | C0O4512 | C0X8319 | C0X8319 | C179966 | C179966 | C1F8315 | C1T3325 | C1Z2957 | C285511 | C2F1732 | C2S3993 | C2AJ782 | C368322 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | < 5.0 | 24 | 18 | < 5.0 | < 5.0 | 51 | 30 | 8.9 | 5.1 | 16 | 18 | < 5.0 | 5.2 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 5.5 | 11 | 11 | 10 | 10 | 7.0 | 10 | 11 | 10 | 7.1 | 10 | 10 | 9.8 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 25 | 6.0 | 6.6 | 5.7 | 5.5 | 8.8 | 7.4 | 7.3 | 5.1 | 20 | 15 | 18 | 9.2 |
| **Beryllium** | | 53 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.13 | < 0.10 | < 0.10 | 0.11 | 0.22 | 0.10 | 0.10 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 62 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.043 | 0.054 | 0.054 | 0.042 | 0.045 | **0.14** | 0.078 | **0.16** | 0.049 | 0.024 | **0.11** | 0.048 | 0.037 |
| **Calcium** | | | 3720-7000 | ug/l | 130000 | 28000 | 28000 | 29000 | 28000 | 26000 | 28000 | 28000 | 27000 | 24000 | 24000 | 26000 | 25000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.81 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 2.7 | 0.65 | 2.7 | < 0.50 | < 0.50 | 0.84 | 1.9 | < 0.50 | 0.54 | 3.2 | 3.7 | 1.2 | 3.2 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | 61 | < 50 | < 50 | < 50 | 1100 | 280 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 17000 | 5100 | 5100 | 5000 | 5000 | 5100 | 5200 | 5300 | 5300 | 4700 | 4800 | 5100 | 5200 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 87 | 8.4 | 7.8 | 7.9 | 7.2 | 130 | 9.8 | 140 | 21 | 900 | 220 | 4.2 | 3.4 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | 6.4 | 6.2 | 6.4 | 5.8 | 5.9 | 4.5 | 4.4 | 5.3 | 5.9 | 4.9 | 4.8 | 5.0 | 4.9 |
| **Nickel** | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | 120 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | 2200 | 1100 | 1000 | 1000 | 1000 | 940 | 1100 | 1100 | 1000 | 1100 | 1100 | 1100 | 980 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 43000 | 11000 | 11000 | 11000 | 11000 | 10000 | 11000 | 11000 | 11000 | 9600 | 11000 | 11000 | 12000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 310 | 84 | 85 | 84 | 82 | 75 | 83 | 82 | 81 | 74 | 71 | 77 | 74 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 460 | 21 | 21 | 24 | 23 | 13 | 18 | 19 | 25 | 16 | 14 | 17 | 18 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 5.8 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 7.7 | 6.3 | 5.1 | < 5.0 | 11 | 7.1 | < 5.0 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-22 | 2018-11-22 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-08 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW5-D_20231013 | MW5-D_20231201 | MW5-D_20240312 | MW5-D_20240702 | MW5-D_20241210 | MW5-D_20250612 | MW5-S_20181122 | DUP_20181122 | 20X606071-1154895 | MW-5S_20200917 | MW-5S_20201216 | MW-5S_20210325 | MW5-S_20210608 |
| | | | | Lab Sample ID | XHD235 | XTQ402 | YPJ116 | ZQA451 | HA2403274-005 | HA2501804-020 | 9731403 | 9731473 | 1154895 | NRG094 | OLM112 | PEB975 | PUJ328 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 | 18X412740 | 18X412740 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | - | - | - | - | 128 | 2.9 | 155 | 145 | < 5 | < 5.0 | 12 | 14 | 28 |
| **Antimony** | 6 | 200 | < 2 | ug/l | - | - | - | - | < 0.10 | < 0.10 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 8.9 | 12 | 11 | 9.4 | 12.5 | 11.9 | 4 | 5 | 4 | 2.2 | 3.4 | 3.5 | 3.9 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | - | - | - | - | 6.01 | 3.79 | 11 | 11 | 8 | 29 | 9.3 | 7.5 | 8.6 |
| **Beryllium** | | 53 | < 2 | ug/l | - | - | - | - | - | 0.083 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Bismuth** | | | < 2 | ug/l | - | - | - | - | - | < 0.050 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | 25 | 16 | 24 | 22 | 16 | 210 | < 50 | < 50 | < 50 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.14** | 0.048 | 0.039 | 0.041 | 0.0454 | 0.0551 | **0.65** | **0.75** | **0.415** | 0.097 | **0.54** | **0.11** | **0.38** |
| **Calcium** | | | 3720-7000 | ug/l | 25000 | 25000 | 25000 | 25000 | 25500 | 26500 | 22900 | 24600 | 23600 | 150000 | 23000 | 22000 | 22000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 3 | 3 | 4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | < 0.10 | 1 | 1 | < 1 | 0.53 | 1.5 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | - | - | - | - | 0.98 | 0.88 | < 2 | 2 | < 2 | 1.1 | 0.55 | 0.67 | < 0.50 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | 89 | < 10 | 89 | 98 | < 50 | < 50 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.340 | < 0.050 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 4600 | 4800 | 4700 | 4600 | 5310 | 5130 | 4400 | 4600 | 3500 | 20000 | 4500 | 4400 | 4600 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 92 | 5.2 | 2.1 | 2.4 | 11.7 | 0.90 | 438 | 532 | 94 | 190 | 2100 | 56 | 520 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | - | - | - | - | 5.21 | 3 | 3 | 2 | < 2.0 | 4.9 | < 2.0 | 3.0 |
| **Nickel** | | 250 | < 2 | ug/l | - | - | - | - | < 0.50 | < 0.50 | < 2 | < 2 | < 2 | 2.9 | < 2.0 | < 2.0 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | - | - | - | - | 114 | 336 | 20 | 30 | < 20 | < 100 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | - | - | - | - | 1130 | 1010 | 800 | 900 | 700 | 2800 | 840 | 670 | 790 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | - | - | - | - | 0.072 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | - | - | - | - | - | 0.013 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | - | - | - | - | 11900 | 10400 | 9000 | 9400 | 7100 | 86000 | 9800 | 8400 | 9100 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | - | - | 78.0 | 70 | 74 | 63 | 320 | 65 | 58 | 60 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | - | - | - | - | - | < 0.10 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | - | - | - | - | - | < 0.30 | 2 | 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 12 | 16 | 19 | 18 | 24.0 | 25.2 | 9.5 | 9.8 | 7.1 | 120 | 9.2 | 8.8 | 5.6 |
| **Vanadium** | | 60 | < 2 | ug/l | - | - | - | - | < 0.50 | < 0.50 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | - | - | - | - | 5.2 | 2.1 | 5 | 7 | < 5 | < 5.0 | < 5.0 | < 5.0 | 6.4 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-06 | 2021-12-13 | 2022-03-30 | 2022-06-02 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-10-13 | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW5-S_20211006 | MW5-S_20211213 | MW-5S_20220330 | MW5-S_20220602 | MW5-S_20220928 | MW5-S_20221213 | MW5-S_20230309 | MW5-S_20231013 | DUP3_20231013 | MW5-S_20231201 | MW5-S_20240312 | MW5-S_20240702 | MW5-S_20241210 |
| | | | | Lab Sample ID | QWS513 | RJM317 | SGA981 | SUK078 | TWS379 | UPM108 | VGG624 | XHD234 | XHD238 | XTQ401 | YPJ115 | ZQA450 | HA2403274-004 |
| | | | | Lab Job Number | C1T3325 | C1Z2957 | C285511 | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 13 | 13 | 7.1 | 18 | 25 | < 5.0 | 7.3 | - | - | - | - | - | 8.4 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | < 0.10 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 4.8 | 4.6 | 6.9 | 3.4 | 5.5 | 6.0 | 6.1 | 6.3 | 6.2 | 5.8 | 7.3 | 5.1 | 6.00 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 9.9 | 9.0 | 7.4 | 13 | 12 | 13 | 12 | - | - | - | - | - | 9.04 |
| **Beryllium** | | 53 | < 2 | ug/l | 0.27 | 0.25 | 0.17 | 0.22 | 0.28 | 0.17 | 0.16 | - | - | - | - | - | - |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 28 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.34** | **0.22** | 0.10 | **0.24** | 0.083 | **0.17** | **0.20** | **0.20** | **0.20** | **0.32** | **0.13** | **0.14** | **0.202** |
| **Calcium** | | | 3720-7000 | ug/l | 24000 | 24000 | 25000 | 19000 | 23000 | 26000 | 24000 | 23000 | 23000 | 26000 | 24000 | 21000 | 21600 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 1.9 | 1.8 | 0.59 | 7.0 | 3.8 | 3.4 | 4.4 | - | - | - | - | - | 0.96 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 19 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.071 |
| **Magnesium** | | | 1000-6300 | ug/l | 4700 | 4600 | 4900 | 3800 | 4500 | 5100 | 4800 | 4500 | 4400 | 4800 | 4700 | 3800 | 4480 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 110 | 120 | 58 | 150 | 25 | 51 | 74 | 64 | 65 | 110 | 130 | 47 | 81.0 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | < 0.0050 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | 3.3 | 2.6 | 3.6 | 2.3 | 3.6 | 4.1 | 3.6 | - | - | - | - | - | - |
| **Nickel** | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.50 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - | - | 87.0 |
| **Potassium** | | | 400 - 3100 | ug/l | 970 | 830 | 840 | 760 | 950 | 970 | 790 | - | - | - | - | - | 862 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 9300 | 9100 | 10000 | 9200 | 10000 | 11000 | 10000 | - | - | - | - | - | 8890 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 66 | 65 | 71 | 54 | 62 | 70 | 63 | - | - | - | - | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - | - | - |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 9.1 | 9.9 | 20 | 5.7 | 11 | 15 | 14 | 9.8 | 9.8 | 12 | 18 | 7.1 | 8.78 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - | - | < 0.50 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 6.7 | 5.3 | < 5.0 | 9.8 | 5.2 | < 5.0 | < 5.0 | - | - | - | - | - | 5.2 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2025-06-12 | 2018-11-07 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-03-28 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW5-S_20250612 | MW6-D_20181107 | 20X589937-1062418 | 20X606404-1156949 | MW6-D_20200915 | DUP1_20200915 | MW6-D_20201216 | MW6-D_20210323 | MW6-D_20210607 | MW6-D_20211005 | MW6-D_20211213 | MW6-D_20220328 | DUP2_20220328 |
| | | | | Lab Sample ID | HA2501804-019 | 9698354 | 1062418 | 1156949 | NQU663 | NQU695 | OLM137 | PDR014 | PUI331 | QWF773 | RJM320 | SFM279 | SFM285 |
| | | | | Lab Job Number | HA2501804 | 18X408633 | 20X589937 | 20X606404 | C0O2716 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C282980 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 31.8 | 40 | 33 | 12 | **67** | **61** | **80** | **58** | **68** | **75** | **65** | **65** | **65** |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 0.10 | < 2 | < 2 | < 2 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 6.26 | 40 | 34 | 30 | 49 | **53** | 47 | 44 | 44 | 48 | 39 | 38 | 38 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 8.07 | 60 | 35 | 45 | 89 | 87 | 81 | 84 | 82 | 89 | 76 | 60 | 60 |
| **Beryllium** | | 53 | < 2 | ug/l | 0.197 | < 2 | < 2 | < 2 | < 10 | < 10 | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Bismuth** | | | < 2 | ug/l | < 0.050 | < 2 | < 2 | < 2 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 16 | 13700 | 13200 | 14100 | 14000 | 14000 | 12000 | 13000 | 13000 | 13000 | 12000 | 11000 | 11000 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.221** | < 0.09 | < 0.017 | **1.91** | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Calcium** | | | 3720-7000 | ug/l | 23100 | 499000 | 384000 | 495000 | 460000 | 460000 | 460000 | 490000 | 490000 | 500000 | 460000 | 410000 | 400000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 0.50 | 26 | 16 | 39 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 |
| **Cobalt** | | 100 | <1 | ug/l | 0.30 | 18 | 12 | 23 | 20 | 21 | 22 | 20 | 20 | 21 | 19 | 19 | 19 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 0.61 | < 2 | < 2 | 12 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Iron** | | **3000** | <50 - 62 | ug/l | 18 | 13500 | 13000 | 123 | 14000 | 15000 | 14000 | 13000 | 13000 | 14000 | 11000 | 13000 | 13000 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.050 | < 0.5 | < 0.5 | < 0.5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Magnesium** | | | 1000-6300 | ug/l | 4560 | 132000 | 131000 | 144000 | 130000 | 140000 | 130000 | 130000 | 130000 | 140000 | 120000 | 110000 | 110000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 113 | 19400 | 13100 | 22100 | 22000 | 24000 | 23000 | 22000 | 23000 | 23000 | 22000 | 21000 | 21000 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | 3.26 | 2 | < 2 | 3 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Nickel** | | 250 | < 2 | ug/l | < 0.50 | 23 | 17 | 53 | 27 | 52 | 26 | 26 | 24 | 26 | 25 | 24 | 24 |
| **Phosphorus** | | | < 100 - 200 | ug/l | 266 | 110 | 90 | < 20 | < 1000 | < 1000 | < 1000 | < 1000 | < 1000 | < 1000 | < 1000 | < 1000 | < 1000 |
| **Potassium** | | | 400 - 3100 | ug/l | 857 | 20900 | 9900 | 21500 | 17000 | 17000 | 16000 | 17000 | 17000 | 18000 | 16000 | 14000 | 14000 |
| **Selenium** | 50 | 10 | < 1 | ug/l | 0.081 | 5 | 2 | 3 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 9370 | 212000 | 196000 | 203000 | 190000 | 200000 | 180000 | 190000 | 190000 | 200000 | 180000 | 170000 | 160000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 67.6 | 2180 | 1950 | 2290 | 1900 | 2000 | 2000 | 2300 | 2200 | 2300 | 2100 | 1800 | 1800 |
| **Thallium** | | 8 | < 0.1 | ug/l | 0.016 | < 0.1 | < 0.1 | 0.3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Tin** | | | < 2 | ug/l | < 0.10 | < 2 | < 2 | < 2 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Titanium** | | | < 2 | ug/l | 0.51 | 2 | 2 | < 2 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 10.8 | 207 | 222 | 272 | 260 | 270 | 270 | 270 | 280 | 270 | 250 | 210 | 210 |
| **Vanadium** | | 60 | < 2 | ug/l | < 0.50 | 3 | 3 | 3 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 2.4 | 13 | 8 | 19 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-03 | 2022-06-03 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-03-09 | 2023-10-12 | 2023-10-12 | 2023-12-01 | 2023-12-01 | 2024-03-12 | 2024-03-12 | 2024-07-02 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | DUP3_20220603 | MW6-D_20220603 | MW6-D_20220928 | MW6-D_20221213 | MW6-D_20230309 | DUP 1_20230309 | DUP1_20231012 | MW6-D_20231012 | DUP3_20231201 | MW6-D_20231201 | DUP1_20240312 | MW6-D_20240312 | MW6-D_20240702 |
| | | | | Lab Sample ID | SUS181 | SUS187 | TWS382 | UPM111 | VGG627 | VGG623 | XHD258 | XHD237 | XTQ426 | XTQ404 | YPJ114 | YPJ118 | ZQA453 |
| | | | | Lab Job Number | C2F3070 | C2F3070 | C2S3993 | C2AJ782 | C368322 | C368322 | C3V9312 | C3V9312 | C3AS035 | C3AS035 | C473698 | C473698 | C4K2602 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | **94** | **71** | **70** | **67** | **56** | **57** | - | - | - | - | - | - | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 10 | < 10 | < 10 | < 10 | - | - | - | - | - | - | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 40 | 40 | 41 | 42 | 36 | 34 | 40 | 39 | 38 | 39 | 32 | 32 | 34 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 73 | 60 | 62 | 56 | 42 | 42 | - | - | - | - | - | - | - |
| **Beryllium** | | 53 | < 2 | ug/l | 0.34 | 0.35 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | - | - |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 20 | < 20 | < 20 | < 20 | - | - | - | - | - | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 11000 | 10000 | 10000 | 8200 | 7800 | 7700 | 7100 | 7000 | 5700 | 5400 | 3900 | 4500 | 6000 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.022 | 0.029 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Calcium** | | | 3720-7000 | ug/l | 380000 | 380000 | 340000 | 290000 | 290000 | 290000 | 300000 | 300000 | 260000 | 270000 | 250000 | 250000 | 280000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | 2.4 | 2.3 | < 10 | < 10 | < 10 | < 10 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.5 | 1.4 |
| **Cobalt** | | 100 | <1 | ug/l | 18 | 18 | 16 | 16 | 16 | 17 | 16 | 15 | 14 | 14 | 13 | 13 | 15 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 1.9 | < 0.50 | < 5.0 | 7.9 | < 5.0 | < 5.0 | - | - | - | - | - | - | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | **12000** | **13000** | **12000** | **12000** | **15000** | **15000** | **14000** | **14000** | **13000** | **12000** | **12000** | **12000** | **12000** |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 110000 | 110000 | 110000 | 84000 | 92000 | 95000 | 81000 | 80000 | 70000 | 69000 | 67000 | 67000 | 72000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | **22000** | **22000** | **20000** | **19000** | **21000** | **22000** | **21000** | **20000** | **18000** | **18000** | **19000** | **18000** | **19000** |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | 2.4 | 2.3 | < 20 | < 20 | < 20 | < 20 | - | - | - | - | - | - | - |
| **Nickel** | | 250 | < 2 | ug/l | 23 | 22 | 23 | < 20 | 20 | 20 | - | - | - | - | - | - | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | 200 | 200 | < 1000 | < 1000 | < 1000 | < 1000 | - | - | - | - | - | - | - |
| **Potassium** | | | 400 - 3100 | ug/l | 14000 | 14000 | 13000 | 10000 | 8800 | 9100 | - | - | - | - | - | - | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - | - | - | - | - | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 160000 | 160000 | 160000 | 130000 | 140000 | 140000 | - | - | - | - | - | - | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 1600 | 1600 | 1300 | 1100 | 1000 | 1000 | - | - | - | - | - | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | 0.10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - | - | - | - |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 20 | < 20 | < 20 | < 20 | - | - | - | - | - | - | - |
| **Titanium** | | | < 2 | ug/l | 2.8 | 3.1 | < 20 | < 20 | < 20 | < 20 | - | - | - | - | - | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 220 | 220 | 180 | 140 | 140 | 140 | 150 | 150 | 120 | 120 | 100 | 100 | 140 |
| **Vanadium** | | 60 | < 2 | ug/l | 3.3 | 3.3 | < 20 | < 20 | < 20 | < 20 | - | - | - | - | - | - | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 11 | 11 | < 50 | < 50 | < 50 | < 50 | - | - | - | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW6-D | MW6-D | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2025-06-11 | 2018-11-08 | 2020-04-01 | 2020-05-28 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-28 | 2022-12-13 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW6-D_20241210 | MW6-D_20250611 | MW6-S_20181108 | 20X589937-1062417 | 20X606404-1156948 | MW6-S_20201216 | MW6-S_20210323 | MW6-S_20210607 | MW6-S_20211005 | MW6-S_20211213 | MW6-S_20220328 | MW6-S_20220928 | MW6-S_20221213 |
| | | | | Lab Sample ID | HA2403274-022 | HA2501779-010 | 9698379 | 1062417 | 1156948 | OLM114 | PDR013 | PUI330 | QWF772 | RJM319 | SFM278 | TWS381 | UPM110 |
| | | | | Lab Job Number | HA2403274 | HA2501779 | 18X408633 | 20X589937 | 20X606404 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2S3993 | C2AJ782 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 46.2 | 41.8 | 130 | 132 | 61 | 63 | 77 | 80 | 89 | 69 | 82 | 89 | 79 |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.00 | < 1.00 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 36.6 | 29.4 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 2.6 | < 1.0 | < 1.0 | < 1.0 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 43.9 | 43.1 | 21 | 21 | 17 | 23 | 16 | 21 | 25 | 49 | 18 | 27 | 32 |
| **Beryllium** | | 53 | < 2 | ug/l | - | 0.218 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Bismuth** | | | < 2 | ug/l | - | < 0.500 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 3890 | 3590 | 1420 | 772 | 778 | 1000 | 360 | 540 | 540 | 2600 | 380 | 530 | 300 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | < 0.0500 | < 0.0500 | < 0.09 | 0.041 | 0.034 | 0.038 | 0.014 | 0.024 | 0.018 | 0.087 | 0.032 | 0.031 | 0.015 |
| **Calcium** | | | 3720-7000 | ug/l | 216000 | 209000 | 67500 | 77200 | 51300 | 70000 | 59000 | 64000 | 72000 | 150000 | 72000 | 62000 | 63000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 5.00 | < 5.00 | 4 | 4 | 4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.2 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | - | 11.9 | < 1 | < 1 | < 1 | 0.45 | < 0.40 | < 0.40 | < 0.40 | 3.3 | < 0.40 | < 0.40 | < 0.40 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | < 2.00 | < 2.00 | 3 | 3 | 2 | 2.5 | 2.2 | 1.7 | 4.3 | 2.3 | 2.5 | 5.9 | 2.6 |
| **Iron** | | **3000** | <50 - 62 | ug/l | 10600 | 11000 | 62 | 54 | < 50 | < 50 | < 50 | < 50 | < 50 | 53 | < 50 | < 50 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.500 | < 0.500 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 59800 | 56200 | 11600 | 11500 | 7300 | 12000 | 7200 | 7800 | 6900 | 31000 | 9200 | 7600 | 7100 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 17300 | 16500 | 2030 | 1450 | 1500 | 820 | 130 | 130 | 210 | 3600 | 460 | 220 | 90 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | 1.83 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Nickel** | | 250 | < 2 | ug/l | 11.7 | 10.3 | 3 | 2 | 4 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 4.3 | < 2.0 | < 2.0 | < 2.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | 189 | < 500 | < 20 | < 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | 7010 | 6220 | 1200 | 1100 | 800 | 1300 | 690 | 910 | 1200 | 3300 | 820 | 1000 | 880 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | < 0.500 | 1 | 1 | 1 | < 0.50 | < 0.50 | < 0.50 | 0.52 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | - | < 0.100 | < 0.1 | 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 76800 | 65600 | 27600 | 20700 | 18000 | 21000 | 12000 | 14000 | 15000 | 48000 | 13000 | 14000 | 14000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | 740 | 194 | 195 | 183 | 220 | 160 | 180 | 210 | 540 | 200 | 170 | 170 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | < 0.100 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| **Tin** | | | < 2 | ug/l | - | < 1.00 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | - | < 3.00 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 95.4 | 81.8 | 1.0 | 2.5 | 1.0 | 7.2 | 1.1 | 0.94 | 1.1 | 30 | 2.1 | 1.2 | 1.2 |
| **Vanadium** | | 60 | < 2 | ug/l | < 5.00 | < 5.00 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 10.0 | < 10.0 | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | 5.1 | 5.9 | < 5.0 | < 5.0 | 8.3 | < 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2018-11-07 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW6-S_20230309 | MW6-S_20231012 | MW6-S_20231201 | MW6-S_20240312 | MW6-S_20240702 | MW6-S_20241210 | MW6-S_20250611 | MW7-D_20181107 | 20X589937-1062420 | 20X606404-1156946 | MW7-D_20200915 | MW7-D_20201216 | MW7-D_20210323 |
| | | | | Lab Sample ID | VGG626 | XHD236 | XTQ403 | YPJ117 | ZQA452 | HA2403274-021 | HA2501779-009 | 9698358 | 1062420 | 1156946 | NQU660 | OLM138 | PDR016 |
| | | | | Lab Job Number | C368322 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 | 18X408633 | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | 67 | - | - | - | - | 48.1 | **50.8** | **106** | **99** | 42 | **72** | **85** | **88** |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | - | - | - | - | 0.20 | 0.23 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.40 | 0.47 | < 2 | 6 | 3 | 3.6 | 2.1 | 1.2 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 19 | - | - | - | - | 22.4 | 24.4 | 23 | 17 | 15 | 30 | 27 | 27 |
| **Beryllium** | | 53 | < 2 | ug/l | < 0.10 | - | - | - | - | - | 0.041 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | - | - | - | - | - | < 0.050 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 210 | 650 | 230 | 170 | 250 | 187 | 254 | 1050 | 1090 | 1150 | 2200 | 1400 | 1000 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.013 | < 0.010 | < 0.010 | 0.010 | < 0.010 | 0.0066 | 0.0057 | **0.37** | **0.219** | **4.63** | **0.76** | **0.45** | **0.37** |
| **Calcium** | | | 3720-7000 | ug/l | 60000 | 83000 | 79000 | 74000 | 78000 | 63300 | 70700 | 106000 | 121000 | 102000 | 160000 | 130000 | 130000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 6 | 5 | 7 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | 0.13 | 4 | 5 | 7 | 9.5 | 5.4 | 4.4 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 4.7 | - | - | - | - | 1.93 | 1.87 | 5 | < 2 | 6 | 2.7 | 2.7 | 2.9 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 10 | 12 | 325 | 1040 | 137 | 530 | 450 | 220 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.080 | < 0.050 | 2.5 | 3.0 | 2.2 | 3.5 | 2.0 | 1.9 |
| **Magnesium** | | | 1000-6300 | ug/l | 7600 | 9900 | 6500 | 7600 | 6200 | 6190 | 7950 | 10200 | 17000 | 18100 | 31000 | 19000 | 17000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 35 | 25 | 2.4 | 32 | 6.5 | 3.26 | 22.8 | 2800 | 2630 | 2700 | 4100 | 3900 | 4100 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | - | - | - | - | - | 0.165 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| **Nickel** | | 250 | < 2 | ug/l | < 2.0 | - | - | - | - | < 0.50 | 0.55 | 5 | 4 | 11 | 7.3 | 3.9 | 3.0 |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | - | - | - | - | 26.7 | < 50 | < 20 | < 20 | < 20 | < 100 | < 100 | < 100 |
| **Potassium** | | | 400 - 3100 | ug/l | 660 | - | - | - | - | 1200 | 1320 | 3400 | 2100 | 2200 | 3200 | 2700 | 2400 |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | - | - | - | - | - | 0.279 | 2 | 1 | 2 | < 0.50 | < 0.50 | < 0.50 |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | - | - | - | - | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 11000 | - | - | - | - | 10400 | 8670 | 14100 | 21300 | 22400 | 36000 | 23000 | 20000 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 150 | - | - | - | - | - | 212 | 285 | 250 | 278 | 410 | 370 | 340 |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | - | - | - | - | - | < 0.010 | 0.1 | 0.1 | 0.1 | 0.18 | 0.15 | 0.11 |
| **Tin** | | | < 2 | ug/l | < 2.0 | - | - | - | - | - | < 0.10 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| **Titanium** | | | < 2 | ug/l | < 2.0 | - | - | - | - | - | < 0.30 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 1.3 | 3.5 | 2.3 | 2.3 | 2.2 | 1.56 | 3.06 | 3.1 | 19.8 | 29.0 | 47 | 18 | 14 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | - | - | - | - | < 0.50 | < 0.50 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | < 5.0 | - | - | - | - | 5.1 | 1.5 | 55 | 33 | 53 | 91 | 52 | 32 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-03-10 | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-07-02 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW7D_20210609 | MW7-D_20211005 | MW7-D_20211213 | MW7-D_20220328 | MW7-D_20220603 | MW7-D_20220929 | MW7-D_20221216 | MW7-D_20230310 | DUP2_20230310 | MW7-D_20231013 | MW7-D_20231201 | MW7-D_20240312 | MW7-D_20240702 |
| | | | | Lab Sample ID | PUQ379 | QWF775 | RJM388 | SFM282 | SUS171 | TWL725 | UQJ837 | VGT136 | VGT146 | XHD240 | XTQ406 | YPJ120 | ZQA455 |
| | | | | Lab Job Number | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S2706 | C2AN796 | C370496 | C370496 | C3V9312 | C3AS035 | C473698 | C4K2602 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | **89** | **86** | **96** | **93** | **88** | **95** | **87** | **72** | **74** | - | - | - | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 1.9 | 2.2 | 3.4 | 3.6 | 3.0 | 6.4 | < 1.0 | 5.0 | 5.1 | 4.7 | 2.6 | 3.5 | 3.6 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 27 | 35 | 26 | 19 | 23 | 29 | 34 | 27 | 26 | - | - | - | - |
| **Beryllium** | | 53 | < 2 | ug/l | < 1.0 | 0.27 | 0.25 | 0.23 | 0.25 | 0.24 | < 0.10 | 0.21 | 0.20 | - | - | - | - |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 1300 | 1700 | 1100 | 690 | 790 | 870 | 53 | 580 | 560 | 560 | 360 | 280 | 360 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | **0.25** | **0.25** | **0.16** | **0.12** | **0.12** | **0.12** | 0.012 | 0.072 | 0.076 | **0.24** | **0.14** | 0.079 | **0.11** |
| **Calcium** | | | 3720-7000 | ug/l | 140000 | 160000 | 120000 | 98000 | 110000 | 96000 | 72000 | 88000 | 88000 | 78000 | 68000 | 62000 | 59000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | 5.5 | 6.1 | 4.8 | 4.4 | 4.5 | 4.1 | < 0.40 | 3.7 | 3.8 | 2.8 | 2.5 | 2.4 | 2.0 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 2.0 | 2.3 | 1.5 | 1.3 | 2.2 | 17 | 3.4 | 2.1 | 2.2 | - | - | - | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | 740 | 660 | 1100 | 1000 | 1100 | 1400 | 88 | 1000 | 1100 | 840 | 270 | 820 | 610 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | 1.6 | 2.2 | 1.5 | 1.4 | 1.0 | 1.6 | < 0.50 | 1.2 | 1.1 | 2.3 | 1.1 | 1.3 | 1.6 |
| **Magnesium** | | | 1000-6300 | ug/l | 22000 | 24000 | 17000 | 13000 | 15000 | 13000 | 5700 | 13000 | 13000 | 9600 | 7600 | 7700 | 6700 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 4600 | 5100 | 4200 | 3700 | 3800 | 3600 | 11 | 3400 | 3300 | 3100 | 2500 | 2900 | 2900 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Nickel** | | 250 | < 2 | ug/l | 4.4 | 4.5 | 3.1 | 2.2 | 2.8 | 2.8 | < 2.0 | 2.1 | 2.3 | - | - | - | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - | - | - | - |
| **Potassium** | | | 400 - 3100 | ug/l | 2700 | 3500 | 2900 | 2300 | 2700 | 3000 | 3300 | 2400 | 2400 | - | - | - | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 26000 | 29000 | 21000 | 16000 | 18000 | 18000 | 6000 | 15000 | 15000 | - | - | - | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 390 | 420 | 320 | 270 | 300 | 270 | 190 | 250 | 260 | - | - | - | - |
| **Thallium** | | 8 | < 0.1 | ug/l | 0.12 | 0.17 | 0.15 | < 0.10 | 0.11 | 0.13 | < 0.10 | 0.11 | 0.11 | - | - | - | - |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.3 | < 2.0 | < 2.0 | - | - | - | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 23 | 22 | 11 | 9.0 | 11 | 7.2 | 0.61 | 8.1 | 8.1 | 4.4 | 2.9 | 2.7 | 2.7 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 34 | 41 | 25 | 23 | 24 | 26 | < 5.0 | 17 | 18 | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW7-D | MW7-D | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2025-06-11 | 2018-11-07 | 2020-04-01 | 2020-05-28 | 2021-03-23 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-29 | 2022-12-16 | 2023-03-10 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW7-D_20241210 | MW7-D_20250611 | MW7-S_20181107 | 20X589937-1062419 | 20X606404-1156947 | MW7-S_20210323 | MW7S_20210609 | MW7-S_20211005 | MW7-S_20211213 | MW7-S_20220328 | MW7-S_20220929 | MW7-S_20221216 | MW7-S_20230310 |
| | | | | Lab Sample ID | HA2403274-003 | HA2501779-012 | 9698357 | 1062419 | 1156947 | PDR015 | PUQ378 | QWF774 | RJM387 | SFM281 | TWL724 | UQJ836 | VGT135 |
| | | | | Lab Job Number | HA2403274 | HA2501779 | 18X408633 | 20X589937 | 20X606404 | C177930 | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2S2706 | C2AN796 | C370496 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 55.6 | 23.4 | 3520 | 104 | 55 | 600 | 35 | 280 | 51 | 20 | 170 | 100 | 99 |
| Antimony | 6 | 200 | < 2 | ug/l | < 0.10 | 0.33 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2.96 | 0.26 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 4.3 | < 1.0 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 33.3 | 13.7 | 19 | 11 | 12 | 19 | 22 | 26 | 17 | 13 | 25 | 35 | 18 |
| Beryllium | | 53 | < 2 | ug/l | - | < 0.020 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.19 | < 0.10 |
| Bismuth | | | < 2 | ug/l | - | < 0.050 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 364 | 20 | 201 | 142 | 172 | < 50 | 100 | 120 | 65 | < 50 | 61 | 650 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.198 | 0.0157 | < 0.09 | < 0.017 | 0.018 | 0.016 | 0.016 | 0.011 | 0.010 | < 0.010 | 0.019 | 0.10 | 0.010 |
| Calcium | | | 3720-7000 | ug/l | 59000 | 54400 | 82800 | 99500 | 87700 | 64000 | 83000 | 86000 | 68000 | 48000 | 68000 | 88000 | 55000 |
| Chromium | 50 | | <1 - 3 | ug/l | 0.62 | < 0.50 | 5 | 3 | 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | - | < 0.10 | 1 | < 1 | < 1 | < 0.40 | 0.47 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 3.6 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 5.62 | 2.00 | 10 | 3 | 3 | 2.8 | 2.9 | 5.1 | 2.8 | 1.6 | 5.6 | 8.7 | 4.4 |
| Iron | | 3000 | <50 - 62 | ug/l | 261 | 11 | 1460 | < 50 | < 50 | 470 | 82 | 170 | < 50 | < 50 | 91 | 980 | 78 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | 0.836 | < 0.050 | 3.0 | < 0.5 | < 0.5 | 0.87 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 1.3 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 8140 | 4170 | 2500 | 3000 | 2700 | 4600 | 4300 | 4800 | 4600 | 4700 | 4800 | 12000 | 4100 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 3110 | 1.39 | 412 | 6 | 198 | 21 | 94 | 17 | 2.6 | 2.2 | 37 | 3800 | 12 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | 0.538 | 3 | < 2 | 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | 1.62 | < 0.50 | 2 | < 2 | 6 | < 2.0 | 120 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 16 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | 33.3 | 759 | 90 | < 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 2690 | 2160 | 4100 | 4100 | 4600 | 3000 | 7500 | 6000 | 3200 | 2100 | 4100 | 2900 | 2500 |
| Selenium | 50 | 10 | < 1 | ug/l | - | 0.144 | < 1 | < 1 | 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 10800 | 3010 | 6000 | 7100 | 7900 | 14000 | 26000 | 17000 | 9400 | 6800 | 6200 | 16000 | 4400 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | 144 | 238 | 223 | 284 | 180 | 240 | 260 | 190 | 130 | 200 | 260 | 140 |
| Thallium | | 8 | < 0.1 | ug/l | - | < 0.010 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.12 | < 0.10 |
| Tin | | | < 2 | ug/l | - | < 0.10 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | - | 0.33 | 30 | < 2 | < 2 | 18 | < 2.0 | 7.6 | < 2.0 | < 2.0 | 3.3 | < 2.0 | 2.3 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 3.27 | 0.300 | 2.2 | 2.4 | 0.6 | 0.74 | 0.74 | 0.90 | 0.75 | 0.78 | 0.54 | 5.6 | 0.50 |
| Vanadium | | 60 | < 2 | ug/l | < 0.50 | < 0.50 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | 33.9 | 2.4 | 6 | < 5 | < 5 | < 5.0 | 13 | 6.0 | < 5.0 | < 5.0 | 5.5 | 27 | 5.1 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-18 | 2025-06-11 | 2018-11-07 | 2020-06-01 | 2020-09-17 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-06 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW7-S_20231013 | MW7-S_20231201 | MW7-S_20240312 | MW7-S_20240702 | MW7-S_20241218 | MW7-S_20250611 | MW8-D_20181107 | 20X608058-1165167 | MW-8D_20200917 | MW8-D_20201216 | MW8-D_20210323 | MW8-D_20210607 | MW8-D_20211006 |
| | | | | Lab Sample ID | XHD239 | XTQ405 | YPJ119 | ZQA454 | HA2403375-001 | HA2501779-011 | 9698360 | 1165167 | NRG092 | OLM140 | PDR018 | PUI333 | QWS512 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403375 | HA2501779 | 18X408633 | 20X608058 | C0O4512 | C0X8319 | C177930 | C1F8315 | C1T3325 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | - | - | - | - | 39.1 | 63.1 | 13 | < 5 | 14 | 16 | < 5.0 | 5.9 | < 5.0 |
| Antimony | 6 | 200 | < 2 | ug/l | - | - | - | - | 0.25 | < 0.10 | < 2 | < 2 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.20 | 6.19 | 9 | 10 | 7.5 | 4.8 | 7.0 | 7.5 | 7.9 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | - | - | - | - | 12.8 | 26.8 | 19 | 13 | 7.8 | 27 | 16 | 12 | 11 |
| Beryllium | | 53 | < 2 | ug/l | - | - | - | - | < 0.020 | 0.157 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 |
| Bismuth | | | < 2 | ug/l | - | - | - | - | < 0.050 | < 0.050 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 100 | < 50 | < 50 | < 50 | 12 | 325 | 76 | 51 | < 50 | 91 | 59 | < 50 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.018 | 0.022 | < 0.010 | 0.012 | 0.0083 | 0.0516 | < 0.09 | 0.025 | 0.043 | 0.034 | 0.040 | 0.025 | 0.034 |
| Calcium | | | 3720-7000 | ug/l | 74000 | 65000 | 20000 | 80000 | 52700 | 55100 | 119000 | 71800 | 26000 | 140000 | 92000 | 92000 | 83000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | 1.6 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 2 | 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | 0.50 | < 0.40 | < 0.40 | < 0.10 | 2.99 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | - | - | - | - | 1.51 | 1.02 | < 2 | < 2 | 7.5 | 0.72 | 1.2 | < 0.50 | 1.9 |
| Iron | | 3000 | <50 - 62 | ug/l | 50 | 1100 | < 50 | < 50 | 32 | 684 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | 1.6 | < 0.50 | < 0.50 | 0.052 | 0.849 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 4900 | 5100 | 1600 | 5600 | 4170 | 8800 | 16400 | 9400 | 5000 | 19000 | 14000 | 13000 | 12000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 19 | 70 | 4.5 | < 2.0 | 1.98 | 2230 | 90 | 40 | 9.5 | 140 | 37 | 23 | 15 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | < 0.0050 | < 0.0050 | < 0.026 | < 0.026 | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | - | - | - | 0.629 | 0.453 | 8 | 9 | 4.9 | 4.2 | 7.8 | 7.9 | 8.3 |
| Nickel | | 250 | < 2 | ug/l | - | - | - | - | < 0.50 | 1.23 | 3 | 5 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | | < 100 - 200 | ug/l | - | - | - | - | 3320 | < 50 | 70 | 30 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | - | - | - | - | 1940 | 2200 | 2200 | 1500 | 960 | 2500 | 2000 | 1800 | 1800 |
| Selenium | 50 | 10 | < 1 | ug/l | - | - | - | - | 0.110 | 0.211 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | - | - | - | - | < 0.010 | < 0.010 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | - | - | - | - | 4090 | 9620 | 45000 | 32300 | 9700 | 48000 | 33000 | 29000 | 26000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | - | 140 | 188 | 270 | 187 | 75 | 340 | 220 | 230 | 210 |
| Thallium | | 8 | < 0.1 | ug/l | - | - | - | - | < 0.010 | 0.087 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | - | - | - | - | < 0.10 | < 0.10 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | - | - | - | - | 0.98 | < 0.60 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 0.61 | 0.66 | 0.18 | 0.59 | 0.427 | 3.47 | 330 | 392 | 16 | 340 | 420 | 520 | 510 |
| Vanadium | | 60 | < 2 | ug/l | - | - | - | - | < 0.50 | < 0.50 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | - | - | - | - | 1.7 | 12.1 | < 5 | < 5 | < 5.0 | < 5.0 | 5.5 | < 5.0 | 6.3 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-06-02 | 2022-09-29 | 2022-09-29 | 2022-12-16 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2023-12-01 | 2023-12-01 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW8-D_20211213 | DUP3_20211213 | MW8-D_20220329 | DUP 1_20220602 | MW8-D_20220602 | MW8-D_20220929 | DUP 2_20220929 | MW8-D_20221216 | DUP2_20221216 | MW8-D_20230310 | MW8-D_20231012 | DUP1_20231201_WG | MW8-D_20231201 |
| | | | | Lab Sample ID | RJM390 | RJM531 | SFM284 | SUK077 | SUK081 | TWL727 | TWL730 | UQJ839 | UQJ832 | VGT138 | XHD242 | XTQ424 | XTQ408 |
| | | | | Lab Job Number | C1Z2957 | C1Z2957 | C282980 | C2F1732 | C2F1732 | C2S2706 | C2S2706 | C2AN796 | C2AN796 | C370496 | C3V9312 | C3AS035 | C3AS035 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - | - | - |
| Antimony | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | - | - |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 7.4 | 7.4 | 8.7 | 6.4 | 6.4 | 8.4 | 8.1 | 8.6 | 8.7 | 8.6 | 8.2 | 6.3 | 6.4 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 10 | 10 | 7.2 | 17 | 21 | 9.1 | 9.0 | 8.4 | 21 | 13 | - | - | - |
| Beryllium | | 53 | < 2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - |
| Bismuth | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 60 | 52 | < 50 | 52 | 54 | 52 | < 50 | < 50 | < 50 | < 50 | 63 | 75 | 75 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.024 | 0.021 | 0.028 | 0.029 | 0.028 | 0.026 | 0.024 | 0.027 | 0.024 | 0.020 | 0.019 | 0.030 | 0.028 |
| Calcium | | | 3720-7000 | ug/l | 75000 | 73000 | 61000 | 100000 | 100000 | 73000 | 73000 | 63000 | 62000 | 61000 | 72000 | 96000 | 96000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | < 0.50 | 0.67 | 0.61 | 1.1 | 2.8 | 0.50 | 0.61 | 0.55 | 1.4 | 3.0 | - | - | - |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 11000 | 11000 | 9300 | 14000 | 14000 | 11000 | 11000 | 10000 | 10000 | 9600 | 10000 | 14000 | 14000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 29 | 29 | 11 | 56 | 56 | 13 | 12 | 15 | 16 | 13 | 26 | 78 | 77 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 7.8 | 7.7 | 8.8 | 6.6 | 6.5 | 8.5 | 8.5 | 8.7 | 8.6 | 8.6 | - | - | - |
| Nickel | | 250 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| Phosphorus | | | < 100 - 200 | ug/l | < 100 | < 100 | 100 | 100 | < 100 | 110 | 110 | 100 | 110 | < 100 | - | - | - |
| Potassium | | | 400 - 3100 | ug/l | 1700 | 1700 | 1500 | 2000 | 2000 | 1700 | 1700 | 1600 | 1600 | 1500 | - | - | - |
| Selenium | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - | - | - |
| Silver | | 1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - |
| Sodium | | | 8,000 - 34,000 | ug/l | 26000 | 26000 | 22000 | 34000 | 34000 | 26000 | 26000 | 24000 | 24000 | 22000 | - | - | - |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 180 | 180 | 150 | 240 | 240 | 190 | 180 | 150 | 150 | 150 | - | - | - |
| Thallium | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - | - | - |
| Tin | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| Titanium | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 380 | 370 | 370 | 370 | 370 | 490 | 480 | 340 | 330 | 350 | 340 | 280 | 280 |
| Vanadium | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - | - | - |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.0 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 |
| | | | | Background | | | | |
| | | | | Sample ID | MW8-D_20240312 | MW8-D_20240702 | MW8-D_20241210 | MW8-D_20250612 |
| | | | | Lab Sample ID | YPJ122 | ZQA457 | HA2403274-014 | HA2501804-002 |
| | | | | Lab Job Number | C473698 | C4K2602 | HA2403274 | HA2501804 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | |
| Aluminum | 2900 | **50** | <5 - 30 | ug/l | - | - | 2.7 | 1.4 |
| Antimony | 6 | 200 | < 2 | ug/l | - | - | 0.30 | < 0.10 |
| Arsenic | 10 | **50** | <2 - 6 | ug/l | 9.1 | 8.9 | 1.94 | 10.3 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | - | - | 40.0 | 6.98 |
| Beryllium | | 53 | < 2 | ug/l | - | - | - | < 0.020 |
| Bismuth | | | < 2 | ug/l | - | - | - | < 0.050 |
| Boron | 5000 | **12000** | 9.8 - 53 | ug/l | < 50 | 55 | 63 | 39 |
| Cadmium | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.021 | 0.036 | 0.0794 | 0.0250 |
| Calcium | | | 3720-7000 | ug/l | 54000 | 59000 | 59800 | 50400 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | - | < 0.10 |
| Copper | 2000 | **20** | <2 - 5.1 | ug/l | - | - | 4.62 | 0.35 |
| Iron | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 10 | < 10 |
| Lead | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | 0.106 | < 0.050 |
| Magnesium | | | 1000-6300 | ug/l | 9200 | 9400 | 8620 | 8480 |
| Manganese | 120 | **8200** | <2 - 54 | ug/l | 9.8 | 11 | 0.49 | 8.80 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | < 0.0050 | < 0.0050 |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | - | - | 8.59 |
| Nickel | | 250 | < 2 | ug/l | - | - | 0.93 | < 0.50 |
| Phosphorus | | | < 100 - 200 | ug/l | - | - | 53.8 | 80.3 |
| Potassium | | | 400 - 3100 | ug/l | - | - | 3120 | 1470 |
| Selenium | 50 | 10 | < 1 | ug/l | - | - | - | 0.086 |
| Silver | | **1** | <0.1 | ug/l | - | - | - | < 0.010 |
| Sodium | | | 8,000 - 34,000 | ug/l | - | - | 8280 | 20600 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | 142 |
| Thallium | | 8 | < 0.1 | ug/l | - | - | - | 0.036 |
| Tin | | | < 2 | ug/l | - | - | - | < 0.10 |
| Titanium | | | < 2 | ug/l | - | - | - | < 0.30 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 330 | 360 | 11.9 | 271 |
| Vanadium | | 60 | < 2 | ug/l | - | - | < 0.50 | 0.52 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | - | - | 15.2 | 1.6 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

| | |
|---|---|
| VALUE | Results exceeds CDWG |
| **VALUE** | Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m |
| VALUE | Results exceeds Background Concentration |

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2018-11-07 | 2020-06-01 | 2020-09-17 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-06 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-29 | 2022-12-16 | 2023-03-10 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW8-S_20181107 | 20X608058-1165166 | MW-8S_20200917 | MW8-S_20201216 | MW8-S_20210323 | MW8-S_20210607 | MW8-S_20211006 | MW8-S_20211213 | MW8-S_20220329 | MW8-S_20220602 | MW8-S_20220929 | MW8-S_20221216 | MW8-S_20230310 |
| | | | | Lab Sample ID | 9698359 | 1165166 | NRG091 | OLM139 | PDR017 | PUI32 | QWS511 | RJM389 | SFM283 | SUK080 | TWL726 | UQJ838 | VGT137 |
| | | | | Lab Job Number | 18X408633 | 20X608058 | C0O4512 | C0X8319 | C177930 | C1F8315 | C1T3325 | C1Z2957 | C282980 | C2F1732 | C2S2706 | C2AN796 | C370496 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | 5 | 9 | 12 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.2 | < 5.0 | 5.3 | < 5.0 |
| Antimony | 6 | 200 | < 2 | ug/l | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 4 | 4 | 4.5 | 2.5 | 1.8 | 2.2 | 2.1 | 2.9 | 2.3 | 2.1 | 2.1 | 2.4 | 2.0 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | 33 | 26 | 8.7 | 27 | 35 | 29 | 18 | 20 | 25 | 31 | 24 | 40 | 39 |
| Beryllium | | 53 | < 2 | ug/l | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | | < 2 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 260 | 171 | < 50 | 210 | 130 | 130 | 130 | 140 | 130 | 150 | 160 | 140 | 160 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | < 0.09 | 0.276 | 0.10 | 0.16 | 0.17 | 0.067 | 0.082 | 0.032 | 0.034 | 0.096 | 0.081 | 0.056 | 0.079 |
| Calcium | | | 3720-7000 | ug/l | 235000 | 202000 | 24000 | 160000 | 210000 | 200000 | 120000 | 130000 | 210000 | 220000 | 140000 | 220000 | 280000 |
| Chromium | 50 | | <1 - 3 | ug/l | 5 | 5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 1 | < 1 | < 0.40 | 0.41 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | 5 | 4 | < 0.50 | 1.1 | 1.7 | 2.2 | 2.4 | 3.6 | 3.3 | 5.5 | 4.5 | 9.3 | 4.6 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 32600 | 26400 | 4400 | 21000 | 28000 | 27000 | 15000 | 19000 | 29000 | 29000 | 19000 | 32000 | 37000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 9 | 107 | 37 | 100 | 150 | 12 | 120 | 9.3 | 22 | 98 | 220 | 46 | 52 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | < 0.026 | < 0.026 | - | - | - | - | - | - | - | - | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | 3 | 2 | 3.2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 14 | 5.1 | < 2.0 | < 2.0 | 4.6 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | 10 | 16 | < 2.0 | 2.8 | 3.0 | 3.5 | 2.5 | 5.8 | 6.2 | 9.3 | 2.6 | 6.7 | 7.4 |
| Phosphorus | | | < 100 - 200 | ug/l | 20 | < 20 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | 4600 | 2700 | 900 | 2700 | 3000 | 3000 | 2300 | 2800 | 3100 | 3000 | 2500 | 3500 | 3400 |
| Selenium | 50 | 10 | < 1 | ug/l | 1 | 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | 150000 | 138000 | 9200 | 79000 | 100000 | 93000 | 43000 | 93000 | 110000 | 80000 | 48000 | 110000 | 110000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | 436 | 379 | 67 | 330 | 430 | 380 | 220 | 240 | 430 | 450 | 270 | 430 | 550 |
| Thallium | | 8 | < 0.1 | ug/l | < 0.1 | < 0.1 | < 0.10 | 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.5 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 117 | 170 | 9.5 | 180 | 200 | 170 | 62 | 92 | 140 | 210 | 99 | 200 | 260 |
| Vanadium | | 60 | < 2 | ug/l | < 2 | 2 | < 2.0 | 2.6 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | < 5 | 8 | < 5.0 | < 5.0 | < 5.0 | 5.9 | 5.8 | < 5.0 | 5.3 | 5.8 | 6.2 | < 5.0 | 5.9 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

*See notes page*

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2019-07-03 | 2019-07-03 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-25 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | MW8-S_20231012 | MW8-S_20231201 | MW8-S_20240312 | MW8-S_20240702 | MW8-S_20241210 | MW8-S_20250612 | 19X489473-330793 | 19X489473-330794 | 20X606404-1156942 | 20X606404-1156940 | PW19-01_20200915 | PW19-01_20201216 | DUP2_20210325 |
| | | | | Lab Sample ID | XHD241 | XTQ407 | YPJ121 | ZQA456 | HA2403274-030 | HA2501804-001 | 330793 | 330794 | 1156942 | 1156940 | NQU659 | OLM141 | PEB971 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 | 19X489473 | 19X489473 | 20X606404 | 20X606404 | C0O2716 | C0X8319 | C179966 |
| Parameter | CDWQ[1] | NS-PSS[2] | Background[3] | Unit | | | | | | | | | | | | | |
| Aluminum | 2900 | 50 | <5 - 30 | ug/l | - | - | - | - | 1.8 | 1.0 | 18 | < 5 | 12 | 15 | < 5.0 | < 5.0 | < 5.0 |
| Antimony | 6 | 200 | < 2 | ug/l | - | - | - | - | 0.15 | < 0.10 | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | 10 | 50 | <2 - 6 | ug/l | 2.5 | 2.7 | 2.3 | 2.4 | 2.87 | 2.83 | < 2 | < 2 | < 2 | < 2 | 3.1 | 2.0 | 1.1 |
| Barium | 2000 | 10000 | <5 - 24 | ug/l | - | - | - | - | 31.0 | 26.2 | 46 | 53 | 16 | 15 | 100 | 76 | 58 |
| Beryllium | | 53 | < 2 | ug/l | - | - | - | - | - | 0.027 | < 2 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | | < 2 | ug/l | - | - | - | - | - | < 0.050 | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 5000 | 12000 | 9.8 - 53 | ug/l | 240 | 150 | 130 | 170 | 133 | 134 | 67 | 72 | 18 | 17 | 66 | 54 | < 50 |
| Cadmium | 7 | 0.1 | <0.017 - 0.055 | ug/l | 0.053 | 0.027 | 0.053 | 0.051 | 0.0259 | 0.0264 | < 0.09 | < 0.09 | < 0.017 | < 0.017 | < 0.010 | < 0.010 | < 0.010 |
| Calcium | | | 3720-7000 | ug/l | 120000 | 130000 | 160000 | 160000 | 154000 | 140000 | 80000 | 94100 | 25600 | 26000 | 88000 | 91000 | 83000 |
| Chromium | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | 1 | 2 | 2 | 2 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | | 100 | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | - | 0.13 | < 1 | < 1 | < 1 | < 1 | 1.1 | 0.48 | 0.42 |
| Copper | 2000 | 20 | <2 - 5.1 | ug/l | - | - | - | - | 2.76 | 1.63 | < 2 | < 2 | < 2 | < 2 | < 0.50 | < 0.50 | 0.71 |
| Iron | | 3000 | <50 - 62 | ug/l | < 50 | < 50 | < 50 | < 50 | < 10 | < 10 | < 50 | < 50 | 71 | 74 | 76 | 130 | < 50 |
| Lead | 5 | 10 | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.063 | < 0.050 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | | 1000-6300 | ug/l | 16000 | 18000 | 22000 | 21000 | 22600 | 19800 | 9800 | 11500 | 2500 | 2500 | 11000 | 12000 | 11000 |
| Manganese | 120 | 8200 | <2 - 54 | ug/l | 29 | 11 | 96 | 68 | 2.56 | 9.14 | 150 | 149 | 51 | 71 | 550 | 440 | 97 |
| Mercury | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | < 0.0050 | < 0.0050 | - | - | < 0.026 | < 0.026 | - | - | - |
| Molybdenum | | 730 | < 2 - 18 | ug/l | - | - | - | - | - | 1.05 | 2 | < 2 | 8 | 6 | 2.9 | < 2.0 | < 2.0 |
| Nickel | | 250 | < 2 | ug/l | - | - | - | - | 3.90 | 1.69 | 5 | 5 | 2 | 2 | 9.2 | 4.8 | 4.5 |
| Phosphorus | | | < 100 - 200 | ug/l | - | - | - | - | 35.8 | < 50 | < 20 | < 20 | 40 | 50 | < 100 | < 100 | < 100 |
| Potassium | | | 400 - 3100 | ug/l | - | - | - | - | 3000 | 2550 | 2300 | 2400 | 1500 | 1300 | 2300 | 2000 | 1500 |
| Selenium | 50 | 10 | < 1 | ug/l | - | - | - | - | - | 0.115 | < 1 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 |
| Silver | | 1 | <0.1 | ug/l | - | - | - | - | - | < 0.010 | < 0.1 | 0.2 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | | 8,000 - 34,000 | ug/l | - | - | - | - | 79900 | 51000 | 14000 | 16100 | 13000 | 14200 | 15000 | 17000 | 11000 |
| Strontium | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | - | - | 349 | 200 | 217 | 75 | 77 | 260 | 240 | 200 |
| Thallium | | 8 | < 0.1 | ug/l | - | - | - | - | - | 0.029 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | | < 2 | ug/l | - | - | - | - | - | < 0.10 | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | | < 2 | ug/l | - | - | - | - | - | < 0.30 | < 2 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 20 | 3000 | 2.5 - 30.5 | ug/l | 110 | 130 | 170 | 170 | 154 | 165 | 8.0 | 10.8 | 3.3 | 4.1 | 21 | 13 | 9.0 |
| Vanadium | | 60 | < 2 | ug/l | - | - | - | - | 0.60 | < 0.50 | < 2 | < 2 | < 2 | 2 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | | 300 | < 5 - 9.2 | ug/l | - | - | - | - | 5.5 | 4.9 | < 5 | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | 5.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-25 | 2021-06-09 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-03 | 2022-06-03 | 2022-09-30 | 2022-12-16 | 2023-03-10 | 2023-03-10 | 2023-10-13 |
| | | | | Background | | | | | | | | | | | | | |
| | | | | Sample ID | PW19-01_20210325 | DUP1_20210609 | PW19-01_20210609 | PW19-01_20211005 | PW19-01_20211213 | PW19-01_20220329 | DUP2_20220603 | PW19-01_20220603 | PW19-01_20220930 | PW19-01_20221216 | PW19-01_20230310 | DUP3_20230310 | PW19-01_20231013 |
| | | | | Lab Sample ID | PEB976 | PUQ385 | PUQ382 | QWF781 | RJM395 | SFM290 | SUS180 | SUS176 | TXM818 | UQJ845 | VGT144 | VGT147 | XHD246 |
| | | | | Lab Job Number | C179966 | C1F9831 | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2F3070 | C2S7487 | C2AN796 | C370496 | C370496 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | < 5.0 | < 5.0 | < 5.0 | 7.2 | < 5.0 | 5.8 | < 5.0 | < 5.0 | 5.4 | < 5.0 | < 5.0 | < 5.0 | - |
| **Antimony** | 6 | 200 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 1.2 | 11 | 11 | 4.7 | 5.3 | 6.9 | 6.1 | 6.2 | 4.6 | 4.4 | 3.3 | 3.4 | 3.6 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | 58 | 74 | 72 | 68 | 54 | 60 | 80 | 81 | 40 | 66 | 55 | 55 | - |
| **Beryllium** | | 53 | < 2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| **Bismuth** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | < 50 | < 50 | 52 | 66 | 54 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 53 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Calcium** | | | 3720-7000 | ug/l | 83000 | 110000 | 110000 | 94000 | 82000 | 90000 | 90000 | 92000 | 48000 | 69000 | 78000 | 77000 | 84000 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Cobalt** | | 100 | <1 | ug/l | 0.41 | 1.2 | 1.2 | 1.2 | 0.41 | 0.91 | 1.7 | 1.7 | < 0.40 | < 0.40 | 0.79 | 0.85 | 0.83 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | 0.55 | < 0.50 | < 0.50 | 1.9 | 0.66 | < 0.50 | < 0.50 | 1.0 | 2.5 | < 0.50 | 2.2 | 1.6 | - |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | 1100 | 1100 | 150 | 1000 | 860 | 410 | 420 | 430 | 880 | 240 | 230 | < 50 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Magnesium** | | | 1000-6300 | ug/l | 11000 | 16000 | 16000 | 13000 | 11000 | 13000 | 13000 | 14000 | 6200 | 9900 | 12000 | 12000 | 13000 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 97 | 3200 | 3100 | 2600 | 1700 | 1700 | 1700 | 1700 | 440 | 730 | 840 | 850 | 630 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | < 2.0 | 2.0 | < 2.0 | 2.8 | 3.1 | < 2.0 | 6.1 | 6.2 | 2.9 | 2.4 | 2.1 | 2.0 | - |
| **Nickel** | | 250 | < 2 | ug/l | 4.2 | 3.6 | 3.7 | 5.3 | < 2.0 | 2.8 | 9.7 | 10 | < 2.0 | 2.3 | 3.4 | 3.2 | - |
| **Phosphorus** | | | < 100 - 200 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | - |
| **Potassium** | | | 400 - 3100 | ug/l | 1500 | 1700 | 1700 | 2000 | 1700 | 1600 | 2000 | 2000 | 1500 | 1700 | 1700 | 1600 | - |
| **Selenium** | 50 | 10 | < 1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | - |
| **Silver** | | **1** | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| **Sodium** | | | 8,000 - 34,000 | ug/l | 11000 | 13000 | 13000 | 14000 | 13000 | 12000 | 12000 | 12000 | 14000 | 15000 | 14000 | 14000 | - |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | 210 | 270 | 270 | 230 | 220 | 230 | 250 | 250 | 170 | 230 | 240 | 240 | - |
| **Thallium** | | 8 | < 0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | - |
| **Tin** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| **Titanium** | | | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 9.1 | 7.3 | 7.4 | 8.5 | 7.5 | 8.9 | 18 | 18 | 5.4 | 7.8 | 10 | 10 | 20 |
| **Vanadium** | | 60 | < 2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | - |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | 5.6 | < 5.0 | < 5.0 | 5.8 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.1 | < 5.0 | 5.4 | 5.6 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C1
## Metals in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-13 | 2023-12-01 | 2023-12-01 | 2024-03-14 | 2024-07-02 | 45644 | 45820 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | DUP2_20231013 | DUP2_20231201 | PW19-01_20231201 | PW19-01_20240314 | PW19-01_20240702 | PW19-01_20241218 | PW19-01_20250612 |
| | | | | Lab Sample ID | XHD247 | XTQ425 | XTQ412 | YQA657 | ZQA461 | HA2403375-003 | HA2501804-006 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C3AS035 | C476965 | C4K2602 | HA2403375 | HA2501804 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Aluminum** | 2900 | **50** | <5 - 30 | ug/l | - | - | - | - | - | 13.1 | 1.4 |
| **Antimony** | 6 | 200 | < 2 | ug/l | - | - | - | - | - | 0.11 | 0.13 |
| **Arsenic** | 10 | **50** | <2 - 6 | ug/l | 3.5 | 3.1 | 3.1 | 2.3 | 7.1 | 3.88 | 3.67 |
| **Barium** | 2000 | 10000 | <5 - 24 | ug/l | - | - | - | - | - | 53.3 | 65.4 |
| **Beryllium** | | 53 | < 2 | ug/l | - | - | - | - | - | < 0.020 | < 0.020 |
| **Bismuth** | | | < 2 | ug/l | - | - | - | - | - | < 0.050 | < 0.050 |
| **Boron** | 5000 | **12000** | 9.8 - 53 | ug/l | 60 | < 50 | 69 | < 50 | < 50 | 28 | 31 |
| **Cadmium** | 7 | **0.1** | <0.017 - 0.055 | ug/l | 0.011 | < 0.010 | < 0.010 | 0.017 | 0.016 | 0.0237 | 0.0126 |
| **Calcium** | | | 3720-7000 | ug/l | 85000 | 93000 | 91000 | 74000 | 76000 | 71800 | 73900 |
| **Chromium** | 50 | | <1 - 3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 |
| **Cobalt** | | 100 | <1 | ug/l | 0.76 | 0.66 | 0.61 | 0.54 | 0.82 | 0.50 | 0.47 |
| **Copper** | 2000 | **20** | <2 - 5.1 | ug/l | - | - | - | - | - | 2.98 | 0.92 |
| **Iron** | | **3000** | <50 - 62 | ug/l | < 50 | < 50 | < 50 | 51 | 250 | 131 | 19 |
| **Lead** | 5 | **10** | <0.5 - 1.5 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.157 | < 0.050 |
| **Magnesium** | | | 1000-6300 | ug/l | 12000 | 14000 | 14000 | 11000 | 11000 | 11000 | 11900 |
| **Manganese** | 120 | **8200** | <2 - 54 | ug/l | 620 | 980 | 960 | 540 | 1000 | 683 | 721 |
| **Mercury** | 1 | 0.26 | < 0.026 | ug/l | - | - | - | - | - | < 0.0050 | < 0.0050 |
| **Molybdenum** | | 730 | < 2 - 18 | ug/l | - | - | - | - | - | 1.60 | 1.19 |
| **Nickel** | | 250 | < 2 | ug/l | - | - | - | - | - | 2.40 | 3.39 |
| **Phosphorus** | | | < 100 - 200 | ug/l | - | - | - | - | - | 1010 | 740 |
| **Potassium** | | | 400 - 3100 | ug/l | - | - | - | - | - | 1820 | 1910 |
| **Selenium** | 50 | 10 | < 1 | ug/l | - | - | - | - | - | < 0.050 | 0.062 |
| **Silver** | | **1** | <0.1 | ug/l | - | - | - | - | - | < 0.010 | < 0.010 |
| **Sodium** | | | 8,000 - 34,000 | ug/l | - | - | - | - | - | 11800 | 11900 |
| **Strontium** | 7000 | 210000 | 39 - 121 | ug/l | - | - | - | - | - | 204 | 210 |
| **Thallium** | | 8 | < 0.1 | ug/l | - | - | - | - | - | < 0.010 | < 0.010 |
| **Tin** | | | < 2 | ug/l | - | - | - | - | - | < 0.10 | < 0.10 |
| **Titanium** | | | < 2 | ug/l | - | - | - | - | - | 0.79 | < 0.30 |
| **Uranium** | 20 | 3000 | 2.5 - 30.5 | ug/l | 20 | 13 | 13 | 8.4 | 5.6 | 8.20 | 9.07 |
| **Vanadium** | | 60 | < 2 | ug/l | - | - | - | - | - | < 0.50 | < 0.50 |
| **Zinc** | | 300 | < 5 - 9.2 | ug/l | - | - | - | - | - | 6.1 | 2.6 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
| | | | | Sample Date | 2019-02-11 | 2020-04-01 | 2020-04-01 | 2020-05-27 | 2020-09-17 | 2020-12-16 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW19-03D_20190211 | 20X589937-1062421 | 20X589937-1062425 | 20X606071-1154904 | MW19-03D_20200917 | MW19-03D_20201216 |
| | | | | Lab Sample ID | 9894253 | 1062421 | 1062425 | 1154904 | NRG098 | OLM111 |
| | | | | Lab Job Number | 19X436534 | 20X589937 | 20X589937 | 20X606071 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 89 | 98 | 99 | 90 | 98 | 99 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 10 | < 10 | 1.4 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | < 5 | < 5 | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 89 | 98 | 99 | 90 | 100 | 100 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.41 | < 0.03 | < 0.03 | < 0.03 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.47 | 2.30 | 2.28 | 2.02 | 2.31 | 2.35 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.26 | 2.34 | 2.35 | 2.36 | 2.12 | 2.16 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | < 3 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8 | 6 | 6 | 5 | 6.0 | 9.1 |
| **Color** | | | | tcu | - | < 5 | 121 | < 5 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | < 0.5 | < 0.50 | < 0.50 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 220 | 219 | 221 | 226 | 220 | 210 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.27 | 0.45 | 0.44 | 0.38 | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 46.2 | 75.2 | 75.5 | 71.6 | 71 | 72 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 4.4 | 0.8 | 1.5 | 7.7 | 4.29 | 4.21 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.39 | -0.30 | -0.24 | -0.27 | 0.191 | -0.173 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.71 | -0.62 | -0.56 | -0.59 | -0.0600 | -0.424 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.09 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.09 | 0.06 | 0.06 | < 0.05 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | 0.06 | 0.06 | < 0.05 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.04 | < 0.01 | < 0.01 | 0.02 | 0.043 | 0.062 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.08 | 7.92 | 7.97 | 7.98 | 8.19 | 7.82 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.47 | 8.22 | 8.21 | 8.25 | 8.00 | 7.99 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.79 | 8.54 | 8.53 | 8.57 | 8.25 | 8.24 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.004 | < 0.004 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 6.0 | 6.9 | 7.4 | 7.6 | 8.1 | 8.7 |
| **Sulphate** | | | 4 - 22 | mg/l | 22 | 8 | 6 | 4 | 6.8 | 4.5 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 132 | 121 | 119 | 112 | 120 | 130 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | 0.8 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.2 | 5.1 | 5.2 | < 0.5 | < 5.0 | < 0.50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | 1480 | 67 | 27 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 2600 | 237 | 3.3 | 789 | 42 | 10 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-25 | 2021-06-09 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-30 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW19-03D_20210325 | DUP3_20210609 | MW19-03D_20210609 | MW19-03D_20211005 | MW19-03D_20211213 | MW19-03D_20220330 |
| | | | | Lab Sample ID | PEB980 | PUQ387 | PUQ384 | QWF776 | RJM391 | SGA982 |
| | | | | Lab Job Number | C179966 | C1F9831 | C1F9831 | C1T0922 | C1Z2957 | C285511 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 96 | 94 | 94 | 95 | 97 | 96 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.2 | 1.1 | 1.3 | < 1.0 | 1.1 | 1.2 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 98 | 96 | 95 | 96 | 98 | 97 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.28 | 2.20 | 2.19 | 2.24 | 2.27 | 2.25 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.08 | 2.12 | 2.10 | 2.14 | 2.11 | 2.05 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.3 | 6.5 | 6.8 | 8.5 | 6.9 | 7.3 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 190 | 210 | 200 | 210 | 200 | 210 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 68 | 69 | 68 | 70 | 69 | 67 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 4.59 | 1.85 | 2.10 | 2.28 | 3.65 | 4.65 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.0830 | 0.0700 | 0.122 | -0.0930 | 0.0460 | 0.0860 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.168 | -0.181 | -0.129 | -0.344 | -0.205 | -0.164 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.068 | 0.070 | 0.067 | 0.077 | 0.082 | 0.081 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.10 | 8.10 | 8.16 | 7.93 | 8.06 | 8.12 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.02 | 8.03 | 8.04 | 8.02 | 8.01 | 8.04 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.27 | 8.28 | 8.29 | 8.27 | 8.27 | 8.29 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.5 | 8.2 | 8.3 | 7.9 | 7.8 | 11 |
| **Sulphate** | | | 4 - 22 | mg/l | 4.6 | 4.9 | 4.6 | 4.0 | 5.1 | 4.6 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 120 | 120 | 120 | 120 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 0.50 | < 0.50 | < 0.50 | 0.85 | 0.61 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 610 | 48 | 24 | 18 | 6.0 | 34 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 15 | 9.3 | 2.4 | 5.2 | 4.7 | 20 |

***Notes:***

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[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
| | | | | Sample Date | 2022-06-03 | 2022-09-28 | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2023-12-01 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW19-03D_20220603 | MW19-03D_20220928 | MW19-03D_20221216 | MW19-03D_20230310 | MW19-03D_20231013 | MW19-03D_20231201 |
| | | | | Lab Sample ID | SUS172 | TWS413 | UQJ840 | VGT139 | XHD243 | XTQ409 |
| | | | | Lab Job Number | C2F3070 | C2S3993 | C2AN796 | C370496 | C3V9312 | C3AS035 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 90 | 93 | 86 | 83 | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.4 | < 1.0 | < 1.0 | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 91 | 95 | 87 | 84 | 86 | 81 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.16 | 2.21 | 2.08 | 2.02 | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.14 | 2.22 | 2.07 | 2.12 | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.1 | 7.4 | 7.4 | 7.6 | 5.6 | 7.6 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.64 | < 0.50 | 0.72 | < 0.50 | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 210 | 200 | 210 | 220 | 230 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 70 | 71 | 68 | 68 | 70 | 69 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.470 | 0.230 | 0.240 | 2.42 | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.0920 | 0.162 | 0.0200 | -0.0500 | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.342 | -0.0890 | -0.230 | -0.301 | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.012 | 0.015 | < 0.010 | < 0.010 | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.074 | 0.083 | 0.083 | 0.083 | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.96 | 8.19 | 8.09 | 8.04 | 7.97 | 7.93 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.05 | 8.03 | 8.07 | 8.09 | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.30 | 8.28 | 8.32 | 8.34 | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.2 | 7.9 | 7.7 | 8.2 | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 5.3 | 4.8 | 5.8 | 5.2 | 4.6 | 4.9 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 120 | 120 | 120 | 100 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.75 | < 0.50 | 0.50 | 0.96 | < 0.50 | 1.1 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 18 | 15 | 22 | 11 | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 6.8 | 1.6 | 1.2 | 10 | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-09S | MW19-09S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-03-14 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2019-07-10 | 2020-04-01 |
| | | | | Background | Background | Background | Background | Background | | |
| | | | | Sample ID | MW19-03D_20240314 | MW19-03D_20240702 | MW19-03D_20241210 | MW19-03D_20250612 | 19X490884-338553 | 20X589937-1062422 |
| | | | | Lab Sample ID | YQA667 | ZQA458 | HA2403274-010 | HA2501804-003 | 338553 | 1062422 |
| | | | | Lab Job Number | C476965 | C4K2602 | HA2403274 | HA2501804 | 19X490884 | 20X589937 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | 25.5 | - | 109 | 99 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | <1.0 | - | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | <1.0 | - | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 87 | 83 | 20.9 | 90.0 | 109 | 99 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | < 0.0050 | 0.0084 | 0.16 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | 1.78 | - | 2.56 | 2.25 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | 25.5 | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | 1.68 | - | 3.41 | 2.73 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | < 10 | < 10 | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6.2 | 7.3 | 10.1 | 7.78 | 7 | 5 |
| **Color** | | | | tcu | - | - | 226 | - | < 5 | 12 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | 0.58 | 0.64 | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 220 | 220 | 189 | 213 | 250 | 218 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | 0.094 | - | 0.51 | 0.33 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 69 | 68 | 52.3 | 69.6 | 109 | 94.0 |
| **Hydroxide (OH)** | | | | mg/l | - | - | < 1.0 | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | 94.4 | - | 14.1 | 9.6 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | -2.78 | - | 0.04 | -0.12 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | -3.03 | - | -0.28 | -0.44 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | 0.054 | < 0.020 | < 0.05 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | 0.0540 | - | < 0.05 | 0.06 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | < 0.010 | < 0.010 | < 0.05 | 0.06 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | 0.0555 | - | 0.02 | < 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.10 | 7.62 | 6.12 | 7.96 | 8.04 | 8.00 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | 8.90 | - | 8.00 | 8.12 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | 9.15 | - | 8.32 | 8.44 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | < 0.004 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | 0.0015 | 0.0027 | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | 9.0 | 7.5 |
| **Sulphate** | | | 4 - 22 | mg/l | 5.3 | 4.9 | 51.3 | 4.40 | 9 | 6 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 100 | 120 | 112 | 120 | 152 | 126 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | < 0.050 | < 0.050 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.77 | 0.71 | 0.97 | - | 1.4 | 5.5 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | 99.9 | - | 515 | 2770 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S |
| | | | | Sample Date | 2020-05-28 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-25 | 2021-03-25 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X606404-1156933 | 20X606404-1156941 | MW19-09S_20200915 | MW19-09S_20201216 | DUP3_20210325 | MW19-09S_20210325 |
| | | | | Lab Sample ID | 1156933 | 1156941 | NQU658 | OLM142 | PEB972 | PEB978 |
| | | | | Lab Job Number | 20X606404 | 20X606404 | C0O2716 | C0X8319 | C179966 | C179966 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 91 | 92 | 94 | 140 | 160 | 140 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | 1.2 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 91 | 92 | 95 | 140 | 160 | 140 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.18 | 2.20 | 2.21 | 3.89 | 4.02 | 3.68 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.51 | 2.36 | 2.04 | 3.64 | 2.46 | 3.02 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 3 | 4 | 24 | 50 | 21 | 33 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6 | 6 | 5.3 | 8.7 | 8.1 | 8.1 |
| **Color** | | | | tcu | 16 | 27 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.5 | 0.8 | < 0.50 | 0.67 | 0.78 | 0.70 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 232 | 233 | 200 | 350 | 350 | 340 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.28 | 0.30 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 83.4 | 78.7 | 69 | 140 | 88 | 110 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 7.0 | 3.6 | 4.00 | 3.32 | 24.1 | 9.85 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.25 | -0.24 | -0.0470 | 0.168 | 0.0100 | 0.275 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.57 | -0.56 | -0.298 | -0.0810 | -0.240 | 0.0250 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.05 | 0.073 | 0.090 | 0.069 | 0.066 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.05 | 0.073 | 0.090 | 0.069 | 0.066 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.02 | 0.02 | 0.017 | 0.011 | 0.014 | 0.014 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.95 | 7.99 | 7.98 | 7.76 | 7.74 | 7.96 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.20 | 8.23 | 8.02 | 7.59 | 7.73 | 7.69 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.52 | 8.55 | 8.27 | 7.84 | 7.98 | 7.94 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.004 | 0.0011 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.4 | 9.2 | 9.9 | 12 | 10 | 10 |
| **Sulphate** | | | 4 - 22 | mg/l | 9 | 9 | 7.8 | 37 | 31 | 31 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 121 | 118 | 120 | 220 | 190 | 200 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | < 0.4 | < 0.4 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.5 | < 0.5 | < 50 | < 50 | < 50 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1470 | 3390 | 4500 | 6800 | 1600 | 3000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 3440 | 7020 | 1000 | 1000 | >1000 | >1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-03 | 2022-09-28 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-09S_20210609 | MW19-09S_20211005 | MW19-09S_20211213 | MW19-09S_20220329 | MW19-09S_20220603 | DUP1_20220928 |
| | | | | Lab Sample ID | PUQ380 | QWF777 | RJM392 | SFM286 | SUS173 | TWS411 |
| | | | | Lab Job Number | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 97 | 140 | 100 | 100 | 190 | 120 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.7 | 1.4 | 1.3 | 1.3 | 2.2 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 98 | 140 | 100 | 100 | 190 | 120 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.051 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.33 | 3.73 | 2.51 | 2.51 | 5.09 | 2.91 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.32 | 2.46 | 2.44 | 2.53 | 4.81 | 2.83 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 39 | 26 | 63 | 22 | 55 | 46 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6.1 | 8.5 | 7.3 | 6.9 | 8.2 | 7.2 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.75 | 0.58 | < 0.50 | 0.90 | 2.1 | 0.74 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 370 | 220 | 250 | 480 | 270 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 80 | 86 | 86 | 92 | 190 | 100 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.220 | 20.5 | 1.41 | 0.400 | 2.83 | 1.39 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.0560 | 0.311 | 0.250 | 0.257 | 0.509 | 0.506 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.195 | 0.0600 | -0.00100 | 0.00600 | 0.259 | 0.256 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.022 | 0.019 | 0.015 | 0.013 | 0.011 | 0.014 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.01 | 8.09 | 8.15 | 8.14 | 7.85 | 8.30 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.95 | 7.78 | 7.90 | 7.89 | 7.35 | 7.79 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.21 | 8.03 | 8.16 | 8.14 | 7.60 | 8.04 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.8 | 12 | 9.5 | 8.3 | 12 | 10 |
| **Sulphate** | | | 4 - 22 | mg/l | 9.2 | 29 | 11 | 13 | 49 | 14 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 130 | 190 | 140 | 140 | 280 | 160 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 50 | < 50 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 5800 | 5200 | 47000 | 14000 | 18000 | 3600 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 870 | 1000 | 1000 | 1000 | 1200 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-10S | MW19-10S | MW19-10S |
| | | | | Sample Date | 2022-09-28 | 2022-12-16 | 2023-03-10 | 2019-07-10 | 2020-06-01 | 2020-12-16 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-09S_20220928 | MW19-09S_20221216 | MW19-09S_20230310 | 19X490884-338565 | 20X608058-1165168 | MW19-10S_20201216 |
| | | | | Lab Sample ID | TWS414 | UQJ841 | VGT140 | 338565 | 1165168 | OLM143 |
| | | | | Lab Job Number | C2S3993 | C2AN796 | C370496 | 19X490884 | 20X608058 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 120 | 100 | 98 | 89 | 66 | 110 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.6 | 1.2 | 1.1 | < 10 | < 10 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | < 5 | < 5 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 120 | 100 | 100 | 89 | 66 | 110 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | 0.19 | < 0.03 | < 0.03 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.85 | 2.52 | 2.48 | 5.17 | 4.29 | 6.35 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.82 | 2.68 | 2.61 | 5.26 | 5.67 | 5.70 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 36 | 51 | 60 | - | 8 | 86 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.2 | 7.0 | 7.1 | 13 | 12 | 18 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5 | < 5 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.81 | 0.51 | 1.6 | - | 3.9 | 1.5 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 270 | 240 | 250 | 512 | 460 | 550 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | 0.14 | < 0.12 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 99 | 95 | 94 | 204 | 226 | 230 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.530 | 3.08 | 2.55 | 0.9 | 13.8 | 5.39 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.360 | 0.238 | 0.190 | -0.95 | -1.22 | -0.372 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.109 | -0.0130 | -0.0610 | -1.27 | -1.54 | -0.620 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.66 | 0.48 | 0.78 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.66 | 0.48 | 0.78 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.010 | < 0.010 | < 0.05 | < 0.05 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.016 | 0.015 | 0.016 | 0.02 | 0.03 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.16 | 8.11 | 8.07 | 6.93 | 6.76 | 7.16 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.80 | 7.87 | 7.88 | 7.88 | 7.98 | 7.53 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.05 | 8.12 | 8.13 | 8.20 | 8.30 | 7.78 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | - | < 0.004 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.8 | 9.4 | 8.5 | 11.4 | 14.4 | 14 |
| **Sulphate** | | | 4 - 22 | mg/l | 14 | 13 | 14 | 143 | 125 | 170 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 160 | 150 | 140 | 316 | 288 | 380 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | < 0.4 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 50 | 2.1 | 3.9 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 4600 | 11000 | 6100 | - | 11500 | 9600 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 1000 | 4640 | 6080 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-11D | MW19-11D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-03-29 | 2022-06-02 | 2022-12-16 | 2023-03-10 | 2019-02-11 | 2020-06-01 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-10S_20220329 | MW19-10S_20220602 | MW19-10S_20221216 | MW19-10S_20230310 | MW19-11D_20190211 | 20X608058-1165165 |
| | | | | Lab Sample ID | SFM287 | SUK073 | UQJ842 | VGT141 | 9894251 | 1165165 |
| | | | | Lab Job Number | C282980 | C2F1732 | C2AN796 | C370496 | 19X436534 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 77 | 78 | 67 | 63 | 1080 | 1060 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 78 | 78 | 67 | 63 | 1080 | 1060 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 8.26 | 10.3 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 3.68 | 3.89 | 3.16 | 3.63 | 39.0 | 37.3 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 3.57 | 3.68 | 3.30 | 3.33 | 36.9 | 42.2 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 29 | 66 | 58 | 67 | - | 98 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 11 | 12 | 9.4 | 13 | 41 | 40 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - | 39 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.5 | 1.6 | 1.2 | 1.7 | - | 48.0 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 380 | 390 | 300 | 380 | 2770 | 2960 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | 0.34 | < 0.12 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 150 | 150 | 130 | 130 | 1540 | 1750 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.52 | 2.77 | 2.17 | 4.31 | 2.8 | 6.1 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.787 | -0.492 | -0.713 | -0.869 | 1.00 | 1.01 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.04 | -0.742 | -0.963 | -1.12 | 0.68 | 0.69 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 1.1 | 1.1 | 0.80 | 1.3 | 1.48 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 1.1 | 1.1 | 0.80 | 1.3 | 1.48 | < 0.05 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.010 | < 0.05 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.010 | 0.014 | 0.016 | 0.017 | 0.02 | 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.06 | 7.34 | 7.26 | 7.13 | 7.02 | 6.99 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.85 | 7.84 | 7.98 | 8.00 | 6.02 | 5.98 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.10 | 8.09 | 8.23 | 8.25 | 6.34 | 6.30 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | < 0.004 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 11 | 14 | 12 | 6.4 | 8.8 |
| **Sulphate** | | | 4 - 22 | mg/l | 84 | 93 | 72 | 92 | 775 | 721 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 230 | 240 | 200 | 220 | 2170 | 2200 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | 15.1 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 50 | 11 | < 50 | 25.4 | 48.7 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 7300 | 4900 | 12000 | 7100 | - | 313 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 1000 | 1000 | 57.6 | 289 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-11D_20200915 | MW19-11D_20201216 | MW19-11D_20210323 | MW19-11D_20210607 | MW19-11D_20211005 | MW19-11D_20211213 |
| | | | | Lab Sample ID | NQU665 | OLM145 | PDR023 | PUI335 | QWF780 | RJM394 |
| | | | | Lab Job Number | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 1000 | 870 | 890 | 880 | 910 | 890 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.2 | < 1.0 | 1.4 | 3.1 | 1.6 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 1000 | 870 | 890 | 880 | 910 | 900 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 9.3 | 8.7 | 8.6 | 11 | 9.1 | 9.4 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 36.7 | 32.2 | 31.5 | 30.6 | 31.0 | 28.0 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 38.0 | 35.4 | 42.1 | 36.0 | 33.6 | 28.8 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 180 | 120 | 110 | 100 | 110 | 94 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 42 | 42 | 39 | 36 | 38 | 29 |
| **Color** | | | | tcu | 32 | 21 | 24 | 21 | 24 | 20 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 33 | 28 | 27 | 23 | 24 | 23 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2900 | 2600 | 2500 | 2500 | 2500 | 2100 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1600 | 1500 | 1800 | 1500 | 1400 | 1200 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.69 | 4.78 | 14.5 | 8.07 | 4.01 | 1.45 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.01 | 1.12 | 1.08 | 1.22 | 1.54 | 1.21 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.769 | 0.880 | 0.840 | 0.976 | 1.29 | 0.964 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 1.7 | 0.26 | 0.12 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 1.8 | 0.27 | 0.14 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.012 | 0.047 | 0.014 | 0.012 | < 0.010 | 0.058 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.97 | 7.15 | 7.04 | 7.23 | 7.55 | 7.27 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 5.96 | 6.03 | 5.95 | 6.01 | 6.01 | 6.07 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.20 | 6.27 | 6.20 | 6.25 | 6.26 | 6.31 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | 0.0011 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 4.4 | 7.5 | 7.8 | 7.5 | 7.4 | 6.9 |
| **Sulphate** | | | 4 - 22 | mg/l | 750 | 650 | 610 | 580 | 560 | 440 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 2100 | 1900 | 2000 | 1900 | 1800 | 1600 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 65 | 29 | 27 | 30 | 27 | 26 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 160 | 210 | 68 | 190 | 380 | 120 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 300 | 130 | 110 | 120 | 150 | 140 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D |
| | | | | Sample Date | 2022-03-28 | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-11D_20220328 | MW19-11D_20220603 | MW19-11D_20220929 | MW19-11D_20221216 | MW19-11D_20230310 | MW19-11D_20231012 |
| | | | | Lab Sample ID | SFM289 | SUS175 | TWL729 | UQJ844 | VGT143 | XHD245 |
| | | | | Lab Job Number | C282980 | C2F3070 | C2S2706 | C2AN796 | C370496 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 900 | 690 | 790 | 620 | 760 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.0 | 2.2 | 1.9 | 1.6 | 1.3 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 900 | 700 | 790 | 620 | 760 | 740 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 7.0 | 7.6 | 5.2 | 4.6 | 6.0 | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 27.3 | 21.3 | 23.0 | 17.8 | 23.5 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 26.3 | 23.4 | 23.0 | 17.4 | 24.4 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 74 | 88 | 84 | 67 | 83 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 28 | 23 | 21 | 18 | 27 | 22 |
| **Color** | | | | tcu | 20 | 19 | 19 | 14 | 17 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 19 | 20 | 16 | 16 | 16 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2200 | 1800 | 1900 | 1500 | 2000 | 2000 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1100 | 1000 | 990 | 750 | 1100 | 1000 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.87 | 4.72 | 0.150 | 1.08 | 1.73 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.980 | 1.31 | 1.22 | 1.06 | 1.10 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.735 | 1.06 | 0.971 | 0.818 | 0.851 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | 0.13 | < 0.050 | < 0.050 | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | 0.13 | < 0.050 | < 0.050 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.012 | < 0.010 | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.07 | 7.54 | 7.40 | 7.43 | 7.27 | 7.05 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.09 | 6.23 | 6.19 | 6.37 | 6.18 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.34 | 6.47 | 6.43 | 6.62 | 6.42 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 7.4 | 6.5 | 8.2 | 7.7 | 7.7 | - |
| **Sulphate** | | | 4 - 22 | mg/l | 400 | 320 | 320 | 230 | 360 | 320 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1500 | 1200 | 1300 | 980 | 1300 | 1410 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 23 | 26 | 19 | 17 | 18 | 18 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 620 | 230 | 700 | 180 | 180 | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 130 | 160 | 130 | 170 | 160 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11M |
| | | | | Sample Date | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2019-07-10 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-11-D_20231201 | MW19-11D_20240312 | MW19-11D_20240702 | MW19-11D_20241210 | MW19-11D_20250611 | 19X490884-338567 |
| | | | | Lab Sample ID | XTQ411 | YPJ125 | ZQA460 | HA2403274-016 | HA2501779-008 | 338567 |
| | | | | Lab Job Number | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 | 19X490884 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | 701 | - | 664 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | <1.0 | - | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | <1.0 | - | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 550 | 630 | 710 | 575 | 632 | 664 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | 4.31 | 5.00 | 3.20 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | 15.0 | - | 23.9 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | 701 | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | 14.6 | - | 28.3 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | 59 | 58 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 15 | 19 | 24 | 13.3 | 14.6 | 26 |
| **Color** | | | | tcu | - | - | - | 568 | - | 36 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | 14.2 | 13.3 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1500 | 1500 | 2000 | 1220 | 1420 | 1810 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | < 0.100 | - | 0.23 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 760 | 830 | 1000 | 611 | 712 | 1170 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | < 1.0 | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | 97.3 | - | 8.4 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | 0.317 | - | 0.75 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | 0.069 | - | 0.43 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | < 0.100 | < 0.100 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | < 0.112 | - | 0.08 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | < 0.050 | 0.061 | 0.08 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | 0.0029 | - | 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.25 | 7.29 | 7.29 | 6.78 | 7.02 | 7.07 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | 6.46 | - | 6.32 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | 6.71 | - | 6.64 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | 0.0024 | 0.0015 | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | 3.8 |
| **Sulphate** | | | 4 - 22 | mg/l | 180 | 210 | 310 | 152 | 173 | 474 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 910 | 1000 | 1300 | 730 | 933 | 1450 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | 5.45 | 6.85 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 17 | 16 | 18 | 15.3 | - | 48.6 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | 92.5 | - | 1080 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-06-01 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X608058-1165164 | MW19-11M_20200915 | MW19-11M_20201216 | MW19-11M_20210323 | MW19-11M_20210607 | MW19-11M_20211005 |
| | | | | Lab Sample ID | 1165164 | NQU664 | OLM144 | PDR022 | PUI334 | QWF779 |
| | | | | Lab Job Number | 20X608058 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 695 | 1100 | 680 | 580 | 530 | 650 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | 1.2 | < 1.0 | < 1.0 | 1.2 | 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 695 | 1100 | 680 | 580 | 540 | 650 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 3.84 | 12 | 5.4 | 4.1 | 3.0 | 5.4 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 24.8 | 40.8 | 24.7 | 19.5 | 17.6 | 19.8 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 26.8 | 44.7 | 26.6 | 24.7 | 18.8 | 24.8 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 73 | 160 | 170 | 97 | 94 | 100 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 27 | 48 | 33 | 25 | 23 | 26 |
| **Color** | | | | tcu | 37 | 29 | 18 | 16 | 18 | 22 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 32.8 | 32 | 23 | 18 | 17 | 21 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2070 | 3200 | 2100 | 1500 | 1500 | 1700 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.78 | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1130 | 1900 | 1200 | 1100 | 830 | 1100 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.8 | 4.63 | 3.69 | 11.8 | 3.36 | 11.3 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.68 | 1.21 | 0.915 | 0.819 | 0.978 | 0.992 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.36 | 0.971 | 0.671 | 0.574 | 0.733 | 0.747 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | 3.1 | 1.7 | 0.39 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.10 | < 0.050 | 3.2 | 1.7 | 0.40 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.10 | < 0.010 | 0.051 | 0.025 | 0.012 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.01 | < 0.010 | < 0.010 | < 0.010 | 0.022 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.00 | 7.06 | 7.14 | 7.10 | 7.39 | 7.22 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.32 | 5.85 | 6.23 | 6.28 | 6.41 | 6.23 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.64 | 6.09 | 6.47 | 6.53 | 6.65 | 6.48 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 5.9 | 5.7 | 5.6 | 4.7 | 5.7 | 5.0 |
| **Sulphate** | | | 4 - 22 | mg/l | 489 | 820 | 480 | 340 | 300 | 290 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1450 | 2400 | 1500 | 1200 | 1000 | 1200 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 7.8 | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 32.9 | 35 | 44 | 33 | 19 | 27 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1660 | 150 | 1100 | 230 | 450 | 1400 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 170 | 210 | 1000 | 150 | 1000 | 280 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M |
| | | | | Sample Date | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-11M_20211213 | MW19-11M_20220328 | MW19-11M_20220603 | MW19-11M_20220929 | MW19-11M_20221216 | MW19-11M_20230310 |
| | | | | Lab Sample ID | RJM393 | SFM288 | SUS174 | TWL728 | UQJ843 | VGT142 |
| | | | | Lab Job Number | C1Z2957 | C282980 | C2F3070 | C2S2706 | C2AN796 | C370496 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 400 | 410 | 470 | 480 | 390 | 350 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | 1.3 | 1.5 | 1.3 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 400 | 410 | 480 | 480 | 390 | 350 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 2.0 | 1.4 | 1.4 | 0.91 | 1.3 | 0.82 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 10.3 | 10.4 | 13.5 | 13.0 | 10.2 | 9.10 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 11.3 | 10.4 | 14.2 | 12.8 | 11.4 | 5.70 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 73 | 240 | 76 | 110 | 240 | 140 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 11 | 11 | 14 | 11 | 9.0 | 9.3 |
| **Color** | | | | tcu | 23 | 16 | 16 | 28 | 15 | 13 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 12 | 15 | 15 | 12 | 12 | 11 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 850 | 940 | 1200 | 1100 | 900 | 870 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 500 | 460 | 620 | 560 | 500 | 260 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 4.52 | 0.140 | 2.53 | 0.620 | 5.84 | 23.0 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.715 | 0.467 | 0.936 | 0.957 | 0.887 | 0.374 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.468 | 0.220 | 0.689 | 0.710 | 0.639 | 0.125 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.49 | 0.30 | 0.14 | 0.12 | 0.76 | 0.15 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.53 | 0.31 | 0.17 | 0.13 | 0.78 | 0.17 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.046 | 0.016 | 0.031 | 0.014 | 0.016 | 0.021 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.050 | 0.011 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.39 | 7.16 | 7.47 | 7.52 | 7.56 | 7.35 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.68 | 6.70 | 6.53 | 6.57 | 6.67 | 6.97 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.92 | 6.94 | 6.78 | 6.81 | 6.92 | 7.22 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 5.0 | 4.5 | 5.3 | 5.6 | 5.8 | 4.7 |
| **Sulphate** | | | 4 - 22 | mg/l | 98 | 94 | 170 | 150 | 100 | 87 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 580 | 560 | 760 | 710 | 580 | 430 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 26 | 55 | 21 | 18 | 43 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 340 | 3000 | 1400 | 2800 | 2000 | 980 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 630 | 1000 | 1000 | 1000 | 1000 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M |
| | | | | Sample Date | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-07-02 | 2024-12-10 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-11M_20231012 | MW19-11M_20231201 | MW19-11M_20240312 | DUP 1_20240702 | MW19-11M_20240702 | MW19-11M_20241210 |
| | | | | Lab Sample ID | XHD244 | XTQ410 | YPJ124 | ZQA473 | ZQA459 | HA2403274-015 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | C4K2602 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | - | 457 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | - | <1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | <1.0 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 480 | 340 | 230 | 430 | 440 | 374 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | - | 1.27 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | - | 8.98 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | 457 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | - | 7.96 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | - | 92 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.0 | 6.3 | 5.4 | 13 | 12 | 7.60 |
| **Color** | | | | tcu | - | - | - | - | - | 19800 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | - | 12.1 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1200 | 820 | 510 | 1200 | 1200 | 756 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | 0.058 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 630 | 410 | 370 | 580 | 550 | 347 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | - | 88.6 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | - | 0.776 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | - | 0.527 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | - | 0.264 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | - | 0.280 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | - | 0.016 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | - | 0.0029 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.40 | 7.17 | 7.46 | 7.20 | 7.25 | 7.60 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | - | 6.82 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | - | 7.07 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | 0.0029 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 120 | 46 | 22 | 140 | 140 | 61.1 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 730 | 490 | 370 | 630 | 260 | 407 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | 3.89 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 18 | 16 | < 50 | 160 | 110 | 31.6 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | - | < 0.10 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-11M | MW19-11M | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2025-06-11 | 2025-06-11 | 2019-07-10 | 2019-07-10 | 2020-06-01 | 2020-06-01 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP1_20250611 | MW19-11M_20250611 | 19X490884-338569 | 19X490884-338570 | 20X608058-1165158 | 20X608058-1165163 |
| | | | | Lab Sample ID | HA2501779-013 | HA2501779-007 | 338569 | 338570 | 1165158 | 1165163 |
| | | | | Lab Job Number | HA2501779 | HA2501779 | 19X490884 | 19X490884 | 20X608058 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | 133 | 129 | 99 | 99 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | < 10 | < 10 | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | < 5 | < 5 | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 433 | 441 | 133 | 129 | 99 | 99 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 1.93 | 1.83 | < 0.03 | < 0.03 | < 0.03 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | 3.80 | 3.70 | 2.89 | 2.91 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | 4.04 | 3.75 | 3.10 | 3.21 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 68 | 67 | - | - | 6 | < 3 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.49 | 7.78 | 7 | 7 | 7 | 7 |
| **Color** | | | | tcu | - | - | < 5 | < 5 | 37 | < 5 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 10.2 | 10.2 | - | - | 3.2 | 2.5 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 946 | 960 | 364 | 357 | 303 | 304 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | 0.24 | 0.17 | 0.14 | 0.14 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 495 | 439 | 176 | 156 | 135 | 140 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | 3.1 | 0.7 | 3.6 | 4.9 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | -0.42 | -0.55 | -0.87 | -0.85 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | -0.74 | -0.87 | -1.19 | -1.17 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.103 | 0.148 | 0.08 | 0.07 | 0.06 | 0.07 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | 0.08 | 0.07 | 0.06 | 0.07 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.062 | 0.066 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | 0.02 | 0.02 | 0.02 | 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.92 | 6.93 | 7.29 | 7.27 | 7.12 | 7.12 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | 7.71 | 7.82 | 7.99 | 7.97 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | 8.03 | 8.14 | 8.31 | 8.29 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | < 0.004 | < 0.004 |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0010 | < 0.0010 | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | 8.7 | 8.9 | 9.6 | 10.2 |
| **Sulphate** | | | 4 - 22 | mg/l | 80.6 | 83.8 | 45 | 44 | 34 | 35 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 622 | 627 | 212 | 201 | 160 | 163 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 2.97 | 3.14 | - | - | 0.5 | 0.5 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | - | 1.8 | 1.2 | 3.3 | 2.5 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | 1040 | 1000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | 919 | 789 | 2520 | 2680 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-17 | 2020-09-17 | 2020-12-16 | 2020-12-16 | 2021-03-23 | 2021-06-07 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP 3_20200917 | MW19-12D_20200917 | DUP3_20201216 | MW19-12D_20201216 | MW19-12D_20210323 | MW19-12D_20210607 |
| | | | | Lab Sample ID | NRG096 | NRG093 | OLM172 | OLM159 | PDR026 | PUI336 |
| | | | | Lab Job Number | C0O4512 | C0O4512 | C0X8319 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 100 | 90 | 120 | 130 | 110 | 110 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 100 | 90 | 120 | 130 | 110 | 110 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 3.26 | 3.05 | 3.73 | 3.93 | 3.55 | 3.60 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 3.04 | 3.01 | 3.56 | 3.55 | 3.60 | 3.33 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 24 | < 20 | < 20 | 23 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6.1 | 6.3 | 11 | 11 | 13 | 13 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.72 | 0.61 | < 0.50 | 0.55 | 0.70 | 0.79 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 310 | 310 | 360 | 350 | 330 | 340 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 130 | 130 | 160 | 150 | 160 | 140 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.49 | 0.660 | 2.33 | 5.08 | 0.700 | 3.90 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.548 | -0.610 | -0.323 | -0.289 | -0.640 | -0.602 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.798 | -0.860 | -0.573 | -0.538 | -0.890 | -0.852 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.13 | 0.13 | 0.14 | 0.13 | 0.095 | 0.28 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.13 | 0.13 | 0.15 | 0.13 | 0.095 | 0.28 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | 0.011 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.024 | 0.025 | 0.011 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.24 | 7.23 | 7.29 | 7.31 | 7.04 | 7.13 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.79 | 7.84 | 7.62 | 7.60 | 7.68 | 7.73 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.04 | 8.09 | 7.87 | 7.85 | 7.93 | 7.98 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 12 | 12 | 13 | 12 | 11 |
| **Sulphate** | | | 4 - 22 | mg/l | 52 | 51 | 44 | 47 | 49 | 53 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 190 | 180 | 210 | 220 | 210 | 210 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | 1.0 | < 5.0 | < 5.0 | 1.4 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 400 | 560 | 300 | 170 | 80 | 1000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 360 | 210 | 370 | 390 | 220 | 500 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-06 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-30 | 2022-09-30 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-12D_20211006 | MW19-12D_20211213 | MW19-12D_20220329 | MW19-12D_20220602 | DUP 3_20220930 | MW19-12D_20220930 |
| | | | | Lab Sample ID | QWS509 | RJM500 | SFM295 | SUK082 | TXM815 | TXM810 |
| | | | | Lab Job Number | C1T3325 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2S7487 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 100 | 140 | 150 | 120 | 190 | 190 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 100 | 140 | 150 | 120 | 190 | 190 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.057 | 0.057 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 3.39 | 4.39 | 4.16 | 3.94 | 5.49 | 5.45 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 3.30 | 4.21 | 3.99 | 3.75 | 5.36 | 5.34 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | 32 | 37 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 14 | 13 | 12 | 14 | 6.8 | 7.1 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | 10 | < 5.0 | 19 | 20 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.50 | 1.3 | 1.7 | 1.1 | 7.3 | 7.4 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 330 | 390 | 400 | 380 | 480 | 480 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 140 | 180 | 170 | 160 | 240 | 240 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.35 | 2.09 | 2.09 | 2.47 | 1.20 | 1.02 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.607 | -0.0850 | -0.193 | -0.0990 | 0.413 | 0.463 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.857 | -0.334 | -0.443 | -0.349 | 0.164 | 0.214 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.50 | 0.56 | 0.39 | 0.48 | 0.62 | 0.64 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.50 | 0.56 | 0.39 | 0.48 | 0.62 | 0.64 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.14 | 7.41 | 7.30 | 7.54 | 7.66 | 7.71 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.75 | 7.49 | 7.49 | 7.64 | 7.24 | 7.25 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.00 | 7.74 | 7.74 | 7.89 | 7.49 | 7.49 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 11 | 8.3 | 11 | 10 | 10 |
| **Sulphate** | | | 4 - 22 | mg/l | 44 | 53 | 43 | 56 | 66 | 65 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 200 | 250 | 230 | 230 | 310 | 310 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.0 | 2.5 | 1.8 | 1.5 | 7.2 | 8.6 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 120 | 210 | 1000 | 54 | 1300 | 320 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 250 | 85 | 140 | 52 | 210 | 21 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
| | | | | Sample Date | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-12D_20221216 | MW19-12D_20230313 | MW19-12D_20231012 | MW19-12D_20231201 | MW19-12D_20240312 | MW19-12D_20240702 |
| | | | | Lab Sample ID | UQJ847 | VHF975 | XHD248 | XTQ414 | YPJ127 | ZQA463 |
| | | | | Lab Job Number | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 150 | 140 | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 150 | 140 | 120 | 120 | 130 | 160 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | - | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.43 | 3.77 | - | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.49 | 3.95 | - | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | - | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.6 | 7.2 | 9.3 | 8.6 | 6.1 | 5.1 |
| **Color** | | | | tcu | < 5.0 | 5.9 | - | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.0 | 2.3 | - | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 410 | 380 | 400 | 400 | 350 | 420 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 190 | 180 | 170 | 170 | 170 | 190 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.670 | 2.33 | - | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.163 | 0.111 | - | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.0860 | -0.139 | - | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.32 | 0.19 | - | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.32 | 0.34 | - | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.14 | - | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.026 | 0.019 | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.60 | 7.60 | 7.42 | 7.23 | 7.65 | 7.66 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.44 | 7.49 | - | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.69 | 7.74 | - | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 10 | 8.6 | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 51 | 34 | 44 | 44 | 23 | 31 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 250 | 210 | 205 | 230 | 190 | 250 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.2 | 2.8 | < 50 | 1.7 | < 5.0 | 5.7 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 250 | 270 | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 53 | 54 | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12S | MW19-12S |
| | | | | **Sample Date** | 2024-12-10 | 2024-12-10 | 2025-06-12 | 2025-06-12 | 2019-07-10 | 2020-12-16 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | DUP 1_20241210 | MW19-12D_20241210 | DUP3_20250612 | MW19-12D_20250612 | 19X490884-338568 | MW19-12S_20201216 |
| | | | | **Lab Sample ID** | HA2403274-027 | HA2403274-011 | HA2501804-005 | HA2501804-008 | 338568 | OLM146 |
| | | | | **Lab Job Number** | HA2403274 | HA2403274 | HA2501804 | HA2501804 | 19X490884 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 216 | 185 | - | - | 136 | 130 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | <1.0 | <1.0 | - | - | < 10 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | <1.0 | <1.0 | - | - | < 5 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 177 | 178 | 172 | 174 | 136 | 140 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.0050 | < 0.0050 | < 0.0050 | 0.0089 | 0.03 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 8.71 | 8.86 | - | - | 3.85 | 4.71 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | 216 | 217 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.95 | 4.96 | - | - | 4.27 | 4.75 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 10 | < 10 | 14 | 12 | - | 110 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 64.3 | 65.4 | 4.07 | 3.65 | 7 | 18 |
| **Color** | | | | tcu | 65.9 | 63.6 | - | - | < 5 | 9.2 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.15 | 1.12 | 4.26 | 4.34 | - | 3.8 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 845 | 812 | 387 | 390 | 372 | 460 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.493 | 0.523 | - | - | 0.21 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 195 | 194 | 180 | 181 | 175 | 220 |
| **Hydroxide (OH)** | | | | mg/l | < 1.0 | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 56.8 | 56.0 | - | - | 5.2 | 0.420 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.415 | 0.511 | - | - | -0.32 | 0.164 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.167 | 0.264 | - | - | -0.64 | -0.0850 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.020 | < 0.020 | 0.090 | 0.084 | < 0.05 | 0.34 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.0224 | < 0.0224 | - | - | < 0.05 | 0.34 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.05 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.0492 | 0.0383 | - | - | 0.02 | 0.013 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.84 | 7.91 | 7.88 | 7.37 | 7.38 | 7.56 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.42 | 7.40 | - | - | 7.70 | 7.39 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.67 | 7.65 | - | - | 8.02 | 7.64 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0043 | 0.0044 | 0.0019 | 0.0026 | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | 7.8 | 8.5 |
| **Sulphate** | | | 4 - 22 | mg/l | 160 | 165 | 21.2 | 20.0 | 45 | 72 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 456 | 329 | 208 | 234 | 221 | 280 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.083 | 0.061 | 0.317 | 0.285 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.62 | 1.60 | - | - | 2.8 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | 2200 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 11.7 | 10.6 | - | - | 2460 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2022-03-29 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-12-01 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-12S_20211213 | MW19-12S_20220329 | MW19-12S_20220930 | MW19-12S_20221216 | MW19-12S_20230313 | MW19-12S_20231201 |
| | | | | Lab Sample ID | RJM396 | SFM294 | TXM809 | UQJ846 | VHF974 | XTQ413 |
| | | | | Lab Job Number | C1Z2957 | C282980 | C2S7487 | C2AN796 | C372847 | C3AS035 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 180 | 200 | 210 | 190 | 150 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.3 | < 1.0 | 1.2 | 1.0 | 1.3 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 190 | 200 | 210 | 200 | 160 | 180 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | 0.059 | 0.14 | 0.053 | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.59 | 4.84 | 5.87 | 4.98 | 3.81 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.55 | 4.61 | 6.31 | 5.13 | 3.96 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 63 | 86 | 61 | 53 | 32 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.9 | 6.3 | 5.8 | 4.6 | 4.5 | 8.2 |
| **Color** | | | | tcu | 21 | 20 | 41 | 16 | 15 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 5.2 | 5.8 | 15 | 5.6 | 3.7 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 410 | 450 | 560 | 460 | 380 | 500 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 200 | 210 | 280 | 230 | 180 | 230 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.440 | 2.43 | 3.61 | 1.48 | 1.93 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.548 | 0.367 | 0.649 | 0.516 | 0.528 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.299 | 0.117 | 0.400 | 0.266 | 0.278 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.14 | 0.42 | < 0.050 | 0.18 | 0.46 | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.14 | 0.42 | < 0.050 | 0.18 | 0.46 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.025 | 0.022 | 0.019 | 0.018 | 0.018 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.86 | 7.63 | 7.77 | 7.74 | 7.95 | 7.67 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.31 | 7.26 | 7.13 | 7.22 | 7.42 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.56 | 7.51 | 7.37 | 7.47 | 7.67 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.0 | 7.9 | 13 | 7.8 | 7.4 | - |
| **Sulphate** | | | 4 - 22 | mg/l | 31 | 29 | 71 | 44 | 26 | 40 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 250 | 260 | 340 | 280 | 210 | 300 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 7.6 | 10 | 15 | 7.5 | 4.5 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 780 | 1400 | 660 | 860 | 63 | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 520 | 940 | 210 | 520 | 52 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-13D |
| | | | | **Sample Date** | 2024-03-12 | 2024-03-12 | 2024-07-02 | 2024-12-18 | 2025-06-12 | 2019-11-19 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | DUP2_20240312 | MW19-12S_20240312 | MW19-12S_20240702 | MW19-12S_20241218 | MW19-12S_20250612 | 19X546170-731457 |
| | | | | **Lab Sample ID** | YPJ123 | YPJ126 | ZQA462 | HA2403375-002 | HA2501804-007 | 731457 |
| | | | | **Lab Job Number** | C473698 | C473698 | C4K2602 | HA2403375 | HA2501804 | 19X546170 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | - | 80 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | - | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 120 | 120 | 210 | 164 | 210 | 80 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | 0.0139 | 0.0260 | 0.15 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | - | 2.92 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | - | 2.25 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | 19 | 83 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 5.5 | 5.6 | 2.5 | 10.9 | 1.33 | 16 |
| **Color** | | | | tcu | - | - | - | - | - | 8 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | 5.93 | 5.89 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 330 | 330 | 510 | 450 | 467 | 264 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | 0.45 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 150 | 150 | 240 | 201 | 229 | 27.7 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | - | 12.9 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | - | -1.02 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | - | -1.34 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | 0.026 | 0.023 | 0.19 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | - | 0.19 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | < 0.010 | < 0.010 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | - | 0.05 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.87 | 7.83 | 7.67 | 7.91 | 7.51 | 7.76 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | - | 8.78 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | - | 9.10 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | 0.0043 | 0.0233 | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | 9.1 |
| **Sulphate** | | | 4 - 22 | mg/l | 26 | 26 | 37 | 46.7 | 32.0 | 41 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 190 | 180 | 300 | 252 | 304 | 157 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | 1.12 | 1.24 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 5.0 | 11 | - | - | 2.6 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | - | 27700 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
| | | | | Sample Date | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 19X546170-731459 | 20X589937-1062424 | 20X606404-1156944 | MW19-13D_20200915 | MW19-13D_20201216 | MW19-13D_20210323 |
| | | | | Lab Sample ID | 731459 | 1062424 | 1156944 | NQU662 | OLM161 | PDR028 |
| | | | | Lab Job Number | 19X546170 | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 46 | 29 | 24 | 20 | 30 | 18 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | < 5 | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 46 | 29 | 24 | 20 | 30 | 18 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.10 | < 0.03 | < 0.03 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.58 | 1.74 | 1.91 | 1.89 | 2.20 | 1.86 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.00 | 2.17 | 1.83 | 1.67 | 1.72 | 1.76 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | 10 | < 20 | 21 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 16 | 8 | 10 | 9.0 | 13 | 11 |
| **Color** | | | | tcu | 6 | < 5 | 12 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | 1.1 | 0.56 | 0.54 | 0.83 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 252 | 214 | 217 | 200 | 210 | 190 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.22 | < 0.12 | 0.25 | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 47.4 | 66.6 | 56.2 | 54 | 55 | 56 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 12.8 | 10.9 | 2.2 | 6.18 | 12.2 | 2.76 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -1.68 | -1.98 | -1.92 | -2.45 | -1.90 | -2.61 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -2.00 | -2.30 | -2.24 | -2.70 | -2.15 | -2.86 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.67 | < 0.05 | 0.06 | 0.062 | 0.10 | 0.051 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.67 | < 0.05 | 0.06 | 0.062 | 0.10 | 0.051 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.05 | < 0.05 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.02 | 0.01 | 0.04 | 0.033 | 0.023 | 0.043 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.11 | 6.86 | 7.08 | 6.43 | 6.81 | 6.32 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.79 | 8.84 | 9.00 | 8.88 | 8.71 | 8.92 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 9.11 | 9.16 | 9.32 | 9.13 | 8.96 | 9.17 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 15.4 | 17.8 | 17.7 | 17 | 21 | 17 |
| **Sulphate** | | | 4 - 22 | mg/l | 56 | 45 | 55 | 59 | 59 | 57 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 146 | 114 | 117 | 130 | 150 | 130 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | < 0.4 | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.1 | 3.4 | 0.8 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | 2680 | 1200 | 610 | 930 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 9830 | 6420 | 3260 | 360 | 64 | 140 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
| | | | | **Sample Date** | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-03-28 | 2022-06-03 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | MW19-13D_20210608 | MW19-13D_20211005 | MW19-13D_20211213 | DUP1_20220328 | MW19-13D_20220328 | MW19-13D_20220603 |
| | | | | **Lab Sample ID** | PUI338 | QWF783 | RJM502 | SFM277 | SFM297 | SUS186 |
| | | | | **Lab Job Number** | C1F8315 | C1T0922 | C1Z2957 | C282980 | C282980 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 23 | 28 | 24 | 22 | 21 | 21 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 23 | 28 | 24 | 22 | 21 | 21 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.00 | 2.07 | 1.92 | 1.87 | 1.84 | 2.00 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 1.82 | 1.83 | 1.80 | 1.75 | 1.76 | 1.81 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 31 | 30 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.9 | 13 | 9.9 | 10 | 10 | 11 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.81 | 0.81 | 0.88 | 0.84 | 0.94 | 1.2 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 220 | 190 | 210 | 210 | 210 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 60 | 59 | 57 | 57 | 57 | 59 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 4.71 | 6.15 | 3.23 | 3.31 | 2.22 | 4.99 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -2.31 | -1.77 | -2.12 | -2.40 | -2.01 | -2.10 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -2.56 | -2.02 | -2.37 | -2.65 | -2.26 | -2.35 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.084 | 0.055 | 0.077 | 0.079 | 0.076 | 0.065 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.084 | 0.055 | 0.077 | 0.079 | 0.076 | 0.065 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.044 | 0.024 | 0.029 | 0.041 | 0.043 | 0.061 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.48 | 6.93 | 6.67 | 6.43 | 6.84 | 6.74 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.78 | 8.70 | 8.79 | 8.83 | 8.85 | 8.83 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 9.03 | 8.95 | 9.04 | 9.08 | 9.10 | 9.08 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 16 | 19 | 18 | 17 | 17 | 17 |
| **Sulphate** | | | 4 - 22 | mg/l | 60 | 55 | 56 | 54 | 54 | 60 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 140 | 130 | 130 | 130 | 140 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.75 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 900 | 2600 | 15000 | 270 | 380 | 560 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 96 | 960 | 280 | 260 | 260 | 240 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
| | | | | Sample Date | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-13D_20220930 | MW19-13D_20221216 | MW19-13D_20230313 | MW19-13D_20231012 | MW19-13D_20231201 | MW19-13D_20240312 |
| | | | | Lab Sample ID | TXM812 | UQJ849 | VHF977 | XHD250 | XTQ416 | YPJ129 |
| | | | | Lab Job Number | C2S7487 | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 17 | 21 | 24 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 17 | 21 | 24 | 17 | 14 | 17 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 1.90 | 1.91 | 1.91 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 1.95 | 1.85 | 1.74 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 13 | 11 | 11 | 9.6 | 9.9 | 8.4 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.74 | 1.0 | 0.86 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 200 | 200 | 210 | 210 | 210 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 63 | 58 | 56 | 58 | 54 | 56 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.30 | 1.60 | 4.66 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -1.64 | -2.40 | -1.82 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.89 | -2.65 | -2.07 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.078 | 0.093 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.078 | 0.093 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.050 | 0.046 | 0.041 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.25 | 6.44 | 6.98 | 6.86 | 6.51 | 6.89 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.89 | 8.84 | 8.80 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 9.14 | 9.09 | 9.05 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 18 | 18 | 17 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 57 | 56 | 54 | 55 | 55 | 56 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 140 | 130 | 115 | 130 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 5.0 | 0.76 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 600 | 330 | 210 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 270 | 210 | 130 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13S | MW19-13S |
| | | | | Sample Date | 2024-07-02 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2019-11-19 | 2020-04-01 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-13D_20240702 | DUP 2_20240702 | MW19-13D_20241210 | MW19-13D_20250611 | 19X546170-731456 | 20X589937-1062423 |
| | | | | Lab Sample ID | ZQA465 | ZQA468 | HA2403274-023 | HA2501779-006 | 731456 | 1062423 |
| | | | | Lab Job Number | C4K2602 | C4K2602 | HA2403274 | HA2501779 | 19X546170 | 20X589937 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | 111 | - | < 5 | < 5 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | <1.0 | - | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | <1.0 | - | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 16 | 17 | 90.9 | 20.8 | < 5 | < 5 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | 0.0058 | < 0.0050 | 0.06 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | 2.16 | - | 1.71 | 1.05 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | 111 | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | 2.10 | - | 1.65 | 1.89 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | < 10 | 17 | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.1 | 9.2 | 7.79 | 9.87 | 18 | 7 |
| **Color** | | | | tcu | - | - | 19.0 | - | 12 | 21 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | < 0.50 | 1.10 | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 200 | 210 | 217 | 192 | 211 | 173 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | 0.609 | - | < 0.12 | < 0.12 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 53 | 53 | 67.0 | 51.5 | 51.8 | 63.4 |
| **Hydroxide (OH)** | | | | mg/l | - | - | < 1.0 | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | 97.2 | - | 1.9 | 28.4 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | -0.189 | - | -3.81 | -4.02 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | -0.439 | - | -4.13 | -4.34 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | < 0.020 | 0.047 | < 0.05 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | < 0.0224 | - | < 0.05 | < 0.05 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | < 0.010 | < 0.010 | < 0.05 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | 0.0776 | - | 0.02 | < 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.58 | 6.80 | 7.87 | 6.64 | 5.99 | 5.67 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | 8.06 | - | 9.80 | 9.69 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | 8.31 | - | 10.1 | 10.0 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | < 0.004 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | 0.0014 | < 0.0010 | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | 4.3 | 3.8 |
| **Sulphate** | | | 4 - 22 | mg/l | 52 | 53 | 4.29 | 49.6 | 58 | 41 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 140 | 95 | 124 | 108 | 84 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | < 0.050 | 0.135 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 0.50 | - | 7.8 | 11.1 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | 3.21 | - | 3620 | 6060 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S |
| | | | | Sample Date | 2020-05-28 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X606404-1156943 | MW19-13S_20201216 | MW19-13S_20210323 | MW19-13S_20210608 | MW19-13S_20211005 | MW19-13S_20211213 |
| | | | | Lab Sample ID | 1156943 | OLM160 | PDR027 | PUI337 | QWF782 | RJM501 |
| | | | | Lab Job Number | 20X606404 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 5 | 8.6 | 6.0 | 6.2 | 8.2 | 7.8 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 5 | 8.6 | 6.0 | 6.2 | 8.2 | 7.8 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 1.56 | 3.70 | 1.74 | 1.75 | 1.65 | 1.54 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 1.50 | 2.87 | 1.59 | 1.50 | 1.50 | 1.42 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 30 | 60 | 35 | < 20 | 33 | 180 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9 | 18 | 13 | 10 | 13 | 12 |
| **Color** | | | | tcu | 14 | 7.2 | 6.0 | < 5.0 | 9.9 | 6.4 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.7 | 5.0 | 3.9 | 2.9 | 3.7 | 4.3 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 186 | 330 | 180 | 180 | 180 | 160 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | < 0.12 | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 51.5 | 110 | 56 | 52 | 50 | 49 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.0 | 12.6 | 4.50 | 7.69 | 4.76 | 4.05 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -3.89 | -2.89 | -3.88 | -3.85 | -3.58 | -3.80 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -4.21 | -3.14 | -4.13 | -4.10 | -3.83 | -4.06 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.01 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 5.89 | 6.12 | 5.56 | 5.61 | 5.76 | 5.57 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 9.78 | 9.01 | 9.44 | 9.46 | 9.34 | 9.38 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 10.1 | 9.26 | 9.69 | 9.71 | 9.59 | 9.63 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 7.0 | 5.9 | 6.0 | 7.0 | 8.7 | 6.6 |
| **Sulphate** | | | 4 - 22 | mg/l | 58 | 140 | 60 | 64 | 54 | 50 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 98 | 230 | 110 | 110 | 110 | 100 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | < 0.4 | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 4.3 | 9.0 | < 50 | 4.9 | 8.3 | 55 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 44000 | 9800 | 3400 | 2700 | 5900 | 110000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 11700 | 1000 | >1000 | 220 | 360 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S |
| | | | | Sample Date | 2022-03-28 | 2022-06-03 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 | |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-13S_20220328 | MW19-13S_20220603 | MW19-13S_20220930 | MW19-13S_20221216 | MW19-13S_20230313 | MW19-13S_20231012 | |
| | | | | Lab Sample ID | SFM296 | SUS184 | TXM811 | UQJ848 | VHF976 | XHD249 | |
| | | | | Lab Job Number | C282980 | C2F3070 | C2S7487 | C2AN796 | C372847 | C3V9312 | |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 9.2 | 8.1 | 6.2 | 4.3 | 3.9 | - | |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - | |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - | |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 9.2 | 8.1 | 6.2 | 4.3 | 3.9 | 9.8 | |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - | |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 1.46 | 1.52 | 1.32 | 1.33 | 1.16 | - | |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - | |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - | |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 1.40 | 1.52 | 1.30 | 1.34 | 1.13 | - | |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 89 | 78 | 75 | 130 | 97 | - | |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.7 | 9.6 | 11 | 10 | 9.4 | 7.7 | |
| **Color** | | | | tcu | 14 | 14 | 41 | 17 | 6.8 | - | |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 4.8 | 5.7 | 10 | 5.9 | 2.9 | - | |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 170 | 170 | 150 | 140 | 130 | 170 | |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - | |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 48 | 50 | 41 | 44 | 36 | 43 | |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - | |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.10 | 0 | 0.760 | 0.370 | 1.31 | - | |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -3.27 | -3.30 | -3.16 | -3.57 | -3.98 | - | |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -3.52 | -3.56 | -3.41 | -3.82 | -4.23 | - | |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.088 | 0.14 | 0.12 | 0.084 | - | |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.088 | 0.14 | 0.12 | 0.084 | - | |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - | |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - | |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.03 | 6.03 | 6.35 | 6.09 | 5.80 | 5.95 | |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 9.30 | 9.33 | 9.50 | 9.66 | 9.78 | - | |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 9.55 | 9.58 | 9.76 | 9.91 | 10.0 | - | |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - | |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 5.2 | 5.9 | 5.0 | 5.1 | 5.1 | - | |
| **Sulphate** | | | 4 - 22 | mg/l | 48 | 52 | 43 | 46 | 39 | 47 | |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 96 | 100 | 89 | 91 | 79 | 95 | |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - | |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 20 | 22 | 20 | 27 | 9.8 | 19 | |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 7800 | 2700 | 1700 | 5300 | 1100 | - | |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 500 | 510 | 1000 | 410 | - | |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2018-11-07 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW19-13S_20231201 | MW19-13S_20240312 | MW19-13S_20240702 | MW19-13S_20241210 | MW19-13S_20250611 | MW1-D_20181107 |
| | | | | Lab Sample ID | XTQ415 | YPJ128 | ZQA464 | HA2403274-024 | HA2501779-005 | 9698371 |
| | | | | Lab Job Number | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 | 18X408633 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | 7.4 | - | 694 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | <1.0 | - | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | <1.0 | - | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 4.1 | 8.0 | 6.6 | 6.0 | 6.6 | 694 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | 0.0156 | 0.0255 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | 0.96 | - | 26.0 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | 7.4 | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | 1.04 | - | 32.5 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | 116 | 58 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 10 | 8.8 | 7.0 | 12.3 | 8.05 | 32 |
| **Color** | | | | tcu | - | - | - | 6730 | - | < 5 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | 8.65 | 4.45 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 160 | 130 | 120 | 120 | 122 | 2110 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | < 0.020 | - | 0.35 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 40 | 34 | 31 | 31.5 | 30.9 | 1330 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | < 1.0 | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | 108 | - | 11.1 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | -3.98 | - | 0.60 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | -4.23 | - | 0.28 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | 0.040 | 0.036 | 0.59 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | 0.0400 | - | 0.74 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | < 0.010 | < 0.010 | 0.15 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | 0.0021 | - | < 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 5.75 | 6.17 | 6.16 | 5.66 | 5.64 | 6.93 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | 9.64 | - | 6.33 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | 9.89 | - | 6.65 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | 0.0015 | 0.0024 | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | 7.9 |
| **Sulphate** | | | 4 - 22 | mg/l | 42 | 25 | 30 | 23.5 | 31.1 | 535 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 100 | 75 | 98 | 77 | 166 | 1580 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | 1.72 | 0.712 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 5.0 | 18 | 33.8 | - | 14.3 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | 3670 | - | 986 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X589937-1062415 | 20X606404-1156950 | MW1-D_20200915 | MW1-D_20201216 | MW1-D_20210323 | MW1-D_20210608 |
| | | | | Lab Sample ID | 1062415 | 1156950 | NQU661 | OLM106 | PDR006 | PUI324 |
| | | | | Lab Job Number | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 910 | 777 | 950 | 780 | 650 | 720 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 910 | 777 | 950 | 780 | 650 | 720 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.07 | 0.07 | 0.45 | 0.36 | 0.17 | 0.22 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 33.7 | 32.3 | 35.3 | 30.8 | 25.9 | 28.0 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 36.8 | 34.6 | 33.2 | 33.4 | 27.5 | 29.3 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 58 | 85 | 77 | 66 | 68 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 29 | 38 | 38 | 41 | 35 | 33 |
| **Color** | | | | tcu | 6 | 10 | 14 | 11 | 8.5 | 7.4 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | 37.0 | 20 | 20 | 18 | 16 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2430 | 2420 | 2700 | 2400 | 2100 | 2200 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.49 | 0.37 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1590 | 1450 | 1400 | 1400 | 1200 | 1300 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 4.5 | 3.4 | 3.06 | 4.18 | 2.92 | 2.28 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.74 | 0.95 | 0.912 | 0.833 | 0.553 | 0.804 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.42 | 0.63 | 0.668 | 0.589 | 0.308 | 0.560 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.12 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.12 | < 0.05 | < 0.010 | 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.01 | 0.02 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.87 | 7.20 | 6.98 | 6.99 | 6.86 | 7.04 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.13 | 6.25 | 6.07 | 6.16 | 6.30 | 6.24 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.45 | 6.57 | 6.32 | 6.40 | 6.55 | 6.48 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.7 | 8.9 | 8.6 | 10 | 9.0 | 9.1 |
| **Sulphate** | | | 4 - 22 | mg/l | 705 | 753 | 730 | 670 | 570 | 610 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1960 | 1890 | 2000 | 1800 | 1500 | 1600 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 2.51 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 0.5 | 34.4 | 20 | 21 | 18 | 18 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 423 | 170 | 83 | 120 | 88 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 272 | 332 | 58 | 25 | 33 | 58 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-28 | 2022-12-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW1-D_20211005 | MW1-D_20211213 | MW1-D_20220328 | MW1-D_20220603 | MW1-D_20220928 | MW1-D_20221213 |
| | | | | Lab Sample ID | QWF765 | RJM313 | SFM273 | SUS185 | TWS374 | UPM103 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S3993 | C2AJ782 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 760 | 840 | 780 | 1100 | 920 | 760 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.3 | < 1.0 | < 1.0 | 1.1 | 1.2 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 760 | 840 | 790 | 1100 | 920 | 760 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.23 | 0.50 | 0.20 | 0.27 | 0.27 | 0.33 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 29.1 | 30.6 | 28.1 | 34.5 | 33.2 | 29.2 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 32.3 | 30.3 | 28.0 | 28.5 | 32.9 | 28.8 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 72 | 70 | 70 | 69 | 77 | 65 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 38 | 32 | 31 | 34 | 33 | 33 |
| **Color** | | | | tcu | 16 | 11 | 11 | 9.9 | 13 | 12 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 18 | 20 | 18 | 20 | 21 | 20 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2400 | 2400 | 2200 | 2300 | 2500 | 2300 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1400 | 1300 | 1200 | 1200 | 1400 | 1300 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 5.14 | 0.590 | 0.110 | 9.53 | 0.390 | 0.650 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.899 | 1.08 | 0.749 | 0.677 | 0.998 | 0.994 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.655 | 0.839 | 0.504 | 0.433 | 0.754 | 0.750 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.088 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.088 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.012 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.06 | 7.23 | 6.95 | 6.76 | 7.09 | 7.21 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.16 | 6.15 | 6.20 | 6.08 | 6.09 | 6.21 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.40 | 6.39 | 6.45 | 6.33 | 6.33 | 6.46 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 10 | 10 | 9.0 | 9.0 | 10 | 9.8 |
| **Sulphate** | | | 4 - 22 | mg/l | 620 | 620 | 550 | 580 | 660 | 620 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1700 | 1700 | 1600 | 1800 | 1900 | 1700 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 19 | 21 | 18 | 22 | 23 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 47 | 140 | 150 | 130 | 98 | 130 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 19 | 42 | 100 | 48 | 44 | 55 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW1-D_20230309 | MW1-D_20231012 | MW1-D_20231201 | MW1-D_20240312 | MW1-D_20240702 | MW1-D_20241210 |
| | | | | Lab Sample ID | VGG619 | XHD229 | XTQ396 | YPJ110 | ZQA445 | HA2403274-002 |
| | | | | Lab Job Number | C368322 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 710 | - | - | - | - | 997 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.0 | - | - | - | - | <1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | <1.0 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 710 | 850 | 730 | 700 | 720 | 817 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.32 | - | - | - | - | 0.351 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 27.0 | - | - | - | - | 27.3 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | 997 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 28.2 | - | - | - | - | 26.1 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 74 | - | - | - | - | 65 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 35 | 32 | 35 | 31 | 33 | 27.4 |
| **Color** | | | | tcu | 13 | - | - | - | - | 60.4 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 17 | - | - | - | - | 20.4 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2200 | 2500 | 2300 | 2000 | 2300 | 2040 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | 0.131 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1200 | 1300 | 1300 | 1200 | 1300 | 1120 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.26 | - | - | - | - | 95.6 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.949 | - | - | - | - | 1.10 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.704 | - | - | - | - | 0.859 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | - | - | - | - | < 0.100 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | - | - | - | - | < 0.112 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | - | - | - | - | < 0.050 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | - | - | - | - | <0.0010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.19 | 7.24 | 6.89 | 7.28 | 6.81 | 7.31 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.24 | - | - | - | - | 6.20 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.48 | - | - | - | - | 6.45 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | 0.0011 | 0.0011 | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | < 0.0020 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.8 | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 570 | 530 | 540 | 480 | 530 | 490 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1600 | 1780 | 1700 | 1500 | 1700 | 1400 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | 1.45 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 17 | 20 | 20 | 16 | 17 | 18.5 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 110 | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 35 | - | - | - | - | 21.1 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW1-D | MW1-D | MW1-S | MW1-S | MW1-S | MW1-S |
| | | | | **Sample Date** | 2025-06-11 | 2025-06-11 | 2018-11-08 | 2020-04-01 | 2020-05-28 | 2020-12-16 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | DUP2_20250611 | MW1-D_20250611 | MW1-S_20181108 | 20X589937-1062401 | 20X606404-1156945 | MW1-S_20201216 |
| | | | | **Lab Sample ID** | HA2501779-014 | HA2501779-002 | 9698370 | 1062401 | 1156945 | OLM105 |
| | | | | **Lab Job Number** | HA2501779 | HA2501779 | 18X408633 | 20X589937 | 20X606404 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | 545 | 351 | 336 | 400 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | < 10 | < 10 | < 10 | 1.3 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | < 5 | < 5 | < 5 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 684 | 673 | 545 | 351 | 336 | 400 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.607 | 0.609 | 0.04 | < 0.03 | < 0.03 | 0.052 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | 19.7 | 11.1 | 11.6 | 13.0 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | 25.0 | 13.4 | 11.9 | 11.5 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 56 | 61 | - | - | 38 | 110 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 21.4 | 22.0 | 27 | 8 | 10 | 22 |
| **Color** | | | | tcu | - | - | 46 | 36 | 42 | 27 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 12.7 | 12.8 | - | - | 15.5 | 18 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1800 | 1820 | 1690 | 949 | 1040 | 980 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | 0.12 | < 0.12 | < 0.12 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1010 | 867 | 989 | 571 | 510 | 500 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | 11.9 | 9.2 | 1.1 | 6.05 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | 0.62 | 0.63 | 0.78 | 0.829 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | 0.30 | 0.31 | 0.46 | 0.582 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.100 | < 0.100 | 0.08 | 0.07 | 0.10 | 0.076 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | 0.14 | 0.07 | 0.10 | 0.076 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.050 | < 0.050 | 0.06 | < 0.05 | < 0.05 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | < 0.01 | < 0.01 | 0.01 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.99 | 6.86 | 7.15 | 7.52 | 7.72 | 7.54 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | 6.53 | 6.89 | 6.94 | 6.71 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | 6.85 | 7.21 | 7.26 | 6.96 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | 0.005 | < 0.004 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0010 | < 0.0010 | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | 8.0 | 6.2 | 8.5 | 7.7 |
| **Sulphate** | | | 4 - 22 | mg/l | 373 | 372 | 386 | 187 | 220 | 210 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1330 | 1330 | 1210 | 659 | 658 | 700 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 1.40 | 1.41 | - | - | 1.32 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | - | 14.2 | < 0.5 | 16.9 | 29 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | 18500 | 6300 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | 1220 | 3220 | 6940 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-28 | 2022-12-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW1-S_20210608 | MW1-S_20211005 | MW1-S_20211213 | MW1-S_20220328 | MW1-S_20220928 | MW1-S_20221213 |
| | | | | Lab Sample ID | PUI323 | QWF764 | RJM311 | SFM272 | TWS373 | UPM102 |
| | | | | Lab Job Number | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2S3993 | C2AJ782 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 580 | 700 | 540 | 740 | 340 | 500 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 2.1 | 2.2 | 4.1 | 4.2 | 4.0 | 3.1 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 580 | 700 | 540 | 740 | 340 | 510 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.25 | 2.1 | 2.0 | 2.1 | 0.10 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 22.3 | 26.4 | 19.9 | 22.8 | 16.7 | 15.4 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 29.6 | 37.3 | 25.2 | 22.6 | 17.5 | 16.1 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 82 | 170 | 150 | 240 | 91 | 200 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 31 | 43 | 29 | 26 | 19 | 18 |
| **Color** | | | | tcu | 28 | 67 | 45 | 30 | 25 | 28 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 27 | 36 | 30 | 21 | 15 | 17 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2300 | 2700 | 2000 | 1800 | 1500 | 1300 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1300 | 1700 | 1100 | 980 | 740 | 700 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 14.1 | 17.1 | 11.9 | 0.370 | 2.22 | 2.00 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.35 | 1.45 | 1.57 | 1.55 | 1.44 | 1.32 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 1.10 | 1.21 | 1.33 | 1.31 | 1.19 | 1.07 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.10 | 0.083 | 0.092 | 0.31 | 2.5 | 0.20 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.10 | 0.083 | 0.092 | 0.31 | 2.5 | 0.20 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.012 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.57 | 7.53 | 7.90 | 7.78 | 8.10 | 7.81 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.23 | 6.08 | 6.33 | 6.23 | 6.66 | 6.49 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.47 | 6.32 | 6.57 | 6.48 | 6.91 | 6.74 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 13 | 10 | 8.3 | 8.4 | 7.4 |
| **Sulphate** | | | 4 - 22 | mg/l | 470 | 540 | 390 | 340 | 440 | 230 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1400 | 1700 | 1200 | 1300 | 1000 | 870 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 32 | 44 | 78 | 29 | 22 | 33 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 3900 | 950 | 8200 | 10000 | 520 | 33000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 160 | 640 | 1000 | 1000 | 860 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW1-S_20230309 | MW1-S_20231012 | MW1-S_20231201 | MW1-S_20240312 | MW1-S_20240702 | MW1-S_20241210 |
| | | | | Lab Sample ID | VGG618 | XHD228 | XTQ395 | YPJ109 | ZQA444 | HA2403274-001 |
| | | | | Lab Job Number | C368322 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 660 | - | - | - | - | 600 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 2.9 | - | - | - | - | <1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | <1.0 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 660 | 850 | 570 | 380 | 470 | 491 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.88 | - | - | - | - | 0.0936 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 18.8 | - | - | - | - | 14.3 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | 600 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 19.0 | - | - | - | - | 13.5 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 100 | - | - | - | - | 157 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 23 | 21 | 20 | 16 | 11 | 20.3 |
| **Color** | | | | tcu | 23 | - | - | - | - | 11200 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 21 | - | - | - | - | 18.0 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1600 | 2000 | 1500 | 880 | 1300 | 1140 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | < 0.100 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 820 | 1000 | 760 | 440 | 650 | 587 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.660 | - | - | - | - | 94.4 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.34 | - | - | - | - | 0.932 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 1.09 | - | - | - | - | 0.684 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.13 | - | - | - | - | 0.165 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.21 | - | - | - | - | 0.165 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.078 | - | - | - | - | < 0.050 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | - | - | - | - | 0.0010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.67 | 7.72 | 7.57 | 7.79 | 7.72 | 7.48 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.33 | - | - | - | - | 6.55 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.58 | - | - | - | - | 6.80 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | 0.0033 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.0 | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 240 | 210 | 180 | 87 | 160 | 188 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1000 | 1310 | 990 | 550 | 820 | 651 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | 2.75 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 22 | 31 | < 50 | < 50 | < 50 | 41.6 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 2500 | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | - | - | - | - | 2780 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2025-06-11 | 2020-05-27 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW1-S_20250611 | 20X606071-1154898 | MW20-14D_20200915 | MW20-14D_20201216 | MW20-14D_20210323 | MW20-14D_20210608 |
| | | | | Lab Sample ID | HA2501779-001 | 1154898 | NQU666 | OLM163 | PDR030 | PUI340 |
| | | | | Lab Job Number | HA2501779 | 20X606071 | C0O2716 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 70 | 110 | 96 | 76 | 81 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 422 | 70 | 110 | 96 | 76 | 81 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.0698 | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 7.31 | 9.72 | 8.26 | 8.80 | 6.78 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 7.03 | 9.14 | 9.23 | 8.21 | 7.15 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 83 | 7 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.69 | 6 | 7.0 | 11 | 9.3 | 10 |
| **Color** | | | | tcu | - | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 13.6 | 2.6 | 2.2 | 2.1 | 2.2 | 1.9 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 966 | 665 | 870 | 860 | 760 | 640 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | < 0.12 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 393 | 286 | 390 | 390 | 340 | 300 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 2.0 | 3.08 | 5.55 | 3.47 | 2.66 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.93 | -0.484 | -0.522 | -0.858 | -0.753 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -1.25 | -0.732 | -0.770 | -1.11 | -1.00 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.040 | < 0.05 | 0.095 | 0.087 | 0.087 | 0.55 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.05 | 0.095 | 0.098 | 0.087 | 0.55 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.020 | < 0.05 | < 0.010 | 0.011 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.02 | 0.014 | < 0.010 | 0.030 | 0.023 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.45 | 7.03 | 6.96 | 6.97 | 6.79 | 6.91 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.96 | 7.44 | 7.49 | 7.65 | 7.67 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.28 | 7.69 | 7.74 | 7.90 | 7.91 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | < 0.0010 | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | 9.1 | 10 | 12 | 11 | 10 |
| **Sulphate** | | | 4 - 22 | mg/l | 106 | 276 | 350 | 290 | 340 | 230 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 652 | 452 | 600 | 540 | 550 | 440 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.938 | < 0.4 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | 3.0 | < 5.0 | 2.5 | < 5.0 | 2.2 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 450 | 200 | 190 | 130 | 94 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 838 | 43 | 65 | 12 | 16 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-02 | 2022-09-30 | 2022-12-16 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW20-14D_20211005 | MW20-14D_20211213 | MW20-14D_20220328 | MW20-14D_20220602 | MW20-14D_20220930 | MW20-14D_20221216 |
| | | | | Lab Sample ID | QWF785 | RJM504 | SFM299 | SUK084 | TXM814 | UQJ851 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 90 | 86 | 93 | 64 | 68 | 90 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 90 | 86 | 93 | 65 | 69 | 90 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 7.40 | 7.18 | 6.32 | 5.43 | 5.97 | 6.39 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 6.72 | 6.88 | 5.88 | 5.43 | 6.07 | 6.53 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | 34 | 25 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 13 | 9.4 | 10 | 9.5 | 13 | 11 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | 7.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.9 | 2.0 | 2.0 | 1.8 | 1.6 | 2.1 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 720 | 650 | 630 | 560 | 610 | 630 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 270 | 280 | 240 | 220 | 240 | 220 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 4.82 | 2.13 | 3.61 | 0 | 0.830 | 1.08 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.596 | -0.636 | -0.538 | -0.749 | -0.362 | -0.402 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.844 | -0.884 | -0.787 | -0.998 | -0.610 | -0.651 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.34 | 0.41 | 0.49 | 0.67 | 0.51 | 0.72 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.34 | 0.41 | 0.49 | 0.67 | 0.51 | 0.72 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.011 | 0.025 | < 0.010 | 0.031 | < 0.010 | 0.028 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.07 | 7.04 | 7.15 | 7.13 | 7.46 | 7.36 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.66 | 7.68 | 7.69 | 7.88 | 7.82 | 7.76 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.91 | 7.93 | 7.93 | 8.13 | 8.07 | 8.01 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 12 | 11 | 11 | 12 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 250 | 250 | 200 | 180 | 200 | 200 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 460 | 450 | 390 | 350 | 380 | 410 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.8 | 2.0 | 2.2 | 2.1 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 41 | 46 | 140 | 34 | 170 | 910 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 18 | 37 | 77 | 19 | 76 | 690 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
| | | | | **Sample Date** | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | MW20-14D_20230313 | MW20-14D_20231012 | MW20-14D_20231201 | MW20-14D_20240312 | MW20-14D_20240702 | MW20-14D_20241210 |
| | | | | **Lab Sample ID** | VHF979 | XHD252 | XTQ418 | YPJ131 | ZQA467 | HA2403274-017 |
| | | | | **Lab Job Number** | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 60 | - | - | - | - | 92.4 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | - | - | - | - | <1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | <1.0 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 60 | 63 | 58 | 63 | 62 | 75.8 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | - | - | - | - | < 0.0050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 5.04 | - | - | - | - | 5.03 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | 92.4 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 5.25 | - | - | - | - | 4.71 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | - | - | - | - | < 10 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 10 | 11 | 10 | 5.9 | 7.3 | 8.75 |
| **Color** | | | | tcu | < 5.0 | - | - | - | - | 52.4 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.9 | - | - | - | - | 2.05 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 540 | 640 | 570 | 500 | 470 | 482 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | 0.063 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 210 | 240 | 210 | 190 | 170 | 179 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.04 | - | - | - | - | 93.6 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.932 | - | - | - | - | -1.61 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.18 | - | - | - | - | -1.86 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.73 | - | - | - | - | 0.507 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.73 | - | - | - | - | 0.507 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | - | - | - | - | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.024 | - | - | - | - | 0.0385 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.01 | 7.11 | 7.01 | 7.04 | 6.74 | 6.28 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.94 | - | - | - | - | 7.89 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.19 | - | - | - | - | 8.14 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | 0.0030 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 170 | 200 | 180 | 140 | 130 | 155 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 330 | 390 | 340 | 290 | 280 | 253 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | 0.204 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 1.9 | 2.6 | < 5.0 | 1.9 | 2.24 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 520 | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 290 | - | - | - | - | 13.7 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-14D | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S |
| | | | | **Sample Date** | 2025-06-11 | 2020-05-27 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | |
| | | | | **Background** | | | | | | | |
| | | | | **Sample ID** | MW20-14D_20250611 | 20X606071-1154897 | MW20-14S_20201216 | MW20-14S_20210323 | MW20-14S_20210608 | MW20-14S_20211005 | |
| | | | | **Lab Sample ID** | HA2501779-003 | 1154897 | OLM162 | PDR029 | PUI339 | QWF784 | |
| | | | | **Lab Job Number** | HA2501779 | 20X606071 | C0X8319 | C177930 | C1F8315 | C1T0922 | |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 84 | 92 | 110 | 94 | 91 | |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | < 5 | - | - | - | - | |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 78.1 | 84 | 92 | 110 | 94 | 91 | |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.0066 | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 5.37 | 5.23 | 7.38 | 5.50 | 4.52 | |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - | |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - | |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 5.41 | 5.49 | 6.54 | 5.34 | 3.89 | |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 22 | 6 | 50 | 73 | 22 | 45 | |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.06 | 6 | 9.3 | 11 | 11 | 10 | |
| **Color** | | | | tcu | - | < 5 | 6.2 | < 5.0 | < 5.0 | < 5.0 | |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.73 | 1.7 | 3.3 | 2.7 | 3.9 | 2.6 | |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 446 | 528 | 450 | 660 | 530 | 460 | |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | < 0.12 | - | - | - | - | |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 160 | 228 | 230 | 280 | 220 | 160 | |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - | |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 0.3 | 2.43 | 6.03 | 1.48 | 7.49 | |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.51 | -0.709 | -0.541 | -0.882 | -0.652 | |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -0.83 | -0.958 | -0.790 | -1.13 | -0.902 | |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.312 | 0.08 | 0.20 | 0.11 | 0.99 | 1.1 | |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | 0.08 | 0.20 | 0.11 | 0.99 | 1.1 | |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.03 | 0.013 | 0.016 | 0.020 | 0.015 | |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.34 | 7.40 | 6.93 | 6.98 | 6.78 | 7.15 | |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.91 | 7.64 | 7.52 | 7.66 | 7.81 | |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.23 | 7.89 | 7.77 | 7.91 | 8.06 | |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0016 | - | - | - | - | - | |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | 7.2 | 8.9 | 6.9 | 7.7 | 9.7 | |
| **Sulphate** | | | 4 - 22 | mg/l | 127 | 169 | 150 | 240 | 160 | 110 | |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 322 | 326 | 330 | 440 | 340 | 270 | |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.153 | 0.8 | - | - | - | - | |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | 2.5 | < 50 | < 50 | 5.7 | < 5.0 | |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 1950 | 2600 | 560 | 1600 | 2400 | |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 5320 | 1000 | 790 | 1000 | 1000 | |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S |
| | | | | **Sample Date** | 2021-12-13 | 2022-03-28 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-13 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | MW20-14S_20211213 | MW20-14S_20220328 | MW20-14S_20220602 | MW20-14S_20220930 | MW20-14S_20221216 | MW20-14S_20230313 |
| | | | | **Lab Sample ID** | RJM503 | SFM298 | SUK083 | TXM813 | UQJ850 | VHF978 |
| | | | | **Lab Job Number** | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 | C372847 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 70 | 42 | 66 | 29 | 48 | 65 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 70 | 42 | 66 | 29 | 48 | 66 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.064 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 3.12 | 1.53 | 3.61 | 0.900 | 2.44 | 3.46 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.22 | 1.52 | 3.47 | 0.860 | 2.41 | 3.69 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 74 | 77 | 29 | 75 | 120 | 53 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.0 | 8.0 | 9.7 | 3.0 | 6.5 | 8.4 |
| **Color** | | | | tcu | < 5.0 | 8.3 | < 5.0 | 34 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.2 | 4.0 | 2.2 | 8.2 | 2.2 | 2.2 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 290 | 160 | 360 | 81 | 240 | 360 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 87 | 57 | 150 | 25 | 97 | 160 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 16.9 | 0.330 | 1.98 | 2.27 | 0.620 | 3.22 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -1.28 | -1.85 | -0.857 | -2.30 | -1.34 | -1.00 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.53 | -2.10 | -1.11 | -2.55 | -1.59 | -1.25 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 2.0 | 1.5 | 1.3 | 1.1 | 1.3 | 1.1 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 2.0 | 1.5 | 1.3 | 1.1 | 1.3 | 1.1 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | 0.013 | 0.012 | 0.016 | 0.021 | 0.016 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.88 | 6.69 | 7.11 | 6.73 | 6.94 | 6.94 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.16 | 8.53 | 7.97 | 9.03 | 8.28 | 7.95 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.41 | 8.78 | 8.22 | 9.28 | 8.53 | 8.19 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.2 | 7.2 | 8.4 | 9.6 | 9.0 | 8.2 |
| **Sulphate** | | | 4 - 22 | mg/l | 65 | 17 | 92 | 7.0 | 58 | 88 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 180 | 94 | 220 | 60 | 150 | 220 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 5.6 | 9.0 | < 5.0 | 9.4 | 5.6 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 2300 | 3000 | 750 | 2500 | 2400 | 1300 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 130 | 1000 | 1000 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW20-14S_20231012 | MW20-14S_20231201 | MW20-14S_20240312 | MW20-14S_20240702 | MW20-14S_20241210 | MW20-14S_20250611 |
| | | | | Lab Sample ID | XHD251 | XTQ417 | YPJ130 | ZQA466 | HA2403274-018 | HA2501779-004 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | 49.0 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 75 | 49 | 14 | 29 | 40.1 | 48.9 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | 0.0100 | 0.0297 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | 1.57 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | 49.0 | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | 1.42 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | 98 | 111 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6.0 | 4.6 | 3.1 | 2.2 | 5.26 | 2.34 |
| **Color** | | | | tcu | - | - | - | - | 10600 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | 4.38 | 7.58 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 410 | 290 | 64 | 120 | 158 | 179 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | 0.042 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 160 | 110 | 18 | 35 | 50.9 | 45.2 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | < 1.0 | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | 90.4 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | -2.69 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | -2.95 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.352 | 0.180 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.352 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | 0.0134 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.25 | 6.64 | 6.55 | 6.61 | 5.94 | 6.38 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | 8.63 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | 8.89 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | 0.0014 | < 0.0010 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 93 | 67 | 3.0 | 16 | 28.5 | 31.1 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 225 | 160 | 57 | 110 | 92 | 152 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | 3.34 | 3.20 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 50 | < 50 | 59 | 32.9 | - |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | 3640 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D |
| | | | | Sample Date | 2020-05-27 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X606071-1154900 | MW20-15D_20200915 | MW20-15D_20201216 | MW20-15D_20210323 | MW20-15D_20210608 | MW20-15D_20211005 |
| | | | | Lab Sample ID | 1154900 | NQU667 | OLM165 | PDR032 | PUI342 | QWF787 |
| | | | | Lab Job Number | 20X606071 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 314 | 330 | 350 | 380 | 360 | 330 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 1.0 | < 1.0 | 1.0 | 1.1 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 314 | 330 | 360 | 380 | 360 | 330 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 15.3 | 14.4 | 14.4 | 15.6 | 15.4 | 13.4 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 16.0 | 13.8 | 14.8 | 14.7 | 14.7 | 13.6 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 3 | < 20 | 28 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 24 | 33 | 33 | 27 | 25 | 38 |
| **Color** | | | | tcu | 44 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 4.9 | 2.5 | 2.0 | 2.3 | 2.2 | 2.4 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1330 | 1200 | 1300 | 1300 | 1300 | 1200 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.23 | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 692 | 590 | 650 | 640 | 640 | 570 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.3 | 2.24 | 1.40 | 2.97 | 2.12 | 0.590 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.67 | 0.611 | 0.695 | 0.778 | 0.795 | 0.566 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.35 | 0.364 | 0.449 | 0.531 | 0.549 | 0.320 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | 0.16 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | 0.16 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.03 | < 0.010 | 0.031 | 0.033 | 0.037 | 0.032 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.56 | 7.39 | 7.40 | 7.46 | 7.51 | 7.36 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.89 | 6.77 | 6.71 | 6.69 | 6.72 | 6.79 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.21 | 7.02 | 6.95 | 6.93 | 6.96 | 7.04 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 25.6 | 24 | 27 | 26 | 25 | 25 |
| **Sulphate** | | | 4 - 22 | mg/l | 401 | 330 | 310 | 350 | 360 | 270 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 911 | 840 | 860 | 900 | 900 | 790 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.5 | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 4.8 | < 5.0 | 3.2 | < 5.0 | 2.6 | 2.7 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 317 | 340 | 590 | 110 | 45 | 110 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 119 | 390 | 160 | 44 | 23 | 34 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D |
| | | | | Sample Date | 2021-12-13 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-30 | 2022-12-16 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP1_20211213 | MW20-15D_20211213 | MW20-15D_20220329 | MW20-15D_20220602 | MW20-15D_20220930 | MW20-15D_20221216 |
| | | | | Lab Sample ID | RJM529 | RJM506 | SFM301 | SUK085 | TXM816 | UQJ853 |
| | | | | Lab Job Number | C1Z2957 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 370 | 360 | 350 | 320 | 280 | 320 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 2.2 | 1.6 | 2.0 | 2.9 | 2.7 | 1.7 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 370 | 360 | 350 | 330 | 280 | 320 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 13.6 | 13.4 | 13.6 | 13.4 | 12.8 | 13.1 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 13.0 | 13.0 | 13.3 | 13.9 | 13.2 | 13.7 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 24 | 22 | 23 | 25 | 40 | 26 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.2 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1100 | 1100 | 1200 | 1200 | 1100 | 1200 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 550 | 550 | 580 | 600 | 540 | 580 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.07 | 1.51 | 1.08 | 1.58 | 1.58 | 2.05 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.06 | 0.897 | 1.03 | 1.21 | 1.12 | 0.941 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.809 | 0.650 | 0.780 | 0.960 | 0.868 | 0.694 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.096 | 0.072 | 0.11 | < 0.050 | 0.12 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.096 | 0.072 | 0.12 | < 0.050 | 0.12 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.028 | 0.031 | 0.035 | 0.034 | 0.026 | 0.033 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.81 | 7.67 | 7.79 | 7.98 | 8.00 | 7.74 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.76 | 6.77 | 6.76 | 6.77 | 6.89 | 6.80 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.01 | 7.02 | 7.01 | 7.02 | 7.14 | 7.05 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 27 | 26 | 25 | 24 | 26 | 27 |
| **Sulphate** | | | 4 - 22 | mg/l | 270 | 270 | 290 | 300 | 290 | 290 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 780 | 780 | 790 | 800 | 770 | 790 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.3 | 2.5 | 2.3 | 3.0 | 3.0 | 2.5 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 59 | 55 | 21 | 60 | 39 | 100 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 36 | 38 | 12 | 21 | 20 | 37 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D |
| | | | | **Sample Date** | 2023-03-13 | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | MW20-15D_20230313 | MW20-15D_20231012 | MW20-15D_20231201 | MW20-15D_20240312 | MW20-15D_20240702 | MW20-15D_20241210 |
| | | | | **Lab Sample ID** | VHF981 | XHD254 | XTQ420 | YPJ133 | ZQA469 | HA2403274-019 |
| | | | | **Lab Job Number** | C372847 | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 320 | - | - | - | - | 386 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.9 | - | - | - | - | <1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | <1.0 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 320 | 310 | 290 | 310 | 270 | 316 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | - | - | - | - | < 0.0050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 13.8 | - | - | - | - | 12.7 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | 386 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 14.6 | - | - | - | - | 12.3 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | - | - | - | - | < 10 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 25 | 25 | 24 | 19 | 24 | 19.6 |
| **Color** | | | | tcu | < 5.0 | - | - | - | - | 24.2 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.7 | - | - | - | - | 2.46 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1300 | 1300 | 1300 | 1200 | 1200 | 1050 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | 0.108 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 640 | 660 | 610 | 580 | 520 | 514 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.78 | - | - | - | - | 96.8 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.04 | - | - | - | - | 0.544 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.790 | - | - | - | - | 0.296 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.10 | - | - | - | - | 0.158 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.10 | - | - | - | - | 0.158 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | - | - | - | - | < 0.050 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.038 | - | - | - | - | 0.0367 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.79 | 7.78 | 7.56 | 7.69 | 7.71 | 7.39 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.76 | - | - | - | - | 6.84 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.00 | - | - | - | - | 7.09 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | 0.0025 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 27 | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 320 | 330 | 320 | 310 | 280 | 278 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 840 | 885 | 850 | 790 | 770 | 681 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | 0.123 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.2 | 2.4 | 2.5 | < 5.0 | 2.6 | 2.94 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 41 | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 11 | - | - | - | - | 7.53 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-15D | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S |
| | | | | **Sample Date** | 2025-06-12 | 2020-05-27 | 2020-12-16 | 2021-06-08 | 2021-12-13 | 2022-03-28 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | MW20-15D_20250612 | 20X606071-1154899 | MW20-15S_20201216 | MW20-15S_20210608 | MW20-15S_20211213 | MW20-15S_20220328 |
| | | | | **Lab Sample ID** | HA2501804-018 | 1154899 | OLM164 | PUI341 | RJM505 | SFM300 |
| | | | | **Lab Job Number** | HA2501804 | 20X606071 | C0X8319 | C1F8315 | C1Z2957 | C282980 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 284 | 290 | 320 | 230 | 200 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | < 10 | 1.1 | 1.6 | 1.1 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 332 | 284 | 290 | 320 | 230 | 200 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.0099 | < 0.03 | < 0.050 | 0.056 | < 0.050 | 0.080 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 9.05 | 8.55 | 9.34 | 7.00 | 6.10 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 9.03 | 8.70 | 8.96 | 6.54 | 6.62 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 10 | 4 | 52 | 20 | 21 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 18.1 | 5 | 8.6 | 7.2 | 6.3 | 7.3 |
| **Color** | | | | tcu | - | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.33 | 3.0 | 1.9 | 1.7 | 1.7 | 1.4 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1150 | 831 | 780 | 820 | 600 | 580 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | < 0.12 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 587 | 368 | 350 | 360 | 240 | 250 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 0.1 | 0.870 | 2.08 | 3.40 | 4.09 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | 0.50 | 0.618 | 0.787 | 0.477 | 0.359 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | 0.18 | 0.370 | 0.539 | 0.229 | 0.110 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.139 | < 0.05 | 0.12 | 0.11 | 0.31 | 0.31 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.05 | 0.13 | 0.11 | 0.31 | 0.31 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.050 | < 0.05 | 0.011 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.02 | 0.013 | 0.015 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.26 | 7.67 | 7.60 | 7.74 | 7.70 | 7.63 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.17 | 6.98 | 6.95 | 7.23 | 7.28 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 7.49 | 7.23 | 7.20 | 7.47 | 7.52 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0040 | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | 19.6 | 24 | 25 | 23 | 20 |
| **Sulphate** | | | 4 - 22 | mg/l | 283 | 155 | 120 | 130 | 100 | 94 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 783 | 502 | 490 | 530 | 400 | 370 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.132 | 0.4 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | 3.1 | < 50 | 2.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 14100 | 12000 | 800 | 1600 | 510 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 14500 | 1000 | 360 | 720 | 340 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-15S |
| | | | | Sample Date | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-12-10 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW20-15S_20221216 | MW20-15S_20230313 | MW20-15S_20231013 | MW20-15S_20231201 | MW20-15S_20240312 | MW20-15S_20241210 |
| | | | | Lab Sample ID | UQJ852 | VHF980 | XHD253 | XTQ419 | YPJ132 | HA2403274-020 |
| | | | | Lab Job Number | C2AN796 | C372847 | C3V9312 | C3AS035 | C473698 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 210 | 200 | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.0 | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 210 | 200 | 200 | 130 | 120 | 126 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | - | - | - | < 0.0050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 6.50 | 6.25 | - | - | - | 4.35 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | 153 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 6.66 | 5.79 | - | - | - | 4.44 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 27 | 25 | - | - | - | 18 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.2 | 8.5 | 8.4 | 6.6 | 5.4 | 5.57 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | - | - | - | 1580 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.6 | 1.6 | - | - | - | 2.16 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 620 | 610 | 670 | 500 | 450 | 406 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | 0.041 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 250 | 210 | 250 | 190 | 150 | 149 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.22 | 3.82 | - | - | - | 102 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.427 | 0.378 | - | - | - | -0.905 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.179 | 0.129 | - | - | - | -1.16 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.31 | 0.22 | - | - | - | 0.291 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.31 | 0.22 | - | - | - | 0.291 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | - | - | - | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.69 | 7.74 | 7.93 | 7.09 | 7.07 | 6.80 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.27 | 7.36 | - | - | - | 7.70 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.51 | 7.61 | - | - | - | 7.96 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | 0.0028 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 22 | 20 | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 100 | 99 | 97 | 90 | 87 | 79.2 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 390 | 360 | 390 | 310 | 270 | 247 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | < 0.500 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | 2.0 | < 50 | < 50 | 4.48 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 510 | 530 | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 660 | 410 | - | - | - | 323 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-15S | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
| | | | | **Sample Date** | 2025-06-12 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2020-12-16 | 2021-03-25 |
| | | | | **Background** | | **Background** | **Background** | **Background** | **Background** | **Background** |
| | | | | **Sample ID** | MW20-15S_20250612 | 20X606071-1154901 | MW20-16_20200917 | DUP2_20201216 | MW20-16_20201216 | MW20-16_20210325 |
| | | | | **Lab Sample ID** | HA2501804-017 | 1154901 | NRG097 | OLM171 | OLM166 | PEB977 |
| | | | | **Lab Job Number** | HA2501804 | 20X606071 | C0O4512 | C0X8319 | C0X8319 | C179966 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 87 | 98 | 91 | 92 | 96 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 228 | 87 | 98 | 92 | 92 | 96 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.0186 | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 2.11 | 2.57 | 2.59 | 2.62 | 2.61 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 2.07 | 2.51 | 2.34 | 2.37 | 2.51 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 24 | < 3 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 5.48 | 8 | 15 | 22 | 22 | 18 |
| **Color** | | | | tcu | - | < 5 | 5.4 | 6.7 | 7.4 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.18 | 0.8 | 0.92 | 1.5 | 1.5 | 0.97 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 628 | 229 | 260 | 250 | 250 | 240 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.31 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 275 | 84.9 | 99 | 93 | 94 | 100 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 0.9 | 1.18 | 5.07 | 5.01 | 1.95 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.62 | -0.320 | -0.502 | -0.532 | -0.410 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -0.94 | -0.571 | -0.753 | -0.782 | -0.661 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.172 | < 0.05 | 0.080 | 0.088 | 0.083 | 0.12 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.05 | 0.080 | 0.098 | 0.094 | 0.12 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.05 | < 0.010 | 0.011 | 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.03 | 0.056 | 0.055 | 0.052 | 0.054 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.40 | 7.59 | 7.57 | 7.44 | 7.40 | 7.48 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 8.21 | 7.89 | 7.94 | 7.94 | 7.89 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.53 | 8.14 | 8.20 | 8.19 | 8.14 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | - | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0028 | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | 11.1 | 14 | 12 | 12 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 90.1 | 7 | 8.6 | 6.4 | 7.5 | 7.9 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 463 | 108 | 150 | 140 | 140 | 150 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.457 | < 0.4 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | 1.9 | < 5.0 | 1.8 | 1.8 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 1640 | 140 | 180 | 140 | 200 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 1410 | 67 | 58 | 120 | 140 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-06-09 | 2021-10-06 | 2021-10-06 | 2021-12-13 | 2021-12-13 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP2_20210609 | MW20-16_20210609 | DUP3_20211006 | MW20-16_20211006 | DUP2_20211213 | MW20-16_20211213 |
| | | | | Lab Sample ID | PUQ386 | PUQ381 | QWS510 | QWS507 | RJM530 | RJM507 |
| | | | | Lab Job Number | C1F9831 | C1F9831 | C1T3325 | C1T3325 | C1Z2957 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 91 | 95 | 96 | 97 | 93 | 94 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 91 | 95 | 96 | 98 | 94 | 94 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.40 | 2.49 | 2.70 | 2.70 | 2.47 | 2.49 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.31 | 2.30 | 2.58 | 2.58 | 2.39 | 2.35 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | 57 | 50 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 15 | 15 | 22 | 21 | 15 | 15 |
| **Color** | | | | tcu | 5.4 | < 5.0 | 6.9 | 5.1 | 6.1 | 7.7 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.5 | 1.6 | 1.0 | 0.94 | 1.9 | 1.7 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 230 | 240 | 260 | 260 | 220 | 220 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 91 | 91 | 100 | 100 | 95 | 92 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.91 | 3.97 | 2.27 | 2.27 | 1.65 | 2.89 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.632 | -0.610 | -0.377 | -0.345 | -0.234 | -0.245 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.883 | -0.861 | -0.627 | -0.596 | -0.485 | -0.495 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.076 | 0.081 | 0.084 | 0.071 | 0.066 | 0.064 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.076 | 0.081 | 0.084 | 0.071 | 0.066 | 0.064 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.057 | 0.058 | 0.065 | 0.057 | 0.057 | 0.057 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.33 | 7.33 | 7.51 | 7.54 | 7.69 | 7.69 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.96 | 7.94 | 7.89 | 7.88 | 7.93 | 7.94 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.21 | 8.19 | 8.14 | 8.13 | 8.18 | 8.19 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 12 | 13 | 13 | 12 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 7.3 | 7.5 | 6.9 | 6.7 | 8.5 | 8.0 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 130 | 140 | 150 | 150 | 140 | 140 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.8 | 1.9 | 1.4 | 1.4 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 100 | 210 | 150 | 98 | 140 | 470 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 31 | 120 | 46 | 45 | 140 | 96 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
| | | | | Sample Date | 2022-03-30 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-10 | 2023-10-13 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20220330 | MW20-16_20220602 | MW20-16_20220930 | MW20-16_20221216 | MW20-16_20230310 | MW20-16_20231013 |
| | | | | Lab Sample ID | SGA984 | SUK086 | TXM817 | UQJ854 | VGT145 | XHD255 |
| | | | | Lab Job Number | C285511 | C2F1732 | C2S7487 | C2AN796 | C370496 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 95 | 89 | 73 | 92 | 82 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 96 | 89 | 73 | 92 | 83 | 82 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.49 | 2.39 | 2.09 | 2.43 | 2.25 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.76 | 2.24 | 1.99 | 2.51 | 2.47 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 88 | 32 | < 20 | < 20 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 15 | 14 | 17 | 16 | 15 | 16 |
| **Color** | | | | tcu | < 5.0 | 6.1 | 16 | < 5.0 | 5.2 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.1 | 1.7 | 3.1 | 0.88 | 1.0 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 240 | 240 | 290 | 230 | 230 | 240 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 94 | 89 | 76 | 94 | 99 | 92 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 5.14 | 3.24 | 2.45 | 1.62 | 4.66 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.158 | -0.200 | -0.339 | -0.172 | -0.143 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.408 | -0.451 | -0.590 | -0.423 | -0.394 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.076 | 0.071 | < 0.050 | < 0.050 | 0.084 | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.076 | 0.082 | < 0.050 | 0.052 | 0.084 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.011 | < 0.010 | 0.029 | < 0.010 | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.056 | 0.043 | 0.042 | 0.072 | 0.058 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.77 | 7.78 | 7.79 | 7.76 | 7.82 | 7.64 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.93 | 7.98 | 8.13 | 7.94 | 7.96 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.18 | 8.23 | 8.38 | 8.19 | 8.21 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 12 | 11 | 12 | 11 | - |
| **Sulphate** | | | 4 - 22 | mg/l | 7.0 | 9.0 | 7.1 | 6.7 | 7.2 | 7.6 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 150 | 130 | 120 | 140 | 130 | 115 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.2 | < 50 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 130 | 1400 | 390 | 820 | 320 | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 150 | 780 | 360 | 340 | 170 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-12-01 | 2024-03-14 | 2024-03-14 | 2024-07-02 | 2024-12-10 | 2024-12-10 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20231201 | MW20-16_20240314 | DUP3_20240314 | MW20-16_20240702 | DUP 3_20241210 | MW20-16_20241210 |
| | | | | Lab Sample ID | XTQ421 | YQA658 | YQA659 | ZQA470 | HA2403274-029 | HA2403274-006 |
| | | | | Lab Job Number | C3AS035 | C476965 | C476965 | C4K2602 | HA2403274 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | 107 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 65 | 77 | 75 | 70 | 88.0 | 88.0 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | < 0.0050 | < 0.0050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | 2.48 | 2.48 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | 107 | 107 |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | 2.27 | 2.28 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | < 10 | < 10 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 15 | 12 | 12 | 11 | 19.6 | 19.3 |
| **Color** | | | | tcu | - | - | - | - | 125 | 78.2 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | 1.45 | 1.51 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 220 | 230 | 230 | 220 | 252 | 238 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | 0.381 | 0.399 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 79 | 81 | 82 | 80 | 86.9 | 87.4 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | < 1.0 | < 1.0 |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | 91.5 | 91.9 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | -0.708 | -0.749 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | -0.960 | -1.00 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.057 | 0.053 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.0570 | 0.0530 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | 0.0570 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.24 | 7.67 | 7.70 | 7.63 | 7.29 | 7.24 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | 8.00 | 7.99 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | 8.25 | 8.24 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | 0.0035 | < 0.0010 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 6.1 | 5.9 | 5.5 | 6.8 | 7.00 | 7.14 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 130 | 98 | 100 | 110 | 130 | 115 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | 0.162 | 0.137 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 5.0 | < 5.0 | 3.9 | 2.76 | 2.18 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | 70.3 | 33.8 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2025-06-12 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-08 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20250612 | 20X606071-1154903 | MW20-17D_20200917 | MW20-17D_20201216 | MW20-17D_20210325 | MW20-17D_20210608 |
| | | | | Lab Sample ID | HA2501804-012 | 1154903 | NRG101 | OLM168 | PEB969 | PUI344 |
| | | | | Lab Job Number | HA2501804 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 95 | 92 | 85 | 93 | 87 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | < 10 | 2.2 | < 1.0 | < 1.0 | 1.2 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 86.7 | 95 | 94 | 86 | 94 | 88 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.0100 | 0.12 | 0.24 | 0.17 | 0.16 | 0.14 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 2.07 | 2.24 | 2.17 | 2.26 | 2.15 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 2.18 | 2.15 | 1.97 | 2.05 | 2.00 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 15 | 126 | 57 | 35 | 31 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 12.5 | 3 | 5.9 | 11 | 8.7 | 7.8 |
| **Color** | | | | tcu | - | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.72 | 1.2 | 0.68 | 0.51 | 1.4 | 0.71 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 224 | 219 | 210 | 200 | 200 | 190 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | < 0.12 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 86.2 | 21.6 | 29 | 65 | 71 | 74 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 2.6 | 2.05 | 4.83 | 4.87 | 3.61 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.52 | -0.0180 | -0.0170 | -0.238 | 0.121 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -0.84 | -0.268 | -0.268 | -0.489 | -0.131 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.033 | < 0.05 | < 0.050 | 0.093 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.05 | < 0.050 | 0.11 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.05 | < 0.010 | 0.013 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.04 | 0.047 | 0.040 | 0.018 | 0.035 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.43 | 8.25 | 8.40 | 8.08 | 7.78 | 8.16 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 8.77 | 8.41 | 8.10 | 8.02 | 8.04 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 9.09 | 8.66 | 8.35 | 8.27 | 8.29 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.0010 | < 0.0010 | 0.0022 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | < 0.0010 | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | 8.6 | 9.6 | 9.3 | 9.3 | 9.4 |
| **Sulphate** | | | 4 - 22 | mg/l | 5.49 | 4 | 9.0 | 6.8 | 6.4 | 7.9 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 161 | 112 | 130 | 120 | 120 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.196 | 2.5 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | 6.1 | < 500 | < 5.0 | < 50 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 4400 | 4600 | 9900 | 980 | 3200 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 37800 | 1000 | 1000 | >1000 | 150 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 | 2022-09-28 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP1_20211005 | MW20-17D_20211005 | MW20-17D_20211213 | MW20-17D_20220330 | MW20-17D_20220603 | MW20-17D_20220928 |
| | | | | Lab Sample ID | QWF770 | QWF789 | RJM509 | SGA978 | SUS179 | TWS410 |
| | | | | Lab Job Number | C1T0922 | C1T0922 | C1Z2957 | C285511 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 88 | 91 | 92 | 95 | 82 | 88 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 89 | 92 | 93 | 96 | 83 | 89 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.078 | 0.054 | < 0.050 | 0.068 | 0.067 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.16 | 2.22 | 2.19 | 2.26 | 2.04 | 2.07 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.01 | 2.00 | 2.12 | 1.99 | 1.94 | 2.07 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 26 | 31 | 25 | 24 | 100 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.1 | 8.9 | 6.9 | 7.9 | 8.3 | 5.9 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.50 | 0.54 | 0.60 | 0.88 | 1.2 | 0.61 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 200 | 200 | 190 | 210 | 200 | 200 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 74 | 74 | 78 | 72 | 72 | 75 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.60 | 5.21 | 1.62 | 6.35 | 2.51 | 0 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.141 | -0.0240 | 0.104 | -0.0220 | -0.100 | 0.0280 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.392 | -0.275 | -0.147 | -0.273 | -0.351 | -0.223 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.055 | 0.070 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.055 | 0.070 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.016 | 0.015 | 0.020 | < 0.010 | 0.017 | 0.019 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.89 | 7.99 | 8.09 | 7.99 | 7.97 | 8.06 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.03 | 8.02 | 7.99 | 8.01 | 8.07 | 8.03 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.28 | 8.27 | 8.24 | 8.26 | 8.32 | 8.28 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | 0.0016 | 0.0012 | 0.0021 | 0.015 | 0.0012 | 0.0026 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.4 | 9.2 | 9.0 | 9.9 | 9.0 | 9.4 |
| **Sulphate** | | | 4 - 22 | mg/l | 5.8 | 5.8 | 6.5 | 5.5 | 7.0 | 5.8 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 120 | 120 | 120 | 110 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 0.50 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1000 | 510 | 1200 | 2900 | 2100 | 1500 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 280 | 420 | 610 | 570 | 850 | 510 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
| | | | | Sample Date | 2022-12-16 | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2023-12-01 | 2024-03-14 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP3_20221216 | MW20-17D_20221216 | MW20-17D_20230313 | MW20-17D_20231013 | MW20-17D_20231201 | MW20-17D_20240314 |
| | | | | Lab Sample ID | UQJ833 | UQJ830 | VHF982 | XHD257 | XTQ423 | YQA656 |
| | | | | Lab Job Number | C2AN796 | C2AN796 | C372847 | C3V9312 | C3AS035 | C476965 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 200 | 83 | 78 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.5 | 1.1 | < 1.0 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 200 | 84 | 79 | 79 | 74 | 76 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.081 | 0.077 | < 0.050 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.67 | 2.12 | 1.98 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 5.00 | 2.09 | 1.96 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 67 | 96 | 36 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.2 | 8.5 | 8.6 | 8.2 | 7.7 | 7.2 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | 5.2 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.1 | 0.54 | 1.1 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 430 | 200 | 200 | 210 | 220 | 210 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 210 | 76 | 74 | 77 | 77 | 75 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.41 | 0.710 | 0.510 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.620 | 0.0970 | 0.0180 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.371 | -0.154 | -0.233 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.10 | < 0.050 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.12 | < 0.050 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.017 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | 0.014 | 0.020 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.89 | 8.14 | 8.10 | 8.03 | 8.00 | 8.10 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.27 | 8.05 | 8.08 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.52 | 8.30 | 8.33 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | 0.0048 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 13 | 8.8 | 9.0 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 22 | 8.6 | 7.8 | 6.9 | 7.6 | 6.4 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 260 | 120 | 110 | 85 | 120 | 100 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 50 | < 50 | < 50 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 19000 | 13000 | 3600 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 1000 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-17D | MW20-17D | MW20-17D | MW20-17S | MW20-17S | MW20-17S |
| | | | | Sample Date | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2020-05-27 | 2020-09-17 | 2020-12-16 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-17D_20240702 | MW20-17D_20241210 | MW20-17D_20250612 | 20X606071-1154902 | MW20-17S_20200917 | MW20-17S_20201216 |
| | | | | Lab Sample ID | ZQA472 | HA2403274-008 | HA2501804-021 | 1154902 | NRG100 | OLM167 |
| | | | | Lab Job Number | C4K2602 | HA2403274 | HA2501804 | 20X606071 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 123 | - | 78 | 89 | 100 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | - | < 10 | 1.4 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | - | < 5 | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 100 | 101 | 82.6 | 78 | 90 | 100 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | 0.0060 | 0.0235 | < 0.03 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 2.38 | - | 1.90 | 2.18 | 2.52 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 123 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 2.20 | - | 2.11 | 1.97 | 1.98 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 27 | 18 | 4 | 68 | 81 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.9 | 8.31 | 8.23 | 6 | 6.6 | 11 |
| **Color** | | | | tcu | - | 4840 | - | < 5 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | 0.52 | 0.73 | < 0.5 | 0.58 | 1.7 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 250 | 219 | 201 | 209 | 200 | 240 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.192 | - | < 0.12 | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 83 | 80.9 | 76.2 | 61.7 | 76 | 76 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 92.4 | - | 5.1 | 5.06 | 12.0 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | 0.020 | - | -0.27 | 0.202 | -0.0640 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -0.230 | - | -0.59 | -0.0480 | -0.315 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | < 0.020 | < 0.020 | 0.06 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.0224 | - | 0.06 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | < 0.010 | < 0.010 | < 0.05 | 0.011 | 0.040 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0024 | - | 0.02 | 0.015 | 0.017 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.79 | 7.96 | 8.03 | 8.11 | 8.21 | 7.89 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.94 | - | 8.38 | 8.01 | 7.95 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.19 | - | 8.70 | 8.26 | 8.20 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | < 0.004 | - | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | 0.0033 | < 0.0010 | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | 8.0 | 10 | 9.2 |
| **Sulphate** | | | 4 - 22 | mg/l | 5.4 | 5.67 | 6.26 | 8 | 8.8 | 9.0 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 130 | 114 | 210 | 105 | 120 | 130 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 0.435 | 0.252 | < 0.4 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.00 | - | < 0.5 | < 500 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | 6130 | 11000 | 3400 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 884 | - | 11100 | 1000 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-25 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-17S_20210325 | MW20-17S_20210608 | MW20-17S_20211005 | MW20-17S_20211213 | MW20-17S_20220330 | MW20-17S_20220603 |
| | | | | Lab Sample ID | PEB973 | PUI343 | QWF788 | RJM508 | SGA980 | SUS182 |
| | | | | Lab Job Number | C179966 | C1F8315 | C1T0922 | C1Z2957 | C285511 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 91 | 83 | 85 | 84 | 80 | 75 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.7 | 1.0 | 1.0 | 1.1 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 92 | 85 | 86 | 85 | 81 | 76 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.27 | 2.13 | 2.12 | 2.08 | 2.00 | 1.93 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 1.91 | 1.93 | 1.97 | 1.92 | 1.81 | 1.86 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 42 | < 20 | < 20 | 21 | 37 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.5 | 8.5 | 9.8 | 7.5 | 8.5 | 9.1 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.62 | 2.2 | < 0.50 | < 0.50 | 0.79 | 1.3 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 200 | 190 | 200 | 180 | 180 | 190 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 74 | 63 | 63 | 70 | 63 | 71 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 8.61 | 4.93 | 3.67 | 4.00 | 4.99 | 1.85 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.0560 | 0.226 | -0.00600 | 0.0450 | 0.0530 | -0.0570 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.306 | -0.0250 | -0.257 | -0.205 | -0.197 | -0.308 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.055 | 0.073 | < 0.050 | 0.052 | < 0.050 | 0.069 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.055 | 0.073 | < 0.050 | 0.052 | < 0.050 | 0.069 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.023 | 0.022 | 0.013 | 0.011 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.94 | 8.35 | 8.10 | 8.11 | 8.18 | 8.05 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.00 | 8.12 | 8.11 | 8.07 | 8.13 | 8.11 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.25 | 8.37 | 8.36 | 8.32 | 8.38 | 8.36 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.0 | 8.8 | 9.4 | 9.4 | 8.1 | 8.7 |
| **Sulphate** | | | 4 - 22 | mg/l | 7.4 | 9.2 | 5.6 | 8.2 | 6.3 | 7.3 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 120 | 120 | 120 | 110 | 110 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 5.0 | < 0.50 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1700 | 3000 | 2500 | 840 | 5100 | 1300 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 880 | 1000 | 600 | 120 | 1000 | 570 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S |
| | | | | **Sample Date** | 2022-09-28 | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2023-12-01 | 2024-03-14 |
| | | | | **Background** | **Background** | **Background** | **Background** | **Background** | **Background** | **Background** |
| | | | | **Sample ID** | MW20-17S_20220928 | MW20-17S_20221216 | MW20-17S_20230313 | MW20-17S_20231013 | MW20-17S_20231201 | MW20-17S_20240314 |
| | | | | **Lab Sample ID** | TWS412 | UQJ855 | VHF983 | XHD256 | XTQ422 | YQA655 |
| | | | | **Lab Job Number** | C2S3993 | C2AN796 | C372847 | C3V9312 | C3AS035 | C476965 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 84 | 76 | 70 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 85 | 77 | 71 | 75 | 69 | 69 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.10 | 1.94 | 1.82 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.01 | 1.97 | 1.87 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 33 | < 20 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6.8 | 8.9 | 9.0 | 8.6 | 8.5 | 8.2 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.81 | < 0.50 | 0.78 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 180 | 190 | 200 | 210 | 200 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 76 | 75 | 73 | 79 | 78 | 74 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.19 | 0.770 | 1.36 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.0460 | -0.00800 | -0.0560 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.205 | -0.259 | -0.307 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.062 | < 0.050 | 0.092 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.062 | < 0.050 | 0.092 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | 0.012 | 0.011 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.08 | 8.08 | 8.07 | 7.96 | 7.97 | 8.06 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.03 | 8.08 | 8.12 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.28 | 8.34 | 8.37 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.5 | 9.7 | 9.1 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 9.8 | 7.0 | 6.8 | 7.3 | 7.3 | 6.9 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 110 | 110 | 100 | 120 | 94 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 50 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1800 | 20000 | 1100 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 1000 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-07-02 | 2024-12-10 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-06-01 |
| | | | | Background | Background | Background | Background | Background | | |
| | | | | Sample ID | MW20-17S_20240702 | DUP 2_20241210 | MW20-17S_20241210 | MW20-17S_20250612 | MW2-D_20181108 | 20X608058-1165149 |
| | | | | Lab Sample ID | ZQA471 | HA2403274-028 | HA2403274-007 | HA2501804-022 | 9698374 | 1165149 |
| | | | | Lab Job Number | C4K2602 | HA2403274 | HA2403274 | HA2501804 | 18X408633 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 103 | - | - | 188 | 203 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | - | - | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | - | - | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 70 | 84.6 | 84.6 | 81.4 | 188 | 203 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | < 0.0050 | < 0.0050 | 0.0257 | 0.04 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 2.10 | 2.10 | - | 5.24 | 6.30 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 103 | 103 | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 1.90 | 1.94 | - | 5.57 | 6.79 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 24 | 32 | < 10 | - | < 3 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.8 | 9.46 | 9.37 | 9.71 | 17 | 30 |
| **Color** | | | | tcu | - | 4550 | 3950 | - | 7 | 11 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | < 0.50 | 0.59 | 0.51 | - | 4.8 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 201 | 195 | 196 | 525 | 601 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.089 | 0.096 | - | < 0.12 | 0.17 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 76 | 74.6 | 76.1 | 77.1 | 228 | 277 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | < 1.0 | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 90.5 | 92.4 | - | 3.1 | 3.8 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.107 | -0.068 | - | -0.02 | -0.18 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -0.356 | -0.318 | - | -0.34 | -0.50 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | 0.023 | 0.023 | 0.036 | < 0.05 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | 0.0230 | 0.0230 | - | < 0.05 | < 0.05 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | < 0.010 | < 0.010 | < 0.010 | < 0.05 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0098 | - | - | 0.03 | 0.04 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.77 | 7.95 | 7.97 | 8.00 | 7.54 | 7.27 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 8.06 | 8.04 | - | 7.56 | 7.45 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.31 | 8.29 | - | 7.88 | 7.77 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | < 0.004 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | 0.0018 | 0.0023 | < 0.0010 | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | 14.1 | 12.1 |
| **Sulphate** | | | 4 - 22 | mg/l | 8.7 | 6.69 | 6.83 | 7.21 | 48 | 67 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 133 | 113 | 147 | 282 | 345 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 0.518 | 0.430 | 0.099 | - | 0.5 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.00 | < 5.00 | - | 0.7 | 5.2 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | 136 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 1120 | 1180 | - | 46.8 | 132 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
| | | | | Sample Date | 2020-06-01 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X608058-1165159 | MW-2D_20200915 | MW2-D_20201216 | MW2-D_20210323 | MW2-D_20210608 | DUP2_20211005 |
| | | | | Lab Sample ID | 1165159 | NQU698 | OLM109 | PDR009 | PUI327 | QWF771 |
| | | | | Lab Job Number | 20X608058 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 203 | 230 | 250 | 200 | 210 | 250 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 203 | 230 | 250 | 200 | 210 | 250 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.057 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 5.90 | 6.70 | 7.08 | 5.84 | 6.26 | 7.06 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 7.09 | 6.90 | 6.37 | 6.16 | 5.93 | 5.90 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 9 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 24 | 28 | 30 | 25 | 25 | 28 |
| **Color** | | | | tcu | 20 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 4.2 | 1.3 | 1.1 | 1.3 | 1.9 | 1.5 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 589 | 610 | 600 | 520 | 580 | 620 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.15 | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 287 | 290 | 260 | 250 | 240 | 240 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 9.1 | 1.47 | 5.28 | 2.67 | 2.71 | 8.95 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.13 | 0.269 | 0.248 | 0.0230 | 0.129 | 0.326 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.19 | 0.0210 | -0.00100 | -0.226 | -0.121 | 0.0770 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.04 | 0.049 | 0.047 | 0.050 | 0.092 | 0.056 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.56 | 7.45 | 7.44 | 7.31 | 7.41 | 7.55 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.43 | 7.19 | 7.19 | 7.29 | 7.28 | 7.23 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.75 | 7.43 | 7.44 | 7.54 | 7.53 | 7.47 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12.3 | 12 | 14 | 13 | 12 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 56 | 65 | 63 | 58 | 65 | 64 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 334 | 370 | 370 | 330 | 340 | 360 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.8 | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 4.6 | < 5.0 | 2.8 | < 5.0 | 2.4 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 206 | 100 | 140 | 78 | 1000 | 670 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 89.8 | 130 | 72 | 67 | 46 | 420 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW2-D_20211005 | MW2-D_20211213 | MW2-D_20220329 | MW2-D_20220602 | MW2-D_20220928 | DUP1_20221214 |
| | | | | Lab Sample ID | QWF768 | RJM315 | SFM276 | SUK076 | TWS377 | UPB189 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S3993 | C2AH933 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 220 | 200 | 190 | 200 | 200 | 190 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | 1.5 | 1.1 | 1.7 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 230 | 200 | 190 | 210 | 200 | 190 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.11 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 6.80 | 5.86 | 5.65 | 6.18 | 6.06 | 6.04 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | < 10 |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 6.04 | 5.71 | 5.58 | 6.06 | 6.19 | 6.45 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 34 | 52 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 34 | 22 | 22 | 25 | 26 | 11 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 12 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.5 | 1.3 | 1.6 | 1.7 | 1.7 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 620 | 540 | 550 | 600 | 560 | 560 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 250 | 230 | 230 | 250 | 250 | 290 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 5.92 | 1.30 | 0.620 | 0.980 | 1.06 | 3.28 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.343 | 0.266 | 0.209 | 0.609 | 0.454 | 0.772 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.0940 | 0.0170 | -0.0400 | 0.361 | 0.205 | 0.523 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.051 | 0.052 | 0.20 | 0.081 | 0.10 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.051 | 0.052 | 0.21 | 0.081 | 0.10 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.055 | 0.052 | 0.047 | 0.050 | 0.049 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.59 | 7.58 | 7.55 | 7.89 | 7.75 | 7.96 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.25 | 7.31 | 7.34 | 7.28 | 7.30 | 7.19 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.50 | 7.56 | 7.59 | 7.53 | 7.54 | 7.44 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 13 | 13 | 13 | 12 | 8.7 |
| **Sulphate** | | | 4 - 22 | mg/l | 64 | 60 | 58 | 64 | 64 | 90 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 360 | 320 | 310 | 340 | 340 | 350 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.8 | 2.5 | < 5.0 | < 5.0 | < 5.0 | 6.2 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 110 | 150 | 440 | 370 | 1700 | 28 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 260 | 26 | 240 | 110 | 360 | 2.2 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-12-14 | 2022-12-14 | 2023-03-09 | 2023-10-12 | 2023-12-01 | 2024-03-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP1_20221214 | MW2-D_20221214 | MW2-D_20230309 | MW2-D_20231012 | MW2-D_20231201 | MW2-D_20240312 |
| | | | | Lab Sample ID | UPM107 | UPM106 | VGG622 | XHD232 | XTQ399 | YPJ113 |
| | | | | Lab Job Number | C2AJ782 | C2AJ782 | C368322 | C3V9312 | C3AS035 | C473698 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 170 | 170 | 170 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.0 | 1.1 | < 1.0 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 170 | 180 | 170 | 160 | 160 | 160 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 5.48 | 5.49 | 5.42 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 5.89 | 5.83 | 5.84 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 25 | 25 | 27 | 22 | 26 | 23 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.6 | 1.6 | 3.0 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 550 | 550 | 550 | 530 | 570 | 500 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 240 | 230 | 230 | 210 | 240 | 210 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.61 | 3.00 | 3.73 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.438 | 0.470 | 0.265 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.189 | 0.221 | 0.0160 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.059 | 0.058 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.060 | 0.059 | 0.058 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.012 | < 0.010 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.051 | 0.050 | 0.052 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.80 | 7.84 | 7.65 | 7.64 | 7.70 | 7.60 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.36 | 7.37 | 7.39 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.61 | 7.62 | 7.64 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 14 | 14 | 13 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 61 | 61 | 58 | 53 | 58 | 51 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 320 | 320 | 310 | 270 | 320 | 270 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 50 | < 50 | < 50 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1500 | 1900 | 2000 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 540 | 420 | 1000 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW2-D | MW2-D | MW2-D | MW2-M | MW2-M | MW2-M |
| | | | | **Sample Date** | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-06-01 | 2020-09-15 |
| | | | | **Background** | | | | | | |
| | | | | **Sample ID** | MW2-D_20240702 | MW2-D_20241210 | MW2-D_20250612 | MW2-M_20181108 | 20X608058-1165161 | DUP2_20200915 |
| | | | | **Lab Sample ID** | ZQA448 | HA2403274-026 | HA2501804-011 | 9698373 | 1165161 | NQU696 |
| | | | | **Lab Job Number** | C4K2602 | HA2403274 | HA2501804 | 18X408633 | 20X608058 | C0O2716 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 188 | - | 118 | 120 | 150 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | - | < 10 | < 10 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | - | < 5 | < 5 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 180 | 154 | 185 | 118 | 120 | 150 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | < 0.0050 | 0.0101 | 0.04 | < 0.03 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 4.41 | - | 4.30 | 4.31 | 4.94 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 188 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 4.39 | - | 4.27 | 5.17 | 4.96 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 15 | 21 | - | 13 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 24 | 16.4 | 18.4 | 11 | 13 | 12 |
| **Color** | | | | tcu | - | 1530 | - | < 5 | 7 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | 0.86 | 1.40 | - | 2.4 | 1.0 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 570 | 432 | 500 | 411 | 419 | 460 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.112 | - | < 0.12 | 0.13 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 230 | 177 | 210 | 165 | 205 | 200 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 99.5 | - | 0.4 | 9.1 | 0.200 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.562 | - | -0.71 | -0.56 | -0.342 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -0.811 | - | -1.03 | -0.88 | -0.591 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | 0.064 | 0.049 | 0.09 | 0.09 | 0.082 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | 0.0640 | - | 0.09 | 0.09 | 0.082 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | < 0.010 | < 0.010 | < 0.05 | < 0.05 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0450 | - | 0.02 | 0.04 | 0.044 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.51 | 6.97 | 7.27 | 7.21 | 7.27 | 7.20 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.53 | - | 7.92 | 7.83 | 7.54 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 7.78 | - | 8.24 | 8.15 | 7.79 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | < 0.004 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | 0.0022 | 0.0021 | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | 11.6 | 11.2 | 11 |
| **Sulphate** | | | 4 - 22 | mg/l | 57 | 41.2 | 44.2 | 78 | 74 | 80 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 320 | 223 | 291 | 240 | 255 | 280 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | < 0.500 | 0.364 | - | 1.1 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 2.77 | - | < 0.5 | 2.9 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | 80 | 180 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 331 | - | 235 | 158 | 75 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW-2M_20200915 | MW2-M_20201216 | MW2-M_20210323 | MW2-M_20210608 | MW2-M_20211005 | MW2-M_20211213 |
| | | | | Lab Sample ID | NQU697 | OLM108 | PDR008 | PUI326 | QWF767 | RJM314 |
| | | | | Lab Job Number | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 150 | 130 | 110 | 130 | 130 | 130 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 150 | 130 | 110 | 130 | 130 | 130 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.15 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.96 | 4.61 | 4.14 | 4.42 | 4.45 | 4.46 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.94 | 4.41 | 3.96 | 4.21 | 4.39 | 4.51 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 23 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 12 | 16 | 12 | 11 | 13 | 12 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.95 | 1.2 | 1.3 | 1.3 | 0.93 | 1.1 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 460 | 430 | 390 | 420 | 410 | 430 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 200 | 180 | 160 | 170 | 180 | 180 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.200 | 2.22 | 2.22 | 2.43 | 0.680 | 0.560 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.301 | -0.463 | -0.730 | -0.545 | -0.434 | -0.170 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.550 | -0.713 | -0.979 | -0.794 | -0.683 | -0.419 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.090 | 0.33 | 0.085 | 0.079 | 0.095 | 0.091 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.090 | 0.33 | 0.085 | 0.079 | 0.095 | 0.091 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.045 | 0.047 | 0.044 | 0.049 | 0.050 | 0.051 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.23 | 7.19 | 7.01 | 7.11 | 7.21 | 7.45 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.53 | 7.65 | 7.74 | 7.66 | 7.65 | 7.62 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.78 | 7.90 | 7.99 | 7.91 | 7.90 | 7.87 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 13 | 12 | 11 | 12 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 79 | 77 | 74 | 74 | 75 | 70 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 280 | 270 | 240 | 250 | 260 | 260 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 1.7 | < 5.0 | 1.1 | 0.79 | 1.6 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 170 | 710 | 710 | 890 | 270 | 240 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 97 | 140 | 140 | 60 | 19 | 26 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2023-03-09 | 2023-10-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW2-M_20220329 | MW2-M_20220602 | MW2-M_20220928 | MW2-M_20221214 | MW2-M_20230309 | MW2-M_20231012 |
| | | | | Lab Sample ID | SFM275 | SUK075 | TWS376 | UPM105 | VGG621 | XHD231 |
| | | | | Lab Job Number | C282980 | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 130 | 120 | 150 | 150 | 130 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 130 | 130 | 150 | 150 | 130 | 130 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.34 | 4.23 | 4.90 | 4.76 | 4.16 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.40 | 4.21 | 4.87 | 4.75 | 4.27 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 13 | 11 | 13 | 15 | 13 | 11 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.3 | 1.2 | 1.2 | 0.97 | 0.91 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 420 | 420 | 470 | 460 | 420 | 440 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 180 | 170 | 190 | 190 | 170 | 180 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.690 | 0.240 | 0.310 | 0.110 | 1.30 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.141 | -0.0240 | 0.0390 | -0.0890 | -0.309 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.390 | -0.273 | -0.210 | -0.339 | -0.559 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.10 | 0.12 | 0.17 | 0.10 | 0.15 | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.10 | 0.12 | 0.17 | 0.10 | 0.15 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.047 | 0.044 | 0.050 | 0.052 | 0.049 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.49 | 7.64 | 7.57 | 7.47 | 7.36 | 7.67 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.63 | 7.67 | 7.54 | 7.56 | 7.67 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.88 | 7.91 | 7.78 | 7.81 | 7.92 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 11 | 11 | 14 | 12 | - |
| **Sulphate** | | | 4 - 22 | mg/l | 65 | 67 | 69 | 67 | 61 | 57 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 250 | 240 | 280 | 270 | 240 | 210 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 1.6 | 1.7 | < 5.0 | 1.1 | 0.67 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 210 | 270 | 110 | 240 | 230 | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 110 | 27 | 51 | 65 | 60 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-S |
| | | | | Sample Date | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW2-M_20231201 | MW2-M_20240312 | MW2-M_20240702 | MW2-M_20241210 | MW2-M_20250612 | MW2-S_20181108 |
| | | | | Lab Sample ID | XTQ398 | YPJ112 | ZQA447 | HA2403274-025 | HA2501804-010 | 9698372 |
| | | | | Lab Job Number | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 | 18X408633 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | 141 | - | 153 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | <1.0 | - | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | <1.0 | - | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 110 | 140 | 140 | 116 | 94.0 | 153 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | < 0.0050 | 0.0138 | 0.05 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | 3.48 | - | 4.52 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | 141 | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | 3.35 | - | 4.93 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | < 10 | < 10 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 11 | 14 | 14 | 9.06 | 8.82 | 5 |
| **Color** | | | | tcu | - | - | - | 213 | - | 8 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | 0.72 | 0.74 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 400 | 440 | 470 | 354 | 296 | 415 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | 0.088 | - | < 0.12 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 150 | 190 | 190 | 136 | 112 | 215 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | < 1.0 | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | 96.3 | - | 4.4 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | -0.953 | - | 0 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | -1.20 | - | -0.32 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | 0.245 | 0.132 | 0.06 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | 0.245 | - | 0.06 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | < 0.010 | < 0.010 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | 0.0422 | - | 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.20 | 7.58 | 7.39 | 6.84 | 6.95 | 7.57 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | 7.79 | - | 7.57 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | 8.04 | - | 7.89 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | 0.0043 | 0.0026 | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | 9.6 |
| **Sulphate** | | | 4 - 22 | mg/l | 54 | 56 | 58 | 42.6 | 37.5 | 63 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 210 | 240 | 260 | 191 | 248 | 257 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | 0.090 | 0.059 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.72 | < 5.0 | 0.93 | 1.69 | - | 3.7 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | 41.2 | - | 251 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-06-01 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X608058-1165160 | MW2-S_20201216 | MW2-S_20210323 | MW2-S_20210608 | MW2-S_20211005 | MW2-S_20211213 |
| | | | | Lab Sample ID | 1165160 | OLM107 | PDR007 | PUI325 | QWF766 | RJM312 |
| | | | | Lab Job Number | 20X608058 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 133 | 160 | 130 | 200 | 200 | 200 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 133 | 160 | 130 | 200 | 200 | 200 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 3.66 | 5.00 | 4.21 | 5.52 | 5.05 | 4.86 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 3.93 | 4.89 | 4.97 | 4.92 | 5.08 | 4.92 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 13 | 40 | 94 | < 20 | 27 | 23 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 5 | 16 | 12 | 13 | 10 | 7.7 |
| **Color** | | | | tcu | 41 | 9.5 | < 5.0 | < 5.0 | 6.5 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 5.3 | 4.9 | 2.8 | 3.9 | 2.8 | 2.4 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 369 | 470 | 400 | 510 | 480 | 460 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.15 | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 161 | 200 | 180 | 220 | 220 | 210 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.6 | 1.11 | 8.28 | 5.75 | 0.300 | 0.610 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.39 | -0.0460 | -0.307 | -0.0460 | -0.0880 | 0.355 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.71 | -0.296 | -0.556 | -0.295 | -0.337 | 0.106 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.05 | 0.076 | 0.11 | < 0.050 | 0.063 | 0.090 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.05 | 0.076 | 0.11 | < 0.050 | 0.063 | 0.090 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.02 | < 0.010 | < 0.010 | 0.023 | 0.036 | 0.030 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.36 | 7.32 | 7.21 | 7.21 | 7.15 | 7.62 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.75 | 7.36 | 7.52 | 7.25 | 7.24 | 7.26 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.07 | 7.61 | 7.77 | 7.50 | 7.49 | 7.51 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.6 | 17 | 6.9 | 9.7 | 8.7 | 8.4 |
| **Sulphate** | | | 4 - 22 | mg/l | 41 | 67 | 64 | 55 | 37 | 31 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 204 | 290 | 260 | 290 | 270 | 260 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.4 | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 6.0 | 5.5 | < 50 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 3020 | 1400 | 5800 | 3500 | 4300 | 3700 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 3700 | 900 | >1000 | 1000 | 440 | 620 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S |
| | | | | Sample Date | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2023-03-09 | 2023-10-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW2-S_20220329 | MW2-S_20220602 | MW2-S_20220928 | MW2-S_20221214 | MW2-S_20230309 | MW2-S_20231012 |
| | | | | Lab Sample ID | SFM274 | SUK074 | TWS375 | UPM104 | VGG620 | XHD230 |
| | | | | Lab Job Number | C282980 | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 170 | 170 | 150 | 160 | 140 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 170 | 170 | 160 | 160 | 140 | 150 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | 0.063 | 0.070 | 0.075 | < 0.050 | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.32 | 4.32 | 3.95 | 3.76 | 3.44 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.27 | 4.17 | 3.95 | 3.99 | 3.67 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 84 | 57 | 98 | 99 | 170 | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.1 | 7.7 | 3.7 | 4.8 | 5.9 | 6.8 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | 14 | 13 | < 5.0 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 3.2 | 3.2 | 5.5 | 3.5 | 5.0 | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 430 | 410 | 370 | 370 | 350 | 400 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 190 | 180 | 150 | 170 | 160 | 170 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.580 | 1.77 | 0 | 2.97 | 3.23 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.0660 | -0.181 | 0.201 | 0.337 | 0.285 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.316 | -0.430 | -0.0490 | 0.0870 | 0.0350 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.071 | 0.11 | < 0.050 | < 0.050 | 0.078 | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.071 | 0.11 | < 0.050 | < 0.050 | 0.078 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.026 | 0.028 | 0.023 | 0.015 | 0.024 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.29 | 7.23 | 7.69 | 7.76 | 7.79 | 7.63 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.36 | 7.41 | 7.49 | 7.42 | 7.50 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.61 | 7.66 | 7.74 | 7.67 | 7.75 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.0 | 8.7 | 12 | 11 | 7.6 | - |
| **Sulphate** | | | 4 - 22 | mg/l | 28 | 33 | 35 | 20 | 21 | 20 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 230 | 230 | 220 | 210 | 190 | 205 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 50 | 12 | 5.5 | < 50 | < 500 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 29000 | 35000 | 7900 | 10000 | 17000 | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 1000 | 1000 | 1000 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW3 |
| | | | | **Sample Date** | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 | |
| | | | | **Background** | | | | | | **Background** | |
| | | | | **Sample ID** | MW2-S_20231201 | MW2-S_20240312 | MW2-S_20240702 | MW2-S_20241210 | MW2-S_20250612 | MW3_20181108 | |
| | | | | **Lab Sample ID** | XTQ397 | YPJ111 | ZQA446 | HA2403274-012 | HA2501804-009 | 9698375 | |
| | | | | **Lab Job Number** | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 | 18X408633 | |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | 173 | - | 101 | |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | <1.0 | - | < 10 | |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | <1.0 | - | < 5 | |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 160 | 140 | 150 | 142 | 206 | 101 | |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | 0.0083 | 0.0483 | 0.04 | |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | 3.70 | - | 2.40 | |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | 173 | - | - | |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - | |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | 3.50 | - | 2.40 | |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | 99 | 115 | - | |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 5.8 | 3.9 | 2.4 | 11.0 | 0.99 | 7 | |
| **Color** | | | | tcu | - | - | - | 5280 | - | 6 | |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | 4.68 | 4.16 | - | |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 410 | 350 | 350 | 350 | 386 | 240 | |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | 0.104 | - | 0.15 | |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 180 | 160 | 160 | 144 | 177 | 93.3 | |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | < 1.0 | - | - | |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | 94.6 | - | 0.1 | |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | -0.537 | - | 0.08 | |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | -0.786 | - | -0.24 | |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | 0.040 | 0.052 | < 0.05 | |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | 0.0400 | - | < 0.05 | |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | < 0.010 | < 0.010 | < 0.05 | |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | 0.0186 | - | < 0.01 | |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.39 | 7.28 | 7.57 | 7.01 | 6.70 | 8.20 | |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | 7.55 | - | 8.12 | |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | 7.80 | - | 8.44 | |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - | |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | 0.0026 | 0.0034 | - | |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | 9.7 | |
| **Sulphate** | | | 4 - 22 | mg/l | 18 | 21 | 11 | 26.0 | 3.81 | 9 | |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 230 | 200 | 210 | 172 | 297 | 124 | |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | 1.14 | 2.52 | - | |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 500 | < 500 | < 50 | 9.91 | - | 1.6 | |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - | |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | 1810 | - | 1460 | |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 |
| | | | | **Sample Date** | 2020-04-01 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-09 |
| | | | | **Background** | **Background** | **Background** | **Background** | **Background** | **Background** | **Background** |
| | | | | **Sample ID** | 20X589937-1062416 | 20X606071-1154681 | MW3_20200917 | MW3_20201216 | MW-3_20210325 | MW3_20210609 |
| | | | | **Lab Sample ID** | 1062416 | 1154681 | NRG099 | OLM110 | PEB979 | PUQ383 |
| | | | | **Lab Job Number** | 20X589937 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F9831 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 103 | 109 | 100 | 100 | 97 | 96 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | 1.7 | < 1.0 | 1.2 | 1.5 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 103 | 109 | 100 | 100 | 98 | 97 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | 0.07 | < 0.050 | 0.061 | < 0.050 | 0.052 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.64 | 2.53 | 2.50 | 2.65 | 2.47 | 2.41 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.99 | 2.32 | 2.44 | 2.51 | 2.38 | 2.41 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 216 | 31 | 43 | < 20 | 30 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7 | 7 | 7.4 | 11 | 10 | 8.7 |
| **Color** | | | | tcu | < 5 | 90 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | < 0.5 | < 0.50 | 0.99 | 0.55 | 3.1 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 235 | 244 | 240 | 240 | 230 | 240 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.19 | 0.18 | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 116 | 94.4 | 96 | 97 | 93 | 93 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 6.3 | 4.3 | 1.21 | 2.71 | 1.86 | 0 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.09 | -0.06 | 0.371 | -0.0460 | 0.224 | 0.303 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.41 | -0.38 | 0.121 | -0.296 | -0.0260 | 0.0520 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | 0.07 | < 0.050 | 0.055 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.07 | 0.07 | < 0.050 | 0.055 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.07 | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.01 | 0.02 | 0.015 | 0.017 | 0.014 | 0.079 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.94 | 8.01 | 8.25 | 7.83 | 8.13 | 8.22 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.03 | 8.07 | 7.88 | 7.87 | 7.91 | 7.92 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.35 | 8.39 | 8.13 | 8.12 | 8.16 | 8.17 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | 0.005 | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 9.1 | 9.7 | 10 | 12 | 11 | 11 |
| **Sulphate** | | | 4 - 22 | mg/l | 18 | 7 | 11 | 13 | 10 | 10 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 146 | 125 | 140 | 150 | 140 | 140 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 7.2 | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 13.7 | 0.6 | < 50 | < 50 | < 5.0 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | 39100 | 5900 | 41000 | 5700 | 7900 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 73400 | 77600 | 1000 | 1000 | >1000 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-03-30 | 2022-06-03 | 2022-09-28 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW3_20211005 | MW3_20211213 | DUP3_20220330 | MW3_20220330 | MW3_20220603 | MW3_20220928 |
| | | | | Lab Sample ID | QWF769 | RJM316 | SGA979 | SGA983 | SUS183 | TWS378 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C285511 | C285511 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 98 | 100 | 96 | 95 | 98 | 100 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.5 | 1.5 | 1.6 | 1.1 | 1.9 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 99 | 100 | 97 | 97 | 99 | 100 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.061 | < 0.050 | < 0.050 | < 0.050 | 0.064 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.49 | 2.54 | 2.41 | 2.41 | 2.48 | 2.57 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.52 | 2.49 | 2.42 | 2.39 | 2.43 | 2.50 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | 51 | 39 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 11 | 8.6 | 9.4 | 9.4 | 10 | 7.6 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 9.4 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.3 | 0.59 | 1.2 | 1.1 | 3.1 | 1.6 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 240 | 240 | 240 | 240 | 240 | 250 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 98 | 98 | 95 | 94 | 95 | 96 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.600 | 0.990 | 0.210 | 0.420 | 1.02 | 1.38 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.0400 | 0.319 | 0.320 | 0.330 | 0.177 | 0.409 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.291 | 0.0680 | 0.0700 | 0.0800 | -0.0730 | 0.159 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.091 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.091 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.020 | 0.016 | 0.016 | 0.015 | 0.017 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.84 | 8.19 | 8.22 | 8.24 | 8.08 | 8.29 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.88 | 7.87 | 7.91 | 7.91 | 7.90 | 7.88 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.14 | 8.12 | 8.16 | 8.16 | 8.15 | 8.13 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 13 | 11 | 10 | 10 | 10 | 11 |
| **Sulphate** | | | 4 - 22 | mg/l | 9.4 | 9.8 | 9.5 | 10 | 11 | 13 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 140 | 140 | 130 | 140 | 140 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 0.99 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 3600 | 47000 | 8200 | 7800 | 6700 | 12000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | 1000 | 1000 | 1000 | 7500 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2023-12-01 | 2024-03-14 | 2024-07-02 |
| | | | | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW3_20221216 | MW3_20230310 | MW3_20231013 | MW3_20231201 | MW3_20240314 | DUP 3_20240702 |
| | | | | Lab Sample ID | UQJ831 | VGT148 | XHD233 | XTQ400 | YQA654 | ZQA474 |
| | | | | Lab Job Number | C2AN796 | C370496 | C3V9312 | C3AS035 | C476965 | C4K2602 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 95 | 93 | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.3 | 1.2 | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 97 | 94 | 94 | 90 | 91 | 90 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.056 | < 0.050 | - | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.45 | 2.40 | - | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.59 | 2.51 | - | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 39 | 130 | - | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.5 | 9.5 | 7.4 | 9.5 | 8.1 | 8.7 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | - | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.50 | 2.1 | - | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 230 | 240 | 260 | 260 | 260 | 260 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 99 | 98 | 98 | 98 | 97 | 97 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.78 | 2.24 | - | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.243 | 0.228 | - | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.00700 | -0.0230 | - | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | - | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | - | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | - | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.016 | 0.016 | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.14 | 8.14 | 8.09 | 7.88 | 8.18 | 8.05 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.90 | 7.91 | - | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.15 | 8.16 | - | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 10 | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 12 | 12 | 11 | 11 | 11 | 11 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 140 | 120 | 140 | 140 | 140 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 50 | < 50 | < 5.0 | < 50 | < 50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 20000 | 13000 | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 1000 | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Sample Location** | MW3 | MW3 | MW3 | MW5-D | MW5-D | MW5-D |
| | | | | **Sample Date** | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-08 | 2020-05-27 | 2020-09-17 |
| | | | | **Background** | **Background** | **Background** | **Background** | | | |
| | | | | **Sample ID** | MW3_20240702 | MW3_20241210 | MW3_20250612 | MW5-D_20181108 | 20X606071-1154896 | MW-5D_20200917 |
| | | | | **Lab Sample ID** | ZQA449 | HA2403274-009 | HA2501804-004 | 9698378 | 1154896 | NRG095 |
| | | | | **Lab Job Number** | C4K2602 | HA2403274 | HA2501804 | 18X408633 | 20X606071 | C0O4512 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 134 | - | 81 | 89 | 130 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | - | < 10 | < 10 | 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | - | < 5 | < 5 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 90 | 110 | 243 | 81 | 89 | 130 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | < 0.0050 | 0.0470 | 0.05 | < 0.03 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 2.73 | - | 2.00 | 2.03 | 7.20 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 134 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 2.46 | - | 2.02 | 2.06 | 9.72 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 17 | 182 | - | < 3 | 50 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.9 | 9.29 | 9.11 | 8 | 6 | 97 |
| **Color** | | | | tcu | - | 4380 | - | 16 | < 5 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | < 0.50 | 1.58 | - | 1.4 | < 0.50 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 260 | 243 | 246 | 196 | 226 | 750 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.161 | - | 0.32 | 0.45 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 96 | 94.3 | 94.8 | 77.5 | 81.6 | 390 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 90.1 | - | 0.6 | 0.6 | 14.9 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | 0.262 | - | -1.06 | -0.87 | 0.676 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | 0.012 | - | -1.38 | -1.19 | 0.428 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | < 0.020 | < 0.020 | 0.07 | < 0.05 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.0224 | - | 0.07 | < 0.05 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | < 0.010 | < 0.010 | < 0.05 | < 0.05 | 0.037 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0123 | - | 0.04 | 0.06 | 0.067 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.14 | 8.12 | 8.08 | 7.25 | 7.35 | 7.93 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.86 | - | 8.31 | 8.22 | 7.26 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.11 | - | 8.63 | 8.54 | 7.50 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | < 0.004 | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | 0.0022 | 0.0150 | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | 12.9 | 12.2 | 13 |
| **Sulphate** | | | 4 - 22 | mg/l | 12 | 12.5 | 12.8 | 7 | 4 | 93 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 120 | 227 | 103 | 104 | 470 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 0.312 | 8.62 | - | 1.4 | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 5.00 | - | 3.9 | 1.9 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | 203 | 91 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 1570 | - | 37.4 | 149 | 9.8 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-12-16 | 2020-12-16 | 2021-03-25 | 2021-03-25 | 2021-06-08 | 2021-10-06 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP1_20201216 | MW5-D_20201216 | DUP1_20210325 | MW-5D_20210325 | MW5-D_20210608 | MW5-D_20211006 |
| | | | | Lab Sample ID | OLM170 | OLM113 | PEB970 | PEB974 | PUI329 | QWS514 |
| | | | | Lab Job Number | C0X8319 | C0X8319 | C179966 | C179966 | C1F8315 | C1T3325 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 93 | 100 | 93 | 93 | 85 | 89 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 93 | 100 | 93 | 93 | 86 | 89 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.081 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.48 | 2.61 | 2.47 | 2.47 | 2.23 | 2.35 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.31 | 2.30 | 2.32 | 2.33 | 2.16 | 2.30 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 16 | 16 | 16 | 16 | 12 | 15 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.84 | 0.84 | 0.69 | 0.71 | 1.0 | 0.89 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 230 | 230 | 230 | 230 | 220 | 220 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 91 | 90 | 92 | 92 | 85 | 91 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.55 | 6.31 | 3.13 | 2.92 | 1.59 | 1.08 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.544 | -0.570 | -0.660 | -0.655 | -0.596 | -0.777 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.795 | -0.820 | -0.910 | -0.905 | -0.847 | -1.03 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.067 | 0.059 | 0.072 | 0.063 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.067 | 0.059 | 0.072 | 0.063 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.072 | 0.067 | 0.064 | 0.065 | 0.055 | 0.041 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.40 | 7.35 | 7.28 | 7.29 | 7.42 | 7.19 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.94 | 7.92 | 7.94 | 7.94 | 8.02 | 7.97 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.20 | 8.17 | 8.19 | 8.19 | 8.27 | 8.22 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 14 | 16 | 14 | 14 | 13 | 14 |
| **Sulphate** | | | 4 - 22 | mg/l | 6.8 | 6.9 | 7.4 | 7.2 | 8.6 | 6.4 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 140 | 140 | 140 | 130 | 130 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.2 | 1.2 | < 5.0 | < 5.0 | 1.6 | 2.2 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 130 | 170 | 330 | 140 | 300 | 270 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 50 | 74 | 61 | 58 | 110 | 140 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2022-03-30 | 2022-06-02 | 2022-09-28 | 2022-12-13 | 2023-03-09 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW5-D_20211213 | MW-5D_20220330 | MW5-D_20220602 | MW5-D_20220928 | MW5-D_20221213 | MW5-D_20230309 |
| | | | | Lab Sample ID | RJM318 | SGA985 | SUK079 | TWS380 | UPM109 | VGG625 |
| | | | | Lab Job Number | C1Z2957 | C285511 | C2F1732 | C2S3993 | C2AJ782 | C368322 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 88 | 93 | 84 | 80 | 79 | 75 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 88 | 93 | 84 | 81 | 79 | 76 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.067 | 0.060 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.35 | 2.40 | 2.22 | 2.09 | 2.14 | 2.08 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.33 | 2.26 | 2.09 | 2.13 | 2.26 | 2.21 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 68 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 15 | 14 | 12 | 12 | 14 | 14 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | 6.8 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.0 | 1.1 | 1.2 | 2.0 | 0.94 | 0.65 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 230 | 220 | 230 | 210 | 220 | 220 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 91 | 89 | 80 | 81 | 87 | 84 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.430 | 3.00 | 3.02 | 0.950 | 2.73 | 3.03 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.295 | -0.291 | -0.426 | -0.459 | -0.515 | -0.631 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.546 | -0.541 | -0.676 | -0.709 | -0.766 | -0.882 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.067 | 0.064 | < 0.050 | 0.052 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.067 | 0.075 | < 0.050 | 0.052 | 0.078 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | 0.011 | < 0.010 | < 0.010 | 0.078 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.077 | 0.065 | 0.013 | 0.042 | 0.068 | 0.066 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.68 | 7.67 | 7.62 | 7.60 | 7.52 | 7.45 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.97 | 7.96 | 8.05 | 8.06 | 8.04 | 8.08 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.22 | 8.21 | 8.30 | 8.31 | 8.29 | 8.33 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 14 | 12 | 13 | 13 | 13 | 13 |
| **Sulphate** | | | 4 - 22 | mg/l | 7.8 | 6.5 | 9.1 | 6.9 | 7.2 | 8.1 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 140 | 130 | 130 | 120 | 130 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 1.3 | 1.4 | < 5.0 | 1.2 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 300 | 170 | 660 | 610 | 210 | 150 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 75 | 110 | 1000 | 220 | 86 | 62 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW5-D_20231013 | MW5-D_20231201 | MW5-D_20240312 | MW5-D_20240702 | MW5-D_20241210 | MW5-D_20250612 |
| | | | | Lab Sample ID | XHD235 | XTQ402 | YPJ116 | ZQA451 | HA2403274-005 | HA2501804-020 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501804 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | 106 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 86 | 71 | 76 | 73 | 87.0 | 86.0 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | < 0.0050 | 0.0183 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | 2.36 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | 106 | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | 2.27 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | < 10 | 15 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.6 | 15 | 13 | 13 | 16.7 | 13.1 |
| **Color** | | | | tcu | - | - | - | - | 175 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | 0.90 | 0.98 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 220 | 240 | 220 | 220 | 228 | 225 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | 0.475 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 81 | 83 | 81 | 80 | 85.5 | 87.3 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | < 1.0 | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | 96.2 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | -0.348 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | -0.600 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.052 | 0.083 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.0520 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | 0.0658 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.64 | 7.33 | 7.29 | 7.58 | 7.66 | 7.29 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | 8.01 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | 8.26 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | 0.0014 | 0.0024 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 6.7 | 5.9 | 7.0 | 6.1 | 6.08 | 5.66 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 130 | 110 | 130 | 118 | 139 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | < 0.050 | 0.258 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 1.3 | < 5.0 | < 5.0 | 1.13 | - |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | 26.4 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
| | | | | Sample Date | 2018-11-22 | 2018-11-22 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP_20181122 | MW5-S_20181122 | 20X606071-1154895 | MW-5S_20200917 | MW5-S_20201216 | MW-5S_20210325 |
| | | | | Lab Sample ID | 9731473 | 9731403 | 1154895 | NRG094 | OLM112 | PEB975 |
| | | | | Lab Job Number | 18X412740 | 18X412740 | 20X606071 | C0O4512 | C0X8319 | C179966 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 75 | 71 | 70 | 160 | 77 | 80 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | < 5 | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 75 | 71 | 70 | 160 | 77 | 80 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.03 | 0.31 | < 0.03 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 1.84 | 1.78 | 1.67 | 13.4 | 2.12 | 2.13 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.08 | 1.98 | 1.80 | 13.0 | 1.96 | 1.86 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | 5 | 29 | 35 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6 | 7 | 5 | 210 | 13 | 12 |
| **Color** | | | | tcu | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | 1.9 | 1.4 | 1.1 | 1.1 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 194 | 191 | 190 | 1400 | 200 | 190 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.21 | 0.28 | 0.28 | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 80.4 | 75.3 | 73.3 | 460 | 76 | 74 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 6.2 | 5.1 | 3.8 | 1.74 | 3.92 | 6.77 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -1.43 | -1.47 | -1.46 | 0.641 | -0.853 | -1.10 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.75 | -1.79 | -1.78 | 0.394 | -1.10 | -1.35 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.05 | < 0.05 | < 0.050 | 0.057 | 0.085 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.05 | < 0.05 | < 0.050 | 0.057 | 0.085 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.05 | < 0.05 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.02 | 0.02 | 0.02 | 0.013 | 0.021 | 0.023 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.89 | 6.90 | 6.90 | 7.78 | 7.26 | 7.00 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.32 | 8.37 | 8.36 | 7.14 | 8.11 | 8.10 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.64 | 8.69 | 8.68 | 7.38 | 8.36 | 8.35 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | < 0.004 | - | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12.5 | 11.0 | 11.9 | 14 | 14 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 8 | 8 | 6 | 210 | 10 | 8.3 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 99 | 96 | 88 | 790 | 120 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | 1.0 | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.6 | 5.1 | 2.3 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | 154 | 110 | 280 | 77 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | < 0.1 | < 0.1 | 54.7 | 27 | 290 | 42 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-08 | 2021-10-06 | 2021-12-13 | 2022-03-30 | 2022-06-02 | 2022-09-28 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW5-S_20210608 | MW5-S_20211006 | MW5-S_20211213 | MW-5S_20220330 | MW5-S_20220602 | MW5-S_20220928 |
| | | | | Lab Sample ID | PUI328 | QWS513 | RJM317 | SGA981 | SUK078 | TWS379 |
| | | | | Lab Job Number | C1F8315 | C1T3325 | C1Z2957 | C285511 | C2F1732 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 77 | 76 | 83 | 87 | 64 | 74 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 77 | 76 | 83 | 87 | 64 | 74 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.06 | 2.06 | 2.12 | 2.27 | 1.80 | 1.96 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 1.91 | 2.01 | 2.00 | 2.13 | 1.70 | 1.97 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 11 | 13 | 9.8 | 14 | 11 | 11 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 9.1 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.99 | 1.0 | 1.4 | 0.88 | 1.4 | 1.8 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 200 | 200 | 200 | 220 | 180 | 190 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 75 | 79 | 79 | 84 | 64 | 75 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.78 | 1.23 | 2.91 | 3.18 | 2.86 | 0.250 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -1.04 | -1.05 | -0.722 | -0.445 | -0.982 | -0.405 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.29 | -1.30 | -0.973 | -0.696 | -1.23 | -0.656 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.094 | < 0.050 | < 0.050 | 0.059 | 0.058 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.094 | < 0.050 | < 0.050 | 0.059 | 0.058 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.037 | 0.035 | 0.034 | 0.041 | 0.016 | 0.042 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.07 | 7.04 | 7.33 | 7.57 | 7.27 | 7.72 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.12 | 8.09 | 8.05 | 8.01 | 8.25 | 8.13 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.37 | 8.34 | 8.30 | 8.27 | 8.51 | 8.38 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 13 | 13 | 12 | 12 | 13 |
| **Sulphate** | | | 4 - 22 | mg/l | 9.1 | 7.6 | 8.6 | 6.8 | 10 | 7.1 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 120 | 120 | 120 | 130 | 110 | 110 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.2 | 2.1 | 2.0 | 1.6 | 1.6 | 3.5 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 150 | 40 | 28 | 57 | 34 | 46 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 97 | 63 | 28 | 50 | 63 | 24 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
| | | | | Sample Date | 2022-12-13 | 2023-03-09 | 2023-10-13 | 2023-10-13 | 2023-12-01 | 2024-03-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW5-S_20221213 | MW5-S_20230309 | MW5-S_20231013 | DUP3_20231013 | MW5-S_20231201 | MW5-S_20240312 |
| | | | | Lab Sample ID | UPM108 | VGG624 | XHD234 | XHD238 | XTQ401 | YPJ115 |
| | | | | Lab Job Number | C2AJ782 | C368322 | C3V9312 | C3V9312 | C3AS035 | C473698 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 76 | 73 | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 76 | 73 | 76 | 72 | 70 | 75 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | - | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 2.07 | 2.02 | - | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.21 | 2.06 | - | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | - | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 14 | 14 | 9.0 | 9.1 | 11 | 13 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | - | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 0.89 | 0.51 | - | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 210 | 210 | 210 | 210 | 220 | 220 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 86 | 79 | 77 | 76 | 84 | 79 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.27 | 0.980 | - | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.599 | -0.861 | - | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.850 | -1.11 | - | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.051 | 0.070 | - | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.051 | 0.070 | - | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | - | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.047 | 0.047 | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.46 | 7.25 | 7.53 | 7.38 | 7.05 | 7.54 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.06 | 8.11 | - | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.31 | 8.36 | - | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 17 | 13 | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 7.5 | 8.2 | 6.9 | 6.7 | 8.2 | 5.9 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 130 | 120 | 110 | 105 | 150 | 120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 1.4 | 1.2 | 1.2 | 1.7 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 21 | 24 | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 12 | 13 | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW6-D | MW6-D | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2018-11-07 | 2020-04-01 | 2020-05-28 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW5-S_20240702 | MW5-S_20241210 | MW5-S_20250612 | MW6-D_20181107 | 20X589937-1062418 | 20X606404-1156949 |
| | | | | Lab Sample ID | ZQA450 | HA2403274-004 | HA2501804-019 | 9698354 | 1062418 | 1156949 |
| | | | | Lab Job Number | C4K2602 | HA2403274 | HA2501804 | 18X408633 | 20X589937 | 20X606404 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 89.6 | | 1260 | 1400 | 1270 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | | < 10 | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | | < 5 | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 58 | 73.5 | 76.1 | 1260 | 1400 | 1270 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | 0.0073 | 0.0221 | 17.8 | 26.1 | 25.0 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 1.94 | - | 47.2 | 47.4 | 47.2 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 89.6 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 1.86 | - | 48.0 | 41.5 | 48.5 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 10 | 18 | - | - | 351 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.6 | 10.5 | 11.8 | 100 | 72 | 85 |
| **Color** | | | | tcu | - | 306 | - | 69 | 51 | 60 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | 1.56 | 1.11 | - | - | 73.9 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 190 | 187 | 202 | 3280 | 3390 | 3560 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.368 | - | < 2.4 | 0.65 | 0.74 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 67 | 72.4 | 76.4 | 1790 | 1500 | 1830 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 95.9 | - | 0.8 | 6.6 | 1.4 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -1.32 | - | 0.95 | 0.73 | 0.95 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -1.57 | - | 0.63 | 0.41 | 0.63 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | < 0.020 | 0.020 | < 1.0 | < 0.05 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | < 0.0224 | - | < 1.0 | 0.19 | 0.18 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | < 0.010 | < 0.010 | < 1.0 | 0.19 | 0.18 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0306 | | < 0.01 | < 0.01 | 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.42 | 6.82 | 7.02 | 6.88 | 6.73 | 6.88 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 8.14 | - | 5.93 | 6.00 | 5.93 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 8.39 | - | 6.25 | 6.32 | 6.25 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | < 0.004 | 0.200 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | < 0.0010 | 0.0013 | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | 10.1 | 10.5 | 10.9 |
| **Sulphate** | | | 4 - 22 | mg/l | 7.7 | 7.38 | 6.14 | 923 | 832 | 932 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 97 | 100 | 142 | 2700 | 2530 | 2700 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 0.113 | 0.299 | - | - | 32.6 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.3 | 2.66 | - | 51.3 | < 0.5 | 71.1 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | 68 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 40.0 | - | 157 | 187 | 210 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
| | | | | Sample Date | 2020-09-15 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP1_20200915 | MW6-D_20200915 | MW6-D_20201216 | MW6-D_20210323 | MW6-D_20210607 | MW6-D_20211005 |
| | | | | Lab Sample ID | NQU695 | NQU663 | OLM137 | PDR014 | PUI331 | QWF773 |
| | | | | Lab Job Number | C0O2716 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 1400 | 1400 | 1100 | 1000 | 1000 | 1100 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.5 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 1400 | 1400 | 1100 | 1000 | 1000 | 1100 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 21 | 22 | 24 | 25 | 25 | 27 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 47.6 | 46.5 | 42.4 | 38.6 | 39.3 | 41.0 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 45.8 | 44.2 | 44.4 | 46.2 | 46.8 | 48.2 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 240 | 230 | 230 | 240 | 240 | 220 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 99 | 98 | 94 | 96 | 93 | 97 |
| **Color** | | | | tcu | 45 | 45 | 38 | 48 | 40 | 47 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 59 | 61 | 65 | 62 | 58 | 58 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 3500 | 3500 | 3400 | 3500 | 3500 | 3600 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1700 | 1700 | 1700 | 1800 | 1800 | 1800 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.84 | 2.51 | 2.24 | 9.04 | 8.69 | 8.05 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.00 | 0.918 | 0.989 | 0.875 | 0.813 | 1.23 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.762 | 0.676 | 0.746 | 0.632 | 0.570 | 0.986 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | 0.011 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.032 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.87 | 6.80 | 6.96 | 6.86 | 6.78 | 7.15 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 5.87 | 5.88 | 5.97 | 5.99 | 5.97 | 5.93 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.11 | 6.13 | 6.22 | 6.23 | 6.22 | 6.17 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | 0.0020 | 0.0017 | 0.0010 | 0.0014 | 0.0016 | 0.0016 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 6.3 | 5.7 | 13 | 13 | 12 | 12 |
| **Sulphate** | | | 4 - 22 | mg/l | 760 | 760 | 860 | 760 | 780 | 760 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 2600 | 2600 | 2500 | 2400 | 2400 | 2500 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 64 | 63 | 68 | 66 | 61 | 65 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 54 | 58 | 160 | 41 | 47 | 64 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 160 | 170 | 140 | 170 | 130 | 170 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2022-03-28 | 2022-03-28 | 2022-06-03 | 2022-06-03 | 2022-09-28 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW6-D_20211213 | DUP2_20220328 | MW6-D_20220328 | DUP3_20220603 | MW6-D_20220603 | MW6-D_20220928 |
| | | | | Lab Sample ID | RJM320 | SFM285 | SFM279 | SUS181 | SUS187 | TWS382 |
| | | | | Lab Job Number | C1Z2957 | C282980 | C282980 | C2F3070 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 1300 | 1300 | 1300 | 1200 | 1200 | 1100 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.2 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 1300 | 1300 | 1300 | 1200 | 1200 | 1100 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 25 | 20 | 21 | 19 | 21 | 17 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 44.4 | 42.1 | 41.6 | 38.1 | 39.2 | 34.3 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 43.6 | 38.7 | 39.0 | 37.3 | 37.8 | 34.3 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 200 | 200 | 200 | 200 | 170 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 89 | 81 | 80 | 83 | 83 | 63 |
| **Color** | | | | tcu | 45 | 42 | 40 | 38 | 40 | 46 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 58 | 55 | 55 | 55 | 57 | 48 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 3300 | 3200 | 3200 | 3000 | 3000 | 2800 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1700 | 1500 | 1500 | 1400 | 1400 | 1300 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.880 | 4.20 | 3.23 | 1.06 | 1.86 | 0.0600 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 1.14 | 0.855 | 0.882 | 0.724 | 0.924 | 0.993 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.896 | 0.613 | 0.639 | 0.481 | 0.681 | 0.750 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.13 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.13 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.011 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.038 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.04 | 6.80 | 6.83 | 6.73 | 6.91 | 7.06 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 5.90 | 5.95 | 5.94 | 6.00 | 5.99 | 6.06 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.14 | 6.19 | 6.19 | 6.25 | 6.23 | 6.31 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | 0.0016 | 0.0013 | 0.0014 | 0.0011 | 0.0010 | 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 12 | 11 | 11 | 11 | 11 | 11 |
| **Sulphate** | | | 4 - 22 | mg/l | 740 | 650 | 640 | 590 | 600 | 480 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 2500 | 2300 | 2300 | 2100 | 2200 | 1900 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 65 | 57 | 60 | 59 | 59 | 47 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 94 | 38 | 48 | 56 | 56 | 36 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 140 | 140 | 130 | 160 | 140 | 93 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
| | | | | Sample Date | 2022-12-13 | 2023-03-09 | 2023-03-09 | 2023-10-12 | 2023-10-12 | 2023-12-01 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW6-D_20221213 | DUP 1_20230309 | MW6-D_20230309 | DUP1_20231012 | MW6-D_20231012 | DUP3_20231201 |
| | | | | Lab Sample ID | UPM111 | VGG623 | VGG627 | XHD258 | XHD237 | XTQ426 |
| | | | | Lab Job Number | C2AJ782 | C368322 | C368322 | C3V9312 | C3V9312 | C3AS035 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 910 | 860 | 880 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.1 | < 1.0 | 1.0 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 910 | 860 | 880 | 870 | 880 | 750 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 15 | 12 | 12 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 28.8 | 27.0 | 27.4 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 29.0 | 30.1 | 29.6 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 140 | 160 | 160 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 58 | 54 | 54 | 48 | 46 | 39 |
| **Color** | | | | tcu | 29 | 29 | 31 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 43 | 35 | 37 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2400 | 2400 | 2400 | 2300 | 2300 | 2000 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 1100 | 1100 | 1100 | 1100 | 1100 | 940 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.400 | 5.38 | 3.98 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.916 | 0.557 | 0.880 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.671 | 0.313 | 0.636 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.10 | 6.77 | 7.09 | 6.70 | 6.98 | 6.83 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.19 | 6.22 | 6.21 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 6.43 | 6.46 | 6.46 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 11 | 10 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 430 | 400 | 390 | 320 | 320 | 270 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1600 | 1600 | 1600 | 1560 | 1480 | 1300 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 45 | 40 | 41 | 42 | 400 | 39 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 41 | 60 | 56 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 12 | 170 | 140 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
| | | | | Sample Date | 2023-12-01 | 2024-03-12 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW6-D_20231201 | DUP1_20240312 | MW6-D_20240312 | MW6-D_20240702 | MW6-D_20241210 | MW6-D_20250611 |
| | | | | Lab Sample ID | XTQ404 | YPJ114 | YPJ118 | ZQA453 | HA2403274-022 | HA2501779-010 |
| | | | | Lab Job Number | C3AS035 | C473698 | C473698 | C4K2602 | HA2403274 | HA2501779 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | 931 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 760 | 790 | 760 | 810 | 763 | 774 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | 9.80 | 7.50 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | 19.9 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | 931 | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | 20.9 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | 117 | 102 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 40 | 33 | 33 | 47 | 28.4 | 24.1 |
| **Color** | | | | tcu | - | - | - | - | 460 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | 34.1 | 27.6 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 2000 | 1800 | 1800 | 2200 | 1760 | 1710 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | 0.143 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 950 | 910 | 900 | 1000 | 786 | 753 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | < 1.0 | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | 105 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | 0.457 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | 0.210 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | < 0.100 | < 0.100 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | < 0.112 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | < 0.050 | < 0.050 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | <0.0010 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.92 | 6.94 | 7.13 | 7.06 | 6.78 | 6.81 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | 6.32 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | 6.57 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | 0.0018 | 0.0011 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 270 | 210 | 210 | 300 | 187 | 162 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1300 | 1200 | 1200 | 1400 | 916 | 1120 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | 12.9 | 12.1 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 39 | 33 | 32 | 36 | 37.2 | - |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | 105 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2018-11-08 | 2020-04-01 | 2020-05-28 | 2020-12-16 | 2021-03-23 | 2021-06-07 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW6-S_20181108 | 20X589937-1062417 | 20X606404-1156948 | MW6-S_20201216 | MW6-S_20210323 | MW6-S_20210607 |
| | | | | Lab Sample ID | 9698379 | 1062417 | 1156948 | OLM114 | PDR013 | PUI330 |
| | | | | Lab Job Number | 18X408633 | 20X589937 | 20X606404 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 92 | 102 | 91 | 90 | 99 | 110 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | < 5 | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 92 | 102 | 91 | 91 | 99 | 110 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.04 | < 0.03 | 1.57 | 0.31 | 0.35 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.71 | 3.89 | 4.19 | 3.93 | 4.14 | 4.31 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 5.65 | 5.80 | 4.14 | 5.45 | 4.11 | 4.48 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | 49 | 62 | 57 | 46 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 10 | 5 | 7 | 13 | 12 | 13 |
| **Color** | | | | tcu | 26 | 10 | 24 | 12 | 12 | 9.2 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | 15.3 | 16 | 13 | 13 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 512 | 434 | 431 | 380 | 390 | 420 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | < 0.12 | < 0.12 | < 0.12 | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 216 | 240 | 158 | 230 | 180 | 190 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 9.1 | 19.7 | 0.6 | 16.2 | 0.360 | 1.93 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -1.10 | -0.98 | -0.67 | -0.600 | -0.794 | -0.685 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.42 | -1.30 | -0.99 | -0.849 | -1.04 | -0.934 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 1.51 | 0.94 | 0.67 | 0.45 | 0.38 | 0.17 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 1.51 | 0.94 | 0.67 | 0.45 | 0.38 | 0.17 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.05 | < 0.05 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.01 | < 0.01 | < 0.01 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.74 | 6.75 | 7.29 | 7.01 | 6.84 | 6.87 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.84 | 7.73 | 7.96 | 7.61 | 7.63 | 7.56 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.16 | 8.05 | 8.28 | 7.86 | 7.88 | 7.81 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 2.8 | 2.8 | 3.6 | 3.2 | 3.4 | 4.0 |
| **Sulphate** | | | 4 - 22 | mg/l | 119 | 79 | 102 | 83 | 86 | 83 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 301 | 262 | 248 | 260 | 240 | 250 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | 2.8 | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 16.3 | 19.3 | 15.9 | 20 | 14 | 15 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | 90 | 140 | 61 | 70 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 31.4 | 35.2 | 17.5 | 49 | 20 | 27 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-28 | 2022-12-13 | 2023-03-09 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW6-S_20211005 | MW6-S_20211213 | MW6-S_20220328 | MW6-S_20220928 | MW6-S_20221213 | MW6-S_20230309 |
| | | | | Lab Sample ID | QWF772 | RJM319 | SFM278 | TWS381 | UPM110 | VGG626 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2S3993 | C2AJ782 | C368322 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 130 | 280 | 160 | 140 | 130 | 120 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 130 | 280 | 160 | 140 | 130 | 120 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | 3.9 | 0.071 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.85 | 9.74 | 4.82 | 4.42 | 4.40 | 3.98 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.85 | 12.6 | 4.97 | 4.35 | 4.37 | 4.13 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 52 | 220 | 46 | 58 | 38 | 36 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 16 | 26 | 12 | 7.4 | 7.1 | 6.4 |
| **Color** | | | | tcu | 20 | 17 | 10 | 21 | 12 | 13 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 19 | 23 | 15 | 19 | 17 | 13 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 470 | 880 | 470 | 420 | 430 | 370 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 210 | 510 | 220 | 190 | 190 | 180 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0 | 12.7 | 1.53 | 0.800 | 0.340 | 1.85 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.302 | 0.223 | -0.334 | -0.188 | -0.347 | -0.493 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.551 | -0.0240 | -0.583 | -0.437 | -0.596 | -0.742 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.13 | 0.066 | 0.053 | 4.1 | 0.79 | 0.23 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.13 | 0.066 | 0.053 | 4.1 | 0.79 | 0.23 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.13 | 7.08 | 7.00 | 7.28 | 7.16 | 7.05 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.43 | 6.86 | 7.34 | 7.47 | 7.50 | 7.54 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.68 | 7.10 | 7.59 | 7.72 | 7.75 | 7.79 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 3.8 | 4.7 | 3.3 | 3.9 | 4.6 | 3.3 |
| **Sulphate** | | | 4 - 22 | mg/l | 83 | 160 | 58 | 53 | 76 | 67 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 280 | 600 | 270 | 250 | 250 | 230 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 21 | 30 | 16 | 20 | 19 | 14 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 51 | 67 | 21 | 75 | 25 | 20 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 22 | 11 | 8.7 | 12 | 15 | 4.0 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-12 | 2023-12-01 | 2024-03-12 | 2024-07-02 | 2024-12-10 | 2025-06-11 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW6-S_20231012 | MW6-S_20231201 | MW6-S_20240312 | MW6-S_20240702 | MW6-S_20241210 | MW6-S_20250611 |
| | | | | Lab Sample ID | XHD236 | XTQ403 | YPJ117 | ZQA452 | HA2403274-021 | HA2501779-009 |
| | | | | Lab Job Number | C3V9312 | C3AS035 | C473698 | C4K2602 | HA2403274 | HA2501779 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | 190 | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | <1.0 | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 200 | 150 | 160 | 170 | 156 | 204 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | < 0.0050 | 0.0302 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | 4.40 | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | 190 | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | 4.16 | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | 58 | 40 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 5.3 | 6.4 | 6.1 | 4.9 | 6.58 | 4.78 |
| **Color** | | | | tcu | - | - | - | - | 64.9 | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | 15.7 | 13.3 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 560 | 490 | 460 | 490 | 408 | 471 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | < 0.020 | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 250 | 220 | 220 | 220 | 184 | 209 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | < 1.0 | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | 94.5 | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | -0.427 | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | -0.676 | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.555 | 0.252 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | 0.555 | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | < 0.010 | 0.012 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | <0.0010 | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.09 | 7.05 | 7.16 | 7.11 | 6.97 | 7.02 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | 7.40 | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | 7.65 | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | 0.0011 | < 0.0010 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 64 | 66 | 55 | 49 | 51.0 | 30.6 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 350 | 310 | 310 | 310 | 208 | 299 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | 0.493 | 0.666 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 19 | 19 | 13 | 18 | 18.2 | - |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | 14.4 | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
| | | | | Sample Date | 2018-11-07 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7-D_20181107 | 20X589937-1062420 | 20X606404-1156946 | MW7-D_20200915 | MW7-D_20201216 | MW7-D_20210323 |
| | | | | Lab Sample ID | 9698358 | 1062420 | 1156946 | NQU660 | OLM138 | PDR016 |
| | | | | Lab Job Number | 18X408633 | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 109 | 170 | 163 | 300 | 190 | 170 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | < 5 | < 5 | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 109 | 170 | 163 | 300 | 190 | 170 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.21 | 0.44 | 0.36 | 0.70 | 0.65 | 0.65 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 5.04 | 7.75 | 7.78 | 12.7 | 10.1 | 8.83 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 6.98 | 8.60 | 7.75 | 12.4 | 9.36 | 8.83 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | 52 | 66 | 64 | 64 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7 | 11 | 12 | 16 | 18 | 15 |
| **Color** | | | | tcu | 27 | 48 | 31 | 20 | 20 | 19 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | 19.4 | 19 | 20 | 18 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 535 | 718 | 738 | 1100 | 850 | 790 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | < 0.12 | < 0.12 | 0.17 | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 307 | 372 | 329 | 540 | 410 | 390 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 16.1 | 5.2 | 0.2 | 0.960 | 3.75 | 0 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.73 | -0.85 | -0.51 | -0.0850 | -0.308 | -0.383 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -1.05 | -1.17 | -0.83 | -0.332 | -0.556 | -0.631 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.28 | < 0.05 | < 0.05 | 0.056 | 0.082 | 0.29 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.28 | 0.06 | < 0.05 | 0.056 | 0.082 | 0.31 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | 0.06 | < 0.05 | < 0.010 | < 0.010 | 0.013 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.01 | < 0.01 | 0.01 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.85 | 6.49 | 6.92 | 6.74 | 6.78 | 6.74 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.58 | 7.34 | 7.43 | 6.83 | 7.09 | 7.13 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.90 | 7.66 | 7.75 | 7.08 | 7.34 | 7.38 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | < 0.004 | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 4.2 | 3.8 | 4.3 | 5.5 | 5.2 | 4.9 |
| **Sulphate** | | | 4 - 22 | mg/l | 127 | 194 | 201 | 300 | 280 | 240 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 338 | 473 | 459 | 740 | 600 | 540 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | 1.76 | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 20.6 | 27.7 | 21.0 | 19 | 20 | 19 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | 110 | 18 | 52 | 60 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 162 | 61.1 | 110 | 13 | 19 | 26 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-29 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7D_20210609 | MW7-D_20211005 | MW7-D_20211213 | MW7-D_20220328 | MW7-D_20220603 | MW7-D_20220929 |
| | | | | Lab Sample ID | PUQ379 | QWF775 | RJM388 | SFM282 | SUS171 | TWL725 |
| | | | | Lab Job Number | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S2706 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 220 | 230 | 200 | 190 | 190 | 170 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 220 | 230 | 200 | 190 | 190 | 170 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.66 | 0.90 | 0.81 | 0.73 | 0.65 | 0.56 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 10.3 | 11.0 | 8.01 | 6.85 | 7.28 | 6.26 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 10.2 | 11.3 | 8.59 | 6.83 | 7.61 | 6.85 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 58 | 62 | 61 | 32 | 55 | 60 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 14 | 19 | 14 | 12 | 13 | 11 |
| **Color** | | | | tcu | 16 | 27 | 26 | 25 | 29 | 35 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 18 | 19 | 21 | 16 | 18 | 16 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 900 | 1000 | 740 | 680 | 710 | 650 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 450 | 490 | 370 | 300 | 330 | 290 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.530 | 1.48 | 3.49 | 0.150 | 2.22 | 4.50 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.396 | -0.161 | -0.100 | -0.281 | -0.233 | -0.424 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.643 | -0.409 | -0.348 | -0.530 | -0.481 | -0.672 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.073 | < 0.050 | < 0.050 | 0.057 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.073 | < 0.050 | < 0.050 | 0.057 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.011 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 6.61 | 6.77 | 6.97 | 6.90 | 6.90 | 6.82 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.00 | 6.93 | 7.07 | 7.18 | 7.13 | 7.24 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.25 | 7.18 | 7.32 | 7.43 | 7.38 | 7.49 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 4.9 | 5.7 | 6.0 | 5.2 | 5.1 | 6.2 |
| **Sulphate** | | | 4 - 22 | mg/l | 270 | 280 | 170 | 130 | 150 | 130 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 620 | 660 | 480 | 400 | 430 | 380 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 19 | 21 | 21 | 17 | 19 | 19 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 140 | 28 | 89 | 22 | 30 | 34 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 15 | 9.9 | 22 | 14 | 13 | 14 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
| | | | | Sample Date | 2022-12-16 | 2023-03-10 | 2023-03-10 | 2023-10-13 | 2023-12-01 | 2024-03-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7-D_20221216 | DUP2_20230310 | MW7-D_20230310 | MW7-D_20231013 | MW7-D_20231201 | MW7-D_20240312 |
| | | | | Lab Sample ID | UQJ837 | VGT146 | VGT136 | XHD240 | XTQ406 | YPJ120 |
| | | | | Lab Job Number | C2AN796 | C370496 | C370496 | C3V9312 | C3AS035 | C473698 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 190 | 180 | 190 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 190 | 180 | 190 | 160 | 140 | 150 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.054 | 0.65 | 0.63 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.31 | 6.01 | 6.18 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.42 | 6.30 | 6.25 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 110 | 46 | 46 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 3.2 | 9.2 | 9.0 | 4.3 | 5.8 | 5.4 |
| **Color** | | | | tcu | 12 | 21 | 20 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 7.3 | 13 | 11 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 390 | 610 | 610 | 520 | 450 | 420 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 200 | 280 | 270 | 230 | 200 | 190 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.26 | 2.36 | 0.560 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.332 | -0.250 | -0.235 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.0820 | -0.499 | -0.483 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.26 | < 0.050 | < 0.050 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.26 | < 0.050 | < 0.050 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.011 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.042 | < 0.010 | < 0.010 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.59 | 6.98 | 6.99 | 7.00 | 6.98 | 7.09 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.25 | 7.23 | 7.22 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.50 | 7.48 | 7.47 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 6.9 | 5.6 | 5.3 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 16 | 100 | 110 | 72 | 52 | 51 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 230 | 350 | 360 | 320 | 290 | 260 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 17 | 15 | 15 | 14 | 17 | 16 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 6300 | 74 | 62 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 1000 | 40 | 33 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-S | MW7-S | MW7-S |
| | | | | Sample Date | 2024-07-02 | 2024-12-10 | 2025-06-11 | 2018-11-07 | 2020-04-01 | 2020-05-28 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7-D_20240702 | MW7-D_20241210 | MW7-D_20250611 | MW7-S_20181107 | 20X589937-1062419 | 20X606404-1156947 |
| | | | | Lab Sample ID | ZQA455 | HA2403274-003 | HA2501779-012 | 9698357 | 1062419 | 1156947 |
| | | | | Lab Job Number | C4K2602 | HA2403274 | HA2501779 | 18X408633 | 20X589937 | 20X606404 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 190 | - | 188 | 237 | 116 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | - | < 10 | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | - | < 5 | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 130 | 156 | 144 | 188 | 237 | 116 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | 0.590 | 0.0198 | 0.51 | < 0.03 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 4.40 | - | 4.61 | 5.99 | 2.86 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 190 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 4.32 | - | 5.21 | 5.65 | 5.08 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | 66 | 96 | - | - | 26 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 6.8 | 6.22 | 0.82 | 5 | 5 | 2 |
| **Color** | | | | tcu | - | 106 | - | 42 | 41 | 30 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | 19.2 | 3.65 | - | - | 18.1 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 420 | 417 | 292 | 401 | 512 | 521 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.031 | - | < 0.12 | < 0.12 | < 0.12 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 170 | 181 | 153 | 217 | 261 | 230 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 98.2 | - | 6.1 | 2.9 | 28.0 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | -0.884 | - | 0.21 | 0.04 | -0.59 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | -1.13 | - | -0.11 | -0.28 | -0.91 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | 0.284 | < 0.020 | < 0.05 | < 0.05 | 0.08 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | 0.316 | - | < 0.05 | 0.07 | 0.08 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | 0.032 | < 0.010 | < 0.05 | 0.07 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0012 | - | < 0.01 | < 0.01 | 0.01 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.18 | 6.56 | 7.12 | 7.65 | 7.30 | 7.02 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 7.44 | - | 7.44 | 7.26 | 7.61 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 7.69 | - | 7.76 | 7.58 | 7.93 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | 0.004 | < 0.004 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | 0.0114 | 0.0012 | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | 7.5 | 6.8 | 7.3 |
| **Sulphate** | | | 4 - 22 | mg/l | 50 | 52.2 | 2.75 | 34 | 53 | 23 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 260 | 263 | 220 | 253 | 314 | 198 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 1.25 | 1.94 | - | - | 0.74 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 17 | 19.8 | - | 17.2 | 16.7 | 55.1 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | 10300 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 11.3 | - | 549 | 4080 | 4470 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S |
| | | | | Sample Date | 2021-03-23 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-29 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7-S_20210323 | MW7S_20210609 | MW7-S_20211005 | MW7-S_20211213 | MW7-S_20220328 | MW7-S_20220929 |
| | | | | Lab Sample ID | PDR015 | PUQ378 | QWF774 | RJM387 | SFM281 | TWL724 |
| | | | | Lab Job Number | C177930 | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2S2706 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 180 | 230 | 240 | 190 | 140 | 190 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 | 1.1 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 180 | 230 | 240 | 190 | 140 | 190 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | 0.054 | 0.057 | < 0.050 | < 0.050 | 0.053 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.13 | 5.72 | 5.62 | 4.33 | 3.18 | 4.22 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.25 | 5.84 | 5.58 | 4.27 | 3.15 | 4.15 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 120 | 39 | 40 | 120 | 100 | 55 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.7 | 15 | 7.3 | 5.0 | 5.3 | 3.3 |
| **Color** | | | | tcu | 10 | 10 | 17 | 11 | 6.3 | 21 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 5.1 | 12 | 8.6 | 6.1 | 3.5 | 5.6 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 380 | 530 | 530 | 370 | 310 | 380 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 180 | 230 | 230 | 190 | 140 | 190 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.43 | 1.04 | 0.360 | 0.700 | 0.470 | 0.840 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.213 | 0.248 | 0.181 | 0.466 | 0.256 | 0.516 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.0370 | -0.00100 | -0.0680 | 0.216 | 0.00500 | 0.267 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.092 | 1.6 | 0.15 | 0.16 | 0.18 | 0.094 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.092 | 1.7 | 0.15 | 0.16 | 0.18 | 0.094 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.039 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | 0.025 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.56 | 7.39 | 7.29 | 7.74 | 7.79 | 7.80 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.35 | 7.14 | 7.11 | 7.28 | 7.53 | 7.28 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.60 | 7.39 | 7.36 | 7.53 | 7.79 | 7.53 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 8.4 | 7.5 | 10 | 7.1 | 6.1 | 8.0 |
| **Sulphate** | | | 4 - 22 | mg/l | 18 | 28 | 28 | 14 | 6.5 | 12 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 230 | 320 | 310 | 230 | 170 | 220 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | 56 | 37 | 57 | 24 | 7.3 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 5600 | 8300 | 5100 | 4200 | 2200 | 520 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | >1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S |
| | | | | Sample Date | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2023-12-01 | 2024-03-12 | 2024-07-02 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7-S_20221216 | MW7-S_20230310 | MW7-S_20231013 | MW7-S_20231201 | MW7-S_20240312 | MW7-S_20240702 |
| | | | | Lab Sample ID | UQJ836 | VGT135 | XHD239 | XTQ405 | YPJ119 | ZQA454 |
| | | | | Lab Job Number | C2AN796 | C370496 | C3V9312 | C3AS035 | C473698 | C4K2602 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 180 | 150 | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | < 1.0 | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 180 | 150 | 180 | 160 | 100 | 210 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.69 | 0.074 | - | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 6.01 | 3.28 | - | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 6.28 | 3.32 | - | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 60 | 280 | - | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.4 | 4.1 | 6.2 | 6.6 | 2.6 | 2.9 |
| **Color** | | | | tcu | 23 | 8.5 | - | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 17 | 6.5 | - | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 570 | 330 | 440 | 380 | 240 | 460 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 270 | 150 | 210 | 180 | 56 | 220 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.20 | 0.610 | - | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.210 | 0.371 | - | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.459 | 0.121 | - | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.44 | - | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.44 | - | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | 0.013 | < 0.010 | - | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | < 0.010 | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.02 | 7.85 | 7.78 | 7.37 | 7.58 | 7.66 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.23 | 7.48 | - | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.48 | 7.73 | - | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | 0.0012 | < 0.0010 | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 6.1 | 5.1 | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 100 | 10 | 10 | 5.0 | 3.6 | 6.7 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 350 | 180 | 210 | 220 | 130 | 270 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 17 | < 50 | < 50 | < 50 | < 50 | 21 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 90 | 8900 | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 39 | 1000 | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-S | MW7-S | MW8-D | MW8-D | MW8-D | MW8-D |
| | | | | Sample Date | 2024-12-18 | 2025-06-11 | 2018-11-07 | 2020-06-01 | 2020-09-17 | 2020-12-16 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW7-S_20241218 | MW7-S_20250611 | MW8-D_20181107 | 20X608058-1165167 | MW-8D_20200917 | MW8-D_20201216 |
| | | | | Lab Sample ID | HA2403375-001 | HA2501779-011 | 9698360 | 1165167 | NRG092 | OLM140 |
| | | | | Lab Job Number | HA2403375 | HA2501779 | 18X408633 | 20X608058 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | 136 | 125 | 90 | 120 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | < 10 | < 10 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | < 5 | < 5 | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 154 | 157 | 136 | 125 | 90 | 120 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | 0.0359 | 0.687 | 0.04 | < 0.03 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | 8.57 | 6.68 | 2.27 | 5.27 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | 9.31 | 5.80 | 2.16 | 10.9 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 217 | 43 | - | 7 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.16 | 5.33 | 119 | 79 | 10 | 53 |
| **Color** | | | | tcu | - | - | 21 | < 5 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 3.40 | 12.6 | - | 1.8 | 1.0 | < 0.50 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 324 | 420 | 904 | 716 | 220 | 540 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | 0.54 | 0.74 | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 149 | 174 | 365 | 218 | 86 | 440 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | 4.1 | 7.0 | 2.48 | 34.7 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | 0.56 | 0.20 | -0.821 | 0.511 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | 0.24 | -0.12 | -1.07 | 0.263 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.020 | < 0.020 | < 0.05 | < 0.05 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | < 0.05 | < 0.05 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.05 | < 0.05 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | 0.04 | 0.06 | 0.049 | 0.079 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.59 | 6.95 | 8.01 | 7.89 | 7.17 | 7.72 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | 7.45 | 7.69 | 7.99 | 7.21 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | 7.77 | 8.01 | 8.24 | 7.46 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | < 0.004 | - | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | < 0.0010 | 0.0025 | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | 11.3 | 13.6 | 13 | 15 |
| **Sulphate** | | | 4 - 22 | mg/l | 6.80 | 42.7 | 120 | 94 | 9.1 | 64 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 187 | 277 | 503 | 363 | 130 | 420 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 8.30 | 1.12 | - | < 0.4 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | - | - | 2.7 | 1.6 | < 5.0 | 0.72 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | 58 | 140 | 100 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | 37.9 | 45.1 | 60 | 5.6 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-23 | 2021-06-07 | 2021-10-06 | 2021-12-13 | 2021-12-13 | 2022-03-29 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW8-D_20210323 | MW8-D_20210607 | MW8-D_20211006 | DUP3_20211213 | MW8-D_20211213 | MW8-D_20220329 |
| | | | | Lab Sample ID | PDR018 | PUI333 | QWS512 | RJM531 | RJM390 | SFM284 |
| | | | | Lab Job Number | C177930 | C1F8315 | C1T3325 | C1Z2957 | C1Z2957 | C282980 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 140 | 130 | 130 | 130 | 130 | 130 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.1 | < 1.0 | 1.1 | 1.0 | 1.1 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 140 | 130 | 130 | 130 | 130 | 130 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 10.3 | 7.05 | 6.19 | 5.16 | 5.05 | 4.91 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 7.21 | 7.01 | 6.30 | 5.69 | 5.83 | 4.77 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 140 | 81 | 64 | 40 | 40 | 39 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.5 | 0.75 | 0.51 | 0.65 | 0.65 | 0.68 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 970 | 720 | 630 | 480 | 480 | 490 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 290 | 290 | 260 | 230 | 230 | 190 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 17.8 | 0.280 | 0.880 | 4.88 | 7.17 | 1.45 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.436 | 0.600 | 0.352 | 0.514 | 0.486 | 0.415 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.188 | 0.351 | 0.103 | 0.265 | 0.237 | 0.166 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.048 | 0.073 | 0.074 | 0.084 | 0.082 | 0.078 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.80 | 7.97 | 7.77 | 7.95 | 7.93 | 7.94 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.36 | 7.37 | 7.42 | 7.43 | 7.44 | 7.53 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.61 | 7.62 | 7.66 | 7.68 | 7.69 | 7.78 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 13 | 13 | 13 | 13 | 13 | 13 |
| **Sulphate** | | | 4 - 22 | mg/l | 170 | 100 | 88 | 64 | 64 | 59 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 550 | 410 | 360 | 310 | 310 | 280 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 0.75 | 0.93 | 0.64 | 0.68 | 0.56 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 44 | 50 | 7.8 | 170 | 170 | 11 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 26 | 6.1 | 3.2 | 3.5 | 3.5 | 3.8 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-02 | 2022-06-02 | 2022-09-29 | 2022-09-29 | 2022-12-16 | 2022-12-16 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP 1_20220602 | MW8-D_20220602 | DUP 2_20220929 | MW8-D_20220929 | DUP2_20221216 | MW8-D_20221216 |
| | | | | Lab Sample ID | SUK077 | SUK081 | TWL730 | TWL727 | UQJ832 | UQJ839 |
| | | | | Lab Job Number | C2F1732 | C2F1732 | C2S2706 | C2S2706 | C2AN796 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 150 | 150 | 130 | 120 | 120 | 120 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.4 | 1.6 | 1.4 | 1.2 | 1.1 | 1.1 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 150 | 150 | 140 | 120 | 130 | 130 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | 0.069 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 8.14 | 7.92 | 5.77 | 5.57 | 4.83 | 4.83 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 7.90 | 7.84 | 5.73 | 5.79 | 5.04 | 5.07 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | 30 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 89 | 83 | 47 | 49 | 35 | 34 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.3 | 1.4 | < 0.50 | < 0.50 | 0.54 | 0.69 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 870 | 850 | 580 | 600 | 480 | 470 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 320 | 320 | 230 | 230 | 200 | 200 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 1.50 | 0.510 | 0.350 | 1.94 | 2.13 | 2.42 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.719 | 0.780 | 0.604 | 0.541 | 0.441 | 0.471 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.471 | 0.532 | 0.356 | 0.293 | 0.192 | 0.221 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.053 | 0.052 | 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.053 | 0.052 | 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.068 | 0.060 | 0.075 | 0.073 | 0.078 | 0.079 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.99 | 8.06 | 8.04 | 8.03 | 7.97 | 7.99 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.27 | 7.28 | 7.44 | 7.49 | 7.53 | 7.52 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.52 | 7.53 | 7.68 | 7.74 | 7.77 | 7.77 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 14 | 13 | 13 | 13 | 13 | 13 |
| **Sulphate** | | | 4 - 22 | mg/l | 130 | 130 | 82 | 86 | 64 | 65 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 470 | 460 | 340 | 330 | 290 | 290 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 1.5 | 1.8 | 0.95 | 0.94 | 0.58 | 0.59 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 200 | 91 | 50 | 56 | 38 | 96 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 34 | 44 | 13 | 15 | 3.3 | 0.35 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
| | | | | Sample Date | 2023-03-10 | 2023-10-12 | 2023-12-01 | 2023-12-01 | 2024-03-12 | 2024-07-02 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW8-D_20230310 | MW8-D_20231012 | DUP1_20231201_WG | MW8-D_20231201 | MW8-D_20240312 | MW8-D_20240702 |
| | | | | Lab Sample ID | VGT138 | XHD242 | XTQ424 | XTQ408 | YPJ122 | ZQA457 |
| | | | | Lab Job Number | C370496 | C3V9312 | C3AS035 | C3AS035 | C473698 | C4K2602 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 120 | - | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | - | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 130 | 120 | 140 | 140 | 120 | 120 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | - | - | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.75 | - | - | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.83 | - | - | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | - | - | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 35 | 28 | 60 | 61 | 27 | 34 |
| **Color** | | | | tcu | < 5.0 | - | - | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.50 | - | - | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 490 | 490 | 760 | 770 | 440 | 510 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 190 | 220 | 300 | 300 | 170 | 190 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.840 | - | - | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.349 | - | - | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.100 | - | - | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | - | - | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | - | - | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | - | - | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.080 | - | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.88 | 8.08 | 7.89 | 7.91 | 7.91 | 7.82 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.53 | - | - | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.78 | - | - | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 13 | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 60 | 56 | 120 | 120 | 49 | 64 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 280 | 305 | 450 | 460 | 250 | 290 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.63 | < 0.50 | 1.2 | 1.1 | < 0.50 | < 0.50 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 23 | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 8.6 | - | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW8-D | MW8-D | MW8-S | MW8-S | MW8-S | MW8-S |
| | | | | Sample Date | 2024-12-10 | 2025-06-12 | 2018-11-07 | 2020-06-01 | 2020-09-17 | 2020-12-16 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW8-D_20241210 | MW8-D_20250612 | MW8-S_20181107 | 20X608058-1165166 | MW-8S_20200917 | MW8-S_20201216 |
| | | | | Lab Sample ID | HA2403274-014 | HA2501804-002 | 9698359 | 1165166 | NRG091 | OLM139 |
| | | | | Lab Job Number | HA2403274 | HA2501804 | 18X408633 | 20X608058 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 185 | - | 256 | 200 | 83 | 190 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | <1.0 | - | < 10 | < 10 | < 1.0 | < 1.0 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | <1.0 | - | < 5 | < 5 | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 152 | 125 | 256 | 200 | 83 | 190 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.0050 | < 0.0050 | 0.04 | < 0.03 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 4.08 | - | 18.5 | 15.9 | 2.15 | 15.3 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | 185 | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 4.13 | - | 21.1 | 18.3 | 1.99 | 13.0 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 19 | < 10 | - | 13 | 24 | 21 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.66 | 25.4 | 143 | 169 | 9.4 | 160 |
| **Color** | | | | tcu | 17.6 | - | 11 | 7 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 3.99 | 1.14 | - | 4.2 | 0.99 | 1.7 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 381 | 422 | 1820 | 1590 | 210 | 1400 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.118 | - | 0.13 | 0.19 | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 185 | 161 | 721 | 613 | 79 | 470 |
| **Hydroxide (OH)** | | | | mg/l | < 1.0 | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 101 | - | 6.6 | 7.2 | 3.86 | 7.92 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.478 | - | 1.07 | 0.79 | -0.787 | 0.628 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.228 | - | 0.75 | 0.47 | -1.04 | 0.382 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.182 | < 0.020 | 0.05 | 0.06 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.182 | - | 0.11 | 0.06 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | 0.06 | < 0.05 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.0383 | - | 0.01 | 0.02 | 0.032 | 0.013 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.91 | 7.68 | 7.98 | 7.87 | 7.27 | 7.68 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.43 | - | 6.91 | 7.08 | 8.05 | 7.06 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.68 | - | 7.23 | 7.40 | 8.30 | 7.30 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | < 0.004 | - | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | 0.0041 | < 0.0010 | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | 12.8 | 13.0 | 13 | 15 |
| **Sulphate** | | | 4 - 22 | mg/l | 36.3 | 44.8 | 447 | 342 | 11 | 330 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 199 | 254 | 1170 | 1000 | 120 | 880 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | 0.242 | < 0.050 | - | 0.9 | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 3.13 | - | 2.3 | 7.3 | < 5.0 | 2.8 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | 40 | 130 | 84 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 2.65 | - | 319 | 43.7 | 120 | 28 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S |
| | | | | Sample Date | 2021-03-23 | 2021-06-07 | 2021-10-06 | 2021-12-13 | 2022-03-29 | 2022-06-02 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW8-S_20210323 | MW8-S_20210607 | MW8-S_20211006 | MW8-S_20211213 | MW8-S_20220329 | MW8-S_20220602 |
| | | | | Lab Sample ID | PDR017 | PUI332 | QWS511 | RJM389 | SFM283 | SUK080 |
| | | | | Lab Job Number | C177930 | C1F8315 | C1T3325 | C1Z2957 | C282980 | C2F1732 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 170 | 180 | 150 | 220 | 250 | 220 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 1.3 | < 1.0 | 1.3 | 1.7 | 1.9 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 170 | 190 | 150 | 220 | 250 | 230 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.051 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 17.2 | 16.5 | 10.5 | 12.5 | 18.4 | 16.9 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 17.4 | 16.4 | 9.03 | 12.3 | 17.9 | 16.9 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 220 | 190 | 120 | 86 | 170 | 170 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.4 | 2.0 | 1.3 | 2.2 | 2.5 | 2.5 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1600 | 1600 | 1000 | 1100 | 1800 | 1600 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 650 | 610 | 350 | 410 | 640 | 670 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.460 | 0.300 | 7.62 | 0.770 | 1.41 | 0.0300 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.793 | 0.910 | 0.557 | 0.750 | 1.00 | 1.09 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.547 | 0.664 | 0.310 | 0.503 | 0.759 | 0.841 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.053 | < 0.050 | 0.36 | 0.30 | 0.40 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | 0.053 | < 0.050 | 0.36 | 0.30 | 0.40 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.012 | 0.018 | 0.018 | 0.030 | < 0.010 | 0.020 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.78 | 7.89 | 7.80 | 7.80 | 7.85 | 7.95 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.99 | 6.98 | 7.24 | 7.05 | 6.85 | 6.86 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.23 | 7.23 | 7.49 | 7.29 | 7.09 | 7.11 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 13 | 13 | 14 | 14 | 12 | 13 |
| **Sulphate** | | | 4 - 22 | mg/l | 360 | 360 | 200 | 260 | 420 | 370 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 1000 | 1000 | 600 | 750 | 1100 | 1000 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | 2.5 | 1.2 | 11 | < 5.0 | 2.9 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 17 | 47 | 5.2 | 33 | 66 | 29 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 21 | 15 | 0.97 | 13 | 40 | 22 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2023-12-01 | 2024-03-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW8-S_20220929 | MW8-S_20221216 | MW8-S_20230310 | MW8-S_20231012 | MW8-S_20231201 | MW8-S_20240312 |
| | | | | Lab Sample ID | TWL726 | UQJ838 | VGT137 | XHD241 | XTQ407 | YPJ121 |
| | | | | Lab Job Number | C2S2706 | C2AN796 | C370496 | C3V9312 | C3AS035 | C473698 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 140 | 270 | 230 | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 1.0 | 2.3 | 1.4 | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 140 | 270 | 230 | 200 | 230 | 240 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | < 0.050 | < 0.050 | - | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 9.93 | 16.9 | 19.1 | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 10.7 | 18.7 | 22.0 | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | < 20 | 27 | 29 | - | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 99 | 110 | 180 | 47 | 45 | 67 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | 23 | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 1.8 | 3.2 | 2.8 | - | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1000 | 1500 | 1900 | 900 | 980 | 1100 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 430 | 690 | 860 | 360 | 400 | 490 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 3.59 | 5.07 | 7.15 | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.645 | 1.18 | 1.06 | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.398 | 0.930 | 0.811 | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | 0.82 | 0.49 | 0.14 | - | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | 0.82 | 0.50 | 0.14 | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | 0.012 | < 0.010 | - | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.014 | 0.021 | 0.017 | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.84 | 7.95 | 7.81 | 7.86 | 7.92 | 7.89 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.20 | 6.78 | 6.75 | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.45 | 7.02 | 7.00 | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 14 | 15 | 14 | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 200 | 400 | 450 | 150 | 170 | 250 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 620 | 1100 | 1200 | 525 | 600 | 730 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.0 | 16 | 4.4 | 1.1 | 1.9 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 13 | 58 | 40 | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 3.1 | 170 | 34 | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | MW8-S | MW8-S | MW8-S | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-07-02 | 2024-12-10 | 2025-06-12 | 2019-07-03 | 2019-07-03 | 2020-05-28 |
| | | | | Background | | | | | | |
| | | | | Sample ID | MW8-S_20240702 | MW8-S_20241210 | MW8-S_20250612 | 19X489473-330793 | 19X489473-330794 | 20X606404-1156940 |
| | | | | Lab Sample ID | ZQA456 | HA2403274-030 | HA2501804-001 | 330793 | 330794 | 1156940 |
| | | | | Lab Job Number | C4K2602 | HA2403274 | HA2501804 | 19X489473 | 19X489473 | 20X606404 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | 336 | - | 194 | 206 | 81 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | <1.0 | - | < 10 | < 10 | < 10 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | <1.0 | - | < 5 | < 5 | < 5 |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 210 | 275 | 270 | 194 | 206 | 81 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | < 0.0050 | 0.0087 | < 0.03 | 0.03 | < 0.03 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | 13.8 | - | 5.23 | 5.61 | 1.90 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | 336 | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | 13.1 | - | 5.48 | 6.42 | 2.16 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | < 10 | < 10 | - | - | 13 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 58 | 73.4 | 49.3 | 11 | 10 | 7 |
| **Color** | | | | tcu | - | 37.2 | - | < 5 | < 5 | 17 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | 3.03 | 1.88 | - | - | 1.2 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 1200 | 1270 | 1080 | 504 | 533 | 201 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | 0.134 | - | 0.14 | < 0.12 | 0.33 |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 470 | 478 | 431 | 240 | 282 | 75.2 |
| **Hydroxide (OH)** | | | | mg/l | - | < 1.0 | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | 94.9 | - | 2.3 | 6.7 | 6.4 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | 1.09 | - | 0.42 | 0.61 | -0.29 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | 0.841 | - | 0.10 | 0.29 | -0.61 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | 0.234 | < 0.100 | < 0.05 | < 0.05 | < 0.05 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | 0.234 | - | < 0.05 | < 0.05 | < 0.05 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | < 0.050 | < 0.050 | < 0.05 | < 0.05 | < 0.05 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | 0.0230 | - | < 0.01 | < 0.01 | 0.02 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.89 | 7.98 | 7.78 | 7.86 | 7.96 | 7.98 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | 6.89 | - | 7.44 | 7.35 | 8.27 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | 7.14 | - | 7.76 | 7.67 | 8.59 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | 0.008 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | 0.0013 | 0.0068 | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | 13.2 | 13.5 | 6.2 |
| **Sulphate** | | | 4 - 22 | mg/l | 290 | 299 | 232 | 50 | 58 | 4 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 750 | 752 | 735 | 284 | 316 | 104 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | 0.168 | 0.158 | - | - | < 0.4 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 2.0 | 2.62 | - | 9.5 | 8.3 | 0.9 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | 27300 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | 15.1 | - | 58.8 | 77.5 | 34800 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-25 | 2021-03-25 | 2021-06-09 |
| | | | | Background | | | | | | |
| | | | | Sample ID | 20X606404-1156942 | PW19-01_20200915 | PW19-01_20201216 | DUP2_20210325 | PW19-01_20210325 | DUP1_20210609 |
| | | | | Lab Sample ID | 1156942 | NQU659 | OLM141 | PEB971 | PEB976 | PUQ385 |
| | | | | Lab Job Number | 20X606404 | C0O2716 | C0X8319 | C179966 | C179966 | C1F9831 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 80 | 210 | 250 | 230 | 220 | 380 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | < 10 | 1.6 | 1.5 | < 1.0 | 1.5 | 2.3 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | < 5 | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 80 | 210 | 250 | 230 | 230 | 380 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.03 | < 0.050 | 0.54 | < 0.050 | < 0.050 | < 0.050 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 1.88 | 5.92 | 6.49 | 5.81 | 5.67 | 8.26 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 2.09 | 6.02 | 6.38 | 5.52 | 5.51 | 7.66 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 9 | 31 | 77 | < 20 | < 20 | 80 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7 | 6.9 | 11 | 9.4 | 9.3 | 9.0 |
| **Color** | | | | tcu | 26 | < 5.0 | 6.8 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | < 0.5 | 1.2 | 1.7 | 1.2 | 1.2 | 14 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 199 | 520 | 580 | 520 | 500 | 700 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | 0.33 | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 74.2 | 260 | 280 | 250 | 250 | 350 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 5.4 | 0.840 | 0.850 | 2.56 | 1.43 | 3.77 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | -0.27 | 0.750 | 0.740 | 0.497 | 0.684 | 0.988 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | -0.59 | 0.501 | 0.491 | 0.248 | 0.435 | 0.740 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | 0.14 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.05 | < 0.050 | 0.16 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.05 | < 0.010 | 0.019 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.02 | 0.019 | < 0.010 | < 0.010 | < 0.010 | 0.012 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.01 | 7.92 | 7.83 | 7.64 | 7.84 | 7.80 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 8.28 | 7.17 | 7.09 | 7.14 | 7.15 | 6.81 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 8.60 | 7.42 | 7.34 | 7.39 | 7.40 | 7.06 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.004 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | 0.020 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 5.9 | 12 | 12 | 12 | 12 | 16 |
| **Sulphate** | | | 4 - 22 | mg/l | 4 | 75 | 60 | 43 | 43 | 16 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 102 | 340 | 360 | 310 | 310 | 420 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | < 0.4 | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 0.7 | < 5.0 | < 50 | < 5.0 | < 5.0 | 12 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 51600 | 3100 | 66000 | 500 | 98 | 5000 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 67400 | 640 | 1000 | 64 | 72 | 1000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-03 | 2022-06-03 |
| | | | | Background | | | | | | |
| | | | | Sample ID | PW19-01_20210609 | PW19-01_20211005 | PW19-01_20211213 | PW19-01_20220329 | DUP2_20220603 | PW19-01_20220603 |
| | | | | Lab Sample ID | PUQ382 | QWF781 | RJM395 | SFM290 | SUS180 | SUS176 |
| | | | | Lab Job Number | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 370 | 380 | 340 | 280 | 280 | 280 |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 2.2 | 3.0 | 2.2 | 2.3 | 2.6 | 1.6 |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 370 | 380 | 340 | 280 | 280 | 280 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | 0.31 | < 0.050 | < 0.050 | < 0.050 | 0.060 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 8.14 | 8.47 | 7.42 | 6.33 | 6.42 | 6.34 |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 7.69 | 6.48 | 5.69 | 6.14 | 6.19 | 6.31 |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 44 | 28 | < 20 | 37 | < 20 | < 20 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 9.0 | 11 | 8.3 | 8.0 | 8.8 | 8.8 |
| **Color** | | | | tcu | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 14 | 2.2 | 1.6 | 1.3 | 2.4 | 2.5 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 700 | 750 | 620 | 570 | 620 | 590 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 350 | 290 | 250 | 280 | 280 | 290 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 2.84 | 13.3 | 13.2 | 1.52 | 1.82 | 0.240 |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.970 | 1.03 | 0.857 | 0.921 | 0.966 | 0.776 |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.721 | 0.785 | 0.608 | 0.672 | 0.717 | 0.527 |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.79 | 7.93 | 7.85 | 7.95 | 7.99 | 7.80 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 6.82 | 6.89 | 6.99 | 7.03 | 7.02 | 7.02 |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.07 | 7.14 | 7.24 | 7.28 | 7.27 | 7.27 |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | 0.020 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 16 | 19 | 15 | 13 | 15 | 15 |
| **Sulphate** | | | 4 - 22 | mg/l | 19 | 22 | 20 | 25 | 23 | 24 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 420 | 410 | 360 | 330 | 340 | 340 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | 12 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 5600 | 630 | 340 | 1300 | 510 | 550 |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 72 | 150 | 180 | 860 | 720 | 44 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
| | | | | Sample Date | 2022-09-30 | 2022-12-16 | 2023-03-10 | 2023-03-10 | 2023-10-13 | 2023-10-13 |
| | | | | Background | | | | | | |
| | | | | Sample ID | PW19-01_20220930 | PW19-01_20221216 | DUP3_20230310 | PW19-01_20230310 | PW19-01_20231013 | DUP2_20231013 |
| | | | | Lab Sample ID | TXM818 | UQJ845 | VGT147 | VGT144 | XHD246 | XHD247 |
| | | | | Lab Job Number | C2S7487 | C2AN796 | C370496 | C370496 | C3V9312 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | 140 | 200 | 230 | 220 | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | 1.7 | 1.6 | 2.0 | 1.9 | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 150 | 200 | 230 | 230 | 240 | 240 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | < 0.050 | 0.17 | < 0.050 | < 0.050 | - | - |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | 3.50 | 4.63 | 5.31 | 5.30 | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | 3.56 | 4.97 | 5.47 | 5.49 | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | 30 | 37 | 53 | 48 | - | - |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 8.8 | 8.3 | 8.5 | 8.3 | 7.6 | 7.6 |
| **Color** | | | | tcu | 5.3 | < 5.0 | < 5.0 | < 5.0 | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | 2.3 | 1.1 | 1.3 | 0.96 | - | - |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 350 | 440 | 530 | 530 | 580 | 560 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 140 | 210 | 240 | 240 | 260 | 260 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | 0.850 | 3.54 | 1.48 | 1.76 | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | 0.553 | 0.669 | 0.797 | 0.773 | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | 0.303 | 0.420 | 0.547 | 0.523 | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - | - |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | - | - |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | < 0.010 | 0.040 | < 0.010 | < 0.010 | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 8.10 | 7.94 | 7.97 | 7.94 | 8.09 | 8.01 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | 7.55 | 7.27 | 7.18 | 7.17 | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | 7.80 | 7.52 | 7.43 | 7.42 | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | - | - |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | 11 | 15 | 11 | 11 | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 16 | 19 | 25 | 26 | 25 | 22 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 190 | 260 | 290 | 290 | 305 | 285 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | - | - |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 5.0 | < 5.0 | < 50 | < 50 | < 5.0 | < 5.0 |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | 1200 | 11000 | 1900 | 1800 | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | 640 | 1000 | 1000 | 1000 | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C2
## General Chemistry in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-12-01 | 2023-12-01 | 2024-03-14 | 2024-07-02 | 2024-12-18 | 2025-06-12 |
| | | | | Background | | | | | | |
| | | | | Sample ID | DUP2_20231201 | PW19-01_20231201 | PW19-01_20240314 | PW19-01_20240702 | PW19-01_20241218 | PW19-01_20250612 |
| | | | | Lab Sample ID | XTQ425 | XTQ412 | YQA657 | ZQA461 | HA2403375-003 | HA2501804-006 |
| | | | | Lab Job Number | C3AS035 | C3AS035 | C476965 | C4K2602 | HA2403375 | HA2501804 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Alkalinity, Bicarbonate (as CaCO3)** | | | 78-119 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Carbonate (as CaCO3)** | | | < 10 | mg/l | - | - | - | - | - | - |
| **Alkalinity, hydroxide (as CaCO3)** | | | < 5 | mg/l | - | - | - | - | - | - |
| **Alkalinity, Total (As CaCO3)** | | | 78-120 | mg/l | 220 | 230 | 210 | 220 | 203 | 233 |
| **Ammonia-N** | | | <0.05 - 0.09 | mg/l | - | - | - | - | 0.0291 | 0.0433 |
| **Anion Sum** | | | 1.90 - 2.92 | meq/l | - | - | - | - | - | - |
| **Bicarbonate (as CaCO3)** | | | | mg/l | - | - | - | - | - | - |
| **BOD Carbonaceous** | | | | mg/l | - | - | - | - | - | - |
| **Cation Sum** | | | 2.07 - 3.23 | meq/l | - | - | - | - | - | - |
| **Chemical Oxygen Demand** | | | < 3 - 216 | mg/l | - | - | - | - | 42 | 36 |
| **Chloride ion** | | 15000 | 3 - 12 | mg/l | 7.1 | 7.4 | 6.2 | 6.0 | 7.22 | 6.78 |
| **Color** | | | | tcu | - | - | - | - | - | - |
| **Dissolved Organic Carbon (DOC)** | | | < 0.5 - 1.2 | mg/l | - | - | - | - | 1.35 | 1.95 |
| **Electrical Conductivity** | | | 209 - 297 | umhos/cm | 550 | 560 | 490 | 520 | 433 | 498 |
| **Fluoride** | 1.5 | | <0.12 - 0.45 | mg/l | - | - | - | - | - | - |
| **Hardness (as CaCO3)** | | | 21.6 - 116 | mg/l | 290 | 290 | 230 | 230 | 224 | 234 |
| **Hydroxide (OH)** | | | | mg/l | - | - | - | - | - | - |
| **Ion Balance** | | | -0.26 - 14.8 | % | - | - | - | - | - | - |
| **Langelier Index (at 20 C)** | | | -0.62 - 0.08 | none | - | - | - | - | - | - |
| **Langelier Index (at 4 C)** | | | -0.94 - -0.24 | none | - | - | - | - | - | - |
| **Nitrate (as N)** | 10 | | < 0.2 - 0.24 | mg/l | - | - | - | - | < 0.020 | < 0.020 |
| **Nitrate plus Nitrite (N)** | | | < 0.2 - 0.24 | mg/l | - | - | - | - | - | - |
| **Nitrite (as N)** | 1 | | <0.05 - 0.07 | mg/l | - | - | - | - | < 0.010 | < 0.010 |
| **Orthophosphate(as P)** | | | < 0.01 - 0.07 | mg/l | - | - | - | - | - | - |
| **pH, Lab** | | | 6.2 - 8.4 | ph units | 7.86 | 7.76 | 7.94 | 7.94 | 7.64 | 7.88 |
| **pH, Saturation (at 20 C)** | | | 8.03 - 8.77 | none | - | - | - | - | - | - |
| **pH, Saturation (at 4 C)** | | | 8.35 - 9.09 | none | - | - | - | - | - | - |
| **Phenol** | | | < 0.004 - 0.005 | mg/l | - | - | - | - | - | - |
| **Phenols (Phenolics)** | | 40 | | mg/l | - | - | - | - | 0.0030 | 0.0061 |
| **Reactive Silica (SiO2)** | | | 6.9 - 12.3 | mg/l | - | - | - | - | - | - |
| **Sulphate** | | | 4 - 22 | mg/l | 20 | 19 | 18 | 17 | 14.5 | 18.7 |
| **Total Dissolved Solids (Lab)** | | | 105 - 178 | mg/l | 580 | 340 | 260 | 300 | 258 | 300 |
| **Total Kjeldahl Nitrogen** | | | < 0.4 - 7.2 | mg/l | - | - | - | - | 0.941 | 0.624 |
| **Total Organic Carbon (TOC)** | | | < 100 | mg/l | < 50 | < 50 | < 50 | 3.3 | - | - |
| **Total Suspended Solids** | | | 1,480 - 39,100 | mg/l | - | - | - | - | - | - |
| **Turbidity** | | | 0.8 - 37,800 | ntu | - | - | - | - | - | - |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2020)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

Units: ug/l=microgram per litre

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
| | | | | Sample Date | 2019-11-19 | 2020-04-01 | 2020-04-01 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | 19X546170-731450 | 20X589937-1062421 | 20X589937-1062425 | 20X606071-1154904 | MW19-03D_20200917 | MW19-03D_20201216 | MW19-03D_20210325 |
| | | | | Lab Sample ID | 731450 | 1062421 | 1062425 | 1154904 | NRG098 | OLM111 | PEB980 |
| | | | | Lab Job Number | 19X546170 | 20X589937 | 20X589937 | 20X606071 | C0O4512 | C0X8319 | C179966 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.002 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NR | NR | NR | NR | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-03D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 | 2022-09-28 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP3_20210609 | MW19-03D_20210609 | MW19-03D_20211005 | MW19-03D_20211213 | MW19-03D_20220330 | MW19-03D_20220603 | MW19-03D_20220928 |
| | | | | Lab Sample ID | PUQ387 | PUQ384 | QWF776 | RJM391 | SGA982 | SUS172 | TWS413 |
| | | | | Lab Job Number | C1F9831 | C1F9831 | C1T0922 | C1Z2957 | C285511 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | 0.12 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | Yes | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | 0.12 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | UC (Lube) | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-03D | MW19-03D | MW19-03D | MW19-03D | MW19-09S | MW19-09S | MW19-09S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 |
| | | | | Background | Background | Background | Background | Background | | | |
| | | | | Sample ID | MW19-03D_20221216 | MW19-03D_20230310 | MW19-03D_20231013 | MW19-03D_20241210 | 19X546170-731455 | 20X589937-1062422 | 20X606404-1156941 |
| | | | | Lab Sample ID | UQJ840 | VGT139 | XHD243 | HA2403274-010 | 731455 | 1062422 | 1156941 |
| | | | | Lab Job Number | C2AN796 | C370496 | C3V9312 | HA2403274 | 19X546170 | 20X589937 | 20X606404 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.002 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.01 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.05 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.10 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.1 | < 0.1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | Yes | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.150 | < 0.1 | < 0.1 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | N/A | NR | NR | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S |
| | | | | Sample Date | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-25 | 2021-03-25 | 2021-06-09 | 2021-10-05 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | 20X606404-1156933 | MW19-09S_20200915 | MW19-09S_20201216 | DUP3_20210325 | MW19-09S_20210325 | MW19-09S_20210609 | MW19-09S_20211005 |
| | | | | Lab Sample ID | 1156933 | NQU658 | OLM142 | PEB972 | PEB978 | PUQ380 | QWF777 |
| | | | | Lab Job Number | 20X606404 | C0O2716 | C0X8319 | C179966 | C179966 | C1F9831 | C1T0922 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NR | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S | MW19-09S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2022-03-29 | 2022-06-03 | 2022-09-28 | 2022-09-28 | 2022-12-16 | 2023-03-10 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-09S_20211213 | MW19-09S_20220329 | MW19-09S_20220603 | MW19-09S_20220928 | DUP1_20220928 | MW19-09S_20221216 | MW19-09S_20230310 |
| | | | | Lab Sample ID | RJM392 | SFM286 | SUS173 | TWS414 | TWS411 | UQJ841 | VGT140 |
| | | | | Lab Job Number | C1Z2957 | C282980 | C2F3070 | C2S3993 | C2S3993 | C2AN796 | C370496 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-10S | MW19-11D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-06-01 | 2020-12-16 | 2022-03-29 | 2022-06-02 | 2022-12-16 | 2023-03-10 | 2020-06-01 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | 20X608058-1165168 | MW19-10S_20201216 | MW19-10S_20220329 | MW19-10S_20220602 | MW19-10S_20221216 | MW19-10S_20230310 | 20X608058-1165165 |
| | | | | Lab Sample ID | 1165168 | OLM143 | SFM287 | SUK073 | UQJ842 | VGT141 | 1165165 |
| | | | | Lab Job Number | 20X608058 | C0X8319 | C282980 | C2F1732 | C2AN796 | C370496 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NR | NA | NA | NA | NA | NA | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-11D_20200915 | MW19-11D_20201216 | MW19-11D_20210323 | MW19-11D_20210607 | MW19-11D_20211005 | MW19-11D_20211213 | MW19-11D_20220328 |
| | | | | Lab Sample ID | NQU665 | OLM145 | PDR023 | PUI335 | QWF780 | RJM394 | SFM289 |
| | | | | Lab Job Number | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 0.13 | 0.21 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | YES | YES | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | 0.13 | 0.26 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | UC (Lube) | UC (Fuel/Lube) | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11D | MW19-11M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2024-12-10 | 2020-06-01 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-11D_20220603 | MW19-11D_20220929 | MW19-11D_20221216 | MW19-11D_20230310 | MW19-11D_20231012 | MW19-11D_20241210 | 20X608058-1165164 |
| | | | | Lab Sample ID | SUS175 | TWL729 | UQJ844 | VGT143 | XHD245 | HA2403274-016 | 1165164 |
| | | | | Lab Job Number | C2F3070 | C2S2706 | C2AN796 | C370496 | C3V9312 | HA2403274 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | Yes | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | N/A | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M |
| | | | | Sample Date | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-11M_20200915 | MW19-11M_20201216 | MW19-11M_20210323 | MW19-11M_20210607 | MW19-11M_20211005 | MW19-11M_20211213 | MW19-11M_20220328 |
| | | | | Lab Sample ID | NQU664 | OLM144 | PDR022 | PUI334 | QWF779 | RJM393 | SFM288 |
| | | | | Lab Job Number | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | 0.086 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | 0.40 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | YES | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | **0.49** | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | UC (Fuel/Lube) | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-11M | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-06-03 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2024-12-10 | 2020-06-01 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-11M_20220603 | MW19-11M_20220929 | MW19-11M_20221216 | MW19-11M_20230310 | MW19-11M_20231012 | MW19-11M_20241210 | 20X608058-1165163 |
| | | | | Lab Sample ID | SUS174 | TWL728 | UQJ843 | VGT142 | XHD244 | HA2403274-015 | 1165163 |
| | | | | Lab Job Number | C2F3070 | C2S2706 | C2AN796 | C370496 | C3V9312 | HA2403274 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | Yes | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | N/A | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-06-01 | 2020-09-17 | 2020-09-17 | 2020-12-16 | 2020-12-16 | 2021-03-23 | 2021-06-07 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | 20X608058-1165158 | MW19-12D_20200917 | DUP 3_20200917 | DUP3_20201216 | MW19-12D_20201216 | MW19-12D_20210323 | MW19-12D_20210607 |
| | | | | Lab Sample ID | 1165158 | NRG093 | NRG096 | OLM172 | OLM159 | PDR026 | PUI336 |
| | | | | Lab Job Number | 20X608058 | C0O4512 | C0O4512 | C0X8319 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NR | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12D |
| | | | | Sample Date | 2021-10-06 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-30 | 2022-09-30 | 2022-12-16 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-12D_20211006 | MW19-12D_20211213 | MW19-12D_20220329 | MW19-12D_20220602 | MW19-12D_20220930 | DUP 3_20220930 | MW19-12D_20221216 |
| | | | | Lab Sample ID | QWS509 | RJM500 | SFM295 | SUK082 | TXM810 | TXM815 | UQJ847 |
| | | | | Lab Job Number | C1T3325 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2S7487 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-12D | MW19-12D | MW19-12D | MW19-12D | MW19-12S | MW19-12S | MW19-12S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-13 | 2023-10-12 | 2024-12-10 | 2024-12-10 | 2020-12-16 | 2021-12-13 | 2022-03-29 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-12D_20230313 | MW19-12D_20231012 | MW19-12D_20241210 | DUP 1_20241210 | MW19-12S_20201216 | MW19-12S_20211213 | MW19-12S_20220329 |
| | | | | Lab Sample ID | VHF975 | XHD248 | HA2403274-011 | HA2403274-027 | OLM146 | RJM396 | SFM294 |
| | | | | Lab Job Number | C372847 | C3V9312 | HA2403274 | HA2403274 | C0X8319 | C1Z2957 | C282980 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.00050 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 1 | < 1 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.054 | < 0.050 | < 1 | < 1 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.054 | < 0.050 | < 1 | < 1 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.098 | < 0.090 | < 1 | < 1 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | Yes | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.098 | < 0.090 | < 0.090 | < 0.184 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | N/A | N/A | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-12S | MW19-12S | MW19-12S | MW19-12S | MW19-13D | MW19-13D | MW19-13D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2024-12-18 | 2019-11-19 | 2019-11-19 | 2020-04-01 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-12S_20220930 | MW19-12S_20221216 | MW19-12S_20230313 | MW19-12S_20241218 | 19X546170-731457 | 19X546170-731459 | 20X589937-1062424 |
| | | | | Lab Sample ID | TXM809 | UQJ846 | VHF974 | HA2403375-002 | 731457 | 731459 | 1062424 |
| | | | | Lab Job Number | C2S7487 | C2AN796 | C372847 | HA2403375 | 19X546170 | 19X546170 | 20X589937 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.002 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.01 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.05 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.10 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | 0.53 | < 0.1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | Yes | YES | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | **0.5** | < 0.1 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | N/A | LOF | NR | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
| | | | | Sample Date | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | 20X606404-1156944 | MW19-13D_20200915 | MW19-13D_20201216 | MW19-13D_20210323 | MW19-13D_20210608 | MW19-13D_20211005 | MW19-13D_20211213 |
| | | | | Lab Sample ID | 1156944 | NQU662 | OLM161 | PDR028 | PUI338 | QWF783 | RJM502 |
| | | | | Lab Job Number | 20X606404 | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.056 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.056 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.10 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.10 |
| **Hydrocarbon Resemblance** | | | | none | NR | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D | MW19-13D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-03-28 | 2022-03-28 | 2022-06-03 | 2022-09-30 | 2022-12-16 | 2023-03-13 | 2023-10-12 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-13D_20220328 | DUP1_20220328 | MW19-13D_20220603 | MW19-13D_20220930 | MW19-13D_20221216 | MW19-13D_20230313 | MW19-13D_20231012 |
| | | | | Lab Sample ID | SFM297 | SFM277 | SUS186 | TXM812 | UQJ849 | VHF977 | XHD250 |
| | | | | Lab Job Number | C282980 | C282980 | C2F3070 | C2S7487 | C2AN796 | C372847 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-13D | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-13D_20241210 | 19X546170-731456 | 20X589937-1062423 | 20X606404-1156943 | MW19-13S_20201216 | MW19-13S_20210323 | MW19-13S_20210608 |
| | | | | Lab Sample ID | HA2403274-023 | 731456 | 1062423 | 1156943 | OLM160 | PDR027 | PUI337 |
| | | | | Lab Job Number | HA2403274 | 19X546170 | 20X589937 | 20X606404 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 1 | < 0.1 | < 0.1 | < 0.1 | 0.15 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | NA | NA | NA | YES | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.184 | < 0.1 | < 0.1 | < 0.1 | 0.15 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | N/A | NR | NR | NR | UC (Lube) | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-30 | 2022-12-16 | 2023-03-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW19-13S_20211005 | MW19-13S_20211213 | MW19-13S_20220328 | MW19-13S_20220603 | MW19-13S_20220930 | MW19-13S_20221216 | MW19-13S_20230313 |
| | | | | Lab Sample ID | QWF782 | RJM501 | SFM296 | SUS184 | TXM811 | UQJ848 | VHF976 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S7487 | C2AN796 | C372847 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.057 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.057 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | Sample Location | MW19-13S | MW19-13S | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-10-12 | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 |
| | | | Background | | | | | | | |
| | | | Sample ID | MW19-13S_20231012 | MW19-13S_20241210 | 19X546170-731448 | 20X589937-1062415 | 20X606404-1156950 | MW1-D_20200915 | MW1-D_20201216 |
| | | | Lab Sample ID | XHD249 | HA2403274-024 | 731448 | 1062415 | 1156950 | NQU661 | OLM106 |
| | | | Lab Job Number | C3V9312 | HA2403274 | 19X546170 | 20X589937 | 20X606404 | C0O2716 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.00050 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 1 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 1 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 1 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 1 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | Yes | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | N/A | NR | NR | NR | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D | MW1-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-28 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW1-D_20210323 | MW1-D_20210608 | MW1-D_20211005 | MW1-D_20211213 | MW1-D_20220328 | MW1-D_20220603 | MW1-D_20220928 |
| | | | | Lab Sample ID | PDR006 | PUI324 | QWF765 | RJM313 | SFM273 | SUS185 | TWS374 |
| | | | | Lab Job Number | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW1-D | MW1-D | MW1-D | MW1-D | MW1-S | MW1-S | MW1-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-12-13 | 2023-03-09 | 2023-10-12 | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW1-D_20221213 | MW1-D_20230309 | MW1-D_20231012 | MW1-D_20241210 | 19X546170-731447 | 20X589937-1062401 | 20X606404-1156945 |
| | | | | Lab Sample ID | UPM103 | VGG619 | XHD229 | HA2403274-002 | 731447 | 1062401 | 1156945 |
| | | | | Lab Job Number | C2AJ782 | C368322 | C3V9312 | HA2403274 | 19X546170 | 20X589937 | 20X606404 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | 0.0012 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.002 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.01 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.05 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.10 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.1 | < 0.1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | Yes | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 | < 0.1 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | N/A | NR | NR | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S | MW1-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-12-16 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-28 | 2022-12-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW1-S_20201216 | MW1-S_20210608 | MW1-S_20211005 | MW1-S_20211213 | MW1-S_20220328 | MW1-S_20220928 | MW1-S_20221213 |
| | | | | Lab Sample ID | OLM105 | PUI323 | QWF764 | RJM311 | SFM272 | TWS373 | UPM102 |
| | | | | Lab Job Number | C0X8319 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2S3993 | C2AJ782 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.055 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.055 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.11 | < 0.090 | < 0.10 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.11 | < 0.090 | < 0.10 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW1-S | MW1-S | MW1-S | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-09 | 2023-10-12 | 2024-12-10 | 2020-05-27 | 2020-09-15 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW1-S_20230309 | MW1-S_20231012 | MW1-S_20241210 | 20X606071-1154898 | MW20-14D_20200915 | MW20-14D_20201216 | MW20-14D_20210323 |
| | | | | Lab Sample ID | VGG618 | XHD228 | HA2403274-001 | 1154898 | NQU666 | OLM163 | PDR030 |
| | | | | Lab Job Number | C368322 | C3V9312 | HA2403274 | 20X606071 | C0O2716 | C0X8319 | C177930 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | N/A | NR | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D | MW20-14D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-02 | 2022-09-30 | 2022-12-16 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW20-14D_20210608 | MW20-14D_20211005 | MW20-14D_20211213 | MW20-14D_20220328 | MW20-14D_20220602 | MW20-14D_20220930 | MW20-14D_20221216 |
| | | | | Lab Sample ID | PUI340 | QWF785 | RJM504 | SFM299 | SUK084 | TXM814 | UQJ851 |
| | | | | Lab Job Number | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0026 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.12 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.12 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-14D | MW20-14D | MW20-14D | MW20-14S | MW20-14S | MW20-14S | MW20-14S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-13 | 2023-10-12 | 2024-12-10 | 2020-05-27 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW20-14D_20230313 | MW20-14D_20231012 | MW20-14D_20241210 | 20X606071-1154897 | MW20-14S_20201216 | MW20-14S_20210323 | MW20-14S_20210608 |
| | | | | Lab Sample ID | VHF979 | XHD252 | HA2403274-017 | 1154897 | OLM162 | PDR029 | PUI339 |
| | | | | Lab Job Number | C372847 | C3V9312 | HA2403274 | 20X606071 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.055 | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.055 | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.099 | < 0.090 | < 1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.099 | < 0.090 | < 0.090 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | N/A | NR | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S | MW20-14S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW20-14S_20211005 | MW20-14S_20211213 | MW20-14S_20220328 | MW20-14S_20220602 | MW20-14S_20220930 | MW20-14S_20221216 | MW20-14S_20230313 |
| | | | | Lab Sample ID | QWF784 | RJM503 | SFM298 | SUK083 | TXM813 | UQJ850 | VHF978 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 | C372847 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0026 | < 0.0026 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.12 | < 0.12 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.12 | < 0.12 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | Sample Location | MW20-14S | MW20-14S | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-10-12 | 2024-12-10 | 2020-05-27 | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | Background | | | | | | | |
| | | | Sample ID | MW20-14S_20231012 | MW20-14S_20241210 | 20X606071-1154900 | MW20-15D_20200915 | MW20-15D_20201216 | MW20-15D_20210323 | MW20-15D_20210608 |
| | | | Lab Sample ID | XHD251 | HA2403274-018 | 1154900 | NQU667 | OLM165 | PDR032 | PUI342 |
| | | | Lab Job Number | C3V9312 | HA2403274 | 20X606071 | C0O2716 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 1 | < 0.1 | 0.30 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | Yes | NA | YES | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.150 | < 0.1 | 0.30 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | N/A | NR | UC (Lube) | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D | MW20-15D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-30 | 2022-12-16 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW20-15D_20211005 | MW20-15D_20211213 | DUP1_20211213 | MW20-15D_20220329 | MW20-15D_20220602 | MW20-15D_20220930 | MW20-15D_20221216 |
| | | | | Lab Sample ID | QWF787 | RJM506 | RJM529 | SFM301 | SUK085 | TXM816 | UQJ853 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C1Z2957 | C282980 | C2F1732 | C2S7487 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0026 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.12 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.066 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.14 | 0.10 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | Yes | Yes | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.12 | 0.20 | 0.10 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | UC (Fuel/ Lube) | UC (Lube) | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-15D | MW20-15D | MW20-15D | MW20-15S | MW20-15S | MW20-15S | MW20-15S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-13 | 2023-10-12 | 2024-12-10 | 2020-05-27 | 2020-12-16 | 2021-06-08 | 2021-12-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW20-15D_20230313 | MW20-15D_20231012 | MW20-15D_20241210 | 20X606071-1154899 | MW20-15S_20201216 | MW20-15S_20210608 | MW20-15S_20211213 |
| | | | | Lab Sample ID | VHF981 | XHD254 | HA2403274-019 | 1154899 | OLM164 | PUI341 | RJM505 |
| | | | | Lab Job Number | C372847 | C3V9312 | HA2403274 | 20X606071 | C0X8319 | C1F8315 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | - |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | - |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | - |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | - |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | - |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.054 | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.054 | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.098 | < 0.090 | < 1 | < 0.1 | < 0.090 | 0.11 | 0.13 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | NA | Yes | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.098 | < 0.090 | < 0.150 | < 0.1 | < 0.090 | 0.11 | - |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | N/A | NR | NA | UC (Lube) | UC |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-15S | MW20-15S | MW20-15S | MW20-15S | MW20-16 | MW20-16 | MW20-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-03-28 | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2020-05-27 | 2020-09-17 | 2020-12-16 |
| | | | | Background | | | | | Background | Background | Background |
| | | | | Sample ID | MW20-15S_20220328 | MW20-15S_20221216 | MW20-15S_20230313 | MW20-15S_20231013 | 20X606071-1154901 | MW20-16_20200917 | DUP2_20201216 |
| | | | | Lab Sample ID | SFM300 | UQJ852 | VHF980 | XHD253 | 1154901 | NRG097 | OLM171 |
| | | | | Lab Job Number | C282980 | C2AN796 | C372847 | C3V9312 | 20X606071 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0026 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.12 | < 0.090 | < 0.090 | < 0.090 | < 0.01 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.054 | 0.058 | < 0.05 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.054 | 0.11 | < 0.10 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.098 | 0.15 | < 0.1 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | Yes | Y | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.12 | < 0.090 | < 0.098 | 0.32 | < 0.1 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | UC (Fuel/Lube) | NR | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
| | | | | Sample Date | 2020-12-16 | 2021-03-25 | 2021-06-09 | 2021-06-09 | 2021-10-06 | 2021-10-06 | 2021-12-13 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20201216 | MW20-16_20210325 | DUP2_20210609 | MW20-16_20210609 | MW20-16_20211006 | DUP3_20211006 | MW20-16_20211213 |
| | | | | Lab Sample ID | OLM166 | PEB977 | PUQ386 | PUQ381 | QWS507 | QWS510 | RJM507 |
| | | | | Lab Job Number | C0X8319 | C179966 | C1F9831 | C1F9831 | C1T3325 | C1T3325 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 0.16 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.096 |
| **Reached Baseline** | | | | none | YES | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | 0.16 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.096 |
| **Hydrocarbon Resemblance** | | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 | MW20-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-12-13 | 2022-03-30 | 2022-06-02 | 2022-09-30 | 2022-12-16 | 2023-03-10 | 2023-10-13 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP2_20211213 | MW20-16_20220330 | MW20-16_20220602 | MW20-16_20220930 | MW20-16_20221216 | MW20-16_20230310 | MW20-16_20231013 |
| | | | | Lab Sample ID | RJM530 | SGA984 | SUK086 | TXM817 | UQJ854 | VGT145 | XHD255 |
| | | | | Lab Job Number | C1Z2957 | C285511 | C2F1732 | C2S7487 | C2AN796 | C370496 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.055 | < 0.054 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | 0.056 | < 0.054 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 0.10 | < 0.097 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | 0.16 | < 0.097 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | UC (Fuel/ Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-16 | MW20-16 | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2024-12-10 | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-08 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-16_20241210 | DUP 3_20241210 | 20X606071-1154903 | MW20-17D_20200917 | MW20-17D_20201216 | MW20-17D_20210325 | MW20-17D_20210608 |
| | | | | Lab Sample ID | HA2403274-006 | HA2403274-029 | 1154903 | NRG101 | OLM168 | PEB969 | PUI344 |
| | | | | Lab Job Number | HA2403274 | HA2403274 | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 1 | < 0.05 | < 0.055 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 1 | < 0.10 | < 0.055 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 1 | < 1 | < 0.1 | < 0.10 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | Yes | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.184 | < 0.150 | < 0.1 | < 0.10 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | N/A | N/A | NR | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 | 2022-09-28 | 2022-12-16 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-17D_20211005 | DUP1_20211005 | MW20-17D_20211213 | MW20-17D_20220330 | MW20-17D_20220603 | MW20-17D_20220928 | MW20-17D_20221216 |
| | | | | Lab Sample ID | QWF789 | QWF770 | RJM509 | SGA978 | SUS179 | TWS410 | UQJ830 |
| | | | | Lab Job Number | C1T0922 | C1T0922 | C1Z2957 | C285511 | C2F3070 | C2S3993 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | 0.0013 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW20-17D | MW20-17D | MW20-17D | MW20-17D | MW20-17S | MW20-17S | MW20-17S |
| | | | | Sample Date | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2024-12-10 | 2020-05-27 | 2020-09-17 | 2020-12-16 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | DUP3_20221216 | MW20-17D_20230313 | MW20-17D_20231013 | MW20-17D_20241210 | 20X606071-1154902 | MW20-17S_20200917 | MW20-17S_20201216 |
| | | | | Lab Sample ID | UQJ833 | VHF982 | XHD257 | HA2403274-008 | 1154902 | NRG100 | OLM167 |
| | | | | Lab Job Number | C2AN796 | C372847 | C3V9312 | HA2403274 | 20X606071 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.053 | < 0.050 | < 1 | < 0.05 | < 0.050 | 0.20 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.053 | < 0.050 | < 1 | < 0.10 | < 0.050 | 0.30 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 0.19 | < 0.095 | < 0.090 | < 1 | < 0.1 | < 0.090 | 1.1 |
| **Reached Baseline** | | | | none | Yes | NA | NA | Yes | Y | NA | YES |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | 0.19 | < 0.095 | < 0.090 | < 0.090 | < 0.1 | < 0.090 | **1.6** |
| **Hydrocarbon Resemblance** | | | | none | Lube oil fraction. | NA | NA | N/A | NR | NA | Fuel/Lube |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-25 | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-06-03 | 2022-09-28 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW20-17S_20210325 | MW20-17S_20210608 | MW20-17S_20211005 | MW20-17S_20211213 | MW20-17S_20220330 | MW20-17S_20220603 | MW20-17S_20220928 |
| | | | | Lab Sample ID | PEB973 | PUI343 | QWF788 | RJM508 | SGA980 | SUS182 | TWS412 |
| | | | | Lab Job Number | C179966 | C1F8315 | C1T0922 | C1Z2957 | C285511 | C2F3070 | C2S3993 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW20-17S | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-12-16 | 2023-03-13 | 2023-10-13 | 2024-12-10 | 2024-12-10 | 2020-06-01 | 2020-06-01 |
| | | | | Background | Background | Background | Background | Background | Background | | |
| | | | | Sample ID | MW20-17S_20221216 | MW20-17S_20230313 | MW20-17S_20231013 | MW20-17S_20241210 | DUP 2_20241210 | 20X608058-1165159 | 20X608058-1165149 |
| | | | | Lab Sample ID | UQJ855 | VHF983 | XHD256 | HA2403274-007 | HA2403274-028 | 1165159 | 1165149 |
| | | | | Lab Job Number | C2AN796 | C372847 | C3V9312 | HA2403274 | HA2403274 | 20X608058 | 20X608058 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.001 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.001 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.001 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.00050 | < 0.002 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 1 | < 0.01 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.055 | < 0.054 | < 0.050 | < 1 | < 1 | < 0.05 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.055 | < 0.054 | < 0.050 | < 1 | < 1 | < 0.10 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.099 | < 0.098 | < 0.090 | < 1 | < 1 | < 0.1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | Yes | Yes | Y | Y |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.099 | < 0.098 | < 0.090 | < 0.090 | < 0.150 | < 0.1 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | N/A | N/A | NR | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-09-15 | 2020-12-16 | 2021-03-23 | 2021-06-08 | 2021-10-05 | 2021-10-05 | 2021-12-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW-2D_20200915 | MW2-D_20201216 | MW2-D_20210323 | MW2-D_20210608 | MW2-D_20211005 | DUP2_20211005 | MW2-D_20211213 |
| | | | | Lab Sample ID | NQU698 | OLM109 | PDR009 | PUI327 | QWF768 | QWF771 | RJM315 |
| | | | | Lab Job Number | C0O2716 | C0X8319 | C177930 | C1F8315 | C1T0922 | C1T0922 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 0.11 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | YES | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | 0.11 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D | MW2-D |
| | | | | Sample Date | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2022-12-14 | 2022-12-14 | 2023-03-09 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW2-D_20220329 | MW2-D_20220602 | MW2-D_20220928 | MW2-D_20221214 | DUP1_20221214 | DUP1_20221214 | MW2-D_20230309 |
| | | | | Lab Sample ID | SFM276 | SUK076 | TWS377 | UPM106 | UPB189 | UPM107 | VGG622 |
| | | | | Lab Job Number | C282980 | C2F1732 | C2S3993 | C2AJ782 | C2AH933 | C2AJ782 | C368322 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW2-D | MW2-D | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-10-12 | 2024-12-10 | 2020-06-01 | 2020-09-15 | 2020-09-15 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW2-D_20231012 | MW2-D_20241210 | 20X608058-1165161 | MW-2M_20200915 | DUP2_20200915 | MW2-M_20201216 | MW2-M_20210323 |
| | | | | Lab Sample ID | XHD232 | HA2403274-026 | 1165161 | NQU697 | NQU696 | OLM108 | PDR008 |
| | | | | Lab Job Number | C3V9312 | HA2403274 | 20X608058 | C0O2716 | C0O2716 | C0X8319 | C177930 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 1 | < 0.1 | < 0.090 | < 0.090 | 0.10 | < 0.090 |
| **Reached Baseline** | | | | none | NA | Yes | NA | NA | NA | YES | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.184 | < 0.1 | < 0.090 | < 0.090 | 0.10 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | N/A | NR | NA | NA | UC (Lube) | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-08 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW2-M_20210608 | MW2-M_20211005 | MW2-M_20211213 | MW2-M_20220329 | MW2-M_20220602 | MW2-M_20220928 | MW2-M_20221214 |
| | | | | Lab Sample ID | PUI326 | QWF767 | RJM314 | SFM275 | SUK075 | TWS376 | UPM105 |
| | | | | Lab Job Number | C1F8315 | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S3993 | C2AJ782 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | 0.21 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | 0.21 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | UC (Lube) | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW2-M | MW2-M | MW2-M | MW2-S | MW2-S | MW2-S | MW2-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2023-03-09 | 2023-10-12 | 2024-12-10 | 2020-06-01 | 2020-12-16 | 2021-03-23 | 2021-06-08 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW2-M_20230309 | MW2-M_20231012 | MW2-M_20241210 | 20X608058-1165160 | MW2-S_20201216 | MW2-S_20210323 | MW2-S_20210608 |
| | | | | Lab Sample ID | VGG621 | XHD231 | HA2403274-025 | 1165160 | OLM107 | PDR007 | PUI325 |
| | | | | Lab Job Number | C368322 | C3V9312 | HA2403274 | 20X608058 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.1 | 0.13 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | YES | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.184 | < 0.1 | 0.13 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | N/A | NR | UC (Lube) | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S | MW2-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-28 | 2022-12-14 | 2023-03-09 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW2-S_20211005 | MW2-S_20211213 | MW2-S_20220329 | MW2-S_20220602 | MW2-S_20220928 | MW2-S_20221214 | MW2-S_20230309 |
| | | | | Lab Sample ID | QWF766 | RJM312 | SFM274 | SUK074 | TWS375 | UPM104 | VGG620 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2F1732 | C2S3993 | C2AJ782 | C368322 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW2-S | MW2-S | MW3 | MW3 | MW3 | MW3 | MW3 |
| | | | | Sample Date | 2023-10-12 | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-27 | 2020-09-17 | 2020-12-16 |
| | | | | Background | | | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW2-S_20231012 | MW2-S_20241210 | 19X546170-731449 | 20X589937-1062416 | 20X606071-1154681 | MW3_20200917 | MW3_20201216 |
| | | | | Lab Sample ID | XHD230 | HA2403274-012 | 731449 | 1062416 | 1154681 | NRG099 | OLM110 |
| | | | | Lab Job Number | C3V9312 | HA2403274 | 19X546170 | 20X589937 | 20X606071 | C0O4512 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.00050 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 1 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 1 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.056 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 1 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.056 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 1 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.10 |
| **Reached Baseline** | | | | none | NA | Yes | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.122 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.10 |
| **Hydrocarbon Resemblance** | | | | none | NA | N/A | NR | NR | NR | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 | MW3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-25 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-30 | 2022-03-30 | 2022-06-03 |
| | | | | Background | Background | Background | Background | Background | Background | Background | Background |
| | | | | Sample ID | MW-3_20210325 | MW3_20210609 | MW3_20211005 | MW3_20211213 | MW3_20220330 | DUP3_20220330 | MW3_20220603 |
| | | | | Lab Sample ID | PEB979 | PUQ383 | QWF769 | RJM316 | SGA983 | SGA979 | SUS183 |
| | | | | Lab Job Number | C179966 | C1F9831 | C1T0922 | C1Z2957 | C285511 | C285511 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.055 | < 0.050 | < 0.061 | < 0.050 | < 0.050 | < 0.054 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.055 | < 0.050 | < 0.061 | < 0.050 | < 0.050 | < 0.054 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.10 | < 0.090 | < 0.11 | < 0.090 | < 0.090 | < 0.098 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.10 | < 0.090 | < 0.11 | < 0.090 | < 0.090 | < 0.098 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW3 | MW3 | MW3 | MW3 | MW3 | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-28 | 2022-12-16 | 2023-03-10 | 2023-10-13 | 2024-12-10 | 2020-05-27 | 2020-09-17 |
| | | | | Background | Background | Background | Background | Background | Background | | |
| | | | | Sample ID | MW3_20220928 | MW3_20221216 | MW3_20230310 | MW3_20231013 | MW3_20241210 | 20X606071-1154896 | MW-5D_20200917 |
| | | | | Lab Sample ID | TWS378 | UQJ831 | VGT148 | XHD233 | HA2403274-009 | 1154896 | NRG095 |
| | | | | Lab Job Number | C2S3993 | C2AN796 | C370496 | C3V9312 | HA2403274 | 20X606071 | C0O4512 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.1 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | Yes | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | N/A | NR | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-12-16 | 2020-12-16 | 2021-03-25 | 2021-03-25 | 2021-06-08 | 2021-10-06 | 2021-12-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | DUP1_20201216 | MW5-D_20201216 | DUP1_20210325 | MW-5D_20210325 | MW5-D_20210608 | MW5-D_20211006 | MW5-D_20211213 |
| | | | | Lab Sample ID | OLM170 | OLM113 | PEB970 | PEB974 | PUI329 | QWS514 | RJM318 |
| | | | | Lab Job Number | C0X8319 | C0X8319 | C179966 | C179966 | C1F8315 | C1T3325 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.055 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.055 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | 0.14 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.099 |
| **Reached Baseline** | | | | none | NA | YES | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | 0.14 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.099 |
| **Hydrocarbon Resemblance** | | | | none | NA | Lube | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D | MW5-D |
| | | | | Sample Date | 2022-03-30 | 2022-06-02 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-10-13 | 2024-12-10 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW-5D_20220330 | MW5-D_20220602 | MW5-D_20220928 | MW5-D_20221213 | MW5-D_20230309 | MW5-D_20231013 | MW5-D_20241210 |
| | | | | Lab Sample ID | SGA985 | SUK079 | TWS380 | UPM109 | VGG625 | XHD235 | HA2403274-005 |
| | | | | Lab Job Number | C285511 | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 | HA2403274 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | Yes |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | N/A |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2020-05-27 | 2020-09-17 | 2020-12-16 | 2021-03-25 | 2021-06-08 | 2021-10-06 | 2021-12-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | 20X606071-1154895 | MW-5S_20200917 | MW5-S_20201216 | MW-5S_20210325 | MW5-S_20210608 | MW5-S_20211006 | MW5-S_20211213 |
| | | | | Lab Sample ID | 1154895 | NRG094 | OLM112 | PEB975 | PUI328 | QWS513 | RJM317 |
| | | | | Lab Job Number | 20X606071 | C0O4512 | C0X8319 | C179966 | C1F8315 | C1T3325 | C1Z2957 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.1 | < 0.090 | 0.15 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | YES | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.1 | < 0.090 | 0.15 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NR | NA | UC (Lube) | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S | MW5-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-03-30 | 2022-06-02 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-10-13 | 2023-10-13 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW-5S_20220330 | MW5-S_20220602 | MW5-S_20220928 | MW5-S_20221213 | MW5-S_20230309 | MW5-S_20231013 | DUP3_20231013 |
| | | | | Lab Sample ID | SGA981 | SUK078 | TWS379 | UPM108 | VGG624 | XHD234 | XHD238 |
| | | | | Lab Job Number | C285511 | C2F1732 | C2S3993 | C2AJ782 | C368322 | C3V9312 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.054 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.054 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.098 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.098 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW5-S | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-09-15 | 2020-12-16 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW5-S_20241210 | 19X546170-731452 | 20X589937-1062418 | 20X606404-1156949 | MW6-D_20200915 | DUP1_20200915 | MW6-D_20201216 |
| | | | | Lab Sample ID | HA2403274-004 | 731452 | 1062418 | 1156949 | NQU663 | NQU695 | OLM137 |
| | | | | Lab Job Number | HA2403274 | 19X546170 | 20X589937 | 20X606404 | C0O2716 | C0O2716 | C0X8319 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.001 | 0.001 | 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | 0.01 | 0.01 | 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | 0.077 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 | 0.080 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 1 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 | 0.19 |
| **Reached Baseline** | | | | none | Yes | NA | NA | NA | NA | NA | YES |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 | 0.34 |
| **Hydrocarbon Resemblance** | | | | none | N/A | GR | GR | GR | NA | NA | UC (Fuel/Lube) |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-23 | 2021-06-07 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-03-28 | 2022-06-03 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW6-D_20210323 | MW6-D_20210607 | MW6-D_20211005 | MW6-D_20211213 | MW6-D_20220328 | DUP2_20220328 | DUP3_20220603 |
| | | | | Lab Sample ID | PDR014 | PUI331 | QWF773 | RJM320 | SFM279 | SFM285 | SUS181 |
| | | | | Lab Job Number | C177930 | C1F8315 | C1T0922 | C1Z2957 | C282980 | C282980 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | 0.082 | 0.068 | 0.078 | 0.073 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | 0.077 | 0.057 | 0.061 | 0.053 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 0.16 | < 0.090 | 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | YES | Yes | Yes | Yes | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | 0.32 | 0.13 | 0.24 | 0.13 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | Fuel, UC (Lube) | Fuel | WFOF | WFOF | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D | MW6-D |
| | | | | Sample Date | 2022-06-03 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-03-09 | 2023-10-12 | 2023-10-12 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW6-D_20220603 | MW6-D_20220928 | MW6-D_20221213 | MW6-D_20230309 | DUP 1_20230309 | DUP1_20231012 | MW6-D_20231012 |
| | | | | Lab Sample ID | SUS187 | TWS382 | UPM111 | VGG627 | VGG623 | XHD258 | XHD237 |
| | | | | Lab Job Number | C2F3070 | C2S3993 | C2AJ782 | C368322 | C368322 | C3V9312 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | 0.057 | 0.066 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | 0.051 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | Yes | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | 0.12 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | Fuel | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-D | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S |
| | | | | Sample Date | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-12-16 | 2021-03-23 | 2021-06-07 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW6-D_20241210 | 19X546170-731451 | 20X589937-1062417 | 20X606404-1156948 | MW6-S_20201216 | MW6-S_20210323 | MW6-S_20210607 |
| | | | | Lab Sample ID | HA2403274-022 | 731451 | 1062417 | 1156948 | OLM114 | PDR013 | PUI330 |
| | | | | Lab Job Number | HA2403274 | 19X546170 | 20X589937 | 20X606404 | C0X8319 | C177930 | C1F8315 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 1 | < 0.1 | < 0.1 | < 0.1 | 0.21 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | NA | NA | NA | YES | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.1 | < 0.1 | < 0.1 | 0.21 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | N/A | NR | NR | NR | UC (Lube) | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S | MW6-S |
| | | | | Sample Date | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-28 | 2022-12-13 | 2023-03-09 | 2023-10-12 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW6-S_20211005 | MW6-S_20211213 | MW6-S_20220328 | MW6-S_20220928 | MW6-S_20221213 | MW6-S_20230309 | MW6-S_20231012 |
| | | | | Lab Sample ID | QWF772 | RJM319 | SFM278 | TWS381 | UPM110 | VGG626 | XHD236 |
| | | | | Lab Job Number | C1T0922 | C1Z2957 | C282980 | C2S3993 | C2AJ782 | C368322 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.099 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.099 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW6-S | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
| | | | | Sample Date | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW6-S_20241210 | 19X546170-731454 | 20X589937-1062420 | 20X606404-1156946 | MW7-D_20200915 | MW7-D_20201216 | MW7-D_20210323 |
| | | | | Lab Sample ID | HA2403274-021 | 731454 | 1062420 | 1156946 | NQU660 | OLM138 | PDR016 |
| | | | | Lab Job Number | HA2403274 | 19X546170 | 20X589937 | 20X606404 | C0O2716 | C0X8319 | C177930 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | 100 | < 0.1 | < 0.1 | < 0.1 | 0.11 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | NA | NA | NA | YES | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.1 | < 0.1 | < 0.1 | 0.11 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NR | NR | NR | NR | UC (Lube) | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D | MW7-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-06-03 | 2022-09-29 | 2022-12-16 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW7D_20210609 | MW7-D_20211005 | MW7-D_20211213 | MW7-D_20220328 | MW7-D_20220603 | MW7-D_20220929 | MW7-D_20221216 |
| | | | | Lab Sample ID | PUQ379 | QWF775 | RJM388 | SFM282 | SUS171 | TWL725 | UQJ837 |
| | | | | Lab Job Number | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2S2706 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.097 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.097 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-D | MW7-D | MW7-D | MW7-D | MW7-S | MW7-S | MW7-S |
| | | | | Sample Date | 2023-03-10 | 2023-03-10 | 2023-10-13 | 2024-12-10 | 2019-11-19 | 2020-04-01 | 2020-05-28 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW7-D_20230310 | DUP2_20230310 | MW7-D_20231013 | MW7-D_20241210 | 19X546170-731453 | 20X589937-1062419 | 20X606404-1156947 |
| | | | | Lab Sample ID | VGT136 | VGT146 | XHD240 | HA2403274-003 | 731453 | 1062419 | 1156947 |
| | | | | Lab Job Number | C370496 | C370496 | C3V9312 | HA2403274 | 19X546170 | 20X589937 | 20X606404 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.001 | < 0.001 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.002 | < 0.002 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.01 | < 0.01 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.05 | < 0.05 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.10 | < 0.10 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 1 | < 0.1 | < 0.1 | < 0.1 |
| **Reached Baseline** | | | | none | NA | NA | NA | Yes | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 | < 0.1 | < 0.1 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | N/A | NR | NR | NR |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S | MW7-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-03-23 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-28 | 2022-09-29 | 2022-12-16 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW7-S_20210323 | MW7S_20210609 | MW7-S_20211005 | MW7-S_20211213 | MW7-S_20220328 | MW7-S_20220929 | MW7-S_20221216 |
| | | | | Lab Sample ID | PDR015 | PUQ378 | QWF774 | RJM387 | SFM281 | TWL724 | UQJ836 |
| | | | | Lab Job Number | C177930 | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2S2706 | C2AN796 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.057 | < 0.058 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.057 | < 0.058 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.10 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.10 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW7-S | MW7-S | MW7-S | MW8-D | MW8-D | MW8-D | MW8-D |
| | | | | Sample Date | 2023-03-10 | 2023-10-13 | 2024-12-18 | 2020-06-01 | 2020-09-17 | 2020-12-16 | 2021-03-23 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW7-S_20230310 | MW7-S_20231013 | MW7-S_20241218 | 20X608058-1165167 | MW-8D_20200917 | MW8-D_20201216 | MW8-D_20210323 |
| | | | | Lab Sample ID | VGT135 | XHD239 | HA2403375-001 | 1165167 | NRG092 | OLM140 | PDR018 |
| | | | | Lab Job Number | C370496 | C3V9312 | HA2403375 | 20X608058 | C0O4512 | C0X8319 | C177930 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | 100 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | 0.096 | < 0.1 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NR | NR | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-07 | 2021-10-06 | 2021-12-13 | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-06-02 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW8-D_20210607 | MW8-D_20211006 | MW8-D_20211213 | DUP3_20211213 | MW8-D_20220329 | DUP 1_20220602 | MW8-D_20220602 |
| | | | | Lab Sample ID | PUI333 | QWS512 | RJM390 | RJM531 | SFM284 | SUK077 | SUK081 |
| | | | | Lab Job Number | C1F8315 | C1T3325 | C1Z2957 | C1Z2957 | C282980 | C2F1732 | C2F1732 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 | < 0.053 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 | < 0.053 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.095 | < 0.096 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.095 | < 0.096 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D | MW8-D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-29 | 2022-09-29 | 2022-12-16 | 2022-12-16 | 2023-03-10 | 2023-10-12 | 2023-12-01 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW8-D_20220929 | DUP 2_20220929 | MW8-D_20221216 | DUP2_20221216 | MW8-D_20230310 | MW8-D_20231012 | DUP1_20231201 |
| | | | | Lab Sample ID | TWL727 | TWL730 | UQJ839 | UQJ832 | VGT138 | XHD242 | XTQ433 |
| | | | | Lab Job Number | C2S2706 | C2S2706 | C2AN796 | C2AN796 | C370496 | C3V9312 | C3AS035 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.057 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.057 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | - | < 0.0000 |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW8-D | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2020-06-01 | 2020-09-17 | 2020-12-16 | 2021-03-23 | 2021-06-07 | 2021-10-06 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW8-D_20241210 | 20X608058-1165166 | MW-8S_20200917 | MW8-S_20201216 | MW8-S_20210323 | MW8-S_20210607 | MW8-S_20211006 |
| | | | | Lab Sample ID | HA2403274-014 | 1165166 | NRG091 | OLM139 | PDR017 | PUI332 | QWS511 |
| | | | | Lab Job Number | HA2403274 | 20X608058 | C0O4512 | C0X8319 | C177930 | C1F8315 | C1T3325 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | N/A | NR | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Location | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S | MW8-S |
| | | | | Sample Date | 2021-12-13 | 2022-03-29 | 2022-06-02 | 2022-09-29 | 2022-12-16 | 2023-03-10 | 2023-10-12 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW8-S_20211213 | MW8-S_20220329 | MW8-S_20220602 | MW8-S_20220929 | MW8-S_20221216 | MW8-S_20230310 | MW8-S_20231012 |
| | | | | Lab Sample ID | RJM389 | SFM283 | SUK080 | TWL726 | UQJ838 | VGT137 | XHD241 |
| | | | | Lab Job Number | C1Z2957 | C282980 | C2F1732 | C2S2706 | C2AN796 | C370496 | C3V9312 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.098 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | NA | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.098 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | MW8-S | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2024-12-10 | 2020-05-28 | 2020-05-28 | 2020-09-15 | 2020-12-16 | 2021-03-25 | 2021-03-25 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | MW8-S_20241210 | 20X606404-1156942 | 20X606404-1156940 | PW19-01_20200915 | PW19-01_20201216 | DUP2_20210325 | PW19-01_20210325 |
| | | | | Lab Sample ID | HA2403274-030 | 1156942 | 1156940 | NQU659 | OLM141 | PEB971 | PEB976 |
| | | | | Lab Job Number | HA2403274 | 20X606404 | 20X606404 | C0O2716 | C0X8319 | C179966 | C179966 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 1 | < 0.01 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 1 | < 0.05 | < 0.05 | < 0.050 | < 0.063 | < 0.050 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 1 | < 0.10 | < 0.10 | < 0.050 | 0.22 | < 0.050 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 1 | < 0.1 | < 0.1 | < 0.090 | 1.7 | < 0.090 | < 0.090 |
| **Reached Baseline** | | | | none | Yes | Y | Y | NA | NO | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.1 | < 0.1 | < 0.090 | **1.9** | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NR | NR | NR | NA | UC (Fuel/Lube), Lube | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2021-06-09 | 2021-06-09 | 2021-10-05 | 2021-12-13 | 2022-03-29 | 2022-06-03 | 2022-06-03 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | DUP1_20210609 | PW19-01_20210609 | PW19-01_20211005 | PW19-01_20211213 | PW19-01_20220329 | DUP2_20220603 | PW19-01_20220603 |
| | | | | Lab Sample ID | PUQ385 | PUQ382 | QWF781 | RJM395 | SFM290 | SUS180 | SUS176 |
| | | | | Lab Job Number | C1F9831 | C1F9831 | C1T0922 | C1Z2957 | C282980 | C2F3070 | C2F3070 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 | < 0.050 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | 0.074 | < 0.050 | < 0.050 | < 0.054 | < 0.050 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | < 0.090 | 0.21 | < 0.090 | < 0.090 | < 0.098 | < 0.090 |
| **Reached Baseline** | | | | none | NA | NA | Yes | NA | NA | NA | NA |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | < 0.090 | 0.29 | < 0.090 | < 0.090 | < 0.098 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | NA | UC;LOF | NA | NA | NA | NA |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C3
# PHC in Groundwater Analytical Results

| | | | | Sample Location | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 | PW19-01 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Date | 2022-09-30 | 2022-12-16 | 2023-03-10 | 2023-03-10 | 2023-10-13 | 2023-10-13 | 2024-12-18 |
| | | | | Background | | | | | | | |
| | | | | Sample ID | PW19-01_20220930 | PW19-01_20221216 | PW19-01_20230310 | DUP3_20230310 | PW19-01_20231013 | DUP2_20231013 | PW19-01_20241218 |
| | | | | Lab Sample ID | TXM818 | UQJ845 | VGT144 | VGT147 | XHD246 | XHD247 | HA2403375-003 |
| | | | | Lab Job Number | C2S7487 | C2AN796 | C370496 | C370496 | C3V9312 | C3V9312 | HA2403375 |
| **Parameter** | **CDWQ[1]** | **NS-PSS[2]** | **Background[3]** | **Unit** | | | | | | | |
| **Benzene** | 0.005 | 4.6 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 |
| **Toluene** | 0.06 | 4.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 |
| **Ethylbenzene** | 0.14 | 3.2 | < 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 |
| **Xylenes, Total** | 0.09 | 2.8 | < 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 |
| **PHC F1 (C6-C10) minus BTEX** | | | < 0.010 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 |
| **PHC F2 (>C10-C16)** | | | < 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 |
| **PHC (>C16-C21)** | | | < 0.10 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 1 |
| **PHC (>C21-C32)** | | | < 0.10 | mg/l | < 0.090 | 0.24 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 |
| **Reached Baseline** | | | | none | NA | Yes | NA | NA | NA | NA | Yes |
| **Modified TPH Tier 1** | | **13 (Gas)<br>0.84 (Fuel)<br>0.48 (Lube)** | < 0.1 | mg/l | < 0.090 | 0.24 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| **Hydrocarbon Resemblance** | | | | none | NA | Lube oil fraction. | NA | NA | NA | NA | N/A |

***Notes:***

[1] Health Canada - Canadian Drinking Water Guidelines (CDWG) (2024)

[2] Nova Scotia Environment and Climate Change (NSECC) Tier II Pathway Specific Standards (PSSs) for groundwater discharge to a surface fresh water body at a greater distance than 10m, Section 5, Table 5, September 30, 2021

[3] Background Concentration - based on 2018-2020 analytical data (REFERENCE)

VALUE Results exceeds CDWG

**VALUE** Results exceeds NSE-Tier II PSS FRESH/DISTANCE >10m

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested;

Monitoring wells labelled Background are considered to be representative of background conditions

NA: not available

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 |
| | | | Sample ID | 20X608058-1165256 | DIFFUSER_20200717 | DIFFUSER_20200729 | DIFFUSER_20200811 | DIFFUSER_20200824 | DIFFUSER_20200908 | DIFFUSER_20200924 | DIFFUSER_20201006 |
| | | | Lab Sample ID | 1165256 | NDH755 | NFS559 | NIJ481 | NLM312 | NOK785 | NSF571 | NUV957 |
| | | | Lab Job Number | 20X608058 | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0Q0953 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **439** | **580** | **460** | **450** | **420** | **380** | **710** | **620** |
| Antimony | 20 | <2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 2 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | < 5 | 3.8 | 3.4 | 2.9 | 3.0 | 2.8 | 5.2 | 4.8 |
| Beryllium | 5.3 | <2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 11 | < 50 | < 50 | 57 | 95 | 80 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **< 0.017** | **0.025** | **0.019** | **0.011** | **0.011** | < 0.010 | **0.029** | **0.030** |
| Calcium | | 190-1800 | ug/l | 1300 | 1400 | 1600 | 1700 | 1900 | 2000 | 970 | 1500 |
| Chromium | | <2-3 | ug/l | < 1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 1 | < 0.50 | 0.77 | < 0.50 | < 0.50 | < 0.50 | 0.96 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **440** | **610** | **470** | **560** | **540** | **510** | **560** | **610** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.8 | 0.94 | 0.82 | 0.77 | 0.75 | 0.79 | **1.3** | 0.92 |
| Magnesium | | 140-980 | ug/l | 400 | 460 | 440 | 460 | 490 | 500 | 520 | 550 |
| Manganese | **820** | 6.4-33 | ug/l | 16 | 17 | 20 | 19 | 17 | 14 | 24 | 28 |
| Mercury | 0.026 | | ug/l | < 0.026 | 0.013 | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | 40 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 300 | 220 | 190 | 160 | 170 | 190 | 350 | 340 |
| Selenium | **1** | <1 | ug/l | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3700 | 3900 | 4000 | 4000 | 4300 | 4200 | 4300 | 4300 |
| Strontium | 21000 | <5-9.3 | ug/l | 8 | 7.8 | 8.1 | 8.6 | 8.9 | 11 | 7.1 | 8.8 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 4 | 6.1 | 4.6 | 5.1 | 4.7 | 4.9 | 8.0 | 6.5 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.2 | 0.21 | 0.25 | 0.24 | 0.27 | 0.26 | 0.19 | 0.21 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2 | < 2.0 | 2.4 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5 | < 5.0 | < 5.0 | 7.3 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-12-14 |
| | | | Sample ID | DUP1_20201006 | DIFFUSER_20201023 | DIFFUSER_20201105 | DUP1_20201105 | DIFFUSER_20201120 | DIFFUSER_20201130 | DIFFUSER_20201214 |
| | | | Lab Sample ID | NUW053 | NYW160 | OBU586 | OBU587 | OFF871 | OHD063 | OKO556 |
| | | | Lab Job Number | C0Q0953 | C0R9712 | C0T3354 | C0T3354 | C0U8920 | C0V7696 | C0X3829 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **610** | **830** | **1400** | **1100** | **1000** | **1300** | **1100** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 4.8 | 6.3 | 9.4 | 7.6 | 7.0 | 10 | 8.4 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.028** | **0.030** | **0.030** | **0.028** | **0.030** | **0.020** | **0.028** |
| Calcium | | 190-1800 | ug/l | 1500 | 2100 | 2200 | 2000 | 2000 | 2900 | 1800 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | 0.44 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | 0.53 | 0.96 | 0.98 | 0.71 | 0.83 | 0.72 |
| Iron | **300** | 130-790 | ug/l | **610** | **770** | **1100** | **1100** | **830** | **1000** | **850** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.88 | **1.1** | **1.5** | **1.5** | **1.2** | **1.2** | **1.1** |
| Magnesium | | 140-980 | ug/l | 540 | 710 | 870 | 810 | 780 | 920 | 810 |
| Manganese | **820** | 6.4-33 | ug/l | 28 | 28 | 39 | 35 | 28 | 33 | 31 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 340 | 360 | 480 | 380 | 360 | 460 | 430 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4300 | 5700 | 5400 | 5200 | 5300 | 5500 | 5600 |
| Strontium | 21000 | <5-9.3 | ug/l | 9.2 | 11 | 12 | 12 | 11 | 14 | 11 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 5.7 | 10 | 29 | 21 | 16 | 25 | 21 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.20 | 0.25 | 0.33 | 0.33 | 0.29 | 0.33 | 0.23 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.2 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | 5.7 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 |
| | | | Sample ID | DIFFUSER_20201228 | DIFFUSER_20210325 | DIFFUSER_20210408 | DIFFUSER_20210421 | DIFFUSER_20210505 | DIFFUSER_20210519 | DIFFUSER_20210603 |
| | | | Lab Sample ID | OMT746 | PEB837 | PGQ140 | PJV227 | PMO074 | PPM344 | PST793 |
| | | | Lab Job Number | C0Y4558 | C179941 | C192270 | C1A7947 | C1C1117 | C1D5211 | C1F0842 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **930** | **790** | **610** | **690** | **680** | **590** | **680** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 8.0 | 5.5 | 4.4 | 5.5 | 5.2 | 3.9 | 4.9 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.025** | **0.017** | **0.014** | **0.025** | **0.016** | **0.019** | **0.018** |
| Calcium | | 190-1800 | ug/l | 2800 | 2000 | 1300 | 2300 | 1700 | 1400 | 2300 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 0.45 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.87 | 0.73 | 0.57 | **3.8** | 0.52 | 0.59 | 0.67 |
| Iron | **300** | 130-790 | ug/l | **900** | **600** | **530** | **570** | **540** | **470** | **600** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.1** | 0.77 | 0.82 | **1.1** | 0.87 | 0.77 | 0.90 |
| Magnesium | | 140-980 | ug/l | 900 | 620 | 430 | 500 | 520 | 450 | 590 |
| Manganese | **820** | 6.4-33 | ug/l | 32 | 23 | 15 | 19 | 19 | 17 | 26 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | 4.3 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | 2.9 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | 110 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 520 | 430 | 320 | 670 | 420 | 300 | 400 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5400 | 3900 | 3300 | 4100 | 4000 | 3800 | 4000 |
| Strontium | 21000 | <5-9.3 | ug/l | 14 | 8.6 | 6.1 | 7.3 | 8.3 | 6.1 | 10 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 17 | 15 | 11 | 12 | 13 | 9.1 | < 20 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.32 | 0.25 | 0.22 | 0.25 | 0.29 | 0.24 | 0.35 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | **170** | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 |
| | | | Sample ID | DIFFUSER_20210614 | DIFFUSER_20210630 | DIFFUSER_20210714 | DIFFUSER_20210727 | DIFFUSER_20210811 | DIFFUSER_20210908 | DIFFUSER_20210923 |
| | | | Lab Sample ID | PVK702 | PZB781 | QCI564 | QFJ455 | QIT123 | QPN182 | QTA033 |
| | | | Lab Job Number | C1G3518 | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 | C1R6341 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **600** | **510** | **440** | **430** | **800** | **680** | **850** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | 1.1 | 1.1 | < 1.0 | 1.4 | 1.1 |
| Barium | 1000 | <5-7 | ug/l | 4.3 | 4.0 | 3.8 | 3.7 | 5.3 | 6.2 | 5.8 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.11 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.018** | < 0.010 | < 0.010 | < 0.010 | **0.022** | 0.010 | **0.023** |
| Calcium | | 190-1800 | ug/l | 1900 | 2000 | 2000 | 2000 | 1300 | 2800 | 2000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.61 | 1.0 | 0.53 | 0.51 | 0.56 | 0.59 | 0.61 |
| Iron | **300** | 130-790 | ug/l | **570** | **520** | **580** | **530** | **840** | **1000** | **870** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.83 | 0.75 | 0.81 | 0.73 | **1.2** | **1.1** | **1.1** |
| Magnesium | | 140-980 | ug/l | 550 | 590 | 600 | 630 | 540 | 690 | 680 |
| Manganese | **820** | 6.4-33 | ug/l | 27 | 28 | 25 | 20 | 27 | 48 | 39 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 320 | 400 | 380 | 410 | 210 | 400 | 300 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4300 | 4600 | 4800 | 5000 | 4600 | 5000 | 5200 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.5 | 9.7 | 9.5 | 9.4 | 7.7 | 14 | 10 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.3 | 6.1 | 6.8 | 6.1 | 9.2 | 9.3 | 8.2 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.36 | 0.27 | 0.30 | 0.28 | 0.28 | 0.39 | 0.32 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.6 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | LDO | LDO | LDO |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-06 | 2021-10-19 | 2021-10-19 | 2021-11-02 | 2022-09-29 | 2022-12-14 | 2023-04-14 |
| | | | Sample ID | DIFFUSER_20211006 | DUP1_20211019 | DIFFUSER_20211019 | DIFFUSER_20211102 | LDO_20220929 | LDO_20221214 | LDO_20230414 |
| | | | Lab Sample ID | QWG510 | QZA170 | QZA169 | RCV753 | TWL537 | UPB188 | VNV585 |
| | | | Lab Job Number | C1T1039 | C1U4014 | C1U4014 | C1W2029 | C2S2675 | C2AH933 | C3A4090 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **850** | **700** | **740** | **890** | **140** | **940** | **640** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.1 | < 1.0 | < 1.0 | < 1.0 | 1.6 | 1.2 | 1.7 |
| Barium | 1000 | <5-7 | ug/l | 6.2 | 5.5 | 5.8 | 5.9 | 36 | 40 | 31 |
| Beryllium | 5.3 | <2 | ug/l | 0.11 | < 0.10 | < 0.10 | 0.11 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | 310 | 570 | 410 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.016** | **0.014** | **0.017** | **0.022** | **0.031** | **0.56** | **0.26** |
| Calcium | | 190-1800 | ug/l | 2100 | 2200 | 2300 | 2000 | 71000 | 89000 | 68000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.3 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 1.1 | 1.8 | 1.1 |
| Copper | **2** | <2 | ug/l | 0.51 | < 0.50 | < 0.50 | 0.62 | **3.3** | **2.9** | **3.2** |
| Iron | **300** | 130-790 | ug/l | **960** | **790** | **820** | **820** | 180 | **370** | **790** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | 0.95 | **2.5** | **1.2** | 0.63 | < 0.50 | 0.69 |
| Magnesium | | 140-980 | ug/l | 680 | 640 | 670 | 770 | 8700 | 14000 | 10000 |
| Manganese | **820** | 6.4-33 | ug/l | 40 | 38 | 40 | 30 | 640 | **1100** | 630 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.3 | 2.7 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 380 | 330 | 350 | 440 | 3900 | 3000 | 2600 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5000 | 4600 | 5000 | 5200 | 9900 | 15000 | 11000 |
| Strontium | 21000 | <5-9.3 | ug/l | 11 | 12 | 12 | 10 | 210 | 270 | 200 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 11 | 9.3 | 8.5 | 10 | 4.7 | 10 | 24 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.37 | 0.32 | 0.34 | 0.30 | 29 | 62 | 39 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 20 | 22 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | LDO | LDO | LDO | LDO | LDO | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-10-12 | 2023-12-01 | 2023-12-01 | 2024-03-14 | 2024-03-14 | 2020-06-01 | 2020-07-17 |
| | | | Sample ID | LDO_20231012 | DUP1_20231201_WS | LDO_20231201 | DUP1_20240314 | LDO_20240314 | 20X608058-1165174 | SW1_20200717 |
| | | | Lab Sample ID | XGT440 | XTQ433 | XTQ432 | YQA666 | YQA665 | 1165174 | NDH751 |
| | | | Lab Job Number | C3V7537 | C3AS035 | C3AS035 | C476965 | C476965 | 20X608058 | C0H9882 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **66** | **94** | **98** | **180** | **170** | **369** | **520** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 32 | 19 | 19 | 18 | 19 | < 5 | 3.1 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 2 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 320 | 130 | 130 | 200 | 200 | 5 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.024** | **0.048** | **0.050** | **0.22** | **0.22** | **< 0.017** | **0.019** |
| Calcium | | 190-1800 | ug/l | 71000 | 43000 | 45000 | 44000 | 44000 | 500 | 530 |
| Chromium | | <2-3 | ug/l | 3.6 | 1.0 | 1.1 | < 1.0 | < 1.0 | < 1 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 0.55 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 1 | < 0.40 |
| Copper | **2** | <2 | ug/l | 1.7 | 1.4 | 1.3 | **2.4** | **2.2** | < 1 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | 83 | 110 | 100 | 180 | 170 | **428** | **610** |
| Lead | **1** | <0.5-1.8 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.8 | 0.81 |
| Magnesium | | 140-980 | ug/l | 9100 | 5200 | 5300 | 6400 | 6400 | 300 | 350 |
| Manganese | **820** | 6.4-33 | ug/l | 400 | 210 | 210 | 250 | 250 | 16 | 16 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | < 0.026 | < 0.013 |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | 40 | < 100 |
| Potassium | | 160-900 | ug/l | 3000 | 1900 | 1900 | 1900 | 1900 | 300 | 220 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 1 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 12000 | 7400 | 7600 | 7700 | 7800 | 3700 | 3900 |
| Strontium | 21000 | <5-9.3 | ug/l | 200 | 130 | 140 | 130 | 130 | < 5 | 4.0 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 2.4 | 2.8 | 3.4 | 4.7 | 4.8 | 3 | 4.6 |
| Uranium | 300 | <0.1-0.7 | ug/l | 25 | 12 | 12 | 23 | 23 | 0.2 | 0.19 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 5.5 | < 5.0 | < 5.0 | 12 | 12 | < 5 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-09-24 | 2020-10-06 |
| | | | Sample ID | SW1_20200729 | SW1_20200811 | SW1_20200824 | SW1_20200908 | SW1_20200924 | DUP A_20200924 | SW1_20201006 |
| | | | Lab Sample ID | NFS555 | NIJ477 | NLM308 | NOK781 | NSF567 | NSF572 | NUV951 |
| | | | Lab Job Number | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0O8769 | C0Q0953 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **450** | **510** | **400** | **360** | **670** | **690** | **610** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | 1.3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 3.3 | 3.9 | 3.0 | 2.4 | 4.5 | 4.4 | 4.5 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | 78 | 89 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.017** | **0.013** | < 0.010 | 0.010 | **0.021** | **0.028** | **0.027** |
| Calcium | | 190-1800 | ug/l | 1500 | 1600 | 1800 | 1900 | 770 | 800 | 840 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.92 | < 0.50 | 0.56 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **490** | **790** | **570** | **520** | **550** | **570** | **660** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.84 | **1.2** | 0.86 | 0.81 | **1.3** | **1.3** | 0.93 |
| Magnesium | | 140-980 | ug/l | 430 | 480 | 470 | 490 | 480 | 490 | 530 |
| Manganese | **820** | 6.4-33 | ug/l | 20 | 27 | 19 | 22 | 19 | 21 | 33 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 160 | 180 | 180 | 300 | 340 | 350 | 300 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4000 | 4300 | 4300 | 4600 | 4300 | 4600 | 4800 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.0 | 8.9 | 9.3 | 9.2 | 5.3 | 5.2 | 6.4 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 3.8 | 5.6 | 5.4 | 5.7 | 8.1 | 7.6 | 7.1 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.23 | 0.23 | 0.23 | 0.21 | 0.19 | 0.22 | 0.19 |
| Vanadium | **6** | <2-2.1 | ug/l | 2.1 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-23 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-11-30 | 2020-12-14 |
| | | | Sample ID | DUP1_20201023 | SW1_20201023 | SW1_20201105 | SW1_20201120 | SW1_20201130 | DUP1_20201130 | DUP1_20201214 |
| | | | Lab Sample ID | NYW161 | NYW153 | OBU580 | OFF866 | OHD057 | OHD064 | OKO557 |
| | | | Lab Job Number | C0R9712 | C0R9712 | C0T3354 | C0U8920 | C0V7696 | C0V7696 | C0X3829 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **750** | **780** | **770** | **710** | **740** | **810** | **720** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.0 | 5.4 | 5.1 | 4.8 | 5.5 | 5.7 | 5.8 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.024** | **0.032** | **0.032** | **0.029** | **0.022** | **0.025** | **0.029** |
| Calcium | | 190-1800 | ug/l | 1400 | 880 | 820 | 830 | 1000 | 970 | 780 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | < 0.50 | 0.54 | < 0.50 | < 0.50 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **690** | **750** | **720** | **600** | **790** | **770** | **540** |
| Lead | **1** | <0.5-1.8 | ug/l | 1.0 | **1.3** | **1.2** | **1.4** | **1.3** | **1.5** | 0.98 |
| Magnesium | | 140-980 | ug/l | 590 | 570 | 600 | 550 | 620 | 610 | 700 |
| Manganese | **820** | 6.4-33 | ug/l | 26 | 26 | 25 | 22 | 29 | 25 | 24 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 400 | 270 | 250 | 250 | 280 | 270 | 230 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5100 | 5000 | 5200 | 4800 | 5300 | 5200 | 5900 |
| Strontium | 21000 | <5-9.3 | ug/l | 6.9 | 6.9 | 6.7 | 6.4 | 8.5 | 6.8 | 7.5 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.5 | 8.6 | 8.3 | 7.2 | 9.7 | 10 | 7 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.21 | 0.22 | 0.20 | 0.19 | 0.19 | 0.22 | 0.17 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-14 | 2020-12-28 | 2020-12-28 | 2021-03-25 | 2021-03-25 | 2021-04-08 | 2021-04-21 |
| | | | Sample ID | SW1_20201214 | SW1_20201228 | DUP1_20201228 | SW1_20210325 | DUP4_20210325 | SW1_20210408 | SW1_20210421 |
| | | | Lab Sample ID | OKO550 | OMT740 | OMT747 | PEB831 | PEB838 | PGQ134 | PJV221 |
| | | | Lab Job Number | C0X3829 | C0Y4558 | C0Y4558 | C179941 | C179941 | C192270 | C1A7947 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **790** | **580** | **550** | **470** | **450** | **440** | **740** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6 | 4.4 | 4.5 | 3.2 | 3.0 | 2.7 | 5.2 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.97** | **0.027** | **0.023** | **0.015** | **0.014** | **0.014** | **0.016** |
| Calcium | | 190-1800 | ug/l | 810 | 680 | 660 | 580 | 530 | 390 | 1300 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.65 |
| Iron | **300** | 130-790 | ug/l | **580** | **410** | **430** | **350** | **320** | **320** | **500** |
| Lead | **1** | <0.5-1.8 | ug/l | 1 | 0.75 | 0.77 | 0.63 | 0.57 | 0.64 | 0.80 |
| Magnesium | | 140-980 | ug/l | 720 | 570 | 560 | 410 | 400 | 300 | 500 |
| Manganese | **820** | 6.4-33 | ug/l | 26 | 21 | 20 | 16 | 15 | 11 | 20 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 240 | 240 | 220 | 220 | 210 | 200 | 380 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 6100 | 5400 | 5100 | 3900 | 3900 | 3300 | 3900 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.3 | 6.1 | 6.1 | 4.4 | 4.3 | 3.3 | 7.5 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | < 20 | 5.0 | 5.2 | 6.1 | 4.5 | 4.8 | 15 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.16 | 0.14 | 0.15 | 0.14 | 0.12 | 0.12 | 0.22 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 |
| | | | Sample ID | SW1_20210505 | SW1_20210519 | SW1_20210603 | SW1_20210614 | SW1_20210630 | SW1_20210714 | SW1_20210727 |
| | | | Lab Sample ID | PMO067 | PPM339 | PST787 | PVK696 | PZB776 | QCI559 | QFJ449 |
| | | | Lab Job Number | C1C1117 | C1D5211 | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **770** | **460** | **600** | **560** | **470** | **370** | **380** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 |
| Barium | 1000 | <5-7 | ug/l | 5.3 | 3.2 | 4.9 | 3.9 | 3.9 | 3.5 | 3.6 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.012** | **0.013** | **0.019** | **0.016** | < 0.010 | < 0.010 | < 0.010 |
| Calcium | | 190-1800 | ug/l | 1600 | 790 | 1800 | 1800 | 2000 | 2000 | 2000 |
| Chromium | | <2-3 | ug/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | 0.55 | 0.50 | 0.50 | < 0.50 | 0.53 |
| Iron | **300** | 130-790 | ug/l | **650** | **360** | **550** | **460** | **510** | **480** | **520** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.3** | 0.69 | 0.87 | 0.79 | 0.77 | 0.74 | 0.72 |
| Magnesium | | 140-980 | ug/l | 510 | 360 | 500 | 530 | 600 | 560 | 640 |
| Manganese | **820** | 6.4-33 | ug/l | 21 | 17 | 22 | 27 | 28 | 23 | 20 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 430 | 220 | 310 | 320 | 430 | 360 | 410 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4000 | 3800 | 3700 | 4200 | 4800 | 4500 | 5100 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.1 | 5.4 | 8.0 | 8.3 | 9.3 | 8.9 | 9.5 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 16 | 6.1 | 10 | 5.4 | 5.9 | 5.5 | 5.2 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.25 | 0.17 | 0.25 | 0.29 | 0.29 | 0.25 | 0.26 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-09-23 | 2021-10-06 | 2021-10-06 | 2021-10-19 |
| | | | Sample ID | SW1_20210811 | SW1_20210908 | DUP1_20210923 | SW1_20210923 | DUP1_20211006 | SW1_20211006 | SW1_20211019 |
| | | | Lab Sample ID | QIT117 | QPN176 | QTA034 | QTA027 | QWG511 | QWG504 | QZA163 |
| | | | Lab Job Number | C1M6832 | C1P9560 | C1R6341 | C1R6341 | C1T1039 | C1T1039 | C1U4014 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **940** | **650** | **890** | **850** | **770** | **800** | **670** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | 1.3 | 1.1 | 1.0 | < 1.0 | 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.2 | 5.7 | 5.9 | 5.8 | 5.8 | 6.0 | 5.2 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | 0.11 | 0.12 | 0.11 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.020** | **0.010** | **0.022** | **0.023** | **0.022** | **0.023** | **0.016** |
| Calcium | | 190-1800 | ug/l | 1300 | 2600 | 2000 | 1900 | 1900 | 2200 | 2100 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.67 | 0.53 | 0.65 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **820** | **970** | **890** | **860** | **920** | **970** | **750** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.1** | 1.0 | **1.1** | **1.1** | **1.1** | **1.1** | 0.93 |
| Magnesium | | 140-980 | ug/l | 550 | 650 | 670 | 660 | 620 | 710 | 630 |
| Manganese | **820** | 6.4-33 | ug/l | 26 | 44 | 38 | 38 | 36 | 39 | 38 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 240 | 390 | 340 | 310 | 350 | 320 | 350 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4700 | 4600 | 5200 | 5100 | 4900 | 5400 | 4900 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.5 | 13 | 10 | 10 | 9.9 | 11 | 11 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 11 | 8.2 | 10 | 8.3 | 7.3 | 9.9 | 7.4 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.29 | 0.36 | 0.33 | 0.31 | 0.31 | 0.35 | 0.30 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 5.9 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-11-02 | 2021-11-02 | 2021-11-21 | 2021-11-21 | 2021-12-01 | 2021-12-01 | 2021-12-15 |
| | | | Sample ID | DUP1_20211102 | SW1_20211102 | DUP1_20211121 | SW1_20211121 | DUP 1_20211201 | SW1_20211201 | SW1_20211215 |
| | | | Lab Sample ID | RCV754 | RCV729 | RIY809 | RIY803 | RNH012 | RNH005 | RJJ614 |
| | | | Lab Job Number | C1W2029 | C1W2029 | C1Z0716 | C1Z0716 | C1AG897 | C1AG897 | C1Z2434 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **880** | **900** | **860** | **840** | **730** | **730** | **490** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.2 | 5.3 | 4.9 | 5.0 | 4.9 | 4.7 | 3.4 |
| Beryllium | 5.3 | <2 | ug/l | 0.12 | 0.14 | 0.11 | 0.12 | 0.12 | 0.13 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.027** | **0.023** | **0.029** | **0.020** | **0.025** | **0.024** | **0.020** |
| Calcium | | 190-1800 | ug/l | 750 | 750 | 740 | 730 | 700 | 700 | 620 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **760** | **780** | **750** | **720** | **560** | **540** | **390** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | **1.2** | **1.1** | **1.1** | **1.1** | **1.1** | 0.88 |
| Magnesium | | 140-980 | ug/l | 620 | 630 | 630 | 610 | 530 | 510 | 390 |
| Manganese | **820** | 6.4-33 | ug/l | 22 | 22 | 21 | 21 | 19 | 19 | 17 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 260 | 250 | 220 | 220 | 260 | 250 | 300 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5100 | 5200 | 5500 | 5400 | 4600 | 4500 | 3600 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.1 | 7.1 | 6.7 | 6.9 | 5.9 | 6.0 | 4.5 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.8 | 8.2 | 8.3 | 8.2 | 7.3 | 9.6 | 6.3 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.20 | 0.19 | 0.20 | 0.19 | 0.19 | 0.17 | 0.16 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-03-24 | 2022-03-24 | 2022-04-06 | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-31 |
| | | | Sample ID | DUP1_20220324 | SW1_20220324 | DUP1_20220406 | SW1_20220406 | SW1_20220419 | SW1_20220505 | SW1_20220531 |
| | | | Lab Sample ID | SEH105 | SEH099 | SHG310 | SHG304 | SJT836 | SNX120 | STQ317 |
| | | | Lab Job Number | C277826 | C277826 | C290667 | C290667 | C2A2126 | C2C1673 | C2E8059 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **370** | **370** | **430** | **420** | **440** | **440** | **480** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 2.4 | 2.5 | 2.8 | 2.7 | 2.7 | 3.1 | 3.0 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.017** | **0.015** | **0.018** | **0.013** | **0.014** | **0.013** | **0.016** |
| Calcium | | 190-1800 | ug/l | 400 | 400 | 700 | 670 | 620 | 870 | 520 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | 280 | 290 | **330** | **320** | **330** | **330** | **400** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.56 | 0.59 | 0.69 | 0.66 | 0.62 | 0.61 | 0.72 |
| Magnesium | | 140-980 | ug/l | 320 | 330 | 350 | 330 | 350 | 390 | 340 |
| Manganese | **820** | 6.4-33 | ug/l | 13 | 13 | 14 | 13 | 15 | 14 | 12 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 200 | 210 | 250 | 240 | 230 | 260 | 240 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3400 | 3400 | 3500 | 3400 | 3600 | 3900 | 3900 |
| Strontium | 21000 | <5-9.3 | ug/l | 3.2 | 3.2 | 4.4 | 4.3 | 4.1 | 4.7 | 3.5 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 4.5 | 4.7 | 5.4 | 4.9 | 4.0 | 5.3 | 6.1 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.13 | 0.12 | 0.20 | 0.18 | 0.21 | 0.18 | 0.16 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-12-01 |
| | | | Sample ID | SW1_20220616 | SW1_20220627 | SW1_20220929 | SW1_20221214 | SW1_20230414 | SW1_20231012 | SW1_20231201 |
| | | | Lab Sample ID | SXM266 | TAE933 | TWL531 | UPB182 | VNV579 | XGT435 | XTQ427 |
| | | | Lab Job Number | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3V7537 | C3AS035 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **640** | **690** | **910** | **610** | **400** | **560** | **540** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 3.8 | 4.1 | 4.7 | 4.2 | 3.1 | 5.6 | 3.9 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | 0.15 | 0.12 | < 0.10 | 0.11 | 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.016** | **0.016** | **0.039** | **0.023** | **0.010** | **0.025** | **0.026** |
| Calcium | | 190-1800 | ug/l | 1100 | 1800 | 570 | 590 | 1100 | 1400 | 580 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | 0.56 | 0.54 | < 0.50 | < 0.50 | 0.93 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **660** | **680** | **700** | **440** | **300** | **690** | **520** |
| Lead | **1** | <0.5-1.8 | ug/l | 1.0 | **1.1** | **1.6** | 0.91 | 0.62 | 0.92 | 0.95 |
| Magnesium | | 140-980 | ug/l | 420 | 480 | 470 | 510 | 440 | 690 | 530 |
| Manganese | **820** | 6.4-33 | ug/l | 19 | 23 | 18 | 19 | 16 | 30 | 22 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 250 | 260 | 270 | 310 | 350 | 430 | 390 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3700 | 3700 | 4600 | 4700 | 3900 | 5100 | 4400 |
| Strontium | 21000 | <5-9.3 | ug/l | 5.7 | 7.7 | 5.0 | 5.2 | 5.8 | 8.9 | 5.0 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 7.7 | 7.4 | 9.4 | 6.1 | 4.5 | 6.9 | 6.0 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.27 | 0.33 | 0.22 | 0.17 | 0.20 | 0.20 | 0.15 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.2 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-03-14 | 2018-11-08 | 2020-04-01 | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 |
| | | | Sample ID | SW1_20240314 | SW2_20181108 | 20X589937-1062436 | 20X608058-1165251 | SW2_20200717 | SW2_20200729 | SW2_20200811 |
| | | | Lab Sample ID | YQA660 | 9698383 | 1062436 | 1165251 | NDH752 | NFS556 | NIJ478 |
| | | | Lab Job Number | C476965 | 18X408633 | 20X589937 | 20X608058 | C0H9882 | C0J0983 | C0K2722 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **330** | **735** | **423** | **467** | **580** | **520** | **650** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | 1.1 |
| Barium | 1000 | <5-7 | ug/l | 2.5 | 5 | < 5 | < 5 | 4.3 | 3.5 | 4.3 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 2 | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | 18 | 18 | 9 | < 50 | < 50 | 130 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.014** | **< 0.09** | **< 0.017** | **0.017** | **0.026** | 0.010 | **0.018** |
| Calcium | | 190-1800 | ug/l | 350 | 2900 | 3600 | 1300 | 1400 | 1500 | 2000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1 | < 1 | < 1 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 1 | < 1 | < 1 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 1 | 1 | 1 | < 0.50 | 0.82 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | 270 | **538** | **753** | **423** | **630** | **490** | **760** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.54 | **1.2** | 0.7 | **1.1** | 0.99 | 0.84 | **1.3** |
| Magnesium | | 140-980 | ug/l | 340 | 700 | 700 | 400 | 450 | 450 | 540 |
| Manganese | **820** | 6.4-33 | ug/l | 14 | 21 | 18 | 16 | 18 | 20 | 22 |
| Mercury | 0.026 | | ug/l | — | < 0.026 | < 0.026 | < 0.026 | 0.013 | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2 | 2 | 6 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 20 | < 20 | 30 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 290 | 400 | 400 | 300 | 230 | 170 | 180 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 1 | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3300 | 4900 | 4500 | 3800 | 3900 | 4100 | 4400 |
| Strontium | 21000 | <5-9.3 | ug/l | 3.1 | 17 | 16 | 7 | 8.1 | 8.0 | 10 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.1 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2 | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 3.2 | 7 | 4 | 5 | 6.0 | 5.1 | 9.8 |
| Uranium | 300 | <0.1-0.7 | ug/l | < 0.10 | 0.2 | 0.3 | 0.2 | 0.22 | 0.22 | 0.32 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2 | < 2 | < 2 | < 2.0 | 2.4 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5 | < 5 | 13 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 |
| | | | Sample ID | SW2_20200824 | SW2_20200908 | SW2_20200924 | SW2_20201006 | SW2_20201023 | SW2_20201105 | SW2_20201120 |
| | | | Lab Sample ID | NLM309 | NOK782 | NSF568 | NUV952 | NYW154 | OBU581 | OFF867 |
| | | | Lab Job Number | C0L7809 | C0N1046 | C0O8769 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **420** | **450** | **720** | **660** | **810** | **1100** | **1000** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 3.5 | 4.4 | 4.9 | 5.1 | 11 | 7.6 | 6.6 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 93 | 91 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | < 0.010 | **0.012** | **0.029** | **0.034** | **0.026** | **0.030** | **0.028** |
| Calcium | | 190-1800 | ug/l | 2000 | 2200 | 890 | 1900 | 2800 | 2000 | 1800 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | 0.59 | < 0.50 | 0.82 | 0.91 | 0.71 |
| Iron | **300** | 130-790 | ug/l | **550** | **690** | **570** | **660** | **740** | **1000** | **860** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.81 | **1.1** | **1.3** | 0.95 | **1.1** | **1.4** | **1.2** |
| Magnesium | | 140-980 | ug/l | 490 | 550 | 530 | 620 | 830 | 820 | 750 |
| Manganese | **820** | 6.4-33 | ug/l | 17 | 17 | 24 | 29 | 170 | 34 | 28 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 240 | 280 | 380 | 390 | 500 | 400 | 370 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4300 | 4400 | 4400 | 4700 | 5100 | 5300 | 5300 |
| Strontium | 21000 | <5-9.3 | ug/l | 9.8 | 11 | 6.5 | 11 | 13 | 11 | 10 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 5.7 | 6.6 | 8.3 | 7.5 | 9.2 | 18 | 14 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.23 | 0.27 | 0.17 | 0.20 | 0.26 | 0.33 | 0.26 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 6.9 | < 5.0 | < 5.0 | 6.6 | 5.9 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 | 2021-05-05 |
| | | | Sample ID | SW2_20201130 | SW2_20201214 | SW2_20201228 | SW2_20210325 | SW2_20210408 | SW2_20210421 | SW2_20210505 |
| | | | Lab Sample ID | OHD058 | OKO551 | OMT741 | PEB832 | PGQ135 | PJV222 | PMO068 |
| | | | Lab Job Number | C0V7696 | C0X3829 | C0Y4558 | C179941 | C192270 | C1A7947 | C1C1117 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **1300** | **1000** | **940** | **700** | **610** | **860** | **870** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 9.2 | 11 | 8.2 | 5.4 | 3.9 | 5.3 | 6.5 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.023** | **0.030** | **0.023** | **0.014** | **0.016** | **0.014** | **0.016** |
| Calcium | | 190-1800 | ug/l | 2900 | 1600 | 2600 | 2000 | 1100 | 1900 | 2100 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 0.51 | < 0.40 | 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.85 | 0.62 | 1.0 | 0.58 | 0.83 | 0.96 | 0.96 |
| Iron | **300** | 130-790 | ug/l | **1000** | **820** | **890** | **550** | **460** | **620** | **750** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | **1.1** | **1.2** | 0.68 | 0.75 | 0.86 | **1.2** |
| Magnesium | | 140-980 | ug/l | 920 | 820 | 870 | 590 | 420 | 580 | 600 |
| Manganese | **820** | 6.4-33 | ug/l | 33 | 30 | 31 | 22 | 15 | 20 | 22 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 460 | 420 | 510 | 420 | 300 | 450 | 500 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5500 | 5800 | 5500 | 3700 | 3300 | 3900 | 4100 |
| Strontium | 21000 | <5-9.3 | ug/l | 14 | 10 | 13 | 9.2 | 5.5 | 8.8 | 9.5 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 25 | 17 | 17 | 16 | 9.0 | < 20 | 18 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.31 | 0.20 | 0.27 | 0.26 | 0.19 | 0.30 | 0.30 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-05-19 | 2021-06-03 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 |
| | | | Sample ID | SW2_20210519 | DUP1_20210603 | SW2_20210603 | SW2_20210614 | SW2_20210630 | SW2_20210714 | SW2_20210727 |
| | | | Lab Sample ID | PPM340 | PST794 | PST788 | PVK697 | PZB777 | QCI560 | QFJ450 |
| | | | Lab Job Number | C1D5211 | C1F0842 | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **610** | **660** | **650** | **680** | **440** | **430** | **390** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 | 1.1 |
| Barium | 1000 | <5-7 | ug/l | 5.1 | 5.1 | 5.0 | 4.4 | 4.1 | 3.9 | 3.8 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.024** | **0.017** | **0.017** | **0.017** | **0.013** | < 0.010 | **0.012** |
| Calcium | | 190-1800 | ug/l | 1500 | 2200 | 2200 | 1900 | 2000 | 2000 | 2200 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | 0.61 | 0.68 | 0.59 | 1.1 | 0.65 | 1.3 |
| Iron | **300** | 130-790 | ug/l | **530** | **570** | **590** | **560** | **470** | **530** | **510** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.87 | 0.91 | 0.90 | 0.84 | 0.73 | 0.78 | 0.76 |
| Magnesium | | 140-980 | ug/l | 460 | 560 | 580 | 540 | 550 | 600 | 610 |
| Manganese | **820** | 6.4-33 | ug/l | 18 | 25 | 26 | 26 | 25 | 25 | 19 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 310 | 380 | 400 | 320 | 370 | 380 | 390 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3700 | 4000 | 4100 | 4300 | 4200 | 4700 | 4900 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.7 | 10 | 9.5 | 8.3 | 9.1 | 9.5 | 9.4 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 11 | 10 | 12 | 9.7 | 6.2 | 5.9 | 6.4 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.27 | 0.31 | 0.29 | 0.33 | 0.26 | 0.29 | 0.26 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 |
| | | | Sample ID | SW2_20210811 | SW2_20210908 | SW2_20210923 | SW2_20211006 | SW2_20211019 | SW2_20211102 | SW2_20211121 |
| | | | Lab Sample ID | QIT118 | QPN177 | QTA028 | QWG505 | QZA164 | RCV730 | RIY804 |
| | | | Lab Job Number | C1M6832 | C1P9560 | C1R6341 | C1T1039 | C1U4014 | C1W2029 | C1Z0716 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **790** | **650** | **900** | **850** | **750** | **870** | **850** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | 1.3 | 1.1 | 1.1 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.5 | 5.9 | 6.2 | 6.0 | 6.0 | 6.1 | 5.9 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | 0.11 | 0.12 | < 0.10 | 0.11 | 0.13 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.018** | **0.015** | **0.024** | **0.021** | **0.018** | **0.022** | **0.024** |
| Calcium | | 190-1800 | ug/l | 1400 | 2700 | 2200 | 2200 | 2300 | 2300 | 2200 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.59 | 0.69 | 0.56 | < 0.50 | 0.67 | 0.56 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **790** | **1000** | **880** | **1000** | **890** | **810** | **740** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.1** | **1.1** | **1.1** | **1.1** | **1.1** | **1.2** | **1.1** |
| Magnesium | | 140-980 | ug/l | 500 | 670 | 720 | 730 | 680 | 790 | 780 |
| Manganese | **820** | 6.4-33 | ug/l | 27 | 45 | 41 | 41 | 40 | 30 | 24 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 220 | 430 | 320 | 320 | 370 | 470 | 460 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4300 | 4700 | 5400 | 5400 | 4900 | 5300 | 5300 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.9 | 13 | 11 | 11 | 12 | 12 | 11 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 12 | 9.4 | 9.4 | 11 | 12 | 12 | 9.2 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.28 | 0.35 | 0.37 | 0.34 | 0.33 | 0.29 | 0.31 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 5.4 | < 5.0 | < 5.0 | 20 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-31 |
| | | | Sample ID | SW2_20211201 | SW2_20211215 | SW2_20220324 | SW2_20220406 | SW2_20220419 | SW2_20220505 | SW2_20220531 |
| | | | Lab Sample ID | RNH006 | RJJ615 | SEH100 | SHG305 | SJT837 | SNX121 | STQ318 |
| | | | Lab Job Number | C1AG897 | C1Z2434 | C277826 | C290667 | C2A2126 | C2C1673 | C2E8059 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **820** | **560** | **480** | **430** | **500** | **480** | **600** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.2 | 3.6 | 4.3 | 3.1 | 3.5 | 3.4 | 4.1 |
| Beryllium | 5.3 | <2 | ug/l | 0.12 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.024** | **0.021** | **0.016** | **0.018** | **0.015** | **0.014** | **0.017** |
| Calcium | | 190-1800 | ug/l | 1100 | 730 | 2900 | 1400 | 1500 | 1300 | 1700 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | 0.59 | < 0.50 | 1.8 | < 0.50 | 0.65 |
| Iron | **300** | 130-790 | ug/l | **600** | **400** | **380** | **330** | **800** | **350** | **530** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | 0.93 | 0.71 | 0.64 | 0.98 | 0.66 | 0.94 |
| Magnesium | | 140-980 | ug/l | 590 | 410 | 650 | 410 | 490 | 450 | 480 |
| Manganese | **820** | 6.4-33 | ug/l | 20 | 17 | 17 | 13 | 19 | 14 | 21 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 350 | 320 | 420 | 300 | 340 | 290 | 340 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4800 | 3500 | 3600 | 3400 | 3900 | 3900 | 3900 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.1 | 4.8 | 11 | 6.5 | 6.8 | 6.2 | 7.4 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.9 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 11 | 7.3 | 10 | 5.8 | 7.4 | 7.6 | 8.0 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.21 | 0.19 | 0.40 | 0.29 | 0.28 | 0.24 | 0.27 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | 5.2 | 18 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2018-11-08 | 2020-04-01 |
| | | | Sample ID | SW2_20220616 | SW2_20220627 | SW2_20220929 | SW2_20221214 | SW2_20230414 | SW3_20181108 | 20X589937-1062437 |
| | | | Lab Sample ID | SXM267 | TAE934 | TWL532 | UPB183 | VNV580 | 9698384 | 1062437 |
| | | | Lab Job Number | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | 18X408633 | 20X589937 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **630** | **680** | **870** | **640** | **450** | **639** | **400** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 2 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 2 |
| Barium | 1000 | <5-7 | ug/l | 3.8 | 4.4 | 6.0 | 4.7 | 3.3 | < 5 | < 5 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | 0.11 | 0.12 | < 0.10 | < 2 | < 2 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | 20 | 20 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.019** | **0.017** | **0.026** | **0.030** | **0.011** | **< 0.09** | **0.019** |
| Calcium | | 190-1800 | ug/l | 1300 | 2200 | 3100 | 1400 | 1600 | 3600 | 3400 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1 | < 1 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 1 | < 1 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | 0.88 | < 0.50 | < 0.50 | < 1 | < 1 |
| Iron | **300** | 130-790 | ug/l | **640** | **690** | **730** | **460** | **350** | **441** | **496** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.1** | 1.0 | **1.7** | 1.0 | 0.69 | 1.0 | 0.7 |
| Magnesium | | 140-980 | ug/l | 430 | 530 | 750 | 570 | 490 | 700 | 700 |
| Manganese | **820** | 6.4-33 | ug/l | 19 | 34 | 24 | 18 | 14 | 18 | 18 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | < 0.026 | < 0.026 |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2 | 3 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 20 | 50 |
| Potassium | | 160-900 | ug/l | 270 | 290 | 570 | 370 | 400 | 400 | 400 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 1 | < 1 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.1 |
| Sodium | | 1800-5400 | ug/l | 3800 | 3600 | 4700 | 4400 | 3800 | 4600 | 4500 |
| Strontium | 21000 | <5-9.3 | ug/l | 6.4 | 9.1 | 13 | 7.3 | 6.9 | 19 | 16 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.1 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 |
| Titanium | | <2-8.5 | ug/l | 8.3 | 8.2 | 10 | 7.4 | 5.9 | 6 | 5 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.27 | 0.35 | 0.28 | 0.27 | 0.29 | 0.2 | 0.3 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5 | < 5 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 |
| | | | Sample ID | 20X608058-1165252 | SW3_20200717 | SW3_20200729 | SW3_20200811 | SW3_20200824 | SW3_20200908 | SW3_20200924 |
| | | | Lab Sample ID | 1165252 | NDH753 | NFS557 | NIJ479 | NLM310 | NOK783 | NSF569 |
| | | | Lab Job Number | 20X608058 | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **572** | **590** | **480** | **700** | **410** | **720** | **770** |
| Antimony | 20 | <2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 2 | < 1.0 | < 1.0 | 1.2 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | < 5 | 3.8 | 3.5 | 4.9 | 2.7 | 6.7 | 5.8 |
| Beryllium | 5.3 | <2 | ug/l | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 15 | < 50 | < 50 | 53 | 96 | 87 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **< 0.017** | **0.023** | **0.014** | **0.019** | < 0.010 | **0.020** | **0.031** |
| Calcium | | 190-1800 | ug/l | 1900 | 2000 | 1600 | 2000 | 2100 | 2400 | 1600 |
| Chromium | | <2-3 | ug/l | < 1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 1 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 1 | < 0.50 | 0.82 | < 0.50 | < 0.50 | < 0.50 | **2.1** |
| Iron | **300** | 130-790 | ug/l | **581** | **640** | **510** | **920** | **540** | **1200** | **590** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | 1.0 | 0.83 | **1.4** | 0.78 | **1.8** | **1.3** |
| Magnesium | | 140-980 | ug/l | 500 | 540 | 460 | 550 | 490 | 600 | 600 |
| Manganese | **820** | 6.4-33 | ug/l | 23 | 20 | 22 | 22 | 15 | 24 | 23 |
| Mercury | 0.026 | | ug/l | < 0.026 | 0.017 | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | 50 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 300 | 240 | 190 | 180 | 230 | 300 | 470 |
| Selenium | **1** | <1 | ug/l | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3900 | 4000 | 4000 | 4200 | 4400 | 4400 | 4500 |
| Strontium | 21000 | <5-9.3 | ug/l | 9 | 10 | 8.5 | 10 | 9.9 | 12 | 9.2 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 9 | 6.1 | 5.5 | 15 | 5.3 | 15 | 10 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.6 | 0.56 | 0.34 | 0.68 | 0.32 | 0.78 | 0.21 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2 | < 2.0 | 2.4 | < 2.0 | < 2.0 | 2.3 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 6 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 |
| | | | Sample ID | SW3_20201006 | SW3_20201023 | SW3_20201105 | SW3_20201120 | SW3_20201130 | SW3_20201214 | SW3_20201228 |
| | | | Lab Sample ID | NUV953 | NYW155 | OBU582 | OFF868 | OHD059 | OKO552 | OMT742 |
| | | | Lab Job Number | C0Q0953 | C0R9712 | C0T3354 | C0U8920 | C0V7696 | C0X3829 | C0Y4558 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **650** | **870** | **1200** | **1600** | **1200** | **1200** | **980** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.5 | 6.7 | 8.7 | 11 | 9.5 | 8.6 | 8.6 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | 72 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.029** | **0.025** | **0.030** | **0.037** | **0.025** | **0.026** | **0.024** |
| Calcium | | 190-1800 | ug/l | 2900 | 2600 | 2300 | 6500 | 3400 | 2500 | 3100 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.2 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | 0.48 | 0.73 | 0.47 | < 0.40 | 0.44 |
| Copper | **2** | <2 | ug/l | < 0.50 | 0.56 | 1.0 | 1.3 | 0.96 | 0.84 | 1.0 |
| Iron | **300** | 130-790 | ug/l | **700** | **830** | **1100** | **1600** | **1000** | **930** | **950** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.99 | **1.2** | **1.5** | **2.0** | **1.2** | **1.2** | **1.1** |
| Magnesium | | 140-980 | ug/l | 790 | 810 | 880 | 1900 | 1000 | 970 | 950 |
| Manganese | **820** | 6.4-33 | ug/l | 35 | 30 | 38 | 61 | 38 | 34 | 33 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 370 | 360 | 460 | 600 | 450 | 560 | 540 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4400 | 5100 | 5300 | 6200 | 5700 | 6100 | 5400 |
| Strontium | 21000 | <5-9.3 | ug/l | 14 | 13 | 13 | 26 | 16 | 12 | 14 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.2 | 13 | 24 | 37 | 24 | 22 | 21 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.45 | 0.51 | 0.43 | 2.6 | 0.53 | 0.4 | 0.44 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | 2.0 | 2.8 | 2.3 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | 7.5 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-03-25 | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 |
| | | | Sample ID | SW3_20210325 | SW3_20210408 | SW3_20210421 | SW3_20210505 | SW3_20210519 | SW3_20210603 | SW3_20210614 |
| | | | Lab Sample ID | PEB833 | PGQ136 | PJV223 | PMO069 | PPM341 | PST789 | PVK698 |
| | | | Lab Job Number | C179941 | C192270 | C1A7947 | C1C1117 | C1D5211 | C1F0842 | C1G3518 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **870** | **630** | **790** | **740** | **840** | **680** | **710** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.8 | 4.6 | 5.9 | 5.6 | 6.3 | 5.2 | 4.7 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.016** | **0.014** | **0.018** | **0.013** | **0.017** | **0.019** | **0.019** |
| Calcium | | 190-1800 | ug/l | 2000 | 2100 | 1800 | 2600 | 1800 | 2400 | 2100 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.77 | 0.66 | 0.70 | 0.59 | 0.91 | 0.66 | 0.76 |
| Iron | **300** | 130-790 | ug/l | **590** | **570** | **670** | **560** | **840** | **590** | **690** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.74 | 0.82 | 0.87 | 0.85 | 1.0 | 0.93 | 0.91 |
| Magnesium | | 140-980 | ug/l | 620 | 610 | 570 | 710 | 590 | 620 | 580 |
| Manganese | **820** | 6.4-33 | ug/l | 24 | 16 | 22 | 23 | 40 | 27 | 37 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 430 | 340 | 440 | 440 | 350 | 420 | 340 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3900 | 3500 | 3700 | 4000 | 3800 | 4200 | 4200 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.8 | 8.8 | 8.1 | 11 | 8.9 | 10 | 8.8 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 15 | 11 | < 20 | 12 | 18 | 13 | 11 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.28 | 0.47 | 0.32 | 0.50 | 0.40 | 0.36 | 0.40 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 |
| | | | Sample ID | SW3_20210630 | SW3_20210714 | SW3_20210727 | SW3_20210811 | SW3_20210908 | SW3_20210923 | SW3_20211006 |
| | | | Lab Sample ID | PZB778 | QCI561 | QFJ451 | QIT119 | QPN178 | QTA029 | QWG506 |
| | | | Lab Job Number | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 | C1R6341 | C1T1039 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **520** | **440** | **440** | **910** | **590** | **880** | **770** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.0 | 1.1 | 1.1 | < 1.0 | 1.2 | 1.1 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 4.1 | 4.0 | 4.0 | 5.6 | 5.5 | 6.0 | 5.6 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.11 | 0.11 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.012** | **0.011** | < 0.010 | **0.022** | **0.011** | **0.021** | **0.015** |
| Calcium | | 190-1800 | ug/l | 2300 | 2000 | 2000 | 1600 | 2700 | 2000 | 2200 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | 0.63 | 0.66 | 0.56 | 0.51 | 0.60 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **580** | **560** | **570** | **870** | **980** | **890** | **930** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.81 | 0.76 | 0.79 | **1.2** | 1.0 | **1.1** | 1.0 |
| Magnesium | | 140-980 | ug/l | 600 | 610 | 600 | 590 | 650 | 700 | 690 |
| Manganese | **820** | 6.4-33 | ug/l | 30 | 25 | 21 | 37 | 44 | 40 | 39 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 450 | 390 | 410 | 250 | 400 | 300 | 300 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4500 | 4700 | 4800 | 4800 | 4600 | 5300 | 5000 |
| Strontium | 21000 | <5-9.3 | ug/l | 10 | 9.6 | 9.6 | 9.1 | 13 | 11 | 11 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.0 | 6.4 | 9.4 | 11 | 7.9 | 9.9 | 9.0 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.33 | 0.32 | 0.27 | 0.33 | 0.34 | 0.36 | 0.37 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | 18 | < 5.0 | 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-04-06 |
| | | | Sample ID | SW3_20211019 | SW3_20211102 | SW3_20211121 | SW3_20211201 | SW3_20211215 | SW3_20220324 | SW3_20220406 |
| | | | Lab Sample ID | QZA165 | RCV731 | RIY805 | RNH007 | RJJ616 | SEH101 | SHG306 |
| | | | Lab Job Number | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 | C290667 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **740** | **950** | **870** | **830** | **560** | **510** | **410** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6.1 | 6.3 | 5.6 | 6.1 | 4.0 | 4.3 | 3.1 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | 0.12 | 0.12 | 0.11 | 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.016** | **0.022** | **0.021** | **0.026** | **0.023** | **0.020** | **0.016** |
| Calcium | | 190-1800 | ug/l | 3100 | 2300 | 2100 | 2500 | 1800 | 2900 | 1400 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.53 | 0.65 | < 0.50 | < 0.50 | < 0.50 | 0.53 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **830** | **840** | **740** | **620** | **430** | **440** | **310** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.97 | **1.2** | **1.1** | **1.2** | 0.88 | 0.72 | 0.61 |
| Magnesium | | 140-980 | ug/l | 850 | 810 | 780 | 810 | 630 | 640 | 400 |
| Manganese | **820** | 6.4-33 | ug/l | 46 | 31 | 23 | 22 | 23 | 19 | 13 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 380 | 460 | 450 | 450 | 340 | 420 | 280 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5100 | 5400 | 5500 | 4700 | 3700 | 3500 | 3200 |
| Strontium | 21000 | <5-9.3 | ug/l | 14 | 12 | 11 | 12 | 7.5 | 11 | 6.2 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 9.6 | 13 | 9.5 | 11 | 7.9 | 11 | 5.8 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.55 | 0.37 | 0.32 | 0.60 | 0.49 | 0.45 | 0.27 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.2 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-19 | 2022-05-05 | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 |
| | | | Sample ID | SW3_20220419 | SW3_20220505 | SW3_20220531 | SW3_20220616 | SW3_20220627 | SW3_20220929 | SW3_20221214 |
| | | | Lab Sample ID | SJT838 | SNX122 | STQ319 | SXM268 | TAE935 | TWL533 | UPB184 |
| | | | Lab Job Number | C2A2126 | C2C1673 | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **430** | **480** | **620** | **620** | **730** | **920** | **1100** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 3.3 | 3.4 | 4.5 | 3.8 | 4.5 | 5.8 | 7.5 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.11 | 0.16 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.013** | **0.015** | **0.018** | **0.018** | **0.017** | **0.025** | **0.040** |
| Calcium | | 190-1800 | ug/l | 1700 | 1500 | 2700 | 1300 | 2200 | 2600 | 1600 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 | < 1.0 | 1.1 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.44 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | 0.62 | < 0.50 | < 0.50 | 0.94 | 0.89 |
| Iron | **300** | 130-790 | ug/l | **340** | **360** | **540** | **630** | **740** | **740** | **1100** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.62 | 0.65 | 0.88 | 1.0 | **1.1** | **1.7** | **1.9** |
| Magnesium | | 140-980 | ug/l | 470 | 480 | 690 | 450 | 550 | 690 | 720 |
| Manganese | **820** | 6.4-33 | ug/l | 15 | 15 | 35 | 20 | 34 | 24 | 37 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 300 | 290 | 340 | 250 | 290 | 450 | 470 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3500 | 3900 | 3900 | 3700 | 3800 | 4600 | 4500 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.2 | 6.6 | 10 | 6.2 | 8.8 | 11 | 8.9 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 5.9 | 7.7 | 11 | 8.6 | 8.8 | 12 | 24 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.31 | 0.29 | 0.54 | 0.27 | 0.42 | 0.44 | 0.58 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.3 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.2 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-04-14 | 2023-10-12 | 2023-12-01 | 2024-03-14 | 2020-06-01 | 2020-07-17 | 2020-07-29 |
| | | | Sample ID | SW3_20230414 | SW3_20231012 | SW3_20231201 | SW3_20240314 | 20X608058-1165253 | SW4_20200717 | SW4_20200729 |
| | | | Lab Sample ID | VNV581 | XGT436 | XTQ428 | YQA661 | 1165253 | NDH754 | NFS558 |
| | | | Lab Job Number | C3A4090 | C3V7537 | C3AS035 | C476965 | 20X608058 | C0H9882 | C0J0983 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **460** | **650** | **570** | **330** | **463** | **590** | **470** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 3.5 | 6.5 | 5.1 | 2.6 | < 5 | 3.8 | 3.2 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | 0.12 | < 0.10 | < 0.10 | < 2 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | 10 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.014** | **0.027** | **0.022** | **0.015** | **< 0.017** | **0.028** | **0.011** |
| Calcium | | 190-1800 | ug/l | 1800 | 2000 | 3900 | 1200 | 1300 | 1500 | 1600 |
| Chromium | | <2-3 | ug/l | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 1 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | 0.56 | < 0.50 | < 1 | < 0.50 | 0.66 |
| Iron | **300** | 130-790 | ug/l | **350** | **750** | **540** | 260 | **438** | **630** | **470** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.70 | 1.0 | 0.93 | 0.56 | 1.0 | 0.96 | 0.77 |
| Magnesium | | 140-980 | ug/l | 530 | 760 | 1100 | 430 | 400 | 470 | 450 |
| Manganese | **820** | 6.4-33 | ug/l | 17 | 33 | 43 | 12 | 17 | 18 | 19 |
| Mercury | 0.026 | | ug/l | — | — | — | — | < 0.026 | 0.015 | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | 50 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 390 | 450 | 590 | 340 | 300 | 230 | 130 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 1 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 3900 | 5200 | 4800 | 3100 | 3700 | 3900 | 4000 |
| Strontium | 21000 | <5-9.3 | ug/l | 7.8 | 11 | 16 | 5.3 | 8 | 8.4 | 8.2 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.1 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 5.9 | 7.9 | 8.2 | 5.0 | 4 | 6.6 | 4.9 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.31 | 0.26 | 0.38 | 0.22 | 0.2 | 0.28 | 0.25 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2 | < 2.0 | 2.4 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 5.6 | < 5.0 | < 5.0 | < 5 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 | 2020-10-23 | 2020-11-05 |
| | | | Sample ID | SW4_20200811 | SW4_20200824 | SW4_20200908 | SW4_20200924 | SW4_20201006 | SW4_20201023 | SW4_20201105 |
| | | | Lab Sample ID | NIJ480 | NLM311 | NOK784 | NSF570 | NUV954 | NYW156 | OBU583 |
| | | | Lab Job Number | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0Q0953 | C0R9712 | C0T3354 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **470** | **410** | **410** | **730** | **650** | **970** | **1300** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 3.0 | 2.9 | 3.3 | 5.4 | 5.2 | 7.1 | 8.9 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | 95 | 86 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | < 0.010 | < 0.010 | < 0.010 | **0.033** | **0.031** | **0.028** | **0.029** |
| Calcium | | 190-1800 | ug/l | 1700 | 1900 | 2200 | 1200 | 1900 | 2400 | 2100 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.47 |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | < 0.50 | 0.54 | < 0.50 | 0.74 | 1.0 |
| Iron | **300** | 130-790 | ug/l | **540** | **530** | **560** | **560** | **650** | **920** | **1200** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.79 | 0.82 | 0.90 | **1.3** | 0.95 | **1.7** | **1.5** |
| Magnesium | | 140-980 | ug/l | 500 | 500 | 540 | 560 | 650 | 810 | 870 |
| Manganese | **820** | 6.4-33 | ug/l | 18 | 14 | 13 | 23 | 32 | 32 | 38 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 120 | 160 | 190 | 380 | 380 | 410 | 440 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4200 | 4400 | 4400 | 4300 | 4700 | 5200 | 5400 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.9 | 9.8 | 10 | 7.8 | 9.8 | 12 | 12 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 4.0 | 5.6 | 5.3 | 9.5 | 5.6 | 15 | 32 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.26 | 0.27 | 0.30 | 0.18 | 0.26 | 0.44 | 0.37 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.0 | 2.3 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 |
| | | | Sample ID | SW4_20201120 | SW4_20201130 | SW4_20201214 | SW4_20201228 | SW4_20210325 | SW4_20210408 | SW4_20210421 |
| | | | Lab Sample ID | OFF869 | OHD060 | OKO553 | OMT743 | PEB834 | PGQ137 | PJV224 |
| | | | Lab Job Number | C0U8920 | C0V7696 | C0X3829 | C0Y4558 | C179941 | C192270 | C1A7947 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **1100** | **1300** | **1100** | **960** | **760** | **600** | **810** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6.7 | 8.8 | 8 | 7.7 | 5.4 | 4.0 | 5.9 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.031** | **0.025** | **0.028** | **0.023** | **0.014** | **0.017** | **0.014** |
| Calcium | | 190-1800 | ug/l | 2000 | 2600 | 1800 | 2800 | 2000 | 1300 | 1700 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | 0.43 | 0.42 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 1.4 | 0.89 | 0.68 | 0.89 | 0.61 | 0.57 | 0.68 |
| Iron | **300** | 130-790 | ug/l | **850** | **1000** | **870** | **920** | **580** | **520** | **660** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.7** | **1.4** | **1.1** | **1.1** | 0.68 | 0.82 | 0.86 |
| Magnesium | | 140-980 | ug/l | 770 | 860 | 830 | 890 | 610 | 420 | 550 |
| Manganese | **820** | 6.4-33 | ug/l | 28 | 33 | 31 | 32 | 22 | 15 | 21 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 370 | 500 | 460 | 530 | 420 | 310 | 440 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5400 | 5400 | 5700 | 5400 | 3800 | 3300 | 3700 |
| Strontium | 21000 | <5-9.3 | ug/l | 11 | 14 | 12 | 13 | 8.5 | 6.0 | 8.1 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 17 | 24 | 19 | 19 | 14 | 9.2 | 19 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.27 | 0.33 | 0.22 | 0.28 | 0.28 | 0.23 | 0.27 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | 2.1 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 |
| | | | Sample ID | SW4_20210505 | SW4_20210519 | SW4_20210603 | SW4_20210614 | SW4_20210630 | SW4_20210714 | SW4_20210727 |
| | | | Lab Sample ID | PMO070 | PPM342 | PST790 | PVK699 | PZB779 | QCI562 | QFJ452 |
| | | | Lab Job Number | C1C1117 | C1D5211 | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **760** | **600** | **730** | **620** | **510** | **430** | **380** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.6 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 | 1.1 | 1.1 |
| Barium | 1000 | <5-7 | ug/l | 5.7 | 4.4 | 6.1 | 4.5 | 4.0 | 3.5 | 3.5 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.014** | **0.040** | **0.020** | **0.019** | **0.012** | < 0.010 | < 0.010 |
| Calcium | | 190-1800 | ug/l | 1900 | 1400 | 2300 | 2000 | 2200 | 2000 | 2000 |
| Chromium | | <2-3 | ug/l | < 1.0 | 1.4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.54 | < 0.50 | 0.68 | 0.54 | 1.0 | 0.54 | 0.63 |
| Iron | **300** | 130-790 | ug/l | **600** | **540** | **690** | **600** | **1300** | **560** | **490** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.93 | 0.81 | **1.2** | 0.87 | **2.5** | 0.77 | 0.71 |
| Magnesium | | 140-980 | ug/l | 560 | 450 | 610 | 570 | 570 | 590 | 590 |
| Manganese | **820** | 6.4-33 | ug/l | 22 | 18 | 28 | 29 | 28 | 23 | 17 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 490 | 270 | 420 | 310 | 490 | 390 | 380 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4100 | 3700 | 4000 | 4200 | 4400 | 4600 | 4800 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.8 | 6.8 | 10 | 8.5 | 9.7 | 9.0 | 9.1 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 11 | 9.0 | 14 | 9.2 | 6.5 | 6.4 | 5.3 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.28 | 0.24 | 0.34 | 0.34 | 0.29 | 0.27 | 0.25 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | 5.3 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 |
| | | | Sample ID | SW4_20210811 | SW4_20210908 | SW4_20210923 | SW4_20211006 | SW4_20211019 | SW4_20211102 | SW4_20211121 |
| | | | Lab Sample ID | QIT120 | QPN179 | QTA030 | QWG507 | QZA166 | RCV732 | RIY806 |
| | | | Lab Job Number | C1M6832 | C1P9560 | C1R6341 | C1T1039 | C1U4014 | C1W2029 | C1Z0716 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **900** | **630** | **860** | **810** | **770** | **950** | **910** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.0 | 1.3 | 1.2 | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 5.3 | 5.8 | 5.9 | 5.7 | 5.8 | 6.8 | 6.2 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | 0.11 | < 0.10 | < 0.10 | 0.13 | 0.12 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.021** | **0.012** | **0.024** | **0.020** | **0.016** | **0.024** | **0.024** |
| Calcium | | 190-1800 | ug/l | 1500 | 2700 | 2000 | 2100 | 2300 | 2300 | 2200 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.59 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.53 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **860** | **1000** | **870** | **960** | **820** | **870** | **770** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | 1.0 | **1.1** | **1.1** | 1.0 | **1.3** | **1.2** |
| Magnesium | | 140-980 | ug/l | 600 | 660 | 690 | 700 | 670 | 850 | 810 |
| Manganese | **820** | 6.4-33 | ug/l | 32 | 44 | 39 | 38 | 39 | 33 | 25 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | 2.1 | < 2.0 | < 2.0 | 2.2 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 260 | 380 | 320 | 300 | 350 | 470 | 470 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4800 | 4700 | 5200 | 5300 | 5000 | 5700 | 5600 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.3 | 12 | 11 | 11 | 11 | 12 | 12 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 12 | 10 | 10 | 9.5 | 9.0 | 13 | 8.5 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.32 | 0.36 | 0.32 | 0.35 | 0.33 | 0.36 | 0.30 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-01 | 2021-12-15 | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 |
| | | | Sample ID | SW4_20211201 | DUP1_20211215 | SW4_20211215 | SW4_20220324 | SW4_20220406 | SW4_20220419 | SW4_20220505 |
| | | | Lab Sample ID | RNH011 | RJJ620 | RJJ617 | SEH102 | SHG307 | SJT839 | SNX123 |
| | | | Lab Job Number | C1AG897 | C1Z2434 | C1Z2434 | C277826 | C290667 | C2A2126 | C2C1673 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **870** | **530** | **560** | **450** | **450** | **430** | **480** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6.4 | 3.7 | 3.6 | 3.9 | 3.1 | 3.4 | 3.4 |
| Beryllium | 5.3 | <2 | ug/l | 0.13 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.027** | **0.022** | **0.022** | **0.014** | **0.016** | **0.012** | **0.014** |
| Calcium | | 190-1800 | ug/l | 2000 | 660 | 670 | 2600 | 1400 | 1700 | 1400 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.9 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.62 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.67 |
| Iron | **300** | 130-790 | ug/l | **670** | **400** | **400** | **350** | **310** | **340** | **380** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.3** | 0.91 | 0.91 | 0.74 | 0.64 | 0.63 | 0.69 |
| Magnesium | | 140-980 | ug/l | 690 | 410 | 400 | 590 | 400 | 470 | 470 |
| Manganese | **820** | 6.4-33 | ug/l | 23 | 17 | 17 | 16 | 14 | 14 | 14 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 450 | 300 | 310 | 380 | 310 | 310 | 290 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4900 | 3600 | 3600 | 3400 | 3400 | 3500 | 3900 |
| Strontium | 21000 | <5-9.3 | ug/l | 10 | 4.6 | 4.5 | 10 | 6.6 | 7.3 | 6.8 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 13 | < 20 | 9.8 | 9.9 | 6.1 | 6.8 | 6.7 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.28 | 0.18 | 0.15 | 0.37 | 0.26 | 0.31 | 0.25 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 9.6 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 |
| | | | Sample ID | SW4_20220531 | SW4_20220616 | SW4_20220627 | SW4_20220929 | SW4_20221214 | SW4_20230414 | SW4_20231012 |
| | | | Lab Sample ID | STQ320 | SXM269 | TAE936 | TWL534 | UPB185 | VNV582 | XGT437 |
| | | | Lab Job Number | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3V7537 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **570** | **610** | **700** | **900** | **770** | **430** | **680** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 4.5 | 3.7 | 4.2 | 5.3 | 5.8 | 3.3 | 6.6 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | 0.11 | 0.12 | < 0.10 | 0.12 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.019** | **0.019** | **0.017** | **0.026** | **0.028** | **0.012** | **0.027** |
| Calcium | | 190-1800 | ug/l | 2000 | 1400 | 1900 | 1800 | 1500 | 1600 | 1900 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 0.54 | < 0.50 | < 0.50 | 0.60 | 0.82 | < 0.50 | 0.54 |
| Iron | **300** | 130-790 | ug/l | **520** | **640** | **700** | **690** | **720** | **310** | **830** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.1** | 0.99 | **1.1** | **1.7** | **1.4** | 0.68 | **1.1** |
| Magnesium | | 140-980 | ug/l | 540 | 440 | 500 | 630 | 600 | 480 | 760 |
| Manganese | **820** | 6.4-33 | ug/l | 25 | 20 | 25 | 21 | 24 | 15 | 31 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 450 | 270 | 260 | 390 | 410 | 450 | 490 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 4100 | 3600 | 3800 | 4500 | 4500 | 3800 | 5100 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.3 | 6.3 | 8.3 | 8.7 | 7.8 | 7.2 | 9.8 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.1 | 8.7 | 8.1 | 10 | 11 | 5.3 | 8.6 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.27 | 0.29 | 0.33 | 0.30 | 0.30 | 0.27 | 0.25 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 6.9 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.3 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-12-01 | 2024-03-14 | 2024-06-28 | 2024-11-07 | 2024-12-09 | 2025-03-04 | 2025-06-12 |
| | | | Sample ID | SW4_20231201 | SW4_20240314 | SW4_20240628 | SW4_20241107 | SW4_20241209 | SW4_20250304 | SW4_20250612 |
| | | | Lab Sample ID | XTQ429 | YQA662 | ZOY056 | HA2402851-001 | HA2403221-001 | HA2500561-001 | HA2501804-013 |
| | | | Lab Job Number | C3AS035 | C476965 | C4J7367 | HA2402851 | HA2403221 | HA2500561 | HA2501804 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **560** | **340** | **410** | **473** | **512** | **428** | **620** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 0.10 | 0.12 | < 0.10 | < 0.10 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | 0.71 | 0.48 | 0.45 | 0.70 |
| Barium | 1000 | <5-7 | ug/l | 4.7 | 2.7 | 3.7 | 5.07 | 5.61 | 3.46 | 3.79 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | 0.074 | 0.086 | — | — |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 0.050 | < 0.050 | — | — |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | 18 | 31 | < 10 | 10 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.029** | **0.012** | **0.015** | **0.0156** | **0.0258** | **0.0191** | **0.0160** |
| Calcium | | 190-1800 | ug/l | 1500 | 990 | 2100 | 2290 | 4680 | 1090 | 1740 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | 0.19 | 0.21 | 0.19 | — |
| Copper | **2** | <2 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Iron | **300** | 130-790 | ug/l | **470** | 260 | **500** | **546** | **516** | **416** | **530** |
| Lead | **1** | <0.5-1.8 | ug/l | **2.2** | 0.65 | 0.76 | 0.894 | 0.895 | 0.836 | **1.01** |
| Magnesium | | 140-980 | ug/l | 700 | 400 | 640 | 821 | 1240 | 553 | 526 |
| Manganese | **820** | 6.4-33 | ug/l | 20 | 12 | 25 | 34.2 | 25.5 | 21.4 | 15.7 |
| Mercury | 0.026 | | ug/l | — | — | — | < 0.0050 | 0.0058 | 0.0063 | 0.0116 |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | 0.061 | 0.060 | — | — |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 0.50 | 0.52 | < 0.50 | < 0.50 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 50 | < 50 | 13.2 | 11.7 |
| Potassium | | 160-900 | ug/l | 450 | 390 | 360 | 568 | 525 | 297 | 251 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | 0.131 | 0.127 | — | — |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.010 | < 0.010 | — | — |
| Sodium | | 1800-5400 | ug/l | 4600 | 3200 | 4900 | 5710 | 5820 | 4330 | 4050 |
| Strontium | 21000 | <5-9.3 | ug/l | 8.2 | 5.1 | 9.0 | 11.5 | 18.8 | — | — |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | 0.014 | 0.011 | — | — |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 0.10 | < 0.10 | — | — |
| Titanium | | <2-8.5 | ug/l | 6.9 | 3.8 | 5.0 | 5.32 | 7.74 | — | — |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.18 | 0.13 | 0.25 | 0.244 | 1.60 | 0.207 | 0.292 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | 1.01 | 1.00 | 1.16 | 1.25 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | < 5.0 | < 3.0 | 4.9 | < 3.0 | < 3.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2018-11-08 | 2020-06-01 | 2020-09-23 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 |
| | | | Sample ID | SW13_20181108 | 20X608058-1165254 | SW13_20200923 | SW13_20201006 | SW13_20201023 | SW13_20201105 | SW13_20201120 |
| | | | Lab Sample ID | 9698395 | 1165254 | NRV927 | NUV955 | NYW157 | OBU584 | OFF870 |
| | | | Lab Job Number | 18X408633 | 20X608058 | C0O7061 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **623** | **489** | **1100** | **540** | **580** | **670** | **560** |
| Antimony | 20 | <2 | ug/l | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 8 | 15 | 13 | 21 | 11 | 11 | 7.4 |
| Beryllium | 5.3 | <2 | ug/l | < 2 | < 2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 16 | 17 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **< 0.09** | **0.078** | **0.050** | **0.068** | **0.035** | **0.033** | **0.028** |
| Calcium | | 190-1800 | ug/l | 4000 | 8300 | 6900 | 15000 | 6600 | 6300 | 4000 |
| Chromium | | <2-3 | ug/l | < 1 | 1 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 1 | 2 | 0.52 | 1.0 | 0.48 | 0.44 | < 0.40 |
| Copper | **2** | <2 | ug/l | 2 | **12** | **3.9** | **3.9** | **2.6** | 2.0 | 1.6 |
| Iron | **300** | 130-790 | ug/l | **497** | **1240** | **1000** | **780** | **790** | **780** | **720** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.2** | **12.4** | **1.7** | **3.5** | **1.8** | **1.3** | **1.3** |
| Magnesium | | 140-980 | ug/l | 1100 | 1800 | 1200 | 2000 | 1400 | 1700 | 1400 |
| Manganese | **820** | 6.4-33 | ug/l | 27 | 211 | 42 | 160 | 82 | 59 | 27 |
| Mercury | 0.026 | | ug/l | < 0.026 | < 0.026 | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2 | 5 | < 2.0 | 2.7 | 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | 20 | 70 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 700 | 1000 | 1000 | 1000 | 790 | 830 | 620 |
| Selenium | **1** | <1 | ug/l | < 1 | < 1 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 6100 | 13400 | 8000 | 13000 | 9800 | 12000 | 7300 |
| Strontium | 21000 | <5-9.3 | ug/l | 16 | 30 | 24 | 52 | 23 | 22 | 13 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 6 | 10 | 24 | 13 | 8.7 | 11 | 7.8 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.2 | 0.5 | 0.20 | 0.41 | 0.40 | 0.35 | 0.48 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2 | < 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 12 | **39** | 15 | **31** | 13 | 12 | 9.5 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-08 |
| | | | Sample ID | DUP1_20201120 | SW13_20201130 | SW13_20201214 | SW13_20201228 | SW13_20210325 | SW13_20210408 | DUP1_20210408 |
| | | | Lab Sample ID | OFF872 | OHD061 | OKO554 | OMT744 | PEB835 | PGQ138 | PGQ141 |
| | | | Lab Job Number | C0U8920 | C0V7696 | C0X3829 | C0Y4558 | C179941 | C192270 | C192270 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **600** | **620** | **660** | **970** | **770** | **550** | **540** |
| Antimony | 20 | <2 | ug/l | 1.5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 7.6 | 9.4 | 8.5 | 11 | 6.2 | 5.8 | 5.8 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.029** | **0.033** | **0.032** | **0.040** | **0.020** | **0.022** | **0.022** |
| Calcium | | 190-1800 | ug/l | 4000 | 5300 | 4000 | 5500 | 2700 | 2900 | 2900 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | 0.53 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 1.6 | 1.6 | 1.4 | **2.2** | 1.4 | 1.6 | 1.6 |
| Iron | **300** | 130-790 | ug/l | **710** | **740** | **660** | **1100** | **630** | **580** | **580** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.3** | **1.3** | 0.72 | **1.3** | 0.70 | 0.87 | 0.84 |
| Magnesium | | 140-980 | ug/l | 1400 | 1500 | 1500 | 1600 | 980 | 920 | 910 |
| Manganese | **820** | 6.4-33 | ug/l | 27 | 51 | 30 | 36 | 18 | 19 | 19 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 620 | 700 | 830 | 990 | 620 | 550 | 560 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 7300 | 9200 | 7800 | 8500 | 6700 | 6700 | 6600 |
| Strontium | 21000 | <5-9.3 | ug/l | 14 | 18 | 13 | 19 | 9.6 | 10 | 10 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 8.1 | 9.3 | < 20 | 24 | 15 | 9.4 | 9.4 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.50 | 0.40 | 0.28 | 0.20 | 0.32 | 0.42 | 0.40 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 28 | 10 | 8.2 | 8.2 | 5.2 | 6.0 | 5.3 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-21 | 2021-04-21 | 2021-05-05 | 2021-05-05 | 2021-05-19 | 2021-05-19 | 2021-06-03 |
| | | | Sample ID | DUP1_20210421 | SW13_20210421 | SW13_20210505 | DUP1_20210505 | DUP1_20210519 | SW13_20210519 | SW13_20210603 |
| | | | Lab Sample ID | PJV228 | PJV225 | PMO071 | PMO075 | PPM345 | PPM343 | PST791 |
| | | | Lab Job Number | C1A7947 | C1A7947 | C1C1117 | C1C1117 | C1D5211 | C1D5211 | C1F0842 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **520** | **550** | **490** | **520** | **440** | **430** | **570** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6.7 | 6.5 | 7.2 | 7.6 | 8.0 | 7.9 | 7.2 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.021** | **0.020** | **0.020** | **0.020** | **0.028** | **0.022** | **0.025** |
| Calcium | | 190-1800 | ug/l | 4000 | 3800 | 4500 | 4600 | 6000 | 5900 | 4400 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 1.9 | 1.8 | 1.8 | 1.8 | **2.1** | **2.2** | **2.2** |
| Iron | **300** | 130-790 | ug/l | **500** | **480** | **590** | **610** | **690** | **650** | **850** |
| Lead | **1** | <0.5-1.8 | ug/l | 1.0 | 1.0 | **1.4** | **1.4** | **1.8** | **1.6** | **1.3** |
| Magnesium | | 140-980 | ug/l | 1100 | 1100 | 1200 | 1300 | 1600 | 1500 | 1200 |
| Manganese | **820** | 6.4-33 | ug/l | 30 | 29 | 36 | 37 | 69 | 67 | 50 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 640 | 600 | 690 | 710 | 720 | 680 | 540 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 9200 | 8800 | 8400 | 8600 | 11000 | 10000 | 7700 |
| Strontium | 21000 | <5-9.3 | ug/l | 13 | 12 | 15 | 15 | 19 | 19 | 15 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 12 | 8.6 | 6.9 | 9.6 | 8.3 | 9.0 | 11 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.57 | 0.57 | 0.74 | 0.76 | 0.85 | 0.80 | 0.66 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 7.2 | 6.4 | 8.7 | 6.7 | 6.4 | 6.4 | 7.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-14 | 2021-06-14 | 2021-06-30 | 2021-06-30 | 2021-07-14 | 2021-07-14 | 2021-07-27 |
| | | | Sample ID | DUP1_20210614 | SW13_20210614 | SW13_20210630 | DUP1_20210630 | SW13_20210714 | DUP1_20210714 | DUP1_20210727 |
| | | | Lab Sample ID | PVK703 | PVK700 | PZB780 | PZB782 | QCI563 | QCI565 | QFJ456 |
| | | | Lab Job Number | C1G3518 | C1G3518 | C1I1014 | C1I1014 | C1J6542 | C1J6542 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **370** | **430** | **320** | **1300** | **360** | **530** | **250** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.2 | 1.2 | 1.6 | 3.6 | 2.9 | 3.3 | 4.1 |
| Barium | 1000 | <5-7 | ug/l | 19 | 20 | 16 | 36 | 41 | 45 | 44 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.14** | **0.16** | **0.11** | **0.12** | **0.071** | **0.087** | **0.045** |
| Calcium | | 190-1800 | ug/l | 16000 | 15000 | 14000 | 23000 | 21000 | 23000 | 21000 |
| Chromium | | <2-3 | ug/l | < 1.0 | 1.0 | < 1.0 | 2.3 | 1.1 | 2.1 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 3.9 | 4.4 | 6.8 | 9.1 | **13** | **14** | **16** |
| Copper | **2** | <2 | ug/l | **7.7** | **6.3** | **5.4** | **5.7** | **8.0** | **4.3** | **2.6** |
| Iron | **300** | 130-790 | ug/l | **1700** | **1700** | **2200** | **9200** | **7800** | **9100** | **11000** |
| Lead | **1** | <0.5-1.8 | ug/l | **2.0** | **2.1** | **1.9** | **5.9** | **2.2** | **3.1** | **1.7** |
| Magnesium | | 140-980 | ug/l | 2900 | 3000 | 2700 | 4200 | 3800 | 4000 | 4700 |
| Manganese | **820** | 6.4-33 | ug/l | **990** | **930** | **1100** | **3700** | **6200** | **6900** | **5400** |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | 7.7 | 8.5 | 8.7 | 8.5 | 8.1 | 8.9 | 7.6 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | 120 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 950 | 1000 | 930 | 1200 | 1200 | 1300 | 1700 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 28000 | 25000 | 22000 | 45000 | 40000 | 43000 | 38000 |
| Strontium | 21000 | <5-9.3 | ug/l | 54 | 50 | 48 | 87 | 82 | 87 | 80 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 9.9 | 12 | 5.7 | 62 | 13 | 20 | 5.7 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.32 | 0.35 | 0.35 | 0.61 | 0.49 | 0.57 | 0.31 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | 3.6 | < 2.0 | 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 28 | 29 | 19 | 27 | 21 | 19 | 11 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Location** | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
| | | | **Sample Date** | 2021-07-27 | 2021-08-11 | 2021-08-11 | 2021-09-01 | 2021-09-08 | 2021-09-08 | 2021-09-23 |
| | | | **Sample ID** | SW13_20210727 | DUP1_20210811 | SW13_20210811 | SW13_20210901 | DUP1_20210908 | SW13_20210908 | SW13_20210923 |
| | | | **Lab Sample ID** | QFJ453 | QIT124 | QIT121 | QNT693 | QPN183 | QPN180 | QTA031 |
| | | | **Lab Job Number** | C1L1105 | C1M6832 | C1M6832 | C1P1197 | C1P9560 | C1P9560 | C1R6341 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **250** | **560** | **630** | **490** | **470** | **480** | **160** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 3.9 | 1.6 | 1.6 | 1.8 | 1.8 | 2.0 | 2.7 |
| Barium | 1000 | <5-7 | ug/l | 40 | 13 | 13 | 14 | 13 | 14 | 24 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.039** | **0.037** | **0.039** | **0.035** | **0.028** | **0.031** | **0.030** |
| Calcium | | 190-1800 | ug/l | 20000 | 8300 | 8500 | 9300 | 11000 | 11000 | 23000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | **15** | 1.1 | 1.1 | 1.6 | 1.1 | 1.2 | 5.6 |
| Copper | **2** | <2 | ug/l | **2.6** | **4.4** | **4.7** | **3.4** | **2.6** | **2.7** | 1.8 |
| Iron | **300** | 130-790 | ug/l | **9800** | **1500** | **1500** | **1800** | **2200** | **2300** | **5000** |
| Lead | **1** | <0.5-1.8 | ug/l | **1.6** | **5.8** | **5.9** | **5.0** | **4.3** | **4.4** | 0.74 |
| Magnesium | | 140-980 | ug/l | 4600 | 1900 | 2000 | 2400 | 2100 | 2100 | 3500 |
| Manganese | **820** | 6.4-33 | ug/l | **5000** | 260 | 290 | 210 | 250 | 250 | **2000** |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | 7.3 | 2.6 | 2.7 | 3.2 | 3.0 | 2.9 | 4.6 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 1600 | 770 | 810 | 1100 | 1100 | 1100 | 1100 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 36000 | 12000 | 13000 | 13000 | 14000 | 14000 | 37000 |
| Strontium | 21000 | <5-9.3 | ug/l | 74 | 27 | 29 | 30 | 37 | 37 | 84 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 5.4 | 11 | 12 | 13 | 15 | 15 | 3.0 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.29 | 0.99 | 1.0 | 0.81 | 0.94 | 0.96 | 0.20 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 10 | 12 | 13 | 12 | 12 | 13 | 8.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 |
| | | | Sample ID | SW13_20211006 | SW13_20211019 | SW13_20211102 | SW13_20211121 | SW13_20211201 | SW13_20211215 | SW13_20220324 |
| | | | Lab Sample ID | QWG508 | QZA167 | RCV733 | RIY807 | RNH013 | RJJ618 | SEH103 |
| | | | Lab Job Number | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **310** | **430** | **690** | **580** | **580** | **510** | **460** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.3 | 1.5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 15 | 13 | 8.4 | 7.8 | 6.7 | 6.3 | 6.3 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 82 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.027** | **0.029** | **0.029** | **0.034** | **0.024** | **0.030** | **0.017** |
| Calcium | | 190-1800 | ug/l | 12000 | 12000 | 4600 | 4700 | 3200 | 3300 | 3500 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 1.3 | 0.72 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | **3.2** | 2.0 | 1.8 | 1.5 | 1.3 | 1.3 | 1.3 |
| Iron | **300** | 130-790 | ug/l | **1500** | **1900** | **1100** | **760** | **620** | **580** | **440** |
| Lead | **1** | <0.5-1.8 | ug/l | **4.3** | **3.2** | 0.96 | 0.64 | 0.65 | 0.88 | 0.56 |
| Magnesium | | 140-980 | ug/l | 2400 | 2500 | 1500 | 1600 | 1100 | 1100 | 1100 |
| Manganese | **820** | 6.4-33 | ug/l | 250 | 180 | 33 | 31 | 33 | 40 | 21 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | 2.7 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 1000 | 1200 | 810 | 790 | 620 | 590 | 600 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 19000 | 15000 | 7800 | 8400 | 6300 | 6900 | 9300 |
| Strontium | 21000 | <5-9.3 | ug/l | 41 | 37 | 16 | 16 | 11 | 11 | 12 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 4.3 | 12 | 10 | 6.6 | 7.8 | 7.5 | 12 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.51 | 0.95 | 0.48 | 0.48 | 0.41 | 0.47 | 0.60 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 9.9 | 8.9 | 7.1 | 6.9 | 6.2 | 7.3 | 8.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-06 | 2022-04-19 | 2022-04-19 | 2022-05-05 | 2022-05-05 | 2022-05-19 | 2022-05-19 |
| | | | Sample ID | SW13_20220406 | DUP1_20220419 | SW13_20220419 | DUP1_20220505 | SW13_20220505 | DUP1_20220519 | SW13_20220519 |
| | | | Lab Sample ID | SHG308 | SJT842 | SJT840 | SNX126 | SNX124 | SRB991 | SRB989 |
| | | | Lab Job Number | C290667 | C2A2126 | C2A2126 | C2C1673 | C2C1673 | C2D6425 | C2D6425 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **700** | **470** | **520** | **760** | **650** | **430** | **440** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6.2 | 6.1 | 6.4 | 6.5 | 6.3 | 5.0 | 5.5 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.016** | **0.013** | **0.017** | **0.023** | **0.020** | **0.018** | **0.016** |
| Calcium | | 190-1800 | ug/l | 3000 | 4100 | 4300 | 3200 | 3200 | 3700 | 3800 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | 1.6 | 1.7 | **2.3** | **2.9** | **2.2** | 1.6 | 1.6 |
| Iron | **300** | 130-790 | ug/l | **580** | **600** | **670** | **800** | **820** | **570** | **580** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.68 | 0.97 | 0.90 | 0.88 | 0.89 | 0.83 | 0.85 |
| Magnesium | | 140-980 | ug/l | 950 | 1200 | 1400 | 1100 | 1100 | 1200 | 1300 |
| Manganese | **820** | 6.4-33 | ug/l | 14 | 25 | 27 | 20 | 22 | 21 | 22 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 680 | 630 | 710 | 780 | 780 | 600 | 580 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 5700 | 7500 | 8200 | 6300 | 6100 | 6700 | 7200 |
| Strontium | 21000 | <5-9.3 | ug/l | 11 | 13 | 13 | 10 | 9.7 | 11 | 11 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.4 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 19 | 12 | 11 | 16 | 20 | 9.8 | 8.1 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.57 | 0.77 | 0.83 | 0.52 | 0.55 | 0.91 | 0.94 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 7.0 | 6.6 | 13 | 6.5 | 5.3 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-31 | 2022-05-31 | 2022-06-16 | 2022-06-16 | 2022-06-27 | 2022-06-27 | 2022-09-29 |
| | | | Sample ID | DUP1_20220531 | SW13_20220531 | DUP1_20220616 | SW13_20220616 | DUP1_20220627 | SW13_20220627 | DUP1_20220929 |
| | | | Lab Sample ID | STQ323 | STQ321 | SXM272 | SXM270 | TAE939 | TAE937 | TWL538 |
| | | | Lab Job Number | C2E8059 | C2E8059 | C2G6058 | C2G6058 | C2H8426 | C2H8426 | C2S2675 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **570** | **540** | **570** | **610** | **510** | **480** | **720** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.1 | 1.1 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 6.1 | 6.4 | 6.3 | 6.4 | 13 | 13 | 9.0 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.020** | **0.018** | **0.024** | **0.022** | **0.035** | **0.031** | **0.034** |
| Calcium | | 190-1800 | ug/l | 3800 | 3800 | 4200 | 4200 | 13000 | 13000 | 4400 |
| Chromium | | <2-3 | ug/l | 1.4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | 0.71 | 0.77 | < 0.40 |
| Copper | **2** | <2 | ug/l | **2.1** | 1.8 | 1.8 | 1.8 | **3.0** | **3.2** | **2.9** |
| Iron | **300** | 130-790 | ug/l | **740** | **770** | **940** | **960** | **1500** | **1500** | **650** |
| Lead | **1** | <0.5-1.8 | ug/l | 1.0 | 0.99 | 1.0 | 0.93 | **1.2** | **1.2** | **2.9** |
| Magnesium | | 140-980 | ug/l | 1100 | 1100 | 1100 | 1100 | 1800 | 1700 | 1300 |
| Manganese | **820** | 6.4-33 | ug/l | 26 | 28 | 45 | 45 | 350 | 340 | 25 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | 2.5 | 2.4 | < 2.0 | < 2.0 | 3.5 | 3.6 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 540 | 550 | 500 | 490 | 910 | 910 | 790 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 6500 | 6600 | 6900 | 6900 | 17000 | 17000 | 7200 |
| Strontium | 21000 | <5-9.3 | ug/l | 12 | 12 | 14 | 13 | 43 | 42 | 14 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 9.7 | 9.7 | 9.6 | 9.6 | 8.6 | 8.4 | 9.1 |
| Uranium | 300 | <0.1-0.7 | ug/l | 1.0 | 0.99 | 0.78 | 0.77 | 0.68 | 0.62 | 0.52 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | < 5.0 | 5.3 | < 5.0 | 11 | 11 | 11 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-10-12 | 2023-12-01 | 2024-03-14 |
| | | | Sample ID | SW13_20220929 | SW13_20221214 | SW13_20230414 | SW13_20231012 | SWDUP1_20231012 | SW13_20231201 | SW13_20240314 |
| | | | Lab Sample ID | TWL535 | UPB186 | VNV583 | XGT438 | XGT441 | XTQ430 | YQA663 |
| | | | Lab Job Number | C2S2675 | C2AH933 | C3A4090 | C3V7537 | C3V7537 | C3AS035 | C476965 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **700** | **390** | **320** | **290** | **280** | **400** | **350** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 9.0 | 8.2 | 6.9 | 9.2 | 9.0 | 6.6 | 5.4 |
| Beryllium | 5.3 | <2 | ug/l | 0.11 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.069** | **0.025** | **0.014** | **0.017** | **0.016** | **0.023** | **0.017** |
| Calcium | | 190-1800 | ug/l | 4400 | 5600 | 5400 | 8000 | 7700 | 4000 | 3300 |
| Chromium | | <2-3 | ug/l | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.40 |
| Copper | **2** | <2 | ug/l | **3.2** | 1.6 | 1.3 | 1.1 | 1.0 | 1.1 | 0.93 |
| Iron | **300** | 130-790 | ug/l | **660** | **460** | **370** | **940** | **850** | **620** | **350** |
| Lead | **1** | <0.5-1.8 | ug/l | **2.9** | **1.3** | 0.94 | 0.71 | 0.66 | 0.53 | < 0.50 |
| Magnesium | | 140-980 | ug/l | 1300 | 1500 | 1400 | 2100 | 2000 | 1400 | 950 |
| Manganese | **820** | 6.4-33 | ug/l | 23 | 40 | 28 | 64 | 65 | 30 | 22 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 790 | 730 | 670 | 1000 | 930 | 770 | 630 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 7300 | 8800 | 9400 | 11000 | 11000 | 7100 | 6800 |
| Strontium | 21000 | <5-9.3 | ug/l | 14 | 19 | 17 | 25 | 26 | 13 | 10 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 9.1 | 5.4 | 5.7 | 5.5 | 3.9 | 6.9 | 5.1 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.52 | 0.79 | 0.89 | 0.97 | 0.88 | 0.59 | 0.40 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 11 | 7.3 | < 5.0 | 6.2 | < 5.0 | 5.4 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-06-28 | 2024-11-07 | 2024-11-07 | 2024-12-09 | 2024-12-09 | 2025-03-04 | 2025-03-04 |
| | | | Sample ID | SW13_20240628 | SW13_20241107 | DUP1_20241107 | SW13_20241209 | DUP1_20241209 | DUP1_20250304 | SW13_20250304 |
| | | | Lab Sample ID | ZOY057 | HA2402851-002 | HA2402851-003 | HA2403221-002 | HA2403221-004 | HA2500561-003 | HA2500561-002 |
| | | | Lab Job Number | C4J7367 | HA2402851 | HA2402851 | HA2403221 | HA2403221 | HA2500561 | HA2500561 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **430** | **172** | **126** | **537** | **339** | **401** | **410** |
| Antimony | 20 | <2 | ug/l | < 1.0 | 0.23 | 0.15 | 0.10 | 0.23 | < 0.10 | < 0.10 |
| Arsenic | **5** | <2 | ug/l | 1.1 | 0.90 | 0.70 | 0.53 | 1.15 | 0.45 | 0.46 |
| Barium | 1000 | <5-7 | ug/l | 9.1 | 13.2 | 12.2 | 9.39 | 37.0 | 8.16 | 8.30 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | 0.026 | < 0.020 | 0.070 | 0.028 | — | — |
| Bismuth | | <2 | ug/l | < 2.0 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — | — |
| Boron | 1200 | <50 | ug/l | < 50 | 22 | 22 | 12 | 206 | < 10 | < 10 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.020** | **0.0219** | **0.0150** | **0.0411** | **0.0222** | **0.0272** | **0.0234** |
| Calcium | | 190-1800 | ug/l | 6700 | 14100 | 13900 | 4700 | 99200 | 4320 | 4350 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 0.50 | < 0.50 | 0.66 | 0.69 | 0.50 | 0.53 |
| Cobalt | **10** | <1 | ug/l | < 0.40 | 0.34 | 0.22 | 0.29 | 0.98 | 0.26 | 0.24 |
| Copper | **2** | <2 | ug/l | 1.5 | 1.05 | 0.93 | 1.56 | 2.00 | 1.11 | 1.12 |
| Iron | **300** | 130-790 | ug/l | **1300** | **846** | **573** | **614** | **952** | **489** | **482** |
| Lead | **1** | <0.5-1.8 | ug/l | 1.0 | 0.997 | 0.670 | 0.706 | 0.918 | 0.547 | 0.548 |
| Magnesium | | 140-980 | ug/l | 1600 | 3540 | 3490 | 1610 | 11400 | 1320 | 1340 |
| Manganese | **820** | 6.4-33 | ug/l | 110 | 138 | 102 | 52.9 | 763 | 50.2 | 50.9 |
| Mercury | 0.026 | | ug/l | — | < 0.0050 | < 0.0050 | 0.0056 | < 0.0050 | 0.0055 | 0.0055 |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | 0.264 | 0.270 | 0.079 | 0.869 | — | — |
| Nickel | 25 | <2 | ug/l | < 2.0 | 0.97 | 0.93 | 1.08 | 1.45 | 0.82 | 0.78 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 50 | < 50 | < 50 | < 50 | 20.6 | 21.9 |
| Potassium | | 160-900 | ug/l | 810 | 1500 | 1430 | 1010 | 7800 | 760 | 767 |
| Selenium | **1** | <1 | ug/l | < 0.50 | 0.103 | 0.101 | 0.151 | 0.110 | — | — |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — |
| Sodium | | 1800-5400 | ug/l | 10000 | 17800 | 17500 | 8990 | 11900 | 12100 | 12400 |
| Strontium | 21000 | <5-9.3 | ug/l | 21 | 42.8 | 42.6 | 16.7 | 345 | — | — |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — |
| Tin | | <2 | ug/l | < 2.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | — | — |
| Titanium | | <2-8.5 | ug/l | 9.2 | 7.77 | 3.20 | 10.1 | 14.0 | — | — |
| Uranium | 300 | <0.1-0.7 | ug/l | 1.3 | 0.832 | 0.793 | 0.321 | 13.0 | 0.528 | 0.523 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | 0.68 | 0.52 | 1.14 | 0.96 | 0.98 | 1.00 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 6.0 | 5.0 | 7.8 | 6.0 | 5.9 | 5.9 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW14 | SW14 | SW14 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2025-06-12 | 2025-06-12 | 2018-11-08 | 2020-09-23 | 2021-03-25 | 2019-07-23 | 2020-06-01 |
| | | | Sample ID | DUP1_20250612 | SW13_20250612 | SW14_20181108 | SW14_20200923 | SW14_20210325 | 19X496499-374957 | 20X608058-1165255 |
| | | | Lab Sample ID | HA2501804-016 | HA2501804-014 | 9698396 | NRV928 | PEB836 | 374957 | 1165255 |
| | | | Lab Job Number | HA2501804 | HA2501804 | 18X408633 | C0O7061 | C179941 | 19X496499 | 20X608058 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **635** | **641** | **2440** | **260** | **350** | **44** | **16** |
| Antimony | 20 | <2 | ug/l | < 0.10 | < 0.10 | < 2 | 2.0 | < 1.0 | < 2 | 2 |
| Arsenic | **5** | <2 | ug/l | 0.86 | 0.88 | < 2 | 1.3 | 1.4 | < 2 | < 2 |
| Barium | 1000 | <5-7 | ug/l | 6.74 | 6.74 | 60 | 51 | 61 | 19 | 27 |
| Beryllium | 5.3 | <2 | ug/l | — | — | < 2 | < 1.0 | < 1.0 | < 2 | < 2 |
| Bismuth | | <2 | ug/l | — | — | < 2 | < 2.0 | < 2.0 | < 2 | < 2 |
| Boron | 1200 | <50 | ug/l | 11 | 10 | 116 | 120 | 57 | 1180 | 749 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.0202** | **0.0175** | **0.10** | **0.097** | **0.023** | **< 0.017** | **< 0.017** |
| Calcium | | 190-1800 | ug/l | 3570 | 3620 | 84900 | 63000 | 70000 | 280000 | 190000 |
| Chromium | | <2-3 | ug/l | 0.80 | 0.88 | 4 | < 1.0 | < 1.0 | 1 | < 1 |
| Cobalt | **10** | <1 | ug/l | — | — | 1 | < 0.40 | < 0.40 | < 1 | 1 |
| Copper | **2** | <2 | ug/l | 1.85 | 1.91 | **12** | **10** | **4.9** | 2 | 2 |
| Iron | **300** | 130-790 | ug/l | **880** | **889** | **3320** | 250 | **430** | **449** | **1630** |
| Lead | **1** | <0.5-1.8 | ug/l | 0.811 | 0.832 | **9.4** | **1.6** | < 0.50 | < 0.5 | < 0.5 |
| Magnesium | | 140-980 | ug/l | 1050 | 1060 | 3500 | 3000 | 7500 | 22900 | 17200 |
| Manganese | **820** | 6.4-33 | ug/l | 27.7 | 28.5 | 79 | 6.6 | 13 | 401 | 567 |
| Mercury | 0.026 | | ug/l | 0.0116 | 0.0090 | < 0.026 | — | — | < 0.026 | < 0.026 |
| Molybdenum | 73 | <2 | ug/l | — | — | < 2 | < 2.0 | < 2.0 | < 2 | < 2 |
| Nickel | 25 | <2 | ug/l | 1.07 | 1.07 | 5 | < 2.0 | 2.2 | 6 | 14 |
| Phosphorus | | <100-140 | ug/l | 19.3 | 26.2 | 70 | < 100 | < 100 | < 20 | < 20 |
| Potassium | | 160-900 | ug/l | 524 | 551 | 3600 | 3600 | 8500 | 21200 | 13000 |
| Selenium | **1** | <1 | ug/l | — | — | < 1 | < 0.50 | < 0.50 | 1 | **2** |
| Silver | 0.1 | <0.1 | ug/l | — | — | < 0.1 | < 0.10 | < 0.10 | < 0.1 | < 0.1 |
| Sodium | | 1800-5400 | ug/l | 7680 | 7910 | 4700 | 4900 | 13000 | 30300 | 35800 |
| Strontium | 21000 | <5-9.3 | ug/l | — | — | 279 | 210 | 210 | 1130 | 814 |
| Thallium | 0.8 | <0.1 | ug/l | — | — | < 0.1 | < 0.10 | < 0.10 | < 0.1 | < 0.1 |
| Tin | | <2 | ug/l | — | — | < 2 | < 2.0 | < 2.0 | < 2 | < 2 |
| Titanium | | <2-8.5 | ug/l | — | — | 80 | 9.7 | 16 | 2 | < 2 |
| Uranium | 300 | <0.1-0.7 | ug/l | 0.666 | 0.664 | 0.7 | 0.27 | 2.2 | 30.9 | 10.7 |
| Vanadium | **6** | <2-2.1 | ug/l | 1.31 | 1.30 | 4 | < 2.0 | < 2.0 | < 2 | < 2 |
| Zinc | **30** | <5-17 | ug/l | 4.7 | 4.8 | **73** | **55** | 8.1 | 6 | 9 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-09-23 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-30 | 2020-12-14 | 2020-12-28 |
| | | | Sample ID | SW19-20_20200923 | SW19-20_20201006 | SW19-20_20201023 | SW19-20_20201105 | SW19-20_20201130 | SW19-20_20201214 | SW19-20_20201228 |
| | | | Lab Sample ID | NRV929 | NUV956 | NYW159 | OBU585 | OHD062 | OKO555 | OMT745 |
| | | | Lab Job Number | C0O7061 | C0Q0953 | C0R9712 | C0T3354 | C0V7696 | C0X3829 | C0Y4558 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **7000** | **200** | **48** | **1100** | **7800** | **1600** | **9200** |
| Antimony | 20 | <2 | ug/l | 5.9 | 2.6 | < 1.0 | 1.4 | 1.9 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | **6.4** | < 1.0 | 1.4 | 1.7 | **5.5** | 2.0 | **5.2** |
| Barium | 1000 | <5-7 | ug/l | 73 | 31 | 37 | 34 | 94 | 50 | 130 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 340 | 510 | 710 | 370 | 810 | 530 | 260 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.11** | **0.019** | **0.021** | **0.019** | **0.15** | **0.027** | **0.048** |
| Calcium | | 190-1800 | ug/l | 96000 | 130000 | 170000 | 110000 | 280000 | 160000 | 110000 |
| Chromium | | <2-3 | ug/l | 8.5 | < 1.0 | < 1.0 | 1.5 | 8.9 | 2.1 | 10 |
| Cobalt | **10** | <1 | ug/l | 4.5 | 0.91 | 2.8 | 1.3 | 5.1 | 3.5 | 4.3 |
| Copper | **2** | <2 | ug/l | **15** | 2.0 | 0.95 | **3.3** | **12** | **2.7** | **11** |
| Iron | **300** | 130-790 | ug/l | **9300** | **610** | **1600** | **1500** | **8500** | **3900** | **9200** |
| Lead | **1** | <0.5-1.8 | ug/l | **12** | < 0.50 | < 0.50 | 0.94 | **12** | **1.5** | **6.2** |
| Magnesium | | 140-980 | ug/l | 6600 | 7900 | 15000 | 8900 | 24000 | 14000 | 15000 |
| Manganese | **820** | 6.4-33 | ug/l | 390 | 690 | **2700** | 640 | **2700** | **2300** | 700 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | 3.6 | 2.1 | 2.0 | 3.5 | 11 | < 2.0 | 2.7 |
| Nickel | 25 | <2 | ug/l | 11 | < 2.0 | 3.1 | 3.0 | 11 | 4.4 | 9.4 |
| Phosphorus | | <100-140 | ug/l | 290 | < 100 | < 100 | < 100 | 210 | 120 | 190 |
| Potassium | | 160-900 | ug/l | 11000 | 13000 | 13000 | 8900 | 14000 | 11000 | 15000 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.64 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 9800 | 16000 | 27000 | 16000 | 32000 | 24000 | 19000 |
| Strontium | 21000 | <5-9.3 | ug/l | 540 | 610 | 730 | 470 | 1200 | 670 | 440 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.13 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 270 | 7.3 | < 2.0 | 37 | 240 | 68 | 360 |
| Uranium | 300 | <0.1-0.7 | ug/l | 2.3 | 2.8 | 7.9 | 4.2 | 110 | 7.0 | 8.8 |
| Vanadium | **6** | <2-2.1 | ug/l | **13** | < 2.0 | < 2.0 | 2.3 | **12** | 2.7 | **14** |
| Zinc | **30** | <5-17 | ug/l | **43** | < 5.0 | 5.2 | 9.8 | **51** | 10 | 27 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Location** | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
| | | | **Sample Date** | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-06-03 | 2021-06-14 | 2021-07-27 | 2021-08-11 |
| | | | **Sample ID** | SW19-20_20210408 | SW19-20_20210421 | SW19-20_20210505 | SW19-20_20210603 | SW19-20_20210614 | SW19-20_20210727 | SW19-20_20210811 |
| | | | **Lab Sample ID** | PGQ139 | PJV226 | PMO073 | PST792 | PVK701 | QFJ454 | QIT122 |
| | | | **Lab Job Number** | C192270 | C1A7947 | C1C1117 | C1F0842 | C1G3518 | C1L1105 | C1M6832 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **110** | **650** | **49** | **1000** | **92** | **350** | **1200** |
| Antimony | 20 | <2 | ug/l | < 1.0 | 1.1 | < 1.0 | < 1.0 | 2.1 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.0 | 2.5 | 1.4 | 2.4 | 1.4 | 1.4 | 3.1 |
| Barium | 1000 | <5-7 | ug/l | 58 | 59 | 52 | 49 | 45 | 39 | 49 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 490 | 520 | 660 | 510 | 980 | 1100 | 770 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.033** | **0.031** | **0.035** | **0.029** | **0.029** | **0.030** | **0.027** |
| Calcium | | 190-1800 | ug/l | 130000 | 160000 | 190000 | 130000 | 210000 | 220000 | 150000 |
| Chromium | | <2-3 | ug/l | < 1.0 | 1.1 | < 1.0 | 1.5 | 2.4 | < 1.0 | 1.7 |
| Cobalt | **10** | <1 | ug/l | 2.3 | 1.3 | 1.3 | 1.2 | 1.9 | 3.6 | 4.1 |
| Copper | **2** | <2 | ug/l | 1.9 | **4.0** | **3.0** | **3.4** | **8.8** | 1.2 | **2.8** |
| Iron | **300** | 130-790 | ug/l | **540** | **1200** | **350** | **1400** | **880** | **1200** | **3700** |
| Lead | **1** | <0.5-1.8 | ug/l | < 0.50 | 0.58 | < 0.50 | 0.83 | < 0.50 | < 0.50 | **1.4** |
| Magnesium | | 140-980 | ug/l | 14000 | 16000 | 20000 | 14000 | 26000 | 29000 | 20000 |
| Manganese | **820** | 6.4-33 | ug/l | **1500** | **850** | **1300** | 690 | **2200** | **6500** | **5400** |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | 2.7 | 3.0 | 3.6 | 5.8 | 6.6 | 7.5 |
| Nickel | 25 | <2 | ug/l | 2.5 | 2.7 | 2.7 | 2.8 | 4.7 | 6.0 | 4.9 |
| Phosphorus | | <100-140 | ug/l | < 100 | 310 | < 100 | 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 9300 | 15000 | 13000 | 12000 | 14000 | 15000 | 11000 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 21000 | 21000 | 23000 | 17000 | 34000 | 40000 | 25000 |
| Strontium | 21000 | <5-9.3 | ug/l | 510 | 640 | 760 | 520 | 750 | 800 | 560 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 4.5 | 24 | 2.5 | 49 | 4.3 | 15 | 50 |
| Uranium | 300 | <0.1-0.7 | ug/l | 36 | 49 | 120 | 49 | 130 | 52 | 52 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | 2.0 | < 2.0 | 2.1 | < 2.0 | < 2.0 | 2.5 |
| Zinc | **30** | <5-17 | ug/l | 6.8 | 11 | 7.1 | 6.1 | **38** | 14 | 9.8 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-09-08 | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 |
| | | | Sample ID | SW19-20_20210908 | SW19-20_20210923 | SW19-20_20211006 | SW19-20_20211019 | SW19-20_20211102 | SW19-20_20211121 | SW19-20_20211201 |
| | | | Lab Sample ID | QPN181 | QTA032 | QWG509 | QZA168 | RCV734 | RIY808 | RNH014 |
| | | | Lab Job Number | C1P9560 | C1R6341 | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **220** | **1300** | **570** | **150** | **170** | **150** | **280** |
| Antimony | 20 | <2 | ug/l | 1.4 | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.5 | 2.8 | 2.2 | 1.7 | 1.8 | 1.1 | 1.4 |
| Barium | 1000 | <5-7 | ug/l | 44 | 46 | 34 | 46 | 29 | 26 | 27 |
| Beryllium | 5.3 | <2 | ug/l | < 1.0 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 460 | 700 | 490 | 320 | 150 | 180 | 110 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.032** | **0.039** | **0.018** | **0.033** | **0.018** | **0.023** | **0.015** |
| Calcium | | 190-1800 | ug/l | 140000 | 170000 | 130000 | 120000 | 71000 | 77000 | 66000 |
| Chromium | | <2-3 | ug/l | < 1.0 | 1.8 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 1.7 | 5.2 | 3.4 | 9.7 | 3.4 | 1.2 | 0.63 |
| Copper | **2** | <2 | ug/l | **6.3** | **3.0** | 2.0 | **3.5** | **3.1** | **21** | **2.3** |
| Iron | **300** | 130-790 | ug/l | **780** | **4200** | **2500** | **990** | **320** | **700** | **550** |
| Lead | **1** | <0.5-1.8 | ug/l | < 0.50 | **2.9** | 0.99 | 0.51 | < 0.50 | 0.84 | 0.54 |
| Magnesium | | 140-980 | ug/l | 15000 | 21000 | 16000 | 15000 | 9000 | 9500 | 7400 |
| Manganese | **820** | 6.4-33 | ug/l | **1600** | **7500** | **5100** | **4200** | 720 | **1000** | 370 |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | 6.4 | 9.4 | 8.8 | 8.7 | 7.0 | 3.6 | 2.1 |
| Nickel | 25 | <2 | ug/l | 4.2 | 5.2 | 3.6 | 2.4 | < 2.0 | < 2.0 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 16000 | 14000 | 11000 | 14000 | 11000 | 8800 | 7300 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | 0.67 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 25000 | 28000 | 21000 | 23000 | 15000 | 13000 | 8000 |
| Strontium | 21000 | <5-9.3 | ug/l | 520 | 610 | 440 | 410 | 210 | 230 | 170 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 7.5 | 46 | 25 | 7.5 | 8.9 | 4.7 | 14 |
| Uranium | 300 | <0.1-0.7 | ug/l | 37 | 54 | 28 | 33 | 22 | 22 | 15 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | 2.3 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 5.8 | 11 | 5.3 | < 5.0 | < 5.0 | 15 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-19 | 2022-05-31 |
| | | | Sample ID | SW19-20_20211215 | SW19-20_20220324 | SW19-20_20220406 | SW19-20_20220419 | SW19-20_20220505 | SW19-20_20220519 | SW19-20_20220531 |
| | | | Lab Sample ID | RJJ619 | SEH104 | SHG309 | SJT841 | SNX125 | SRB990 | STQ322 |
| | | | Lab Job Number | C1Z2434 | C277826 | C290667 | C2A2126 | C2C1673 | C2D6425 | C2E8059 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **120** | **23** | **50** | **150** | **190** | **27** | **32** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.6 | < 1.0 | < 1.0 | 1.7 | 1.3 | < 1.0 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 64 | 45 | 33 | 47 | 28 | 30 | 40 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 480 | 440 | 260 | 730 | 160 | 580 | 700 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.042** | **0.021** | **0.013** | **0.027** | **0.013** | **0.015** | **0.029** |
| Calcium | | 190-1800 | ug/l | 150000 | 170000 | 110000 | 180000 | 74000 | 130000 | 150000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 3.8 | 0.95 | 0.62 | 4.5 | 0.43 | 1.1 | 1.4 |
| Copper | **2** | <2 | ug/l | 1.3 | 1.5 | 1.6 | 1.2 | **2.5** | 1.5 | 1.7 |
| Iron | **300** | 130-790 | ug/l | **2400** | **550** | **320** | **4800** | 260 | **510** | **680** |
| Lead | **1** | <0.5-1.8 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | 140-980 | ug/l | 19000 | 19000 | 12000 | 23000 | 8500 | 17000 | 18000 |
| Manganese | **820** | 6.4-33 | ug/l | **2700** | 810 | 540 | **2800** | 230 | **820** | **1300** |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Nickel | 25 | <2 | ug/l | 3.0 | 2.0 | < 2.0 | 3.4 | < 2.0 | < 2.0 | 2.6 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 9800 | 8800 | 7900 | 10000 | 7700 | 8700 | 9700 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 24000 | 20000 | 12000 | 29000 | 8200 | 20000 | 22000 |
| Strontium | 21000 | <5-9.3 | ug/l | 470 | 530 | 360 | 590 | 250 | 390 | 490 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 4.8 | < 2.0 | < 2.0 | 7.7 | 5.9 | < 2.0 | < 2.0 |
| Uranium | 300 | <0.1-0.7 | ug/l | 40 | 84 | 38 | 72 | 18 | 61 | 59 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | 11 | 5.2 | < 5.0 | 7.7 | < 5.0 | < 5.0 | 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-04-14 | 2023-10-12 |
| | | | Sample ID | SW19-20_20220616 | SW19-20_20220627 | SW19-20_20220929 | SW19-20_20221214 | DUP1_20230414 | SW19-20_20230414 | SW19-20_20231012 |
| | | | Lab Sample ID | SXM271 | TAE938 | TWL536 | UPB187 | VNV586 | VNV584 | XGT439 |
| | | | Lab Job Number | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3A4090 | C3V7537 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **39** | **20** | **19** | **2700** | **19** | **19** | **14** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Arsenic | **5** | <2 | ug/l | 1.7 | 1.2 | 1.1 | **5.4** | 1.5 | 1.5 | < 1.0 |
| Barium | 1000 | <5-7 | ug/l | 31 | 43 | 26 | 100 | 37 | 37 | 20 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | 0.16 | < 0.10 | < 0.10 | < 0.10 |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Boron | 1200 | <50 | ug/l | 520 | 710 | 450 | 760 | 770 | 780 | 390 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.025** | **0.026** | **0.012** | **0.11** | **0.035** | **0.017** | **0.010** |
| Calcium | | 190-1800 | ug/l | 110000 | 150000 | 96000 | 180000 | 170000 | 170000 | 100000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | 4.1 | < 1.0 | < 1.0 | < 1.0 |
| Cobalt | **10** | <1 | ug/l | 1.2 | 2.4 | 0.99 | 6.5 | 3.1 | 3.1 | 0.64 |
| Copper | **2** | <2 | ug/l | 1.6 | 1.5 | 1.3 | **5.1** | 0.64 | 0.61 | 0.79 |
| Iron | **300** | 130-790 | ug/l | **610** | **1500** | **600** | **9100** | **3400** | **3400** | **310** |
| Lead | **1** | <0.5-1.8 | ug/l | < 0.50 | < 0.50 | < 0.50 | **5.5** | < 0.50 | < 0.50 | < 0.50 |
| Magnesium | | 140-980 | ug/l | 14000 | 18000 | 11000 | 23000 | 21000 | 22000 | 11000 |
| Manganese | **820** | 6.4-33 | ug/l | **1200** | **1900** | **1400** | **5300** | **2300** | **2300** | **1100** |
| Mercury | 0.026 | | ug/l | — | — | — | — | — | — | — |
| Molybdenum | 73 | <2 | ug/l | 2.1 | 2.3 | 2.9 | 2.4 | 2.1 | 2.1 | 2.3 |
| Nickel | 25 | <2 | ug/l | 2.2 | 4.0 | < 2.0 | 7.3 | 2.7 | 2.7 | < 2.0 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | 190 | < 100 | < 100 | < 100 |
| Potassium | | 160-900 | ug/l | 8200 | 9600 | 8500 | 9400 | 8600 | 8700 | 8200 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Sodium | | 1800-5400 | ug/l | 15000 | 21000 | 13000 | 26000 | 25000 | 25000 | 14000 |
| Strontium | 21000 | <5-9.3 | ug/l | 360 | 490 | 300 | 570 | 560 | 560 | 340 |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Titanium | | <2-8.5 | ug/l | 2.6 | < 2.0 | < 2.0 | 96 | < 2.0 | < 2.0 | < 2.0 |
| Uranium | 300 | <0.1-0.7 | ug/l | 38 | 49 | 20 | 61 | 99 | 100 | 31 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | **6.1** | < 2.0 | < 2.0 | < 2.0 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 6.2 | < 5.0 | **32** | < 5.0 | < 5.0 | < 5.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C4
## Metals in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-12-01 | 2024-03-14 | 2024-06-28 | 2024-06-28 | 2024-12-09 | 2025-06-12 |
| | | | Sample ID | SW19-20_20231201 | SW19-20_20240314 | SW19-20_20240628 | DUP1_20240628 | SW19-20_20241209 | SW19-20_20250612 |
| | | | Lab Sample ID | XTQ431 | YQA664 | ZOY058 | ZOY059 | HA2403221-003 | HA2501804-015 |
| | | | Lab Job Number | C3AS035 | C476965 | C4J7367 | C4J7367 | HA2403221 | HA2501804 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | |
| Aluminum | **5** | 246-770 | ug/l | **37** | **85** | **260** | **460** | **424** | **19.6** |
| Antimony | 20 | <2 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.25 | 0.43 |
| Arsenic | **5** | <2 | ug/l | 2.0 | < 1.0 | 1.0 | 1.4 | 1.28 | 1.21 |
| Barium | 1000 | <5-7 | ug/l | 45 | 32 | 28 | 31 | 37.0 | 31.3 |
| Beryllium | 5.3 | <2 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.030 | — |
| Bismuth | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 0.050 | — |
| Boron | 1200 | <50 | ug/l | 530 | 350 | 630 | 640 | 214 | 340 |
| Cadmium | **0.01** | <0.1 | ug/l | **0.018** | **0.016** | **0.023** | **0.031** | **0.0203** | **0.0130** |
| Calcium | | 190-1800 | ug/l | 160000 | 130000 | 140000 | 140000 | 99900 | 160000 |
| Chromium | | <2-3 | ug/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.81 | < 0.50 |
| Cobalt | **10** | <1 | ug/l | 4.4 | 1.5 | 1.1 | 1.6 | 1.04 | — |
| Copper | **2** | <2 | ug/l | 0.74 | 0.97 | 1.6 | 2.0 | **2.05** | 1.28 |
| Iron | **300** | 130-790 | ug/l | **4600** | **1300** | **790** | **1300** | **1160** | 135 |
| Lead | **1** | <0.5-1.8 | ug/l | < 0.50 | < 0.50 | 0.91 | **1.4** | 0.945 | < 0.050 |
| Magnesium | | 140-980 | ug/l | 19000 | 13000 | 15000 | 15000 | 11700 | 13400 |
| Manganese | **820** | 6.4-33 | ug/l | **2800** | **1100** | **1100** | **1500** | **827** | 222 |
| Mercury | 0.026 | | ug/l | — | — | — | — | < 0.0050 | < 0.0050 |
| Molybdenum | 73 | <2 | ug/l | 2.3 | < 2.0 | 2.6 | 2.7 | 0.943 | — |
| Nickel | 25 | <2 | ug/l | 2.5 | < 2.0 | 2.4 | 2.9 | 1.58 | 0.95 |
| Phosphorus | | <100-140 | ug/l | < 100 | < 100 | < 100 | < 100 | < 50 | 12.4 |
| Potassium | | 160-900 | ug/l | 9500 | 6700 | 8700 | 8900 | 8140 | 8880 |
| Selenium | **1** | <1 | ug/l | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0.096 | — |
| Silver | 0.1 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.010 | — |
| Sodium | | 1800-5400 | ug/l | 21000 | 14000 | 18000 | 18000 | 11900 | 11000 |
| Strontium | 21000 | <5-9.3 | ug/l | 570 | 420 | 450 | 450 | 349 | — |
| Thallium | 0.8 | <0.1 | ug/l | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.010 | — |
| Tin | | <2 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 0.10 | — |
| Titanium | | <2-8.5 | ug/l | < 2.0 | 2.5 | 11 | 20 | 17.4 | — |
| Uranium | 300 | <0.1-0.7 | ug/l | 41 | 27 | 49 | 50 | 12.8 | 48.0 |
| Vanadium | **6** | <2-2.1 | ug/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 1.08 | < 0.50 |
| Zinc | **30** | <5-17 | ug/l | < 5.0 | 5.0 | 6.1 | 8.6 | 6.9 | < 3.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 |
| | | | Sample ID | 20X608058-1165256 | DIFFUSER_20200717 | DIFFUSER_20200729 | DIFFUSER_20200811 | DIFFUSER_20200824 | DIFFUSER_20200908 | DIFFUSER_20200924 |
| | | | Lab Sample ID | 1165256 | NDH755 | NFS559 | NIJ481 | NLM312 | NOK785 | NSF571 |
| | | | Lab Job Number | 20X608058 | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | < 5 | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.03 | < 0.050 | 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.26 | 0.180 | 0.230 | 0.250 | 0.200 | 0.230 | 0.210 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | — | < 2.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.33 | 0.310 | 0.320 | 0.320 | 0.350 | 0.350 | 0.350 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 39 | 68 | 47 | 48 | 47 | 40 | 77 |
| Chloride ion | | 2.1-13 | mg/l | 4 | 6.5 | 5.8 | 6.9 | 6.7 | 6.0 | 7.5 |
| Color | | 160-220 | tcu | 159 | 210 | 180 | 180 | 160 | 150 | 200 |
| Electrical Conductivity | | 20-68 | umhos/cm | 33 | 37 | 35 | 37 | 38 | 38 | 49 |
| Fluoride | | <0.12 | mg/l | < 0.12 | < 0.10 | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 4.9 | 5.4 | 5.8 | 6.1 | 6.7 | 7.2 | 4.6 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 12.7 | 26.5 | 16.4 | 12.3 | 27.3 | 20.7 | 25.0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -5.03 | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -5.35 | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.05 | < 0.050 | < 0.050 | 0.060 | 0.14 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.05 | < 0.050 | < 0.050 | 0.060 | 0.14 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | 0.6 | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | 0.01 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.68 | 5.03 | 5.36 | 6.03 | 5.99 | 6.16 | 4.32 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 10.7 | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 11.0 | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.004 | 0.037 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 1.6 | 3.3 | 2.7 | 2.6 | 2.1 | 2.1 | 3.5 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 7 | < 2.0 | 3.3 | 2.7 | < 2.0 | 2.8 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 18 | 16 | 19 | 19 | 17 | 18 | 18 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 14.7 | 20 | 17 | 16 | 16 | 14 | 28 |
| Total Suspended Solids | | | mg/l | < 5 | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 1.3 | 1.3 | 1.1 | 1.5 | 1.6 | 1.5 | 2.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-05 | 2020-11-20 | 2020-11-30 |
| | | | Sample ID | DIFFUSER_20201006 | DUP1_20201006 | DIFFUSER_20201023 | DIFFUSER_20201105 | DUP1_20201105 | DIFFUSER_20201120 | DIFFUSER_20201130 |
| | | | Lab Sample ID | NUV957 | NUW053 | NYW160 | OBU586 | OBU587 | OFF871 | OHD063 |
| | | | Lab Job Number | C0Q0953 | C0Q0953 | C0R9712 | C0T3354 | C0T3354 | C0U8920 | C0V7696 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.220 | 0.220 | 0.190 | 0.300 | 0.240 | 0.250 | 0.340 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | 2.8 | < 2.0 | < 10 | < 10 | < 10 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.340 | 0.340 | 0.460 | 0.480 | 0.450 | 0.450 | 0.510 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 66 | 63 | 74 | 81 | 79 | 76 | 57 |
| Chloride ion | | 2.1-13 | mg/l | 7.8 | 7.7 | 6.7 | 8.8 | 8.6 | 8.9 | 9.0 |
| Color | | 160-220 | tcu | 200 | 190 | 210 | 220 | 220 | 210 | 190 |
| Electrical Conductivity | | 20-68 | umhos/cm | 42 | 43 | 48 | 51 | 49 | 48 | 53 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 6.1 | 6.0 | 8.1 | 9.0 | 8.5 | 8.3 | 11 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 21.4 | 21.4 | 41.5 | 23.1 | 30.4 | 28.6 | 20.0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.53 | 5.72 | 5.04 | 5.16 | 5.05 | 4.86 | 5.99 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 3.6 | 3.6 | 6.2 | 6.4 | 6.4 | 6.1 | 6.4 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | 2.2 | < 2.0 | < 2.0 | 4.2 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 19 | 19 | 23 | 28 | 25 | 24 | 30 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 22 | 22 | 25 | 26 | 28 | 25 | 22 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 1.2 | 1.5 | 4.2 | 13 | 15 | 7.6 | 14 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 |
| | | | Sample ID | DIFFUSER_20201214 | DIFFUSER_20201228 | DIFFUSER_20210325 | DIFFUSER_20210408 | DIFFUSER_20210421 | DIFFUSER_20210505 | DIFFUSER_20210519 |
| | | | Lab Sample ID | OKO556 | OMT746 | PEB837 | PGQ140 | PJV227 | PMO074 | PPM344 |
| | | | Lab Job Number | C0X3829 | C0Y4558 | C179941 | C192270 | C1A7947 | C1C1117 | C1D5211 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.370 | 0.390 | 0.250 | 0.140 | 0.150 | 0.230 | 0.140 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 10 | < 5.5 | < 5.0 | < 5.0 | < 2.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.440 | 0.500 | 0.350 | 0.280 | 0.380 | 0.340 | 0.300 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 63 | 54 | 31 | 48 | 48 | 44 | 46 |
| Chloride ion | | 2.1-13 | mg/l | 11 | 11 | 6.8 | 5.0 | 5.4 | 5.7 | 5.0 |
| Color | | 160-220 | tcu | 180 | 140 | 120 | 140 | 170 | 180 | 170 |
| Electrical Conductivity | | 20-68 | umhos/cm | 52 | 54 | 35 | 32 | 33 | 35 | 32 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.8 | 11 | 7.5 | 5.0 | 7.9 | 6.4 | 5.3 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 8.64 | 12.4 | 16.7 | 33.3 | 43.4 | 19.3 | 36.4 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | 0.045 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.57 | 5.89 | 6.21 | 5.19 | 5.42 | 5.64 | 5.28 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 6.5 | 5.4 | 3.7 | 2.5 | 2.5 | 2.2 | 2.0 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 2.4 | 3.3 | 2.6 | < 2.0 | < 2.0 | 3.4 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 30 | 31 | 21 | 13 | 16 | 19 | 13 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 24 | 19 | 11 | 15 | 15 | 17 | 17 |
| Total Suspended Solids | | | mg/l | 3.8 | 4.7 | 1.2 | 2.8 | 3.4 | 4.0 | 3.4 |
| Turbidity | | <0.92.5 | ntu | 11 | 15 | 11 | 7.9 | 6.3 | 5.4 | 4.4 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 |
| | | | Sample ID | DIFFUSER_20210603 | DIFFUSER_20210614 | DIFFUSER_20210630 | DIFFUSER_20210714 | DIFFUSER_20210727 | DIFFUSER_20210811 | DIFFUSER_20210908 |
| | | | Lab Sample ID | PST793 | PVK702 | PZB781 | QCI564 | QFJ455 | QIT123 | QPN182 |
| | | | Lab Job Number | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 5.3 | < 1.0 | < 1.0 | < 1.0 | 5.2 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 5.3 | < 5.0 | < 5.0 | < 5.0 | 5.2 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | 0.063 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.370 | 0.190 | 0.240 | 0.320 | 0.390 | 0.210 | 0.240 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 3.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.370 | 0.360 | 0.380 | 0.390 | 0.400 | 0.350 | 0.460 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 48 | 44 | 39 | 43 | 45 | 76 | 57 |
| Chloride ion | | 2.1-13 | mg/l | 5.6 | 4.6 | 5.5 | 5.7 | 6.2 | 7.6 | 6.5 |
| Color | | 160-220 | tcu | 180 | 180 | 170 | 140 | 140 | 230 | 220 |
| Electrical Conductivity | | 20-68 | umhos/cm | 38 | 37 | 39 | 40 | 39 | 38 | 43 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 8.2 | 7.0 | 7.5 | 7.4 | 7.6 | 5.5 | 10 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 0 | 30.9 | 22.6 | 9.86 | 1.27 | 25.0 | 31.4 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -4.10 | NC | NC | NC | -4.11 | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -4.35 | NC | NC | NC | -4.36 | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | 0.027 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.10 | 6.28 | 6.23 | 6.39 | 6.15 | 5.14 | 6.23 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 10.2 | NC | NC | NC | 10.3 | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.5 | NC | NC | NC | 10.5 | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | 0.0012 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.6 | 2.4 | 1.6 | 1.6 | 1.1 | 4.2 | 4.9 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 4.9 | 2.9 | 3.9 | 7.6 | 5.6 | < 2.0 | 3.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 24 | 18 | 19 | 23 | 25 | 19 | 24 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 15 | 16 | 13 | 13 | 13 | 26 | 21 |
| Total Suspended Solids | | | mg/l | 3.6 | 4.0 | 3.0 | 2.0 | 1.4 | 2.6 | 3.0 |
| Turbidity | | <0.92.5 | ntu | 5.5 | 3.5 | 2.8 | 4.5 | 2.4 | 3.6 | 2.5 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | LDO | LDO |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-10-19 | 2021-11-02 | 2022-09-29 | 2022-12-14 |
| | | | Sample ID | DIFFUSER_20210923 | DIFFUSER_20211006 | DUP1_20211019 | DIFFUSER_20211019 | DIFFUSER_20211102 | LDO_20220929 | LDO_20221214 |
| | | | Lab Sample ID | QTA033 | QWG510 | QZA170 | QZA169 | RCV753 | TWL537 | UPB188 |
| | | | Lab Job Number | C1R6341 | C1T1039 | C1U4014 | C1U4014 | C1W2029 | C2S2675 | C2AH933 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 160 | 210 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.5 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 160 | 210 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | 0.065 | 0.062 | < 0.050 | 0.10 | 0.059 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.190 | 0.250 | 0.250 | 0.240 | 0.200 | 4.94 | 6.35 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | 3.2 | 2.6 | < 10 | < 10 | < 10 |
| Cation Sum | | 0.15-44 | meq/l | 0.420 | 0.430 | 0.410 | 0.430 | 0.440 | 4.79 | 6.35 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 77 | 76 | 68 | 75 | 75 | 27 | < 20 |
| Chloride ion | | 2.1-13 | mg/l | 6.7 | 9.0 | 8.8 | 8.6 | 7.2 | 7.9 | 11 |
| Color | | 160-220 | tcu | 260 | 250 | 220 | 210 | 240 | 24 | 11 |
| Electrical Conductivity | | 20-68 | umhos/cm | 44 | 44 | 42 | 42 | 49 | 460 | 590 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.9 | 8.2 | 8.2 | 8.6 | 8.2 | 210 | 280 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 37.7 | 26.5 | 24.2 | 28.4 | 37.5 | 1.54 | 0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | 0.406 | 0.724 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | 0.157 | 0.475 |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.093 | 0.098 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.093 | 0.098 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.99 | 5.99 | 5.71 | 5.90 | 5.60 | 7.76 | 7.89 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | 7.36 | 7.17 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | 7.60 | 7.42 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.1 | 6.0 | 5.6 | 5.8 | 6.0 | 9.9 | 9.1 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 71 | 90 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 21 | 24 | 23 | 24 | 23 | 280 | 360 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 30 | 26 | 22 | 23 | 29 | 8.2 | 6.2 |
| Total Suspended Solids | | | mg/l | 3.6 | 7.0 | 2.4 | 6.0 | 2.2 | 5.6 | 14 |
| Turbidity | | <0.92.5 | ntu | 2.2 | 3.1 | 2.9 | 3.9 | 4.2 | 3.9 | 1.6 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Location** | LDO | LDO | LDO | LDO | LDO | LDO | SW01 |
| | | | **Sample Date** | 2023-04-14 | 2023-10-12 | 2023-12-01 | 2023-12-01 | 2024-03-14 | 2024-03-14 | 2020-06-01 |
| | | | **Sample ID** | LDO_20230414 | LDO_20231012 | DUP1_20231201_WS | LDO_20231201 | DUP1_20240314 | LDO_20240314 | 20X608058-1165174 |
| | | | **Lab Sample ID** | VNV585 | XGT440 | XTQ433 | XTQ432 | YQA666 | YQA665 | 1165174 |
| | | | **Lab Job Number** | C3A4090 | C3V7537 | C3AS035 | C3AS035 | C476965 | C476965 | 20X608058 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 160 | — | — | — | — | — | < 5 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | — | — | — | — | — | < 10 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | < 5 |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 160 | 160 | 92 | 92 | 97 | 96 | < 5 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.071 | — | — | — | — | — | < 0.03 |
| Anion Sum | | 0.06-0.6 | meq/l | 4.61 | — | — | — | — | — | 0.20 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | — | — | — | — | — | — |
| Cation Sum | | 0.15-44 | meq/l | 4.83 | — | — | — | — | — | 0.28 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 30 | < 20 | < 20 | < 20 | < 20 | < 20 | 40 |
| Chloride ion | | 2.1-13 | mg/l | 7.8 | 13 | 9.4 | 9.4 | 6.4 | 6.3 | 5 |
| Color | | 160-220 | tcu | 22 | — | — | — | — | — | 171 |
| Electrical Conductivity | | 20-68 | umhos/cm | 480 | 480 | 310 | 310 | 310 | 310 | 32 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | < 0.12 |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 210 | 210 | 130 | 130 | 140 | 140 | 2.5 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 2.33 | — | — | — | — | — | 16.0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | 0.299 | — | — | — | — | — | -5.88 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | 0.0490 | — | — | — | — | — | -6.20 |
| Nitrate (as N) | | <0.25 | mg/l | 0.22 | — | — | — | — | — | < 0.05 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.22 | — | — | — | — | — | < 0.05 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | — | — | — | — | — | < 0.05 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | 0.4 |
| Orthophosphate(as P) | | <0.05 | mg/l | 0.020 | — | — | — | — | — | < 0.01 |
| pH, Lab | | 4.1-6.13 | ph units | 7.68 | 7.76 | 7.77 | 7.75 | 8.02 | 7.77 | 5.23 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 7.38 | — | — | — | — | — | 11.1 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 7.63 | — | — | — | — | — | 11.4 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | — | — | — | — | — | < 0.004 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.4 | — | — | — | — | — | 2.3 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 57 | 53 | 28 | 27 | 34 | 34 | 3 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 260 | 290 | 180 | 160 | 170 | 160 | 14 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 6.6 | 3.3 | 3.4 | 3.6 | 4.0 | 4.0 | 13.5 |
| Total Suspended Solids | | | mg/l | 10 | 2.0 | 3.8 | 7.4 | 3.0 | 3.8 | < 5 |
| Turbidity | | <0.92.5 | ntu | 17 | — | — | — | — | — | 2.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-09-24 |
| | | | Sample ID | SW1_20200717 | SW1_20200729 | SW1_20200811 | SW1_20200824 | SW1_20200908 | SW1_20200924 | DUP A_20200924 |
| | | | Lab Sample ID | NDH751 | NFS555 | NIJ477 | NLM308 | NOK781 | NSF567 | NSF572 |
| | | | Lab Job Number | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0O8769 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.170 | 0.270 | 0.240 | 0.200 | 0.230 | 0.210 | 0.220 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 2.0 | < 5.0 | 2.6 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.260 | 0.310 | 0.340 | 0.340 | 0.360 | 0.320 | 0.360 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 49 | 52 | 53 | 47 | 37 | 74 | 74 |
| Chloride ion | | 2.1-13 | mg/l | 5.8 | 5.8 | 7.1 | 6.9 | 6.4 | 7.6 | 7.6 |
| Color | | 160-220 | tcu | 200 | 180 | 200 | 160 | 150 | 200 | 200 |
| Electrical Conductivity | | 20-68 | umhos/cm | 35 | 34 | 36 | 37 | 39 | 48 | 49 |
| Fluoride | | <0.12 | mg/l | < 0.10 | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 2.8 | 5.5 | 6.0 | 6.3 | 6.9 | 3.9 | 4.0 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 20.9 | 6.90 | 17.2 | 25.9 | 22.0 | 20.8 | 24.1 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | 0.056 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.056 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.98 | 5.57 | 6.13 | 6.11 | 6.17 | 4.59 | 4.28 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | 0.020 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 3.1 | 2.5 | 2.7 | 2.1 | 2.6 | 3.8 | 3.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 5.1 | 2.1 | < 2.0 | 2.2 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 15 | 20 | 19 | 16 | 19 | 18 | 18 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 18 | 17 | 16 | 16 | 14 | 29 | 27 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 0.61 | 1.7 | 1.8 | 1.3 | 1.3 | 3.7 | 1.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-23 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-11-30 |
| | | | Sample ID | SW1_20201006 | DUP1_20201023 | SW1_20201023 | SW1_20201105 | SW1_20201120 | SW1_20201130 | DUP1_20201130 |
| | | | Lab Sample ID | NUV951 | NYW161 | NYW153 | OBU580 | OFF866 | OHD057 | OHD064 |
| | | | Lab Job Number | C0Q0953 | C0R9712 | C0R9712 | C0T3354 | C0U8920 | C0V7696 | C0V7696 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.066 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.240 | 0.220 | 0.230 | 0.240 | 0.200 | 0.250 | 0.240 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | 2.2 | < 10 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.330 | 0.410 | 0.360 | 0.360 | 0.350 | 0.370 | 0.380 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 59 | 71 | 78 | 78 | 74 | 67 | 71 |
| Chloride ion | | 2.1-13 | mg/l | 8.2 | 7.7 | 8.0 | 8.4 | 6.7 | 9.0 | 8.4 |
| Color | | 160-220 | tcu | 180 | 200 | 210 | 210 | 200 | 190 | 180 |
| Electrical Conductivity | | 20-68 | umhos/cm | 44 | 49 | 49 | 49 | 47 | 48 | 46 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 4.3 | 5.8 | 4.5 | 4.5 | 4.3 | 5.1 | 5.0 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 15.8 | 30.2 | 22.0 | 20.0 | 27.3 | 19.4 | 22.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | 0.11 | < 0.050 | < 0.050 | < 0.050 | 0.11 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.11 | < 0.050 | < 0.050 | < 0.050 | 0.11 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.43 | 4.51 | 4.72 | 4.86 | 4.69 | 5.36 | 4.72 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 7.2 | 6.4 | 6.9 | 6.4 | 7.3 | 6.8 | 6.4 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 23 | 22 | 22 | 22 | 22 | 24 | 23 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 21 | 25 | 24 | 26 | 23 | 23 | 23 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 0.83 | 1.1 | 2.8 | 0.98 | 2.4 | 6.7 | 12 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-14 | 2020-12-14 | 2020-12-28 | 2020-12-28 | 2021-03-25 | 2021-03-25 | 2021-03-30 |
| | | | Sample ID | DUP1_20201214 | SW1_20201214 | SW1_20201228 | DUP1_20201228 | SW1_20210325 | DUP4_20210325 | SW1_20210330 |
| | | | Lab Sample ID | OKO557 | OKO550 | OMT740 | OMT747 | PEB831 | PEB838 | PFK857 |
| | | | Lab Job Number | C0X3829 | C0X3829 | C0Y4558 | C0Y4558 | C179941 | C179941 | C186441 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | — |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — |
| Anion Sum | | 0.06-0.6 | meq/l | 0.340 | 0.340 | 0.310 | 0.310 | 0.190 | 0.190 | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 10 | < 10 | — |
| Cation Sum | | 0.15-44 | meq/l | 0.380 | 0.400 | 0.360 | 0.330 | 0.260 | 0.250 | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 60 | 75 | 47 | 49 | 38 | 38 | — |
| Chloride ion | | 2.1-13 | mg/l | 12 | 12 | 11 | 11 | 6.8 | 6.6 | — |
| Color | | 160-220 | tcu | 160 | 160 | 130 | 140 | 150 | 150 | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 57 | 60 | 49 | 50 | 35 | 35 | — |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 4.8 | 5.0 | 4.0 | 4.0 | 3.1 | 3.0 | — |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 5.56 | 8.11 | 7.46 | 3.13 | 15.6 | 13.6 | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | — |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.068 | — |
| pH, Lab | | 4.1-6.13 | ph units | 5.07 | 5.11 | 4.56 | 5.21 | 5.27 | 5.54 | — |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | — |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.9 | 5.9 | 5.5 | 5.5 | 3.9 | 4.0 | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | — |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 26 | 26 | 24 | 23 | 16 | 16 | — |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 24 | 24 | 18 | 19 | 14 | 14 | — |
| Total Suspended Solids | | | mg/l | < 3.0 | < 3.2 | < 4.0 | < 3.1 | 2.6 | < 1.0 | 2.0 |
| Turbidity | | <0.92.5 | ntu | 1.8 | 0.96 | 1.6 | 1.7 | 7.1 | 3.1 | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 | 2021-06-30 |
| | | | Sample ID | SW1_20210408 | SW1_20210421 | SW1_20210505 | SW1_20210519 | SW1_20210603 | SW1_20210614 | SW1_20210630 |
| | | | Lab Sample ID | PGQ134 | PJV221 | PMO067 | PPM339 | PST787 | PVK696 | PZB776 |
| | | | Lab Job Number | C192270 | C1A7947 | C1C1117 | C1D5211 | C1F0842 | C1G3518 | C1I1014 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 5.3 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.3 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.061 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.160 | 0.150 | 0.160 | 0.150 | 0.280 | 0.320 | 0.260 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.5 | < 5.0 | < 5.0 | < 2.0 | < 3.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.220 | 0.310 | 0.330 | 0.250 | 0.320 | 0.340 | 0.390 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 48 | 43 | 56 | 42 | 44 | 44 | 39 |
| Chloride ion | | 2.1-13 | mg/l | 5.4 | 5.2 | 5.8 | 5.4 | 5.6 | 4.3 | 5.8 |
| Color | | 160-220 | tcu | 120 | 190 | 180 | 150 | 190 | 170 | 160 |
| Electrical Conductivity | | 20-68 | umhos/cm | 33 | 35 | 36 | 32 | 36 | 37 | 40 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 2.2 | 5.4 | 6.1 | 3.5 | 6.5 | 6.7 | 7.4 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 15.8 | 34.8 | 34.7 | 25.0 | 6.67 | 3.03 | 20.0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | -4.07 | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | -4.32 | NC |
| Nitrate (as N) | | <0.25 | mg/l | 0.12 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.12 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.82 | 5.89 | 5.42 | 5.47 | 5.78 | 6.23 | 6.23 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | 10.3 | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | 10.6 | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.6 | 2.3 | 1.8 | 2.5 | 2.4 | 2.0 | 1.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 6.0 | 4.7 | 4.6 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 13 | 14 | 15 | 13 | 21 | 22 | 20 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 15 | 15 | 17 | 15 | 16 | 16 | 13 |
| Total Suspended Solids | | | mg/l | < 1.0 | 3.6 | 13 | < 2.5 | 3.2 | 4.8 | 2.2 |
| Turbidity | | <0.92.5 | ntu | 2.3 | 7.9 | 7.4 | 1.5 | 5.0 | 2.4 | 2.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-09-23 | 2021-10-06 |
| | | | Sample ID | SW1_20210714 | SW1_20210727 | SW1_20210811 | SW1_20210908 | DUP1_20210923 | SW1_20210923 | DUP1_20211006 |
| | | | Lab Sample ID | QCI559 | QFJ449 | QIT117 | QPN176 | QTA034 | QTA027 | QWG511 |
| | | | Lab Job Number | C1J6542 | C1L1105 | C1M6832 | C1P9560 | C1R6341 | C1R6341 | C1T1039 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 5.2 | 5.6 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 5.2 | 5.6 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.430 | 0.350 | 0.210 | 0.180 | 0.270 | 0.270 | 0.250 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.370 | 0.400 | 0.360 | 0.430 | 0.420 | 0.420 | 0.400 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 39 | 50 | 79 | 57 | 80 | 77 | 74 |
| Chloride ion | | 2.1-13 | mg/l | 5.8 | 6.2 | 7.4 | 6.5 | 6.6 | 6.9 | 8.9 |
| Color | | 160-220 | tcu | 140 | 150 | 230 | 230 | 280 | 280 | 230 |
| Electrical Conductivity | | 20-68 | umhos/cm | 40 | 40 | 38 | 43 | 43 | 43 | 43 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.2 | 7.6 | 5.5 | 9.2 | 7.6 | 7.5 | 7.2 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 7.50 | 6.67 | 26.3 | 41.0 | 21.7 | 21.7 | 23.1 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -4.06 | -3.96 | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -4.31 | -4.22 | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.21 | 6.27 | 4.94 | 6.10 | 5.75 | 5.17 | 5.76 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 10.3 | 10.2 | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.5 | 10.5 | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 1.4 | 0.97 | 4.1 | 4.7 | 5.0 | 5.2 | 5.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 7.9 | 2.9 | < 2.0 | < 2.0 | 3.9 | 3.6 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 26 | 22 | 19 | 21 | 25 | 25 | 23 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 13 | 14 | 25 | 22 | 30 | 30 | 26 |
| Total Suspended Solids | | | mg/l | < 2.0 | 2.8 | 2.6 | 2.2 | 7.0 | 2.8 | 8.0 |
| Turbidity | | <0.92.5 | ntu | 3.6 | 1.8 | 3.1 | 2.6 | 2.5 | 2.3 | 4.2 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-02 | 2021-11-21 | 2021-11-21 | 2021-12-01 |
| | | | Sample ID | SW1_20211006 | SW1_20211019 | DUP1_20211102 | SW1_20211102 | DUP1_20211121 | SW1_20211121 | DUP 1_20211201 |
| | | | Lab Sample ID | QWG504 | QZA163 | RCV754 | RCV729 | RIY809 | RIY803 | RNH012 |
| | | | Lab Job Number | C1T1039 | C1U4014 | C1W2029 | C1W2029 | C1Z0716 | C1Z0716 | C1AG897 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.250 | 0.410 | 0.200 | 0.210 | 0.220 | 0.220 | 0.210 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | 3.5 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.450 | 0.440 | 0.350 | 0.350 | 0.390 | 0.380 | 0.340 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 76 | 63 | 100 | 92 | 77 | 75 | 81 |
| Chloride ion | | 2.1-13 | mg/l | 8.9 | 8.6 | 7.1 | 7.6 | 7.7 | 7.9 | 7.3 |
| Color | | 160-220 | tcu | 230 | 200 | 280 | 270 | 220 | 230 | 240 |
| Electrical Conductivity | | 20-68 | umhos/cm | 44 | 64 | 52 | 53 | 48 | 51 | 49 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 8.4 | 7.8 | 4.4 | 4.5 | 4.5 | 4.4 | 3.9 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 28.6 | 3.53 | 27.3 | 25.0 | 27.9 | 26.7 | 23.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.09 | 4.40 | 5.10 | 5.30 | 4.58 | 4.54 | 4.42 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.9 | 5.6 | 5.3 | 5.3 | 5.7 | 5.5 | 4.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 8.2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 24 | 31 | 20 | 20 | 21 | 21 | 18 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 26 | 23 | 32 | 32 | 28 | 28 | 25 |
| Total Suspended Solids | | | mg/l | < 5.0 | 1.6 | < 1.0 | 1.0 | 1.2 | 1.4 | < 1.0 |
| Turbidity | | <0.92.5 | ntu | 3.6 | 2.6 | 1.7 | 1.4 | 1.9 | 1.0 | 1.8 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-03-24 | 2022-04-06 | 2022-04-06 | 2022-04-19 |
| | | | Sample ID | SW1_20211201 | SW1_20211215 | DUP1_20220324 | SW1_20220324 | DUP1_20220406 | SW1_20220406 | SW1_20220419 |
| | | | Lab Sample ID | RNH005 | RJJ614 | SEH105 | SEH099 | SHG310 | SHG304 | SJT836 |
| | | | Lab Job Number | C1AG897 | C1Z2434 | C277826 | C277826 | C290667 | C290667 | C2A2126 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 2.0 | < 2.0 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.190 | 0.160 | 0.190 | 0.220 | 0.160 | 0.160 | 0.170 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 10 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.320 | 0.270 | 0.220 | 0.220 | 0.240 | 0.230 | 0.240 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 85 | 49 | 35 | 33 | 34 | 36 | < 20 |
| Chloride ion | | 2.1-13 | mg/l | 6.8 | 5.6 | 4.7 | 4.8 | 5.6 | 5.6 | 6.0 |
| Color | | 160-220 | tcu | 230 | 190 | 140 | 150 | 160 | 150 | 150 |
| Electrical Conductivity | | 20-68 | umhos/cm | 51 | 37 | 37 | 37 | 35 | 34 | 35 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 3.9 | 3.2 | 2.3 | 2.4 | 3.2 | 3.0 | 3.0 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 25.5 | 25.6 | 7.32 | 0 | 20.0 | 18.0 | 17.1 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | 0.12 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | 0.12 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.62 | 4.51 | 4.85 | 4.95 | 5.09 | 5.09 | 5.03 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 4.5 | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 | 2.9 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | 2.2 | 4.2 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 18 | 14 | 15 | 17 | 14 | 13 | 14 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 26 | 18 | 13 | 12 | 13 | 12 | 13 |
| Total Suspended Solids | | | mg/l | < 1.0 | 3.8 | < 1.0 | < 1.0 | < 1.0 | 1.0 | 2.0 |
| Turbidity | | <0.92.5 | ntu | 1.5 | 2.1 | 0.97 | 0.79 | 1.7 | 1.5 | 2.4 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-05 | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 |
| | | | Sample ID | SW1_20220505 | SW1_20220531 | SW1_20220616 | SW1_20220627 | SW1_20220929 | SW1_20221214 | SW1_20230414 |
| | | | Lab Sample ID | SNX120 | STQ317 | SXM266 | TAE933 | TWL531 | UPB182 | VNV579 |
| | | | Lab Job Number | C2C1673 | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.055 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.160 | 0.230 | 0.150 | 0.150 | 0.170 | 0.210 | 0.150 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 2.0 | < 5.0 | < 5.0 | < 10 | < 10 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.280 | 0.270 | 0.290 | 0.320 | 0.350 | 0.340 | 0.280 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 43 | 50 | 63 | 72 | 82 | 58 | 32 |
| Chloride ion | | 2.1-13 | mg/l | 5.8 | 6.1 | 5.5 | 5.2 | 6.1 | 7.3 | 5.2 |
| Color | | 160-220 | tcu | 160 | 200 | 290 | 290 | 290 | 210 | 130 |
| Electrical Conductivity | | 20-68 | umhos/cm | 34 | 35 | 34 | 33 | 46 | 44 | 32 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 3.8 | 2.7 | 4.5 | 6.4 | 3.4 | 3.6 | 4.5 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 27.3 | 8.00 | 31.8 | 36.2 | 34.6 | 23.6 | 30.2 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | 0.052 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | 0.052 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.97 | 4.68 | 5.23 | 5.35 | 4.32 | 4.41 | 5.68 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.6 | 2.1 | 2.5 | 3.0 | 4.3 | 4.6 | 3.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 2.6 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 14 | 17 | 14 | 15 | 17 | 19 | 14 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 14 | 17 | 20 | 23 | 30 | 22 | 12 |
| Total Suspended Solids | | | mg/l | < 1.0 | < 1.0 | 1.4 | 1.8 | < 1.0 | < 1.0 | 7.2 |
| Turbidity | | <0.92.5 | ntu | 1.5 | 1.3 | 1.8 | 1.1 | 1.3 | 0.72 | 1.2 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-10-12 | 2023-12-01 | 2024-03-14 | 2018-11-08 | 2020-04-01 | 2020-06-01 | 2020-07-17 |
| | | | Sample ID | SW1_20231012 | SW1_20231201 | SW1_20240314 | SW2_20181108 | 20X589937-1062436 | 20X608058-1165251 | SW2_20200717 |
| | | | Lab Sample ID | XGT435 | XTQ427 | YQA660 | 9698383 | 1062436 | 1165251 | NDH752 |
| | | | Lab Job Number | C3V7537 | C3AS035 | C476965 | 18X408633 | 20X589937 | 20X608058 | C0H9882 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | < 5 | < 5 | < 5 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | — | — | — | < 10 | < 10 | < 10 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | < 5 | < 5 | < 5 | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 5 | < 5 | < 5 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | — | — | — | 0.05 | 0.09 | < 0.03 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | — | — | — | 0.25 | 0.20 | 0.18 | 0.170 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | — | — | — | — | — | — | < 2.0 |
| Cation Sum | | 0.15-44 | meq/l | — | — | — | 0.54 | 0.53 | 0.35 | 0.320 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 59 | 55 | 34 | — | — | 40 | 54 |
| Chloride ion | | 2.1-13 | mg/l | 7.5 | 7.0 | 5.1 | 6 | 4 | 4 | 5.9 |
| Color | | 160-220 | tcu | — | — | — | 359 | 42 | 146 | 220 |
| Electrical Conductivity | | 20-68 | umhos/cm | 48 | 53 | 41 | 52 | 39 | 34 | 36 |
| Fluoride | | <0.12 | mg/l | — | — | — | < 0.12 | < 0.12 | < 0.12 | < 0.10 |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 6.3 | 3.6 | 2.3 | 10.1 | 11.9 | 4.9 | 5.4 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | — | — | — | 36.5 | 45.6 | 31.5 | 30.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | — | — | — | -5.42 | -4.29 | -5.71 | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | — | — | — | -5.74 | -4.61 | -6.03 | NC |
| Nitrate (as N) | | <0.25 | mg/l | — | — | — | < 0.05 | < 0.05 | 0.09 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | — | — | — | < 0.05 | < 0.05 | 0.09 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | — | — | — | < 0.05 | < 0.05 | < 0.05 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | 0.9 | — |
| Orthophosphate(as P) | | <0.05 | mg/l | — | — | — | < 0.01 | < 0.01 | 0.01 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.18 | 4.59 | 4.67 | 4.94 | 5.98 | 4.99 | 5.09 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | — | — | — | 10.4 | 10.3 | 10.7 | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | — | — | — | 10.7 | 10.6 | 11.0 | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | — | — | — | — | < 0.004 | < 0.004 | 0.057 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | — | — | — | 2.9 | 2.0 | 1.3 | 3.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | 4 | 4 | 3 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 75 | 52 | 42 | 20 | 19 | 14 | 16 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 20 | 20 | 10 | 22.3 | 6.8 | 15.3 | 20 |
| Total Suspended Solids | | | mg/l | 2.2 | < 1.0 | 2.0 | — | — | < 5 | — |
| Turbidity | | <0.92.5 | ntu | — | — | — | 4.1 | 272 | 2.6 | 1.3 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 | 2020-10-23 |
| | | | Sample ID | SW2_20200729 | SW2_20200811 | SW2_20200824 | SW2_20200908 | SW2_20200924 | SW2_20201006 | SW2_20201023 |
| | | | Lab Sample ID | NFS556 | NIJ478 | NLM309 | NOK782 | NSF568 | NUV952 | NYW154 |
| | | | Lab Job Number | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0Q0953 | C0R9712 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.230 | 0.260 | 0.190 | 0.230 | 0.220 | 0.230 | 0.160 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 2.0 | < 10 |
| Cation Sum | | 0.15-44 | meq/l | 0.320 | 0.370 | 0.350 | 0.380 | 0.360 | 0.390 | 0.480 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 57 | 51 | 44 | 44 | 81 | 66 | 74 |
| Chloride ion | | 2.1-13 | mg/l | 4.8 | 6.9 | 6.7 | 6.1 | 7.8 | 7.8 | 5.8 |
| Color | | 160-220 | tcu | 180 | 190 | 160 | 150 | 200 | 180 | 210 |
| Electrical Conductivity | | 20-68 | umhos/cm | 35 | 37 | 37 | 39 | 49 | 43 | 47 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 5.7 | 7.2 | 7.0 | 7.8 | 4.4 | 7.3 | 10 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 16.4 | 17.5 | 29.6 | 24.6 | 24.1 | 25.8 | 50.0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.10 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.10 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.40 | 6.22 | 6.02 | 6.21 | 4.32 | 5.48 | 4.83 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.7 | 2.3 | 2.0 | 2.1 | 3.7 | 2.7 | 6.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 4.7 | 2.9 | < 2.0 | 2.7 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 19 | 20 | 16 | 19 | 18 | 19 | 22 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 18 | 16 | 16 | 14 | 28 | 24 | 25 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 1.9 | 3.1 | 2.8 | 2.4 | 2.5 | 2.6 | 2.6 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-03-30 |
| | | | Sample ID | SW2_20201105 | SW2_20201120 | SW2_20201130 | SW2_20201214 | SW2_20201228 | SW2_20210325 | SW2_20210330 |
| | | | Lab Sample ID | OBU581 | OFF867 | OHD058 | OKO551 | OMT741 | PEB832 | PFK858 |
| | | | Lab Job Number | C0T3354 | C0U8920 | C0V7696 | C0X3829 | C0Y4558 | C179941 | C186441 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | — |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — |
| Anion Sum | | 0.06-0.6 | meq/l | 0.250 | 0.250 | 0.260 | 0.330 | 0.370 | 0.240 | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 10 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 10 | — |
| Cation Sum | | 0.15-44 | meq/l | 0.460 | 0.440 | 0.510 | 0.450 | 0.490 | 0.340 | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 76 | 78 | 57 | 63 | 54 | 31 | — |
| Chloride ion | | 2.1-13 | mg/l | 8.8 | 8.7 | 9.3 | 12 | 11 | 6.8 | — |
| Color | | 160-220 | tcu | 230 | 210 | 190 | 170 | 140 | 120 | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 50 | 49 | 53 | 54 | 54 | 37 | — |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 8.4 | 7.6 | 11 | 7.3 | 10 | 7.4 | — |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 29.6 | 27.5 | 32.5 | 15.4 | 14.0 | 17.2 | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | — |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — |
| pH, Lab | | 4.1-6.13 | ph units | 4.79 | 4.75 | 5.62 | 5.21 | 5.87 | 5.67 | — |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | — |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 6.2 | 6.2 | 6.5 | 5.8 | 5.4 | 3.6 | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.6 | 2.2 | — |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 25 | 24 | 27 | 27 | 30 | 20 | — |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 27 | 26 | 23 | 24 | 18 | 12 | — |
| Total Suspended Solids | | | mg/l | — | — | — | < 3.1 | 5.0 | 3.0 | 9.2 |
| Turbidity | | <0.92.5 | ntu | 11 | 6.3 | 14 | 8.7 | 15 | 8.7 | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-03 | 2021-06-14 |
| | | | Sample ID | SW2_20210408 | SW2_20210421 | SW2_20210505 | SW2_20210519 | DUP1_20210603 | SW2_20210603 | SW2_20210614 |
| | | | Lab Sample ID | PGQ135 | PJV222 | PMO068 | PPM340 | PST794 | PST788 | PVK697 |
| | | | Lab Job Number | C192270 | C1A7947 | C1C1117 | C1D5211 | C1F0842 | C1F0842 | C1G3518 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 5.2 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.2 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.150 | 0.160 | 0.220 | 0.140 | 0.330 | 0.260 | 0.240 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.5 | < 5.0 | < 5.0 | < 2.0 | < 3.0 | < 3.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.270 | 0.350 | 0.380 | 0.300 | 0.360 | 0.370 | 0.350 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 46 | 45 | 46 | 49 | 46 | 46 | 46 |
| Chloride ion | | 2.1-13 | mg/l | 5.2 | 5.8 | 5.6 | 5.1 | 5.6 | 5.7 | 4.2 |
| Color | | 160-220 | tcu | 130 | 170 | 180 | 170 | 180 | 170 | 190 |
| Electrical Conductivity | | 20-68 | umhos/cm | 32 | 35 | 37 | 32 | 37 | 36 | 37 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 4.3 | 7.2 | 7.7 | 5.6 | 7.7 | 7.9 | 7.0 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 28.6 | 37.3 | 26.7 | 36.4 | 4.35 | 17.5 | 18.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | -4.33 | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | -4.58 | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.088 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.088 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.93 | 5.48 | 5.44 | 5.37 | 5.90 | 5.84 | 6.03 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | 10.2 | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | 10.5 | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.5 | 2.5 | 2.2 | 2.1 | 2.5 | 2.4 | 2.1 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | 3.0 | < 2.0 | 3.4 | 4.6 | 5.7 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 13 | 16 | 19 | 14 | 22 | 21 | 20 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 14 | 15 | 17 | 17 | 17 | 17 | 16 |
| Total Suspended Solids | | | mg/l | 2.2 | 4.0 | 6.5 | 3.6 | 2.6 | 2.4 | 4.4 |
| Turbidity | | <0.92.5 | ntu | 5.9 | 8.8 | 6.4 | 5.1 | 5.4 | 5.9 | 4.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 |
| | | | Sample ID | SW2_20210630 | SW2_20210714 | SW2_20210727 | SW2_20210811 | SW2_20210908 | SW2_20210923 | SW2_20211006 |
| | | | Lab Sample ID | PZB777 | QCI560 | QFJ450 | QIT118 | QPN177 | QTA028 | QWG505 |
| | | | Lab Job Number | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 | C1R6341 | C1T1039 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 5.6 | < 1.0 | 5.7 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 5.6 | < 5.0 | 5.7 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | 0.050 | 0.071 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.350 | 0.320 | 0.410 | 0.210 | 0.180 | 0.280 | 0.250 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.350 | 0.390 | 0.410 | 0.350 | 0.450 | 0.450 | 0.450 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 39 | 36 | 52 | 79 | 61 | 96 | 78 |
| Chloride ion | | 2.1-13 | mg/l | 5.5 | 5.8 | 6.2 | 7.4 | 6.4 | 6.8 | 8.7 |
| Color | | 160-220 | tcu | 200 | 140 | 150 | 230 | 230 | 270 | 230 |
| Electrical Conductivity | | 20-68 | umhos/cm | 39 | 40 | 39 | 39 | 42 | 44 | 44 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.2 | 7.5 | 7.9 | 5.4 | 9.5 | 8.4 | 8.5 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 0 | 9.86 | 0 | 25.0 | 42.9 | 23.3 | 28.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -4.08 | NC | -3.95 | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -4.34 | NC | -4.20 | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.15 | 6.25 | 6.25 | 4.83 | 6.12 | 5.21 | 5.97 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 10.2 | NC | 10.2 | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.5 | NC | 10.5 | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 1.5 | 1.4 | 1.1 | 4.1 | 4.5 | 5.3 | 6.0 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 4.0 | 7.7 | 6.0 | < 2.0 | < 2.0 | 4.4 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 22 | 23 | 25 | 19 | 21 | 26 | 24 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 14 | 14 | 14 | 26 | 22 | 30 | 28 |
| Total Suspended Solids | | | mg/l | 2.0 | 2.2 | 3.0 | 3.4 | 3.0 | 3.6 | < 2.5 |
| Turbidity | | <0.92.5 | ntu | 2.7 | 2.6 | 2.0 | 3.5 | 2.5 | 2.2 | 3.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-04-06 |
| | | | Sample ID | SW2_20211019 | SW2_20211102 | SW2_20211121 | SW2_20211201 | SW2_20211215 | SW2_20220324 | SW2_20220406 |
| | | | Lab Sample ID | QZA164 | RCV730 | RIY804 | RNH006 | RJJ615 | SEH100 | SHG305 |
| | | | Lab Job Number | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 | C290667 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 7.1 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 7.1 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.052 | < 0.050 | < 0.050 | < 0.050 | 0.096 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.250 | 0.210 | 0.220 | 0.200 | 0.150 | 0.340 | 0.160 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | 3.0 | < 10 | < 5.0 | < 5.0 | < 10 | < 10 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.430 | 0.450 | 0.450 | 0.370 | 0.280 | 0.380 | 0.280 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 66 | 82 | 79 | 78 | 54 | 30 | 27 |
| Chloride ion | | 2.1-13 | mg/l | 8.7 | 7.6 | 7.9 | 7.1 | 5.2 | 4.8 | 5.7 |
| Color | | 160-220 | tcu | 220 | 230 | 240 | 240 | 190 | 140 | 150 |
| Electrical Conductivity | | 20-68 | umhos/cm | 41 | 50 | 50 | 49 | 36 | 39 | 31 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 8.6 | 9.1 | 8.6 | 5.1 | 3.5 | 10 | 5.3 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 26.5 | 36.4 | 34.3 | 29.8 | 30.2 | 5.56 | 27.3 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | -3.65 | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | -3.90 | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.60 | 5.61 | 4.95 | 4.50 | 4.55 | 6.32 | 5.39 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | 9.97 | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | 10.2 | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.6 | 6.0 | 5.3 | 4.0 | 2.5 | 2.6 | 2.3 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 3.3 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 24 | 23 | 23 | 19 | 13 | 23 | 14 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 22 | 28 | 28 | 26 | 19 | 11 | 11 |
| Total Suspended Solids | | | mg/l | 3.0 | 3.2 | 1.8 | < 1.0 | 1.6 | 1.8 | 1.0 |
| Turbidity | | <0.92.5 | ntu | 3.7 | 4.1 | 2.8 | 2.6 | 2.6 | 4.3 | 2.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-19 | 2022-05-05 | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 |
| | | | Sample ID | SW2_20220419 | SW2_20220505 | SW2_20220531 | SW2_20220616 | SW2_20220627 | SW2_20220929 | SW2_20221214 |
| | | | Lab Sample ID | SJT837 | SNX121 | STQ318 | SXM267 | TAE934 | TWL532 | UPB183 |
| | | | Lab Job Number | C2A2126 | C2C1673 | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 2.2 | 2.1 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.2 | 2.1 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.15 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.160 | 0.170 | 0.170 | 0.140 | 0.190 | 0.230 | 0.210 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 2.0 | < 5.0 | < 5.0 | < 10 | < 10 |
| Cation Sum | | 0.15-44 | meq/l | 0.340 | 0.290 | 0.330 | 0.300 | 0.350 | 0.460 | 0.350 |
| Chemical Oxygen Demand | | 40-53 | mg/l | < 20 | 41 | 62 | 65 | 70 | 84 | 55 |
| Chloride ion | | 2.1-13 | mg/l | 5.7 | 6.0 | 6.1 | 4.8 | 5.3 | 6.5 | 7.4 |
| Color | | 160-220 | tcu | 150 | 170 | 230 | 270 | 290 | 300 | 210 |
| Electrical Conductivity | | 20-68 | umhos/cm | 33 | 33 | 34 | 34 | 35 | 45 | 43 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 5.9 | 5.2 | 6.1 | 5.1 | 7.7 | 11 | 5.8 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 36.0 | 26.1 | 32.0 | 36.4 | 29.6 | 33.3 | 25.0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | -4.90 | -4.91 | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | -5.15 | -5.16 | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.40 | 5.68 | 5.39 | 5.41 | 5.69 | 5.55 | 4.69 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | 10.6 | 10.5 | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | 10.8 | 10.7 | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | 0.0012 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.4 | 2.3 | 2.5 | 2.6 | 3.2 | 4.2 | 4.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 15 | 15 | 16 | 14 | 17 | 22 | 19 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 12 | 14 | 20 | 22 | 24 | 29 | 23 |
| Total Suspended Solids | | | mg/l | 3.4 | 1.2 | 3.4 | < 2.5 | 1.8 | 2.8 | 1.2 |
| Turbidity | | <0.92.5 | ntu | 2.5 | 3.0 | 2.5 | 1.9 | 1.2 | 5.6 | 1.6 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-04-14 | 2018-11-08 | 2020-04-01 | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 |
| | | | Sample ID | SW2_20230414 | SW3_20181108 | 20X589937-1062437 | 20X608058-1165252 | SW3_20200717 | SW3_20200729 | SW3_20200811 |
| | | | Lab Sample ID | VNV580 | 9698384 | 1062437 | 1165252 | NDH753 | NFS557 | NIJ479 |
| | | | Lab Job Number | C3A4090 | 18X408633 | 20X589937 | 20X608058 | C0H9882 | C0J0983 | C0K2722 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 5 | < 5 | < 5 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 10 | < 10 | < 10 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | < 5 | < 5 | < 5 | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 5 | < 5 | < 5 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.053 | 0.05 | < 0.03 | < 0.03 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.140 | 0.25 | 0.20 | 0.18 | 0.250 | 0.220 | 0.260 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | — | — | — | < 2.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.310 | 0.54 | 0.50 | 0.40 | 0.350 | 0.320 | 0.370 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 30 | — | — | 37 | 66 | 49 | 69 |
| Chloride ion | | 2.1-13 | mg/l | 5.1 | 5 | 4 | 4 | 6.0 | 4.4 | 6.7 |
| Color | | 160-220 | tcu | 140 | 379 | 114 | 164 | 220 | 170 | 190 |
| Electrical Conductivity | | 20-68 | umhos/cm | 32 | 56 | 43 | 34 | 40 | 36 | 37 |
| Fluoride | | <0.12 | mg/l | — | < 0.12 | < 0.12 | < 0.12 | < 0.10 | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 6.0 | 11.9 | 11.4 | 6.8 | 7.2 | 6.0 | 7.2 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 37.8 | 37.8 | 43.5 | 39.4 | 16.7 | 18.5 | 17.5 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | -4.93 | -4.41 | -5.23 | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | -5.25 | -4.73 | -5.55 | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | 0.13 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 | 0.13 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.05 | < 0.05 | < 0.05 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | 0.9 | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.01 | < 0.01 | < 0.01 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.60 | 5.34 | 5.88 | 5.31 | 5.30 | 5.46 | 6.12 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | 10.3 | 10.3 | 10.5 | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | 10.6 | 10.6 | 10.9 | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | — | < 0.004 | < 0.004 | 0.0012 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.7 | 3.1 | 2.1 | 1.3 | 2.9 | 2.4 | 2.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 5 | 4 | 3 | 4.0 | 4.8 | 2.8 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 15 | 20 | 18 | 15 | 20 | 18 | 20 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 12 | 22.7 | 6.9 | 15.3 | 21 | 18 | 16 |
| Total Suspended Solids | | | mg/l | 14 | — | — | 9 | — | — | — |
| Turbidity | | <0.92.5 | ntu | 3.4 | 1.6 | 3.6 | 6.3 | 1.9 | 1.7 | 3.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 |
| | | | Sample ID | SW3_20200824 | SW3_20200908 | SW3_20200924 | SW3_20201006 | SW3_20201023 | SW3_20201105 | SW3_20201120 |
| | | | Lab Sample ID | NLM310 | NOK783 | NSF569 | NUV953 | NYW155 | OBU582 | OFF868 |
| | | | Lab Job Number | C0L7809 | C0N1046 | C0O8769 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 5.8 | < 1.0 | 7.4 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 5.8 | < 5.0 | 7.4 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.200 | 0.230 | 0.220 | 0.300 | 0.420 | 0.290 | 0.650 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 2.0 | < 10 | < 10 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.360 | 0.410 | 0.390 | 0.440 | 0.460 | 0.490 | 0.820 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 47 | 56 | 79 | 70 | 71 | 80 | 76 |
| Chloride ion | | 2.1-13 | mg/l | 6.6 | 6.1 | 7.9 | 8.1 | 7.8 | 8.8 | 9.3 |
| Color | | 160-220 | tcu | 160 | 160 | 200 | 180 | 220 | 220 | 220 |
| Electrical Conductivity | | 20-68 | umhos/cm | 39 | 40 | 50 | 52 | 56 | 51 | 72 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.1 | 8.5 | 6.4 | 10 | 9.7 | 9.5 | 24 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 28.6 | 28.1 | 27.9 | 18.9 | 4.55 | 25.6 | 11.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | -4.51 | NC | -3.65 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | -4.77 | NC | -3.90 |
| Nitrate (as N) | | <0.25 | mg/l | 0.16 | < 0.050 | < 0.050 | < 0.050 | 0.088 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.16 | < 0.050 | < 0.050 | < 0.050 | 0.088 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.99 | 6.08 | 4.42 | 5.80 | 5.60 | 4.85 | 5.97 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | 10.1 | NC | 9.62 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | 10.4 | NC | 9.87 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 1.9 | 2.2 | 3.3 | 3.3 | 6.3 | 6.3 | 6.1 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 2.9 | < 2.0 | 3.6 | 3.5 | 2.2 | 11 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 17 | 20 | 19 | 24 | 31 | 27 | 48 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 16 | 15 | 28 | 23 | 25 | 27 | 23 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 1.5 | 24 | 1.6 | 3.8 | 6.8 | 15 | 20 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-03-30 | 2021-04-08 | 2021-04-21 |
| | | | Sample ID | SW3_20201130 | SW3_20201214 | SW3_20201228 | SW3_20210325 | SW3_20210330 | SW3_20210408 | SW3_20210421 |
| | | | Lab Sample ID | OHD059 | OKO552 | OMT742 | PEB833 | PFK859 | PGQ136 | PJV223 |
| | | | Lab Job Number | C0V7696 | C0X3829 | C0Y4558 | C179941 | C186441 | C192270 | C1A7947 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | — | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | 0.11 | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.330 | 0.390 | 0.460 | 0.240 | — | 0.140 | 0.150 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 10 | — | < 5.5 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.550 | 0.530 | 0.520 | 0.350 | — | 0.350 | 0.340 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 55 | 60 | 51 | 28 | — | 43 | 48 |
| Chloride ion | | 2.1-13 | mg/l | 9.1 | 12 | 12 | 6.8 | — | 5.1 | 5.5 |
| Color | | 160-220 | tcu | 190 | 180 | 150 | 130 | — | 130 | 180 |
| Electrical Conductivity | | 20-68 | umhos/cm | 57 | 54 | 59 | 37 | — | 32 | 33 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 13 | 10 | 12 | 7.5 | — | 7.8 | 6.8 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 25.0 | 15.2 | 6.12 | 18.6 | — | 42.9 | 38.8 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | — | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | — | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | 0.051 | < 0.050 | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.051 | < 0.050 | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.86 | 5.66 | 6.08 | 5.73 | — | 5.06 | 5.21 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | — | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | — | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | — | 0.0011 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 6.3 | 5.8 | 5.3 | 3.5 | — | 2.5 | 2.4 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 3.3 | 3.2 | 6.6 | 2.4 | — | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 31 | 32 | 34 | 20 | — | 15 | 15 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 22 | 24 | 19 | 11 | — | 15 | 16 |
| Total Suspended Solids | | | mg/l | — | 9.4 | 5.1 | 2.2 | 13 | 2.6 | 7.4 |
| Turbidity | | <0.92.5 | ntu | 15 | 12 | 21 | 8.5 | — | 7.7 | 8.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 |
| | | | Sample ID | SW3_20210505 | SW3_20210519 | SW3_20210603 | SW3_20210614 | SW3_20210630 | SW3_20210714 | SW3_20210727 |
| | | | Lab Sample ID | PMO069 | PPM341 | PST789 | PVK698 | PZB778 | QCI561 | QFJ451 |
| | | | Lab Job Number | C1C1117 | C1D5211 | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 5.7 | < 1.0 | < 1.0 | 6.5 | 5.4 | < 1.0 | 6.2 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 5.7 | < 5.0 | < 5.0 | 6.5 | 5.4 | < 5.0 | 6.2 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.064 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.480 | 0.150 | 0.250 | 0.340 | 0.350 | 0.320 | 0.430 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | 3.0 | < 3.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.390 | 0.340 | 0.390 | 0.370 | 0.400 | 0.380 | 0.390 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 44 | 46 | 44 | 48 | 36 | 39 | 50 |
| Chloride ion | | 2.1-13 | mg/l | 6.1 | 5.3 | 5.6 | 4.2 | 5.5 | 5.6 | 7.5 |
| Color | | 160-220 | tcu | 190 | 170 | 170 | 170 | 170 | 130 | 150 |
| Electrical Conductivity | | 20-68 | umhos/cm | 51 | 34 | 37 | 38 | 39 | 40 | 39 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 9.5 | 6.9 | 8.6 | 7.6 | 8.3 | 7.5 | 7.5 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 10.3 | 38.8 | 21.9 | 4.23 | 6.67 | 8.57 | 4.88 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -3.98 | NC | NC | -3.97 | -4.05 | NC | -3.95 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -4.23 | NC | NC | -4.23 | -4.30 | NC | -4.20 |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.14 | 5.57 | 6.01 | 6.18 | 6.13 | 6.29 | 6.24 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 10.1 | NC | NC | 10.1 | 10.2 | NC | 10.2 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.4 | NC | NC | 10.4 | 10.4 | NC | 10.4 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 1.7 | 1.9 | 2.4 | 2.0 | 1.6 | 1.5 | 1.1 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 9.5 | < 2.0 | 4.2 | 4.4 | 4.1 | 7.8 | 4.4 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 29 | 15 | 21 | 22 | 23 | 23 | 25 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 17 | 17 | 15 | 16 | 14 | 14 | 14 |
| Total Suspended Solids | | | mg/l | 5.6 | 14 | 2.8 | 7.5 | 2.2 | 3.0 | 4.0 |
| Turbidity | | <0.92.5 | ntu | 7.5 | 12 | 6.9 | 6.9 | 2.4 | 3.1 | 3.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 |
| | | | Sample ID | SW3_20210811 | SW3_20210908 | SW3_20210923 | SW3_20211006 | SW3_20211019 | SW3_20211102 | SW3_20211121 |
| | | | Lab Sample ID | QIT119 | QPN178 | QTA029 | QWG506 | QZA165 | RCV731 | RIY805 |
| | | | Lab Job Number | C1M6832 | C1P9560 | C1R6341 | C1T1039 | C1U4014 | C1W2029 | C1Z0716 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.370 | 0.190 | 0.270 | 0.260 | 0.320 | 0.250 | 0.220 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 4.2 | < 10 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.390 | 0.430 | 0.430 | 0.430 | 0.490 | 0.460 | 0.460 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 79 | 57 | 84 | 74 | 68 | 85 | 77 |
| Chloride ion | | 2.1-13 | mg/l | 7.4 | 6.7 | 6.9 | 9.1 | 9.1 | 9.0 | 7.8 |
| Color | | 160-220 | tcu | 220 | 220 | 280 | 250 | 220 | 230 | 250 |
| Electrical Conductivity | | 20-68 | umhos/cm | 38 | 43 | 43 | 44 | 47 | 50 | 50 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 6.4 | 9.4 | 7.9 | 8.2 | 11 | 9.1 | 8.5 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 2.63 | 38.7 | 22.9 | 24.6 | 21.0 | 29.6 | 35.3 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.90 | 6.12 | 5.97 | 5.98 | 5.85 | 5.76 | 5.01 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 4.7 | 4.8 | 5.2 | 6.0 | 5.6 | 6.3 | 5.5 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 7.8 | < 2.0 | 3.6 | < 2.0 | 3.3 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 28 | 21 | 25 | 24 | 28 | 25 | 23 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 26 | 23 | 30 | 26 | 22 | 28 | 28 |
| Total Suspended Solids | | | mg/l | 2.6 | 3.4 | 2.8 | < 2.5 | 3.0 | 1.8 | 2.0 |
| Turbidity | | <0.92.5 | ntu | 3.9 | 2.7 | 2.8 | 3.3 | 4.0 | 4.6 | 2.4 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-31 |
| | | | Sample ID | SW3_20211201 | SW3_20211215 | SW3_20220324 | SW3_20220406 | SW3_20220419 | SW3_20220505 | SW3_20220531 |
| | | | Lab Sample ID | RNH007 | RJJ616 | SEH101 | SHG306 | SJT838 | SNX122 | STQ319 |
| | | | Lab Job Number | C1AG897 | C1Z2434 | C277826 | C290667 | C2A2126 | C2C1673 | C2E8059 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | 7.4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | 7.4 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.16 | 0.38 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.190 | 0.160 | 0.380 | 0.160 | 0.230 | 0.170 | 0.170 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 | 2.5 |
| Cation Sum | | 0.15-44 | meq/l | 0.440 | 0.350 | 0.370 | 0.260 | 0.310 | 0.330 | 0.390 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 76 | 56 | 35 | 34 | < 20 | 43 | 64 |
| Chloride ion | | 2.1-13 | mg/l | 6.8 | 5.6 | 4.7 | 5.5 | 5.6 | 6.0 | 6.0 |
| Color | | 160-220 | tcu | 240 | 190 | 140 | 150 | 150 | 170 | 220 |
| Electrical Conductivity | | 20-68 | umhos/cm | 46 | 36 | 39 | 31 | 35 | 33 | 36 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 9.5 | 7.0 | 9.8 | 5.1 | 6.1 | 5.7 | 9.6 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 39.7 | 37.3 | 1.33 | 23.8 | 14.8 | 32.0 | 39.3 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | -3.64 | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | -3.90 | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.81 | 4.54 | 6.32 | 5.32 | 5.40 | 5.53 | 5.65 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | 9.96 | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | 10.2 | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 4.1 | 3.0 | 2.4 | 2.4 | 2.4 | 2.2 | 2.6 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | 4.7 | < 2.0 | 3.2 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 20 | 16 | 24 | 14 | 18 | 15 | 17 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 25 | 19 | 11 | 11 | 12 | 14 | 19 |
| Total Suspended Solids | | | mg/l | 1.8 | 2.0 | 2.0 | 1.2 | 2.0 | 1.2 | 2.8 |
| Turbidity | | <0.92.5 | ntu | 4.0 | 3.2 | 5.3 | 2.4 | 2.6 | 1.9 | 3.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-12-01 |
| | | | Sample ID | SW3_20220616 | SW3_20220627 | SW3_20220929 | SW3_20221214 | SW3_20230414 | SW3_20231012 | SW3_20231201 |
| | | | Lab Sample ID | SXM268 | TAE935 | TWL533 | UPB184 | VNV581 | XGT436 | XTQ428 |
| | | | Lab Job Number | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3V7537 | C3AS035 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 2.1 | — | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 2.1 | < 2.0 | 5.2 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.076 | — | — |
| Anion Sum | | 0.06-0.6 | meq/l | 0.150 | 0.140 | 0.180 | 0.210 | 0.190 | — | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 10 | < 10 | < 5.0 | — | — |
| Cation Sum | | 0.15-44 | meq/l | 0.300 | 0.360 | 0.430 | 0.400 | 0.330 | — | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 65 | 65 | 86 | 62 | 28 | 57 | 50 |
| Chloride ion | | 2.1-13 | mg/l | 5.4 | 5.1 | 6.3 | 7.4 | 5.1 | 7.2 | 7.2 |
| Color | | 160-220 | tcu | 270 | 300 | 270 | 220 | 150 | — | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 34 | 34 | 43 | 43 | 33 | 48 | 56 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 5.2 | 7.7 | 9.2 | 6.9 | 6.5 | 8.0 | 15 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 33.3 | 44.0 | 41.0 | 31.2 | 26.9 | — | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | -4.54 | — | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | -4.80 | — | — |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — | — |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — |
| pH, Lab | | 4.1-6.13 | ph units | 5.41 | 5.66 | 5.16 | 4.92 | 6.16 | 5.09 | 6.03 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | 10.7 | — | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | 11.0 | — | — |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | 0.0012 | < 0.0010 | < 0.0010 | < 0.0010 | — | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.5 | 3.2 | 4.3 | 4.0 | 2.6 | — | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 14 | 16 | 20 | 20 | 16 | 70 | 63 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 21 | 25 | 29 | 24 | 12 | 20 | 20 |
| Total Suspended Solids | | | mg/l | < 1.0 | 1.8 | 3.8 | 4.8 | 3.0 | 2.0 | < 1.0 |
| Turbidity | | <0.92.5 | ntu | 1.8 | 1.8 | 3.4 | 3.6 | 2.4 | — | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Location** | SW03 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
| | | | **Sample Date** | 2024-03-14 | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 |
| | | | **Sample ID** | SW3_20240314 | 20X608058-1165253 | SW4_20200717 | SW4_20200729 | SW4_20200811 | SW4_20200824 | SW4_20200908 |
| | | | **Lab Sample ID** | YQA661 | 1165253 | NDH754 | NFS558 | NIJ480 | NLM311 | NOK784 |
| | | | **Lab Job Number** | C476965 | 20X608058 | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | — | < 5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | — | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | < 5 | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | — | < 0.03 | < 0.050 | 0.080 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | — | 0.18 | 0.220 | 0.260 | 0.250 | 0.190 | 0.230 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | — | — | < 2.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | — | 0.34 | 0.320 | 0.320 | 0.340 | 0.350 | 0.370 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 32 | 39 | 59 | 45 | 51 | 44 | 44 |
| Chloride ion | | 2.1-13 | mg/l | 4.7 | 4 | 6.3 | 5.3 | 6.9 | 6.7 | 6.1 |
| Color | | 160-220 | tcu | — | 161 | 210 | 170 | 190 | 160 | 170 |
| Electrical Conductivity | | 20-68 | umhos/cm | 34 | 33 | 37 | 35 | 36 | 37 | 38 |
| Fluoride | | <0.12 | mg/l | — | < 0.12 | < 0.10 | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 4.9 | 4.9 | 5.8 | 5.8 | 6.4 | 6.8 | 7.6 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | — | 32.3 | 18.5 | 10.3 | 15.3 | 29.6 | 23.3 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | — | -5.62 | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | — | -5.94 | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | — | < 0.05 | < 0.050 | < 0.050 | 0.059 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | — | < 0.05 | < 0.050 | < 0.050 | 0.059 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | — | < 0.05 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | 0.7 | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | — | 0.01 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.56 | 5.08 | 5.08 | 5.38 | 6.05 | 5.97 | 6.09 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | — | 10.7 | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | — | 11.0 | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | — | < 0.004 | 0.12 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | — | 1.3 | 3.3 | 2.4 | 2.4 | 1.9 | 1.7 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 3 | 2.2 | 5.3 | 2.4 | < 2.0 | 2.8 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 36 | 14 | 19 | 20 | 19 | 16 | 19 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 11 | 15.3 | 22 | 18 | 16 | 16 | 14 |
| Total Suspended Solids | | | mg/l | < 1.0 | < 5 | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | — | 2.2 | 1.5 | 1.1 | 1.2 | 1.3 | 1.2 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-09-24 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-12-14 |
| | | | Sample ID | SW4_20200924 | SW4_20201006 | SW4_20201023 | SW4_20201105 | SW4_20201120 | SW4_20201130 | SW4_20201214 |
| | | | Lab Sample ID | NSF570 | NUV954 | NYW156 | OBU583 | OFF869 | OHD060 | OKO553 |
| | | | Lab Job Number | C0O8769 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 | C0V7696 | C0X3829 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.220 | 0.220 | 0.190 | 0.350 | 0.260 | 0.260 | 0.380 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | 3.2 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.370 | 0.390 | 0.470 | 0.480 | 0.450 | 0.490 | 0.450 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 86 | 66 | 76 | 78 | 74 | 62 | 63 |
| Chloride ion | | 2.1-13 | mg/l | 7.8 | 7.9 | 6.6 | 8.9 | 9.0 | 9.3 | 11 |
| Color | | 160-220 | tcu | 200 | 200 | 220 | 220 | 220 | 200 | 180 |
| Electrical Conductivity | | 20-68 | umhos/cm | 50 | 45 | 49 | 51 | 49 | 53 | 53 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 5.4 | 7.3 | 9.3 | 8.8 | 8.2 | 10 | 7.9 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 25.4 | 27.9 | 42.4 | 15.7 | 26.8 | 30.7 | 8.43 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.83 | 0.063 | < 0.050 | 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.83 | 0.063 | < 0.050 | 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.40 | 5.16 | 4.99 | 4.79 | 4.83 | 5.55 | 5.25 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 3.7 | 3.2 | 6.1 | 6.3 | 6.2 | 6.4 | 5.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | 2.1 | < 2.0 | < 2.0 | 2.3 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 19 | 19 | 22 | 31 | 25 | 26 | 29 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 28 | 22 | 24 | 27 | 25 | 23 | 25 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | 5.0 |
| Turbidity | | <0.92.5 | ntu | 4.3 | 1.4 | 5.3 | 14 | 7.9 | 13 | 11 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-28 | 2021-03-25 | 2021-03-30 | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 |
| | | | Sample ID | SW4_20201228 | SW4_20210325 | SW4_20210330 | SW4_20210408 | SW4_20210421 | SW4_20210505 | SW4_20210519 |
| | | | Lab Sample ID | OMT743 | PEB834 | PFK860 | PGQ137 | PJV224 | PMO070 | PPM342 |
| | | | Lab Job Number | C0Y4558 | C179941 | C186441 | C192270 | C1A7947 | C1C1117 | C1D5211 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | 5.3 | — | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | — | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | 5.3 | — | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.370 | 0.350 | — | 0.120 | 0.160 | 0.220 | 0.140 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 10 | — | < 5.5 | < 5.0 | < 5.0 | < 2.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.490 | 0.350 | — | 0.280 | 0.330 | 0.360 | 0.300 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 56 | 26 | — | 48 | 43 | 42 | 49 |
| Chloride ion | | 2.1-13 | mg/l | 11 | 6.9 | — | 4.3 | 5.5 | 6.0 | 5.1 |
| Color | | 160-220 | tcu | 150 | 130 | — | 180 | 160 | 190 | 170 |
| Electrical Conductivity | | 20-68 | umhos/cm | 54 | 37 | — | 32 | 33 | 36 | 32 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 11 | 7.4 | — | 4.9 | 6.5 | 7.1 | 5.4 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 14.0 | 0 | — | 40.0 | 34.7 | 24.1 | 36.4 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | -4.59 | — | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | -4.84 | — | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | — | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | — | 0.012 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.69 | 5.67 | — | 4.98 | 5.16 | 5.57 | 5.22 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | 10.3 | — | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | 10.5 | — | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | — | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.3 | 3.6 | — | 2.4 | 2.8 | 2.1 | 2.0 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 3.0 | 2.5 | — | < 2.0 | < 2.0 | 2.2 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 30 | 24 | — | 13 | 15 | 18 | 13 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 19 | 11 | — | 15 | 15 | 16 | 17 |
| Total Suspended Solids | | | mg/l | 8.6 | 2.8 | 12 | 1.7 | 5.2 | 4.4 | 3.0 |
| Turbidity | | <0.92.5 | ntu | 17 | 9.1 | — | 10 | 10 | 7.0 | 4.0 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 |
| | | | Sample ID | SW4_20210603 | SW4_20210614 | SW4_20210630 | SW4_20210714 | SW4_20210727 | SW4_20210811 | SW4_20210908 |
| | | | Lab Sample ID | PST790 | PVK699 | PZB779 | QCI562 | QFJ452 | QIT120 | QPN179 |
| | | | Lab Job Number | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | 5.1 | < 1.0 | 6.1 | 6.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | 5.1 | < 5.0 | 6.1 | 6.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.062 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.230 | 0.300 | 0.240 | 0.430 | 0.370 | 0.210 | 0.180 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 3.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.370 | 0.360 | 0.410 | 0.380 | 0.380 | 0.380 | 0.440 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 44 | 44 | 39 | 41 | 47 | 76 | 59 |
| Chloride ion | | 2.1-13 | mg/l | 5.7 | 3.9 | 5.5 | 5.6 | 6.4 | 7.4 | 6.3 |
| Color | | 160-220 | tcu | 170 | 160 | 170 | 130 | 140 | 230 | 230 |
| Electrical Conductivity | | 20-68 | umhos/cm | 37 | 37 | 40 | 40 | 39 | 38 | 41 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 8.2 | 7.2 | 7.9 | 7.3 | 7.3 | 6.3 | 9.4 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 23.3 | 9.09 | 26.2 | 6.17 | 1.33 | 28.8 | 41.9 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | -4.20 | NC | -3.97 | -4.03 | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | -4.45 | NC | -4.22 | -4.28 | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | 0.098 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | 0.098 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.97 | 6.08 | 6.11 | 6.24 | 6.18 | 4.87 | 6.08 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | 10.3 | NC | 10.2 | 10.2 | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | 10.5 | NC | 10.5 | 10.5 | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.3 | 2.2 | 1.5 | 1.5 | 0.95 | 4.1 | 4.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 3.4 | 4.2 | 3.8 | 7.3 | 3.4 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 19 | 21 | 20 | 26 | 23 | 19 | 21 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 15 | 16 | 14 | 14 | 13 | 26 | 22 |
| Total Suspended Solids | | | mg/l | 3.4 | 3.6 | 2.8 | 2.4 | 2.0 | 2.4 | 3.2 |
| Turbidity | | <0.92.5 | ntu | 6.1 | 4.3 | 3.2 | 8.3 | 1.8 | 4.2 | 2.4 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 |
| | | | Sample ID | SW4_20210923 | SW4_20211006 | SW4_20211019 | SW4_20211102 | SW4_20211121 | SW4_20211201 | DUP1_20211215 |
| | | | Lab Sample ID | QTA030 | QWG507 | QZA166 | RCV732 | RIY806 | RNH011 | RJJ620 |
| | | | Lab Job Number | C1R6341 | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.055 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.190 | 0.260 | 0.250 | 0.210 | 0.220 | 0.210 | 0.160 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | 2.5 | < 10 | < 5.0 | < 5.0 | < 10 |
| Cation Sum | | 0.15-44 | meq/l | 0.430 | 0.430 | 0.430 | 0.480 | 0.470 | 0.420 | 0.260 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 77 | 76 | 73 | 80 | 91 | 78 | 54 |
| Chloride ion | | 2.1-13 | mg/l | 6.8 | 9.2 | 8.9 | 7.6 | 7.8 | 7.4 | 5.6 |
| Color | | 160-220 | tcu | 270 | 240 | 220 | 240 | 250 | 240 | 190 |
| Electrical Conductivity | | 20-68 | umhos/cm | 43 | 43 | 42 | 50 | 50 | 46 | 36 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.9 | 8.1 | 8.5 | 9.2 | 8.9 | 7.8 | 3.3 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 38.7 | 24.6 | 26.5 | 39.1 | 36.2 | 33.3 | 23.8 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.055 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.055 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 5.80 | 5.69 | 5.65 | 5.56 | 4.91 | 4.78 | 4.83 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.1 | 6.0 | 5.5 | 5.9 | 5.4 | 4.2 | 2.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 21 | 25 | 24 | 24 | 23 | 20 | 14 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 30 | 27 | 22 | 28 | 28 | 25 | 20 |
| Total Suspended Solids | | | mg/l | 4.4 | 2.0 | 2.0 | 2.2 | 1.4 | 3.6 | 2.0 |
| Turbidity | | <0.92.5 | ntu | 1.9 | 2.9 | 2.9 | 3.4 | 2.7 | 4.5 | 2.6 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-31 | 2022-06-16 |
| | | | Sample ID | SW4_20211215 | SW4_20220324 | SW4_20220406 | SW4_20220419 | SW4_20220505 | SW4_20220531 | SW4_20220616 |
| | | | Lab Sample ID | RJJ617 | SEH102 | SHG307 | SJT839 | SNX123 | STQ320 | SXM269 |
| | | | Lab Job Number | C1Z2434 | C277826 | C290667 | C2A2126 | C2C1673 | C2E8059 | C2G6058 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | 6.8 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 5.0 | 6.8 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.140 | 0.420 | 0.160 | 0.200 | 0.170 | 0.180 | 0.130 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 | < 2.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.280 | 0.350 | 0.270 | 0.300 | 0.300 | 0.350 | 0.300 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 54 | 33 | 36 | < 20 | 39 | 74 | 65 |
| Chloride ion | | 2.1-13 | mg/l | 4.9 | 4.9 | 5.6 | 5.7 | 5.9 | 6.2 | 4.6 |
| Color | | 160-220 | tcu | 190 | 140 | 140 | 150 | 170 | 230 | 270 |
| Electrical Conductivity | | 20-68 | umhos/cm | 37 | 39 | 31 | 33 | 33 | 35 | 34 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 3.3 | 8.9 | 5.2 | 6.1 | 5.5 | 7.1 | 5.2 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 33.3 | 9.09 | 25.6 | 20.0 | 27.7 | 32.1 | 39.5 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | -3.74 | NC | NC | NC | NC | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | -3.99 | NC | NC | NC | NC | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.011 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 4.50 | 6.30 | 5.32 | 5.57 | 5.39 | 5.48 | 5.20 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | 10.0 | NC | NC | NC | NC | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | 10.3 | NC | NC | NC | NC | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.8 | 2.7 | 2.3 | 2.4 | 2.1 | 2.5 | 2.4 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 7.0 | < 2.0 | 2.1 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 13 | 26 | 14 | 16 | 14 | 16 | 13 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 19 | 12 | 12 | 12 | 14 | 21 | 21 |
| Total Suspended Solids | | | mg/l | 1.4 | 1.2 | 1.2 | 2.0 | 2.2 | < 2.0 | 1.8 |
| Turbidity | | <0.92.5 | ntu | 3.4 | 4.1 | 2.5 | 2.4 | 2.2 | 4.4 | 1.9 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-12-01 | 2024-03-14 |
| | | | Sample ID | SW4_20220627 | SW4_20220929 | SW4_20221214 | SW4_20230414 | SW4_20231012 | SW4_20231201 | SW4_20240314 |
| | | | Lab Sample ID | TAE936 | TWL534 | UPB185 | VNV582 | XGT437 | XTQ429 | YQA662 |
| | | | Lab Job Number | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3V7537 | C3AS035 | C476965 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — | — | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | — | — | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.066 | < 0.050 | < 0.050 | 0.059 | — | — | — |
| Anion Sum | | 0.06-0.6 | meq/l | 0.140 | 0.170 | 0.210 | 0.140 | — | — | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 10 | < 10 | < 5.0 | — | — | — |
| Cation Sum | | 0.15-44 | meq/l | 0.340 | 0.380 | 0.360 | 0.310 | — | — | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 67 | 89 | 58 | 35 | 59 | 57 | 29 |
| Chloride ion | | 2.1-13 | mg/l | 5.0 | 6.1 | 7.4 | 5.1 | 7.9 | 7.7 | 4.7 |
| Color | | 160-220 | tcu | 280 | 270 | 220 | 150 | — | — | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 34 | 45 | 44 | 33 | 48 | 53 | 35 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 6.9 | 7.2 | 6.3 | 6.0 | 7.8 | 6.7 | 4.1 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 41.7 | 38.2 | 26.3 | 37.8 | — | — | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | NC | NC | NC | NC | — | — | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | NC | NC | NC | NC | — | — | — |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — | — | — |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | — | — | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — | — |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — | — |
| pH, Lab | | 4.1-6.13 | ph units | 5.45 | 5.13 | 5.07 | 5.72 | 5.17 | 5.19 | 5.57 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | NC | NC | NC | NC | — | — | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | NC | NC | NC | NC | — | — | — |
| Phenol | 4 | <0.001-0.02 | mg/l | 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | — | — | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 3.1 | 4.1 | 3.9 | 2.6 | — | — | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 15 | 18 | 19 | 14 | 75 | 45 | 34 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 25 | 31 | 26 | 12 | 20 | 21 | 12 |
| Total Suspended Solids | | | mg/l | 1.0 | 1.2 | 12 | 3.4 | 4.2 | < 1.0 | 2.6 |
| Turbidity | | <0.92.5 | ntu | 0.96 | 2.2 | 3.0 | 1.8 | — | — | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-06-28 | 2024-11-07 | 2024-12-09 | 2025-03-04 | 2025-06-12 | 2018-11-08 | 2020-06-01 |
| | | | Sample ID | SW4_20240628 | SW4_20241107 | SW4_20241209 | SW4_20250304 | SW4_20250612 | SW13_20181108 | 20X608058-1165254 |
| | | | Lab Sample ID | ZOY056 | HA2402851-001 | HA2403221-001 | HA2500561-001 | HA2501804-013 | 9698395 | 1165254 |
| | | | Lab Job Number | C4J7367 | HA2402851 | HA2403221 | HA2500561 | HA2501804 | 18X408633 | 20X608058 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | < 5 | 10 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | — | — | — | — | — | < 10 | < 10 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | < 5 | < 5 |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 2.6 | 2.8 | 4.8 | < 2.0 | < 2.0 | < 5 | 10 |
| Ammonia-N | | <0.25-0.51 | mg/l | — | < 0.0050 | 0.0094 | 0.0113 | 0.0103 | 0.05 | < 0.03 |
| Anion Sum | | 0.06-0.6 | meq/l | — | — | 0.47 | — | — | 0.28 | 0.82 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | 5.8 | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | — | 2.3 | <2 | 2.3 | <2 | — | — |
| Cation Sum | | 0.15-44 | meq/l | — | — | 0.68 | — | — | 0.67 | 1.28 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 35 | 48 | 46 | 45 | 60 | — | 34 |
| Chloride ion | | 2.1-13 | mg/l | 6.6 | 8.67 | 9.12 | 6.61 | 4.78 | 7 | 17 |
| Color | | 160-220 | tcu | — | — | 156 | — | — | 218 | 92 |
| Electrical Conductivity | | 20-68 | umhos/cm | 43 | 59.6 | 62.9 | 40.7 | 33.8 | 61 | 115 |
| Fluoride | | <0.12 | mg/l | — | — | 0.024 | — | — | < 0.12 | < 0.12 |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 7.9 | 9.10 | 16.8 | 5.00 | 6.51 | 14.5 | 28.1 |
| Hydroxide (OH) | | | mg/l | — | — | < 1.0 | — | — | — | — |
| Ion Balance | | -13.9-45 | % | — | — | 145 | — | — | 40.7 | 22.2 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | — | — | -3.79 | — | — | -3.76 | -3.18 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | — | — | -4.04 | — | — | -4.08 | -3.50 |
| Nitrate (as N) | | <0.25 | mg/l | — | < 0.020 | 0.028 | < 0.020 | < 0.020 | < 0.05 | 0.15 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | — | — | 0.0280 | — | — | < 0.05 | 0.15 |
| Nitrite (as N) | | <0.25 | mg/l | — | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.05 | < 0.05 |
| Total Kjeldahl Nitrogen | | | mg/l | — | 0.542 | — | 0.331 | 0.434 | — | 1.0 |
| Orthophosphate(as P) | | <0.05 | mg/l | — | — | — | — | — | < 0.01 | 0.01 |
| pH, Lab | | 4.1-6.13 | ph units | 6.17 | 5.75 | 6.18 | 4.68 | 5.31 | 6.47 | 6.46 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | — | — | 9.97 | — | — | 10.2 | 9.64 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | — | — | 10.2 | — | — | 10.5 | 9.96 |
| Phenol | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | < 0.004 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | < 0.0010 | 0.0149 | < 0.0010 | < 0.0010 | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | — | — | — | — | — | 3.5 | 5.0 |
| Silica | | 1.6-6.5 | mg/l | — | — | 4.11 | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 2.4 | 7.54 | 5.64 | 2.49 | 1.86 | 4 | 6 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 53 | 71 | 72 | 34 | 44 | 24 | 56 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 13 | 17.6 | 18.6 | 14.8 | 21.4 | 16.1 | 12.9 |
| Total Suspended Solids | | | mg/l | 1.4 | 4.1 | — | < 3.0 | 3.0 | — | 13 |
| Turbidity | | <0.92.5 | ntu | — | — | 2.38 | — | — | 3.6 | 6.6 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-09-23 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-20 | 2020-11-30 |
| | | | Sample ID | SW13_20200923 | SW13_20201006 | SW13_20201023 | SW13_20201105 | SW13_20201120 | DUP1_20201120 | SW13_20201130 |
| | | | Lab Sample ID | NRV927 | NUV955 | NYW157 | OBU584 | OFF870 | OFF872 | OHD061 |
| | | | Lab Job Number | C0O7061 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 | C0U8920 | C0V7696 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 8.6 | 16 | 13 | 9.6 | 6.9 | 7.4 | 8.3 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 8.6 | 16 | 13 | 9.6 | 6.9 | 7.4 | 8.3 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.057 | < 0.050 | < 0.050 | < 0.050 | 0.060 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.680 | 1.59 | 0.900 | 1.02 | 0.610 | 0.610 | 0.730 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | 2.4 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.860 | 1.50 | 0.920 | 1.02 | 0.680 | 0.670 | 0.830 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 88 | 42 | 59 | 50 | 52 | 50 | 45 |
| Chloride ion | | 2.1-13 | mg/l | 12 | 25 | 18 | 24 | 15 | 15 | 18 |
| Color | | 160-220 | tcu | 160 | 100 | 150 | 130 | 130 | 130 | 130 |
| Electrical Conductivity | | 20-68 | umhos/cm | 74 | 160 | 100 | 110 | 70 | 70 | 91 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 22 | 45 | 22 | 22 | 16 | 16 | 19 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 11.7 | 2.91 | 1.10 | 0 | 5.43 | 4.69 | 6.41 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -3.19 | -2.30 | -2.91 | -3.13 | -3.71 | -3.65 | -3.10 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -3.44 | -2.55 | -3.16 | -3.39 | -3.96 | -3.90 | -3.35 |
| Nitrate (as N) | | <0.25 | mg/l | 0.11 | 0.058 | < 0.050 | 0.24 | 0.097 | 0.11 | 0.070 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.11 | 0.058 | < 0.050 | 0.24 | 0.097 | 0.11 | 0.070 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | 0.011 | 0.011 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.35 | 6.67 | 6.47 | 6.41 | 6.15 | 6.18 | 6.57 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.54 | 8.97 | 9.38 | 9.54 | 9.86 | 9.83 | 9.67 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 9.79 | 9.23 | 9.63 | 9.79 | 10.1 | 10.1 | 9.92 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 4.0 | 7.3 | 6.5 | 6.0 | 5.5 | 5.6 | 5.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 7.5 | 26 | 5.8 | 6.4 | 2.0 | 2.0 | 2.1 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 47 | 100 | 58 | 65 | 41 | 41 | 49 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 24 | 15 | 19 | 18 | 17 | 17 | 17 |
| Total Suspended Solids | | | mg/l | — | — | — | — | — | — | — |
| Turbidity | | <0.92.5 | ntu | 18 | 4.5 | 2.8 | 4.8 | 3.3 | 2.3 | 3.6 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-14 | 2020-12-28 | 2021-02-09 | 2021-03-25 | 2021-04-08 | 2021-04-08 | 2021-04-21 |
| | | | Sample ID | SW13_20201214 | SW13_20201228 | SW13_20210209 | SW13_20210325 | SW13_20210408 | DUP1_20210408 | DUP1_20210421 |
| | | | Lab Sample ID | OKO554 | OMT744 | OUR197 | PEB835 | PGQ138 | PGQ141 | PJV228 |
| | | | Lab Job Number | C0X3829 | C0Y4558 | C135682 | C179941 | C192270 | C192270 | C1A7947 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 6.1 | 8.4 | — | 6.3 | 7.9 | 6.4 | 9.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | — | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 6.1 | 8.4 | — | 6.3 | 7.9 | 6.4 | 9.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | — | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.680 | 0.910 | — | 0.590 | 0.500 | 0.410 | 0.570 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | — | < 10 | < 5.5 | < 5.5 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.710 | 0.840 | — | 0.550 | 0.550 | 0.550 | 0.730 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 46 | 49 | — | 31 | 46 | 43 | 26 |
| Chloride ion | | 2.1-13 | mg/l | 17 | 22 | — | 15 | 10 | 9.7 | 14 |
| Color | | 160-220 | tcu | 130 | 110 | — | 110 | 98 | 120 | 120 |
| Electrical Conductivity | | 20-68 | umhos/cm | 70 | 94 | — | 67 | 58 | 58 | 68 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 16 | 20 | — | 11 | 11 | 11 | 15 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 2.16 | 4.00 | — | 3.51 | 4.76 | 14.6 | 12.3 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -3.68 | -3.09 | — | -3.74 | -3.64 | -3.64 | -3.19 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -3.93 | -3.34 | — | -4.00 | -3.90 | -3.89 | -3.44 |
| Nitrate (as N) | | <0.25 | mg/l | 0.23 | 0.17 | — | 0.12 | 0.093 | 0.11 | 0.051 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.23 | 0.17 | — | 0.12 | 0.093 | 0.11 | 0.051 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | — | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | 0.026 | — | < 0.010 | < 0.010 | < 0.010 | 0.018 |
| pH, Lab | | 4.1-6.13 | ph units | 6.23 | 6.56 | — | 6.32 | 6.28 | 6.38 | 6.56 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.91 | 9.65 | — | 10.1 | 9.93 | 10.0 | 9.75 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.2 | 9.90 | — | 10.3 | 10.2 | 10.3 | 10.0 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | — | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 4.9 | 4.3 | — | 3.6 | 3.2 | 3.1 | 3.4 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 2.7 | 5.9 | — | 2.3 | 2.0 | < 2.0 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 45 | 55 | — | 36 | 32 | 29 | 38 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 19 | 16 | — | 11 | 13 | 12 | 12 |
| Total Suspended Solids | | | mg/l | < 3.9 | 9.5 | 1.4 | 1.8 | 2.2 | 1.6 | 1.6 |
| Turbidity | | <0.92.5 | ntu | 4.4 | 23 | — | 12 | 5.2 | 5.2 | 3.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-21 | 2021-05-05 | 2021-05-05 | 2021-05-19 | 2021-05-19 | 2021-06-03 | 2021-06-14 |
| | | | Sample ID | SW13_20210421 | SW13_20210505 | DUP1_20210505 | DUP1_20210519 | SW13_20210519 | SW13_20210603 | DUP1_20210614 |
| | | | Lab Sample ID | PJV225 | PMO071 | PMO075 | PPM345 | PPM343 | PST791 | PVK703 |
| | | | Lab Job Number | C1A7947 | C1C1117 | C1C1117 | C1D5211 | C1D5211 | C1F0842 | C1G3518 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 8.7 | 10 | 9.7 | 15 | 15 | 12 | 65 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 8.7 | 10 | 9.7 | 15 | 15 | 12 | 66 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.059 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.570 | 0.720 | 0.680 | 0.830 | 0.830 | 0.670 | 2.91 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 2.0 | < 2.0 | < 3.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.700 | 0.730 | 0.750 | 0.950 | 0.900 | 0.700 | 2.33 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 26 | 33 | 37 | 37 | 39 | 44 | 41 |
| Chloride ion | | 2.1-13 | mg/l | 14 | 15 | 14 | 17 | 17 | 12 | 53 |
| Color | | 160-220 | tcu | 110 | 130 | 120 | 91 | 100 | 180 | 110 |
| Electrical Conductivity | | 20-68 | umhos/cm | 69 | 76 | 75 | 92 | 92 | 70 | 300 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 14 | 16 | 17 | 21 | 21 | 16 | 52 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 10.2 | 0.690 | 4.90 | 6.74 | 4.05 | 2.19 | 11.1 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -3.31 | -3.02 | -3.01 | -2.39 | -2.51 | -2.93 | -1.27 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -3.57 | -3.28 | -3.27 | -2.64 | -2.76 | -3.19 | -1.52 |
| Nitrate (as N) | | <0.25 | mg/l | 0.051 | 0.067 | 0.067 | 0.052 | 0.062 | 0.089 | 0.059 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.051 | 0.067 | 0.067 | 0.052 | 0.062 | 0.089 | 0.059 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | 0.010 | 0.012 | 0.011 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.46 | 6.63 | 6.64 | 6.97 | 6.85 | 6.63 | 7.08 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.78 | 9.65 | 9.65 | 9.36 | 9.37 | 9.56 | 8.35 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.0 | 9.90 | 9.91 | 9.61 | 9.62 | 9.81 | 8.60 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 3.4 | 3.4 | 3.4 | 3.7 | 3.8 | 4.0 | 6.2 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 5.0 | 3.9 | 2.1 | 2.5 | 4.3 | 5.5 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 37 | 45 | 44 | 52 | 52 | 43 | 150 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 12 | 13 | 13 | 13 | 13 | 16 | 14 |
| Total Suspended Solids | | | mg/l | 1.8 | < 2.0 | < 2.0 | 1.0 | 2.8 | < 1.0 | 11 |
| Turbidity | | <0.92.5 | ntu | 3.5 | 3.2 | 3.5 | 4.0 | 2.2 | 3.4 | 17 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-14 | 2021-06-30 | 2021-06-30 | 2021-07-14 | 2021-07-14 | 2021-07-27 | 2021-07-27 |
| | | | Sample ID | SW13_20210614 | SW13_20210630 | DUP1_20210630 | SW13_20210714 | DUP1_20210714 | DUP1_20210727 | SW13_20210727 |
| | | | Lab Sample ID | PVK700 | PZB780 | PZB782 | QCI563 | QCI565 | QFJ456 | QFJ453 |
| | | | Lab Job Number | C1G3518 | C1I1014 | C1I1014 | C1J6542 | C1J6542 | C1L1105 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 58 | 51 | 81 | 85 | 79 | 71 | 82 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 58 | 51 | 82 | 85 | 79 | 71 | 82 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.097 | 0.079 | 0.11 | 0.14 | 0.10 | 0.074 | 0.084 |
| Anion Sum | | 0.06-0.6 | meq/l | 2.92 | 2.25 | 3.31 | 3.47 | 3.26 | 3.44 | 3.51 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | 5.3 | 4.4 | 4.9 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 2.17 | 1.95 | 3.80 | 3.43 | 3.70 | 3.53 | 3.32 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 41 | 48 | 74 | 62 | 68 | 75 | 73 |
| Chloride ion | | 2.1-13 | mg/l | 54 | 41 | 57 | 58 | 55 | 61 | 63 |
| Color | | 160-220 | tcu | 92 | 130 | 130 | 100 | 100 | 180 | 190 |
| Electrical Conductivity | | 20-68 | umhos/cm | 310 | 250 | 360 | 350 | 330 | 340 | 350 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 49 | 46 | 74 | 67 | 73 | 72 | 68 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 14.7 | 7.14 | 6.89 | 0.580 | 6.32 | 1.29 | 2.78 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -1.35 | -1.26 | -0.975 | -0.646 | -1.03 | -1.46 | -1.29 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -1.60 | -1.51 | -1.23 | -0.895 | -1.28 | -1.71 | -1.54 |
| Nitrate (as N) | | <0.25 | mg/l | 0.80 | < 0.050 | < 0.050 | 0.067 | 0.061 | 0.14 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.80 | < 0.050 | < 0.050 | 0.067 | 0.061 | 0.14 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | 0.010 | 0.010 | 0.011 | 0.011 | 0.012 | 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 7.08 | 7.25 | 7.14 | 7.50 | 7.10 | 6.76 | 6.89 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 8.43 | 8.51 | 8.12 | 8.14 | 8.13 | 8.22 | 8.18 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 8.68 | 8.76 | 8.37 | 8.39 | 8.38 | 8.47 | 8.43 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | 0.0015 | 0.0029 | 0.0025 | 0.0038 | 0.0028 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 6.4 | 6.3 | 7.2 | 7.9 | 7.8 | 7.9 | 7.9 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 8.3 | 3.2 | 3.1 | 5.3 | 6.0 | 15 | 4.2 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 150 | 120 | 200 | 200 | 200 | 210 | 200 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 15 | 14 | 18 | 21 | 20 | 19 | 19 |
| Total Suspended Solids | | | mg/l | 11 | 52 | 33 | 42 | 22 | 23 | 30 |
| Turbidity | | <0.92.5 | ntu | 9.0 | 14 | 44 | 21 | 15 | 20 | 24 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-08-11 | 2021-08-11 | 2021-09-01 | 2021-09-08 | 2021-09-08 | 2021-09-23 | 2021-10-06 |
| | | | Sample ID | DUP1_20210811 | SW13_20210811 | SW13_20210901 | DUP1_20210908 | SW13_20210908 | SW13_20210923 | SW13_20211006 |
| | | | Lab Sample ID | QIT124 | QIT121 | QNT693 | QPN183 | QPN180 | QTA031 | QWG508 |
| | | | Lab Job Number | C1M6832 | C1M6832 | C1P1197 | C1P9560 | C1P9560 | C1R6341 | C1T1039 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 25 | 21 | 21 | 25 | 23 | 73 | 30 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 25 | 21 | 21 | 25 | 23 | 73 | 30 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.059 | < 0.050 | 0.067 | 0.062 |
| Anion Sum | | 0.06-0.6 | meq/l | 1.45 | 1.15 | 1.28 | 1.23 | 1.17 | 3.43 | 1.87 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 1.17 | 1.22 | 1.34 | 1.47 | 1.47 | 3.26 | 1.74 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 58 | 63 | 46 | 54 | 66 | 37 | 45 |
| Chloride ion | | 2.1-13 | mg/l | 25 | 23 | 26 | 23 | 22 | 66 | 39 |
| Color | | 160-220 | tcu | 150 | 160 | 110 | 110 | 130 | 100 | 100 |
| Electrical Conductivity | | 20-68 | umhos/cm | 130 | 110 | 140 | 140 | 130 | 370 | 190 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 28 | 30 | 33 | 37 | 37 | 72 | 41 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 10.7 | 2.95 | 2.29 | 8.89 | 11.4 | 2.54 | 3.60 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -2.31 | -2.43 | -2.14 | -2.00 | -2.06 | -1.19 | -1.91 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -2.56 | -2.68 | -2.39 | -2.25 | -2.31 | -1.44 | -2.16 |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | < 0.050 | 0.065 | 0.083 | 0.097 | < 0.050 | 0.067 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | < 0.050 | 0.065 | 0.083 | 0.097 | < 0.050 | 0.067 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | 0.013 | 0.013 | 0.013 | 0.011 | 0.011 | < 0.010 | 0.011 |
| pH, Lab | | 4.1-6.13 | ph units | 6.71 | 6.64 | 6.91 | 6.88 | 6.84 | 6.97 | 6.86 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.02 | 9.07 | 9.05 | 8.88 | 8.90 | 8.16 | 8.77 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 9.27 | 9.32 | 9.30 | 9.13 | 9.16 | 8.41 | 9.03 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 6.6 | 6.6 | 7.3 | 6.9 | 6.9 | 8.7 | 7.0 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 12 | 3.9 | 6.4 | 3.6 | 3.2 | 4.9 | 6.7 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 83 | 72 | 81 | 80 | 78 | 200 | 110 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 20 | 19 | 17 | 17 | 17 | 14 | 15 |
| Total Suspended Solids | | | mg/l | 6.4 | 3.6 | 16 | 2.6 | 6.8 | 17 | 16 |
| Turbidity | | <0.92.5 | ntu | 5.1 | 7.1 | 2.5 | 9.3 | 20 | 36 | 3.9 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-04-06 |
| | | | Sample ID | SW13_20211019 | SW13_20211102 | SW13_20211121 | SW13_20211201 | SW13_20211215 | SW13_20220324 | SW13_20220406 |
| | | | Lab Sample ID | QZA167 | RCV733 | RIY807 | RNH013 | RJJ618 | SEH103 | SHG308 |
| | | | Lab Job Number | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 | C290667 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 14 | 7.8 | 8.5 | 5.7 | 7.3 | 8.7 | < 1.0 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 14 | 7.8 | 8.5 | 5.7 | 7.3 | 8.7 | < 2.0 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 1.11 | 0.600 | 0.650 | 0.450 | 0.460 | 0.680 | 0.290 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 10 | < 5.0 | < 5.0 | < 10 | < 10 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 1.53 | 0.750 | 0.780 | 0.570 | 0.600 | 0.700 | 0.520 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 47 | 66 | 55 | 59 | 37 | 26 | 32 |
| Chloride ion | | 2.1-13 | mg/l | 27 | 14 | 15 | 11 | 11 | 15 | 10 |
| Color | | 160-220 | tcu | 140 | 200 | 150 | 170 | 130 | 100 | 120 |
| Electrical Conductivity | | 20-68 | umhos/cm | 120 | 78 | 82 | 63 | 58 | 79 | 55 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 39 | 18 | 18 | 13 | 13 | 13 | 11 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 15.9 | 11.1 | 9.09 | 11.8 | 13.2 | 1.45 | 28.4 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -2.49 | -3.30 | -3.47 | -4.08 | -3.63 | -3.18 | NC |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -2.74 | -3.55 | -3.72 | -4.33 | -3.89 | -3.43 | NC |
| Nitrate (as N) | | <0.25 | mg/l | < 0.050 | 0.14 | 0.19 | 0.14 | 0.12 | 0.15 | 0.13 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | < 0.050 | 0.14 | 0.19 | 0.14 | 0.12 | 0.15 | 0.13 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | 0.014 | 0.012 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.64 | 6.45 | 6.23 | 5.95 | 6.27 | 6.64 | 6.48 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.13 | 9.75 | 9.70 | 10.0 | 9.91 | 9.82 | NC |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 9.38 | 10.0 | 9.95 | 10.3 | 10.2 | 10.1 | NC |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 6.5 | 5.5 | 5.4 | 4.3 | 3.4 | 2.8 | 2.9 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 3.9 | 2.6 | 2.1 | < 2.0 | < 2.0 | 3.8 | < 2.0 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 78 | 43 | 45 | 32 | 32 | 42 | 25 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 15 | 24 | 20 | 18 | 14 | 9.3 | 11 |
| Total Suspended Solids | | | mg/l | 4.8 | 2.0 | 2.0 | 2.2 | 1.4 | 1.0 | 2.2 |
| Turbidity | | <0.92.5 | ntu | 4.7 | 3.9 | 2.6 | 2.6 | 2.4 | 4.5 | 8.7 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-19 | 2022-04-19 | 2022-05-05 | 2022-05-05 | 2022-05-19 | 2022-05-19 | 2022-05-31 |
| | | | Sample ID | DUP1_20220419 | SW13_20220419 | DUP1_20220505 | SW13_20220505 | DUP1_20220519 | SW13_20220519 | DUP1_20220531 |
| | | | Lab Sample ID | SJT842 | SJT840 | SNX126 | SNX124 | SRB991 | SRB989 | STQ323 |
| | | | Lab Job Number | C2A2126 | C2A2126 | C2C1673 | C2C1673 | C2D6425 | C2D6425 | C2E8059 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 6.1 | 8.9 | 5.7 | 5.5 | 6.2 | 4.0 | 2.4 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 6.1 | 8.9 | 5.7 | 5.5 | 6.2 | 4.0 | 2.4 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | 0.052 | 0.14 | < 0.050 | 0.076 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.580 | 0.650 | 0.360 | 0.360 | 0.510 | 0.450 | 0.410 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 2.0 |
| Cation Sum | | 0.15-44 | meq/l | 0.670 | 0.730 | 0.580 | 0.570 | 0.610 | 0.650 | 0.610 |
| Chemical Oxygen Demand | | 40-53 | mg/l | < 20 | < 20 | 50 | 58 | 34 | 32 | 57 |
| Chloride ion | | 2.1-13 | mg/l | 14 | 14 | 8.6 | 8.5 | 12 | 11 | 11 |
| Color | | 160-220 | tcu | 120 | 120 | 150 | 140 | 140 | 130 | 180 |
| Electrical Conductivity | | 20-68 | umhos/cm | 75 | 72 | 54 | 53 | 66 | 67 | 63 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 15 | 17 | 13 | 12 | 14 | 15 | 14 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 7.20 | 5.80 | 23.4 | 22.6 | 8.93 | 18.2 | 19.6 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -3.18 | -3.07 | -3.34 | -3.47 | -3.21 | -3.28 | -3.70 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -3.43 | -3.32 | -3.59 | -3.72 | -3.46 | -3.54 | -3.95 |
| Nitrate (as N) | | <0.25 | mg/l | 0.15 | 0.15 | 0.088 | 0.086 | < 0.050 | < 0.050 | 0.081 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.15 | 0.15 | 0.088 | 0.086 | < 0.050 | < 0.050 | 0.081 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.72 | 6.65 | 6.69 | 6.58 | 6.72 | 6.82 | 6.64 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.90 | 9.72 | 10.0 | 10.0 | 9.93 | 10.1 | 10.3 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.2 | 9.97 | 10.3 | 10.3 | 10.2 | 10.4 | 10.6 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 2.9 | 2.8 | 3.0 | 3.1 | 2.8 | 2.9 | 3.7 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 3.1 | 3.5 | < 2.0 | < 2.0 | 2.5 | 2.5 | 2.1 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 38 | 41 | 28 | 28 | 34 | 33 | 31 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 12 | 12 | 16 | 16 | 13 | 13 | 17 |
| Total Suspended Solids | | | mg/l | 1.6 | 1.6 | 3.0 | 3.0 | 1.4 | 1.8 | 1.2 |
| Turbidity | | <0.92.5 | ntu | 4.7 | 4.1 | 7.4 | 6.9 | 3.3 | 4.0 | 2.8 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Location** | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
| | | | **Sample Date** | 2022-05-31 | 2022-06-16 | 2022-06-16 | 2022-06-27 | 2022-06-27 | 2022-09-29 | 2022-09-29 |
| | | | **Sample ID** | SW13_20220531 | DUP1_20220616 | SW13_20220616 | DUP1_20220627 | SW13_20220627 | DUP1_20220929 | SW13_20220929 |
| | | | **Lab Sample ID** | STQ321 | SXM272 | SXM270 | TAE939 | TAE937 | TWL538 | TWL535 |
| | | | **Lab Job Number** | C2E8059 | C2G6058 | C2G6058 | C2H8426 | C2H8426 | C2S2675 | C2S2675 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 4.4 | 14 | 9.3 | 25 | 32 | 2.9 | 6.6 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 4.4 | 14 | 9.3 | 25 | 32 | 2.9 | 6.6 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.057 | < 0.050 |
| Anion Sum | | 0.06-0.6 | meq/l | 0.410 | 0.660 | 0.520 | 1.07 | 1.31 | 0.480 | 0.550 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 2.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 10 | < 10 |
| Cation Sum | | 0.15-44 | meq/l | 0.610 | 0.650 | 0.650 | 1.59 | 1.57 | 0.690 | 0.690 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 62 | 51 | 56 | 55 | 86 | 75 | 67 |
| Chloride ion | | 2.1-13 | mg/l | 11 | 11 | 11 | 18 | 21 | 11 | 11 |
| Color | | 160-220 | tcu | 170 | 200 | 200 | 190 | 190 | 170 | 180 |
| Electrical Conductivity | | 20-68 | umhos/cm | 63 | 72 | 67 | 130 | 150 | 66 | 68 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 14 | 15 | 15 | 39 | 38 | 16 | 16 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 19.6 | 0.760 | 11.1 | 19.6 | 9.03 | 18.0 | 11.3 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -3.46 | -2.79 | -2.97 | -1.69 | -1.50 | -3.79 | -3.42 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -3.71 | -3.04 | -3.22 | -1.94 | -1.76 | -4.04 | -3.67 |
| Nitrate (as N) | | <0.25 | mg/l | 0.080 | 0.15 | 0.14 | 0.15 | 0.14 | 0.059 | < 0.050 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.080 | 0.15 | 0.14 | 0.15 | 0.14 | 0.059 | < 0.050 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | 0.010 | 0.010 | 0.011 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 6.62 | 6.73 | 6.74 | 7.15 | 7.22 | 6.40 | 6.41 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 10.1 | 9.53 | 9.71 | 8.83 | 8.73 | 10.2 | 9.83 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 10.3 | 9.78 | 9.96 | 9.08 | 8.98 | 10.4 | 10.1 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 3.7 | 4.2 | 4.1 | 5.6 | 5.9 | 4.9 | 5.0 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | < 2.0 | 2.1 | < 2.0 | 2.4 | 3.4 | 5.4 | 5.5 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 31 | 41 | 35 | 76 | 84 | 37 | 40 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 17 | 18 | 19 | 20 | 19 | 22 | 22 |
| Total Suspended Solids | | | mg/l | 3.0 | 1.0 | 1.6 | 4.0 | 4.0 | < 1.0 | < 1.0 |
| Turbidity | | <0.92.5 | ntu | 2.6 | 3.0 | 3.0 | 6.1 | 7.0 | 2.6 | 2.9 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-10-12 | 2023-12-01 | 2024-03-14 | 2024-06-28 |
| | | | Sample ID | SW13_20221214 | SW13_20230414 | SW13_20231012 | SWDUP1_20231012 | SW13_20231201 | SW13_20240314 | SW13_20240628 |
| | | | Lab Sample ID | UPB186 | VNV583 | XGT438 | XGT441 | XTQ430 | YQA663 | ZOY057 |
| | | | Lab Job Number | C2AH933 | C3A4090 | C3V7537 | C3V7537 | C3AS035 | C476965 | C4J7367 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 8.0 | 7.6 | — | — | — | — | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | — | — | — | — | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 8.0 | 7.6 | 11 | 12 | 4.8 | 4.0 | 12 |
| Ammonia-N | | <0.25-0.51 | mg/l | < 0.050 | 0.057 | — | — | — | — | — |
| Anion Sum | | 0.06-0.6 | meq/l | 0.790 | 0.710 | — | — | — | — | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 10 | < 5.0 | — | — | — | — | — |
| Cation Sum | | 0.15-44 | meq/l | 0.830 | 0.830 | — | — | — | — | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 32 | 23 | 33 | 33 | 29 | < 20 | 37 |
| Chloride ion | | 2.1-13 | mg/l | 17 | 17 | 20 | 22 | 13 | 12 | 18 |
| Color | | 160-220 | tcu | 100 | 80 | — | — | — | — | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 85 | 92 | 120 | 120 | 78 | 76 | 120 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 20 | 19 | 29 | 27 | 16 | 12 | 23 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 2.47 | 7.79 | — | — | — | — | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | -2.77 | -2.85 | — | — | — | — | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | -3.03 | -3.10 | — | — | — | — | — |
| Nitrate (as N) | | <0.25 | mg/l | 0.16 | 0.12 | — | — | — | — | — |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.16 | 0.12 | — | — | — | — | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | — | — | — | — | — |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | — | — | — | — | — |
| pH, Lab | | 4.1-6.13 | ph units | 6.88 | 6.85 | 6.87 | 6.93 | 6.49 | 6.51 | 7.03 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 9.65 | 9.69 | — | — | — | — | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 9.91 | 9.94 | — | — | — | — | — |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | — | — | — | — | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 5.4 | 2.6 | — | — | — | — | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 6.4 | 3.8 | 4.1 | 3.5 | < 2.0 | 3.9 | 2.9 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 52 | 46 | 95 | 85 | 70 | 53 | 97 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 12 | 9.1 | 11 | 11 | 13 | 8.4 | 15 |
| Total Suspended Solids | | | mg/l | 1.2 | < 1.0 | 3.2 | 2.8 | 1.0 | 1.2 | 1.0 |
| Turbidity | | <0.92.5 | ntu | 1.6 | 1.4 | — | — | — | — | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-11-07 | 2024-11-07 | 2024-12-09 | 2024-12-09 | 2025-03-04 | 2025-03-04 | 2025-06-12 |
| | | | Sample ID | SW13_20241107 | DUP1_20241107 | SW13_20241209 | DUP1_20241209 | DUP1_20250304 | SW13_20250304 | DUP1_20250612 |
| | | | Lab Sample ID | HA2402851-002 | HA2402851-003 | HA2403221-002 | HA2403221-004 | HA2500561-003 | HA2500561-002 | HA2501804-016 |
| | | | Lab Job Number | HA2402851 | HA2402851 | HA2403221 | HA2403221 | HA2500561 | HA2500561 | HA2501804 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 24.8 | 24.4 | 4.0 | 182 | 4.5 | 4.5 | 6.1 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.0257 | 0.0287 | 0.0121 | 0.0979 | 0.0389 | 0.0381 | 0.0237 |
| Anion Sum | | 0.06-0.6 | meq/l | — | — | 0.68 | 6.72 | — | — | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | 4.8 | 222 | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | <2 | <2 | <2 | <2 | <2.0 | <2.0 | <2 |
| Cation Sum | | 0.15-44 | meq/l | — | — | 0.87 | 6.71 | — | — | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 28 | 21 | 45 | 28 | 33 | 31 | 55 |
| Chloride ion | | 2.1-13 | mg/l | 39.5 | 39.1 | 17.4 | 11.6 | 23.2 | 23.0 | 11.2 |
| Color | | 160-220 | tcu | — | — | 138 | 56.1 | — | — | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 197 | 197 | 90.9 | 628 | 105 | 103 | 64.7 |
| Fluoride | | <0.12 | mg/l | — | — | 0.021 | 0.072 | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 49.8 | 49.1 | 18.4 | 295 | 16.2 | 16.4 | 13.2 |
| Hydroxide (OH) | | | mg/l | — | — | < 1.0 | < 1.0 | — | — | — |
| Ion Balance | | -13.9-45 | % | — | — | 128 | 99.8 | — | — | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | — | — | -3.88 | 0.336 | — | — | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | — | — | -4.14 | 0.088 | — | — | — |
| Nitrate (as N) | | <0.25 | mg/l | 0.037 | 0.037 | 0.151 | 0.025 | 0.273 | 0.273 | 0.127 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | — | — | 0.151 | 0.0250 | — | — | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | 0.420 | 0.370 | — | — | 0.409 | 0.384 | 0.486 |
| Orthophosphate(as P) | | <0.05 | mg/l | — | — | — | — | — | — | — |
| pH, Lab | | 4.1-6.13 | ph units | 7.04 | 6.89 | 6.17 | 7.52 | 6.35 | 6.30 | 6.28 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | — | — | 10.0 | 7.18 | — | — | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | — | — | 10.3 | 7.43 | — | — | — |
| Phenol | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | 0.0028 | < 0.0010 | < 0.0010 | 0.0030 | < 0.0010 | < 0.0010 | 0.0019 |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Silica | | 1.6-6.5 | mg/l | — | — | 5.18 | 7.59 | — | — | — |
| Sulphate | | <5-6 | mg/l | 6.44 | 6.39 | 4.88 | 132 | 3.82 | 3.77 | 2.61 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 135 | 127 | 84 | 366 | 70 | 66 | 69 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 11.0 | 16.6 | 16.9 | 10.2 | 11.6 | 11.8 | 20.3 |
| Total Suspended Solids | | | mg/l | 23.1 | < 3.0 | — | — | < 3.0 | < 3.0 | < 3.0 |
| Turbidity | | <0.92.5 | ntu | — | — | 3.53 | 12.6 | — | — | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW14 | SW14 | SW14 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2025-06-12 | 2018-11-08 | 2020-09-23 | 2021-03-25 | 2019-07-23 | 2020-06-01 | 2020-09-23 |
| | | | Sample ID | SW13_20250612 | SW14_20181108 | SW14_20200923 | SW14_20210325 | 19X496499-374957 | 20X608058-1165255 | SW19-20_20200923 |
| | | | Lab Sample ID | HA2501804-014 | 9698396 | NRV928 | PEB836 | 374957 | 1165255 | NRV929 |
| | | | Lab Job Number | HA2501804 | 18X408633 | C0O7061 | C179941 | 19X496499 | 20X608058 | C0O7061 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | 322 | 206 | 140 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | — | — | — | — | < 10 | < 10 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | < 5 | < 5 | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 5.9 | — | — | — | 322 | 206 | 140 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.0224 | — | — | — | 0.09 | < 0.03 | 0.054 |
| Anion Sum | | 0.06-0.6 | meq/l | — | — | — | — | 18.7 | 11.3 | 5.58 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | <2 | — | — | — | — | — | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | — | — | — | — | 17.8 | 12.9 | 6.36 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 52 | — | — | — | — | 30 | 35 |
| Chloride ion | | 2.1-13 | mg/l | 10.6 | — | — | — | 19 | 17 | 8.8 |
| Color | | 160-220 | tcu | — | — | — | — | 18 | 21 | 34 |
| Electrical Conductivity | | 20-68 | umhos/cm | 61.4 | — | — | — | 1540 | 1070 | 550 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | 0.33 | 0.18 | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 13.4 | — | — | — | 793 | 545 | 270 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | — | — | — | — | 2.6 | 6.5 | 6.53 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | — | — | — | — | 1.13 | 0.46 | 0.553 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | — | — | — | — | 0.81 | 0.14 | 0.304 |
| Nitrate (as N) | | <0.25 | mg/l | 0.136 | — | — | — | 0.58 | 0.07 | 0.44 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | — | — | — | — | 0.58 | 0.07 | 0.45 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | — | — | — | < 0.05 | < 0.05 | 0.011 |
| Total Kjeldahl Nitrogen | | | mg/l | 0.490 | — | — | — | — | 0.90 | — |
| Orthophosphate(as P) | | <0.05 | mg/l | — | < 0.01 | < 0.010 | < 0.010 | < 0.01 | 0.02 | 0.012 |
| pH, Lab | | 4.1-6.13 | ph units | 6.29 | 8.04 | 7.82 | 7.95 | 7.87 | 7.54 | 7.86 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | — | 7.52 | 7.54 | 7.38 | 6.74 | 7.08 | 7.31 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | — | 7.84 | 7.79 | 7.63 | 7.06 | 7.40 | 7.56 |
| Phenol | 4 | <0.001-0.02 | mg/l | — | — | < 0.0010 | < 0.0010 | — | < 0.004 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | < 0.0010 | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | — | 10.5 | 11 | 9.2 | 14.2 | 14.0 | 19 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 2.29 | 36 | 77 | 58 | 562 | 322 | 120 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 72 | 232 | 240 | 290 | 1130 | 721 | 370 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 21.4 | 6.2 | 13 | 10 | 12.5 | 11.6 | 10 |
| Total Suspended Solids | | | mg/l | < 3.0 | — | — | 33 | — | 13 | — |
| Turbidity | | <0.92.5 | ntu | — | 264 | 7.7 | 24 | 2.2 | 10.2 | 280 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-04-08 |
| | | | Sample ID | SW19-20_20201006 | SW19-20_20201023 | SW19-20_20201105 | SW19-20_20201130 | SW19-20_20201214 | SW19-20_20201228 | SW19-20_20210408 |
| | | | Lab Sample ID | NUV956 | NYW159 | OBU585 | OHD062 | OKO555 | OMT745 | PGQ139 |
| | | | Lab Job Number | C0Q0953 | C0R9712 | C0T3354 | C0V7696 | C0X3829 | C0Y4558 | C192270 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 200 | 240 | 140 | 230 | 210 | 130 | 210 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 200 | 240 | 140 | 240 | 210 | 130 | 210 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.12 | 0.13 | < 0.050 | 0.36 | 0.12 | 0.55 | 0.16 |
| Anion Sum | | 0.06-0.6 | meq/l | 8.53 | 11.6 | 7.05 | 17.7 | 10.2 | 8.54 | 9.18 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | 2.9 | < 10 | < 10 | < 5.0 | < 5.0 | < 5.0 | < 5.5 |
| Cation Sum | | 0.15-44 | meq/l | 8.02 | 11.1 | 7.05 | 18.2 | 10.7 | 8.46 | 8.92 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 30 | 43 | 26 | 52 | 31 | 39 | 32 |
| Chloride ion | | 2.1-13 | mg/l | 15 | 19 | 17 | 36 | 26 | 29 | 21 |
| Color | | 160-220 | tcu | 29 | 14 | 19 | 14 | 8.7 | 13 | 11 |
| Electrical Conductivity | | 20-68 | umhos/cm | 730 | 990 | 670 | 1500 | 910 | 770 | 840 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 350 | 480 | 300 | 810 | 460 | 340 | 390 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 3.08 | 2.24 | 0 | 1.25 | 2.21 | 0.470 | 1.44 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | 0.447 | 0.460 | 0.310 | 0.888 | 0.409 | 0.218 | 0.549 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | 0.199 | 0.213 | 0.0620 | 0.643 | 0.162 | -0.0300 | 0.302 |
| Nitrate (as N) | | <0.25 | mg/l | 0.12 | 0.069 | 0.33 | 0.36 | < 0.050 | 0.51 | 0.076 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.12 | 0.069 | 0.35 | 0.41 | < 0.050 | 0.52 | 0.076 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | 0.019 | 0.049 | < 0.010 | 0.017 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.013 |
| pH, Lab | | 4.1-6.13 | ph units | 7.52 | 7.36 | 7.59 | 7.63 | 7.38 | 7.52 | 7.59 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 7.08 | 6.91 | 7.28 | 6.75 | 6.97 | 7.30 | 7.04 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 7.33 | 7.15 | 7.53 | 6.99 | 7.22 | 7.55 | 7.29 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 13 | 14 | 10 | 8.8 | 11 | 7.9 | 8.6 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 200 | 300 | 180 | 580 | 250 | 240 | 210 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 510 | 710 | 440 | 1100 | 630 | 530 | 550 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 9.6 | 10 | 7.7 | 15 | 10 | < 50 | 8.9 |
| Total Suspended Solids | | | mg/l | — | — | — | — | 100 | 190 | 18 |
| Turbidity | | <0.92.5 | ntu | 3.0 | 9.6 | 23 | 210 | 83 | 220 | 13 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-21 | 2021-05-05 | 2021-06-03 | 2021-06-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 |
| | | | Sample ID | SW19-20_20210421 | SW19-20_20210505 | SW19-20_20210603 | SW19-20_20210614 | SW19-20_20210727 | SW19-20_20210811 | SW19-20_20210908 |
| | | | Lab Sample ID | PJV226 | PMO073 | PST792 | PVK701 | QFJ454 | QIT122 | QPN181 |
| | | | Lab Job Number | C1A7947 | C1C1117 | C1F0842 | C1G3518 | C1L1105 | C1M6832 | C1P9560 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 240 | 280 | 230 | 330 | 370 | 290 | 240 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | 2.5 | 2.2 | 1.4 | 1.5 | 1.8 | < 1.0 | 1.3 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 250 | 280 | 230 | 330 | 370 | 290 | 240 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.35 | < 0.050 | 0.060 | 0.099 | 0.15 | 0.23 | 0.11 |
| Anion Sum | | 0.06-0.6 | meq/l | 10.8 | 12.2 | 9.73 | 14.7 | 15.2 | 10.8 | 9.76 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | < 3.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 10.9 | 12.2 | 8.62 | 14.3 | 15.6 | 10.6 | 9.76 |
| Chemical Oxygen Demand | | 40-53 | mg/l | < 20 | 37 | 32 | 39 | 54 | 47 | 59 |
| Chloride ion | | 2.1-13 | mg/l | 26 | 24 | 18 | 25 | 27 | 20 | 22 |
| Color | | 160-220 | tcu | < 5.0 | 15 | 27 | 17 | 12 | 12 | 35 |
| Electrical Conductivity | | 20-68 | umhos/cm | 960 | 1000 | 880 | 1300 | 1300 | 1000 | 890 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 480 | 540 | 380 | 620 | 670 | 460 | 410 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 0.180 | 0.210 | 6.05 | 1.21 | 1.43 | 0.890 | 0 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | 1.15 | 1.14 | 0.799 | 0.996 | 1.09 | 0.611 | 0.806 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | 0.904 | 0.888 | 0.551 | 0.749 | 0.842 | 0.365 | 0.559 |
| Nitrate (as N) | | <0.25 | mg/l | 0.35 | 0.077 | 0.15 | 0.11 | 0.25 | 0.082 | 6.3 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.37 | 0.088 | 0.16 | 0.13 | 0.26 | 0.082 | 6.6 |
| Nitrite (as N) | | <0.25 | mg/l | 0.025 | 0.011 | 0.017 | 0.016 | 0.015 | < 0.010 | 0.33 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | 0.15 | 0.011 | 0.028 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 8.04 | 7.93 | 7.81 | 7.69 | 7.71 | 7.46 | 7.76 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 6.89 | 6.80 | 7.02 | 6.70 | 6.62 | 6.85 | 6.96 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 7.14 | 7.04 | 7.26 | 6.95 | 6.87 | 7.10 | 7.20 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 12 | 9.2 | 10 | 11 | 15 | 13 | 15 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 250 | 280 | 220 | 350 | 330 | 210 | 180 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 650 | 730 | 560 | 870 | 910 | 640 | 590 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 8.9 | 9.5 | 12 | 12 | 14 | 12 | 23 |
| Total Suspended Solids | | | mg/l | 93 | 19 | 13 | 7.2 | 29 | 20 | 7.0 |
| Turbidity | | <0.92.5 | ntu | 23 | 8.3 | 37 | 4.2 | 11 | 52 | 8.8 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 |
| | | | Sample ID | SW19-20_20210923 | SW19-20_20211006 | SW19-20_20211019 | SW19-20_20211102 | SW19-20_20211121 | SW19-20_20211201 | SW19-20_20211215 |
| | | | Lab Sample ID | QTA032 | QWG509 | QZA168 | RCV734 | RIY808 | RNH014 | RJJ619 |
| | | | Lab Job Number | C1R6341 | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 370 | 280 | 220 | 170 | 180 | 170 | 240 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | 1.1 | 1.7 | < 1.0 | < 1.0 | < 1.0 | 1.0 | < 1.0 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 370 | 280 | 220 | 170 | 180 | 170 | 240 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.17 | 0.18 | 0.65 | 0.46 | 0.066 | < 0.050 | 0.19 |
| Anion Sum | | 0.06-0.6 | meq/l | 11.9 | 8.54 | 9.05 | 5.54 | 5.50 | 4.71 | 9.23 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 5.0 | 32 | < 10 | < 5.0 | < 5.0 | < 10 |
| Cation Sum | | 0.15-44 | meq/l | 12.1 | 8.88 | 8.90 | 5.26 | 5.41 | 4.44 | 10.4 |
| Chemical Oxygen Demand | | 40-53 | mg/l | 58 | 43 | 92 | 21 | < 20 | < 20 | 28 |
| Chloride ion | | 2.1-13 | mg/l | 20 | 18 | 24 | 14 | 11 | 7.4 | 16 |
| Color | | 160-220 | tcu | 19 | 20 | 24 | 16 | 12 | 11 | 7.0 |
| Electrical Conductivity | | 20-68 | umhos/cm | 1100 | 790 | 850 | 500 | 530 | 420 | 810 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 520 | 380 | 370 | 210 | 230 | 190 | 450 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 1.04 | 1.95 | 0.840 | 2.59 | 0.820 | 2.95 | 5.96 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | 0.794 | 0.887 | 0.516 | 0.379 | 0.402 | 0.448 | 0.659 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | 0.547 | 0.639 | 0.268 | 0.130 | 0.153 | 0.199 | 0.411 |
| Nitrate (as N) | | <0.25 | mg/l | 0.11 | 0.12 | 26 | 9.7 | 3.7 | 1.3 | 0.47 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.12 | 0.12 | 28 | 10 | 3.7 | 1.3 | 0.47 |
| Nitrite (as N) | | <0.25 | mg/l | 0.011 | < 0.010 | 2.1 | 0.37 | 0.010 | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | 0.010 | 0.037 | < 0.010 | 0.011 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 7.49 | 7.81 | 7.57 | 7.74 | 7.69 | 7.82 | 7.59 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 6.70 | 6.92 | 7.05 | 7.36 | 7.29 | 7.37 | 6.93 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 6.95 | 7.17 | 7.30 | 7.61 | 7.54 | 7.62 | 7.18 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 14 | 13 | 12 | 9.4 | 8.1 | 7.0 | 6.8 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 190 | 110 | 98 | 52 | 64 | 52 | 190 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 690 | 500 | 570 | 330 | 320 | 260 | 570 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 17 | 13 | 24 | 5.8 | 5.7 | 4.9 | 8.5 |
| Total Suspended Solids | | | mg/l | 85 | 1000 | 4.2 | 3.8 | 4.4 | 4.8 | 9.4 |
| Turbidity | | <0.92.5 | ntu | 67 | 63 | 12 | 5.4 | 6.0 | 5.1 | 11 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-19 | 2022-05-31 | 2022-06-16 |
| | | | Sample ID | SW19-20_20220324 | SW19-20_20220406 | SW19-20_20220419 | SW19-20_20220505 | SW19-20_20220519 | SW19-20_20220531 | SW19-20_20220616 |
| | | | Lab Sample ID | SEH104 | SHG309 | SJT841 | SNX125 | SRB990 | STQ322 | SXM271 |
| | | | Lab Job Number | C277826 | C290667 | C2A2126 | C2C1673 | C2D6425 | C2E8059 | C2G6058 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 240 | 150 | 230 | 110 | 230 | 250 | 220 |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | 1.6 | < 1.0 | < 1.0 | < 1.0 | 1.7 | < 1.0 | 1.2 |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 240 | 150 | 230 | 110 | 230 | 250 | 220 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.089 | 0.099 | 0.32 | 0.065 | 0.079 | 0.11 | 0.088 |
| Anion Sum | | 0.06-0.6 | meq/l | 11.1 | 6.92 | 12.0 | 4.92 | 8.71 | 9.85 | 7.92 |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 10 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 2.0 | < 5.0 |
| Cation Sum | | 0.15-44 | meq/l | 11.2 | 7.39 | 12.4 | 4.98 | 8.93 | 10.0 | 7.74 |
| Chemical Oxygen Demand | | 40-53 | mg/l | < 20 | < 20 | < 20 | < 20 | < 20 | 34 | 27 |
| Chloride ion | | 2.1-13 | mg/l | 15 | 8.4 | 20 | 4.2 | 11 | 12 | 9.4 |
| Color | | 160-220 | tcu | 7.3 | 10 | 17 | 23 | 13 | 21 | 9.4 |
| Electrical Conductivity | | 20-68 | umhos/cm | 1000 | 690 | 1100 | 480 | 830 | 910 | 760 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 500 | 330 | 530 | 220 | 390 | 440 | 340 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 0.360 | 3.28 | 1.43 | 0.610 | 1.25 | 0.860 | 1.15 |
| Langelier Index (at 20 C) | | -3.99-<0 | none | 0.960 | 0.615 | 0.283 | 0.388 | 0.892 | 0.675 | 0.685 |
| Langelier Index (at 4 C) | | -4.31-<0 | none | 0.713 | 0.367 | 0.0360 | 0.139 | 0.644 | 0.428 | 0.437 |
| Nitrate (as N) | | <0.25 | mg/l | 0.35 | 0.69 | 0.15 | 0.57 | 0.23 | 0.19 | 0.16 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.35 | 0.69 | 0.15 | 0.57 | 0.23 | 0.19 | 0.18 |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | 0.012 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| pH, Lab | | 4.1-6.13 | ph units | 7.85 | 7.85 | 7.19 | 7.88 | 7.90 | 7.60 | 7.74 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 6.89 | 7.23 | 6.91 | 7.49 | 7.00 | 6.92 | 7.06 |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 7.14 | 7.48 | 7.16 | 7.74 | 7.25 | 7.17 | 7.30 |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 7.0 | 6.3 | 5.7 | 5.1 | 8.1 | 9.4 | 9.9 |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 280 | 180 | 330 | 120 | 180 | 210 | 150 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 670 | 430 | 740 | 300 | 520 | 590 | 460 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 6.3 | 5.0 | 10 | 4.4 | 7.2 | 9.1 | 7.3 |
| Total Suspended Solids | | | mg/l | 12 | 4.0 | 3.0 | 2.2 | 5.6 | 4.6 | 9.4 |
| Turbidity | | <0.92.5 | ntu | 5.2 | 2.5 | 38 | 4.7 | 4.1 | 3.8 | 3.3 |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-04-14 | 2023-10-12 | 2023-12-01 |
| | | | Sample ID | SW19-20_20220627 | SW19-20_20220929 | SW19-20_20221214 | DUP1_20230414 | SW19-20_20230414 | SW19-20_20231012 | SW19-20_20231201 |
| | | | Lab Sample ID | TAE938 | TWL536 | UPB187 | VNV586 | VNV584 | XGT439 | XTQ431 |
| | | | Lab Job Number | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3A4090 | C3V7537 | C3AS035 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | 280 | 230 | 280 | 250 | 240 | — | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | < 1.0 | 1.4 | 1.5 | < 1.0 | < 1.0 | — | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 280 | 230 | 280 | 250 | 250 | 190 | 220 |
| Ammonia-N | | <0.25-0.51 | mg/l | 0.16 | 0.12 | 0.30 | 0.20 | 0.15 | — | — |
| Anion Sum | | 0.06-0.6 | meq/l | 12.2 | 7.86 | 11.3 | 10.8 | 10.7 | — | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — | — | — |
| BOD Carbonaceous | | <5 | mg/l | < 5.0 | < 10 | < 10 | < 5.0 | < 5.0 | — | — |
| Cation Sum | | 0.15-44 | meq/l | 10.3 | 6.49 | 12.4 | 11.7 | 11.9 | — | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | 36 | 22 | 69 | 35 | 28 | 38 | 27 |
| Chloride ion | | 2.1-13 | mg/l | 15 | 9.9 | 16 | 15 | 14 | 16 | 11 |
| Color | | 160-220 | tcu | 7.0 | 18 | 6.7 | 7.2 | 5.5 | — | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 1100 | 730 | 1000 | 1100 | 1100 | 660 | 930 |
| Fluoride | | <0.12 | mg/l | — | — | — | — | — | — | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 450 | 280 | 530 | 510 | 520 | 290 | 470 |
| Hydroxide (OH) | | | mg/l | — | — | — | — | — | — | — |
| Ion Balance | | -13.9-45 | % | 8.40 | 9.55 | 4.47 | 3.91 | 5.04 | — | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | 0.631 | 0.691 | 0.941 | 0.549 | 0.599 | — | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | 0.384 | 0.442 | 0.694 | 0.302 | 0.352 | — | — |
| Nitrate (as N) | | <0.25 | mg/l | 0.063 | 0.081 | 0.076 | 0.12 | 0.11 | — | — |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | 0.063 | 0.081 | 0.076 | 0.12 | 0.11 | — | — |
| Nitrite (as N) | | <0.25 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | — | — | — |
| Orthophosphate(as P) | | <0.05 | mg/l | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | — | — |
| pH, Lab | | 4.1-6.13 | ph units | 7.51 | 7.80 | 7.76 | 7.43 | 7.47 | 7.80 | 7.60 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | 6.88 | 7.11 | 6.82 | 6.88 | 6.87 | — | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | 7.13 | 7.36 | 7.07 | 7.12 | 7.12 | — | — |
| Phenol | 4 | <0.001-0.02 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | — | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | — | — | — | — |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | 8.1 | 11 | 7.5 | 6.2 | 7.0 | — | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | — | — | — | — |
| Sulphate | | <5-6 | mg/l | 300 | 140 | 260 | 260 | 260 | 100 | 220 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 690 | 430 | 700 | 660 | 660 | 380 | 600 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 9.5 | 7.7 | 12 | 9.6 | 9.2 | 5.2 | 10 |
| Total Suspended Solids | | | mg/l | 13 | 2.4 | 95 | 8.0 | 14 | 2.4 | 9.8 |
| Turbidity | | <0.92.5 | ntu | 18 | 1.5 | 13 | 28 | 18 | — | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C5
## General Chemistry in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-03-14 | 2024-06-28 | 2024-06-28 | 2024-12-09 | 2025-06-12 |
| | | | Sample ID | SW19-20_20240314 | SW19-20_20240628 | DUP1_20240628 | SW19-20_20241209 | SW19-20_20250612 |
| | | | Lab Sample ID | YQA664 | ZOY058 | ZOY059 | HA2403221-003 | HA2501804-015 |
| | | | Lab Job Number | C476965 | C4J7367 | C4J7367 | HA2403221 | HA2501804 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | |
| Alkalinity, Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | — | — |
| Alkalinity, Carbonate (as CaCO3) | | <10 | mg/l | — | — | — | — | — |
| Alkalinity, hydroxide (as CaCO3) | | <5 | mg/l | — | — | — | — | — |
| Alkalinity, Total (As CaCO3) | | <20 | mg/l | 180 | 220 | 220 | 196 | 275 |
| Ammonia-N | | <0.25-0.51 | mg/l | — | — | — | 0.0833 | 0.0222 |
| Anion Sum | | 0.06-0.6 | meq/l | — | — | — | 7.36 | — |
| Bicarbonate (as CaCO3) | | <5 | mg/l | — | — | — | 239 | — |
| BOD Carbonaceous | | <5 | mg/l | — | — | — | <2 | <2 |
| Cation Sum | | 0.15-44 | meq/l | — | — | — | 6.80 | — |
| Chemical Oxygen Demand | | 40-53 | mg/l | < 20 | 25 | 32 | 18 | < 10 |
| Chloride ion | | 2.1-13 | mg/l | 9.9 | 8.0 | 7.9 | 12.1 | 5.26 |
| Color | | 160-220 | tcu | — | — | — | 44.1 | — |
| Electrical Conductivity | | 20-68 | umhos/cm | 840 | 870 | 870 | 684 | 852 |
| Fluoride | | <0.12 | mg/l | — | — | — | 0.074 | — |
| Hardness (as CaCO3) | | 1-6.3 | mg/l | 370 | 400 | 400 | 298 | 455 |
| Hydroxide (OH) | | | mg/l | — | — | — | < 1.0 | — |
| Ion Balance | | -13.9-45 | % | — | — | — | 92.4 | — |
| Langelier Index (at 20 C) | | -3.99-<0 | none | — | — | — | 0.948 | — |
| Langelier Index (at 4 C) | | -4.31-<0 | none | — | — | — | 0.701 | — |
| Nitrate (as N) | | <0.25 | mg/l | — | — | — | 0.021 | 0.128 |
| Nitrate plus Nitrite (N) | | <0.15-0.25 | mg/l | — | — | — | < 0.0224 | — |
| Nitrite (as N) | | <0.25 | mg/l | — | — | — | < 0.010 | < 0.010 |
| Total Kjeldahl Nitrogen | | | mg/l | — | — | — | — | 0.241 |
| Orthophosphate(as P) | | <0.05 | mg/l | — | — | — | — | — |
| pH, Lab | | 4.1-6.13 | ph units | 7.66 | 8.01 | 7.97 | 8.11 | 7.83 |
| pH, Saturation (at 20 C) | | <0-11.1 | none | — | — | — | 7.16 | — |
| pH, Saturation (at 4 C) | | <0-11.4 | none | — | — | — | 7.41 | — |
| Phenol | 4 | <0.001-0.02 | mg/l | — | — | — | — | — |
| Phenols (Phenolics) | 4 | <0.001-0.02 | mg/l | — | — | — | 0.0035 | 0.0023 |
| Reactive Silica (SiO2) | | 1.6-6.5 | mg/l | — | — | — | — | — |
| Silica | | 1.6-6.5 | mg/l | — | — | — | 7.68 | — |
| Sulphate | | <5-6 | mg/l | 210 | 180 | 180 | 149 | 176 |
| Total Dissolved Solids (Lab) | | 7-30 | mg/l | 530 | 550 | 550 | 403 | 538 |
| Total Organic Carbon (TOC) | | 6-34.4 | mg/l | 6.3 | 7.7 | 7.7 | 9.11 | 5.90 |
| Total Suspended Solids | | | mg/l | 33 | 23 | 41 | — | 3.2 |
| Turbidity | | <0.92.5 | ntu | — | — | — | 16.5 | — |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
# PHC in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 |
| | | | Sample ID | 20X608058-1165256 | DIFFUSER_20200717 | DIFFUSER_20200729 | DIFFUSER_20200811 | DIFFUSER_20200824 | DIFFUSER_20200908 | DIFFUSER_20200924 |
| | | | Lab Sample ID | 1165256 | NDH755 | NFS559 | NIJ481 | NLM312 | NOK785 | NSF571 |
| | | | Lab Job Number | 20X608058 | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | Y | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NR | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-05 | 2020-11-20 | 2020-11-30 |
| | | | Sample ID | DIFFUSER_20201006 | DUP1_20201006 | DIFFUSER_20201023 | DIFFUSER_20201105 | DUP1_20201105 | DIFFUSER_20201120 | DIFFUSER_20201130 |
| | | | Lab Sample ID | NUV957 | NUW053 | NYW160 | OBU586 | OBU587 | OFF871 | OHD063 |
| | | | Lab Job Number | C0Q0953 | C0Q0953 | C0R9712 | C0T3354 | C0T3354 | C0U8920 | C0V7696 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.057 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.057 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.10 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.10 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 |
| | | | Sample ID | DIFFUSER_20201214 | DIFFUSER_20201228 | DIFFUSER_20210325 | DIFFUSER_20210408 | DIFFUSER_20210421 | DIFFUSER_20210505 | DIFFUSER_20210519 |
| | | | Lab Sample ID | OKO556 | OMT746 | PEB837 | PGQ140 | PJV227 | PMO074 | PPM344 |
| | | | Lab Job Number | C0X3829 | C0Y4558 | C179941 | C192270 | C1A7947 | C1C1117 | C1D5211 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | - | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 |
| | | | Sample ID | DIFFUSER_20210603 | DIFFUSER_20210614 | DIFFUSER_20210630 | DIFFUSER_20210714 | DIFFUSER_20210727 | DIFFUSER_20210811 | DIFFUSER_20210908 |
| | | | Lab Sample ID | PST793 | PVK702 | PZB781 | QCI564 | QFJ455 | QIT123 | QPN182 |
| | | | Lab Job Number | C1F0842 | C1G3518 | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.10 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | Yes | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.10 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | UC (Lube) | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | DIFFUSER | LDO | LDO |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-10-19 | 2021-11-02 | 2022-09-29 | 2022-12-14 |
| | | | Sample ID | DIFFUSER_20210923 | DIFFUSER_20211006 | DUP1_20211019 | DIFFUSER_20211019 | DIFFUSER_20211102 | LDO_20220929 | LDO_20221214 |
| | | | Lab Sample ID | QTA033 | QWG510 | QZA170 | QZA169 | RCV753 | TWL537 | UPB188 |
| | | | Lab Job Number | C1R6341 | C1T1039 | C1U4014 | C1U4014 | C1W2029 | C2S2675 | C2AH933 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.056 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.056 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | 0.66 | < 0.090 | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | Yes | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **0.66** | < 0.090 | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | LDO | LDO | LDO | LDO | LDO | LDO | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-04-14 | 2023-10-12 | 2023-12-01 | 2023-12-01 | 2024-03-14 | 2024-03-14 | 2020-06-01 |
| | | | Sample ID | LDO_20230414 | LDO_20231012 | DUP1_20231201_WS | LDO_20231201 | DUP1_20240314 | LDO_20240314 | 20X608058-1165174 |
| | | | Lab Sample ID | VNV585 | XGT440 | XTQ433 | XTQ432 | YQA666 | YQA665 | 1165174 |
| | | | Lab Job Number | C3A4090 | C3V7537 | C3AS035 | C3AS035 | C476965 | C476965 | 20X608058 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.01 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.053 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.05 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.053 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.10 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.096 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | Y |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.096 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NR |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-09-24 |
| | | | Sample ID | SW1_20200717 | SW1_20200729 | SW1_20200811 | SW1_20200824 | SW1_20200908 | SW1_20200924 | DUP A_20200924 |
| | | | Lab Sample ID | NDH751 | NFS555 | NIJ477 | NLM308 | NOK781 | NSF567 | NSF572 |
| | | | Lab Job Number | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0O8769 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.31 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | YES | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | **0.31** | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | UC (Lube) | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-06 | 2020-10-23 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-11-30 |
| | | | Sample ID | SW1_20201006 | DUP1_20201023 | SW1_20201023 | SW1_20201105 | SW1_20201120 | SW1_20201130 | DUP1_20201130 |
| | | | Lab Sample ID | NUV951 | NYW161 | NYW153 | OBU580 | OFF866 | OHD057 | OHD064 |
| | | | Lab Job Number | C0Q0953 | C0R9712 | C0R9712 | C0T3354 | C0U8920 | C0V7696 | C0V7696 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.057 | < 0.050 | < 0.059 | < 0.061 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.057 | < 0.050 | < 0.059 | < 0.061 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.11 | < 0.11 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.10 | < 0.090 | **< 0.11** | **< 0.11** | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-14 | 2020-12-14 | 2020-12-28 | 2020-12-28 | 2021-03-25 | 2021-03-25 | 2021-04-08 |
| | | | Sample ID | DUP1_20201214 | SW1_20201214 | SW1_20201228 | DUP1_20201228 | SW1_20210325 | DUP4_20210325 | SW1_20210408 |
| | | | Lab Sample ID | OKO557 | OKO550 | OMT740 | OMT747 | PEB831 | PEB838 | PGQ134 |
| | | | Lab Job Number | C0X3829 | C0X3829 | C0Y4558 | C0Y4558 | C179941 | C179941 | C192270 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | - |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 |
| | | | Sample ID | SW1_20210421 | SW1_20210505 | SW1_20210519 | SW1_20210603 | SW1_20210614 | SW1_20210630 | SW1_20210714 |
| | | | Lab Sample ID | PJV221 | PMO067 | PPM339 | PST787 | PVK696 | PZB776 | QCI559 |
| | | | Lab Job Number | C1A7947 | C1C1117 | C1D5211 | C1F0842 | C1G3518 | C1I1014 | C1J6542 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.25 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | Yes | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | **0.25** | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | UC (Lube) | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-09-23 | 2021-10-06 | 2021-10-06 |
| | | | Sample ID | SW1_20210727 | SW1_20210811 | SW1_20210908 | DUP1_20210923 | SW1_20210923 | DUP1_20211006 | SW1_20211006 |
| | | | Lab Sample ID | QFJ449 | QIT117 | QPN176 | QTA034 | QTA027 | QWG511 | QWG504 |
| | | | Lab Job Number | C1L1105 | C1M6832 | C1P9560 | C1R6341 | C1R6341 | C1T1039 | C1T1039 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-19 | 2021-11-02 | 2021-11-02 | 2021-11-21 | 2021-11-21 | 2021-12-01 | 2021-12-01 |
| | | | Sample ID | SW1_20211019 | DUP1_20211102 | SW1_20211102 | DUP1_20211121 | SW1_20211121 | DUP 1_20211201 | SW1_20211201 |
| | | | Lab Sample ID | QZA163 | RCV754 | RCV729 | RIY809 | RIY803 | RNH012 | RNH005 |
| | | | Lab Job Number | C1U4014 | C1W2029 | C1W2029 | C1Z0716 | C1Z0716 | C1AG897 | C1AG897 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-12-15 | 2022-03-24 | 2022-03-24 | 2022-04-06 | 2022-04-06 | 2022-04-19 | 2022-05-05 |
| | | | Sample ID | SW1_20211215 | DUP1_20220324 | SW1_20220324 | DUP1_20220406 | SW1_20220406 | SW1_20220419 | SW1_20220505 |
| | | | Lab Sample ID | RJJ614 | SEH105 | SEH099 | SHG310 | SHG304 | SJT836 | SNX120 |
| | | | Lab Job Number | C1Z2434 | C277826 | C277826 | C290667 | C290667 | C2A2126 | C2C1673 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.053 | < 0.050 | < 0.050 | < 0.055 | < 0.053 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.053 | < 0.050 | < 0.050 | < 0.055 | < 0.053 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.095 | < 0.090 | < 0.090 | < 0.099 | < 0.096 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.095 | < 0.090 | < 0.090 | < 0.099 | < 0.096 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 | SW01 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 |
| | | | Sample ID | SW1_20220531 | SW1_20220616 | SW1_20220627 | SW1_20220929 | SW1_20221214 | SW1_20230414 | SW1_20231012 |
| | | | Lab Sample ID | STQ317 | SXM266 | TAE933 | TWL531 | UPB182 | VNV579 | XGT435 |
| | | | Lab Job Number | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | C3V7537 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 | < 0.053 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.054 | < 0.050 | < 0.050 | < 0.053 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 | < 0.096 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 | < 0.096 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW01 | SW01 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-12-01 | 2024-03-14 | 2019-11-19 | 2020-04-01 | 2020-06-01 | 2020-07-17 | 2020-07-29 |
| | | | Sample ID | SW1_20231201 | SW1_20240314 | 19X546170-731444 | 20X589937-1062436 | 20X608058-1165251 | SW2_20200717 | SW2_20200729 |
| | | | Lab Sample ID | XTQ427 | YQA660 | 731444 | 1062436 | 1165251 | NDH752 | NFS556 |
| | | | Lab Job Number | C3AS035 | C476965 | 19X546170 | 20X589937 | 20X608058 | C0H9882 | C0J0983 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.001 | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.002 | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.01 | < 0.01 | < 0.01 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.05 | < 0.05 | < 0.05 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.10 | < 0.10 | < 0.10 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | 0.1 | < 0.1 | < 0.1 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | UC | NR | NR | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 | 2020-10-23 | 2020-11-05 |
| | | | Sample ID | SW2_20200811 | SW2_20200824 | SW2_20200908 | SW2_20200924 | SW2_20201006 | SW2_20201023 | SW2_20201105 |
| | | | Lab Sample ID | NIJ478 | NLM309 | NOK782 | NSF568 | NUV952 | NYW154 | OBU581 |
| | | | Lab Job Number | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0Q0953 | C0R9712 | C0T3354 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 |
| | | | Sample ID | SW2_20201120 | SW2_20201130 | SW2_20201214 | SW2_20201228 | SW2_20210325 | SW2_20210408 | SW2_20210421 |
| | | | Lab Sample ID | OFF867 | OHD058 | OKO551 | OMT741 | PEB832 | PGQ135 | PJV222 |
| | | | Lab Job Number | C0U8920 | C0V7696 | C0X3829 | C0Y4558 | C179941 | C192270 | C1A7947 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.058 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.058 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | 0.17 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | YES | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **0.17** | < 0.090 | < 0.090 | < 0.090 | < 0.090 | — | < 0.090 |
| Hydrocarbon Resemblance | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 |
| | | | Sample ID | SW2_20210505 | SW2_20210519 | DUP1_20210603 | SW2_20210603 | SW2_20210614 | SW2_20210630 | SW2_20210714 |
| | | | Lab Sample ID | PMO068 | PPM340 | PST794 | PST788 | PVK697 | PZB777 | QCI560 |
| | | | Lab Job Number | C1C1117 | C1D5211 | C1F0842 | C1F0842 | C1G3518 | C1I1014 | C1J6542 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.45 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | Yes | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | **0.45** | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | UC (Lube) | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 |
| | | | Sample ID | SW2_20210727 | SW2_20210811 | SW2_20210908 | SW2_20210923 | SW2_20211006 | SW2_20211019 | SW2_20211102 |
| | | | Lab Sample ID | QFJ450 | QIT118 | QPN177 | QTA028 | QWG505 | QZA164 | RCV730 |
| | | | Lab Job Number | C1L1105 | C1M6832 | C1P9560 | C1R6341 | C1T1039 | C1U4014 | C1W2029 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | 0.13 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | 1.7 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | Yes | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **1.9** | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 | 2022-05-05 |
| | | | Sample ID | SW2_20211121 | SW2_20211201 | SW2_20211215 | SW2_20220324 | SW2_20220406 | SW2_20220419 | SW2_20220505 |
| | | | Lab Sample ID | RIY804 | RNH006 | RJJ615 | SEH100 | SHG305 | SJT837 | SNX121 |
| | | | Lab Job Number | C1Z0716 | C1AG897 | C1Z2434 | C277826 | C290667 | C2A2126 | C2C1673 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | — | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | — | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | — | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | — | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | — | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.055 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.055 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | — | < 0.090 | < 0.090 | < 0.090 | < 0.098 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW02 | SW02 | SW02 | SW02 | SW02 | SW02 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2019-11-19 |
| | | | Sample ID | SW2_20220531 | SW2_20220616 | SW2_20220627 | SW2_20220929 | SW2_20221214 | SW2_20230414 | 19X546170-731445 |
| | | | Lab Sample ID | STQ318 | SXM267 | TAE934 | TWL532 | UPB183 | VNV580 | 731445 |
| | | | Lab Job Number | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 | 19X546170 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.01 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.056 | < 0.053 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.05 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.056 | < 0.053 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.10 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.10 | < 0.096 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | - |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.10 | < 0.096 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NR |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-04-01 | 2020-06-01 | 2020-07-17 | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 |
| | | | Sample ID | 20X589937-1062437 | 20X608058-1165252 | SW3_20200717 | SW3_20200729 | SW3_20200811 | SW3_20200824 | SW3_20200908 |
| | | | Lab Sample ID | 1062437 | 1165252 | NDH753 | NFS557 | NIJ479 | NLM310 | NOK783 |
| | | | Lab Job Number | 20X589937 | 20X608058 | C0H9882 | C0J0983 | C0K2722 | C0L7809 | C0N1046 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.001 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.002 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.01 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.10 | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 | 0.12 | < 0.090 |
| Reached Baseline | | | none | - | Y | NA | NA | NA | Y | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 | **0.12** | < 0.090 |
| Hydrocarbon Resemblance | | | none | NR | NR | NA | NA | NA | UC (Lube) | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-09-24 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-12-14 |
| | | | Sample ID | SW3_20200924 | SW3_20201006 | SW3_20201023 | SW3_20201105 | SW3_20201120 | SW3_20201130 | SW3_20201214 |
| | | | Lab Sample ID | NSF569 | NUV953 | NYW155 | OBU582 | OFF868 | OHD059 | OKO552 |
| | | | Lab Job Number | C0O8769 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 | C0V7696 | C0X3829 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.058 | < 0.057 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.058 | < 0.057 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.10 | 0.22 | 0.24 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | YES | Yes |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.10 | **0.22** | **0.24** |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | UC (Lube) | UC (Lube) |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 |
| | | | Sample ID | SW3_20201228 | SW3_20210325 | SW3_20210408 | SW3_20210421 | SW3_20210505 | SW3_20210519 | SW3_20210603 |
| | | | Lab Sample ID | OMT742 | PEB833 | PGQ136 | PJV223 | PMO069 | PPM341 | PST789 |
| | | | Lab Job Number | C0Y4558 | C179941 | C192270 | C1A7947 | C1C1117 | C1D5211 | C1F0842 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | — | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-14 | 2021-06-30 | 2021-07-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 |
| | | | Sample ID | SW3_20210614 | SW3_20210630 | SW3_20210714 | SW3_20210727 | SW3_20210811 | SW3_20210908 | SW3_20210923 |
| | | | Lab Sample ID | PVK698 | PZB778 | QCI561 | QFJ451 | QIT119 | QPN178 | QTA029 |
| | | | Lab Job Number | C1G3518 | C1I1014 | C1J6542 | C1L1105 | C1M6832 | C1P9560 | C1R6341 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | 0.061 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | 0.94 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | Yes | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | **1.0** | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | UC (Lube) | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 |
| | | | Sample ID | SW3_20211006 | SW3_20211019 | SW3_20211102 | SW3_20211121 | SW3_20211201 | SW3_20211215 | SW3_20220324 |
| | | | Lab Sample ID | QWG506 | QZA165 | RCV731 | RIY805 | RNH007 | RJJ616 | SEH101 |
| | | | Lab Job Number | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.055 | < 0.050 | < 0.055 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.055 | < 0.050 | < 0.055 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.099 | < 0.090 | < 0.098 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.099 | < 0.090 | < 0.098 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 | SW03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 |
| | | | Sample ID | SW3_20220406 | SW3_20220419 | SW3_20220505 | SW3_20220531 | SW3_20220616 | SW3_20220627 | SW3_20220929 |
| | | | Lab Sample ID | SHG306 | SJT838 | SNX122 | STQ319 | SXM268 | TAE935 | TWL533 |
| | | | Lab Job Number | C290667 | C2A2126 | C2C1673 | C2E8059 | C2G6058 | C2H8426 | C2S2675 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.053 | < 0.050 | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.053 | < 0.050 | < 0.055 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.096 | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.096 | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW03 | SW03 | SW03 | SW03 | SW03 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-12-01 | 2024-03-14 | 2020-06-01 | 2020-07-17 |
| | | | Sample ID | SW3_20221214 | SW3_20230414 | SW3_20231012 | SW3_20231201 | SW3_20240314 | 20X608058-1165253 | SW4_20200717 |
| | | | Lab Sample ID | UPB184 | VNV581 | XGT436 | XTQ428 | YQA661 | 1165253 | NDH754 |
| | | | Lab Job Number | C2AH933 | C3A4090 | C3V7537 | C3AS035 | C476965 | 20X608058 | C0H9882 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.01 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.05 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.10 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | Y | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.1 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NR | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-07-29 | 2020-08-11 | 2020-08-24 | 2020-09-08 | 2020-09-24 | 2020-10-06 | 2020-10-23 |
| | | | Sample ID | SW4_20200729 | SW4_20200811 | SW4_20200824 | SW4_20200908 | SW4_20200924 | SW4_20201006 | SW4_20201023 |
| | | | Lab Sample ID | NFS558 | NIJ480 | NLM311 | NOK784 | NSF570 | NUV954 | NYW156 |
| | | | Lab Job Number | C0J0983 | C0K2722 | C0L7809 | C0N1046 | C0O8769 | C0Q0953 | C0R9712 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-05 | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 |
| | | | Sample ID | SW4_20201105 | SW4_20201120 | SW4_20201130 | SW4_20201214 | SW4_20201228 | SW4_20210325 | SW4_20210408 |
| | | | Lab Sample ID | OBU583 | OFF869 | OHD060 | OKO553 | OMT743 | PEB834 | PGQ137 |
| | | | Lab Job Number | C0T3354 | C0U8920 | C0V7696 | C0X3829 | C0Y4558 | C179941 | C192270 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.058 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.058 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.10 | < 0.090 | 0.27 | 0.11 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | Yes | Yes | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.10 | < 0.090 | **0.27** | **0.11** | < 0.090 | — |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | UC (Lube) | Lube | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-21 | 2021-05-05 | 2021-05-19 | 2021-06-03 | 2021-06-14 | 2021-06-30 | 2021-07-14 |
| | | | Sample ID | SW4_20210421 | SW4_20210505 | SW4_20210519 | SW4_20210603 | SW4_20210614 | SW4_20210630 | SW4_20210714 |
| | | | Lab Sample ID | PJV224 | PMO070 | PPM342 | PST790 | PVK699 | PZB779 | QCI562 |
| | | | Lab Job Number | C1A7947 | C1C1117 | C1D5211 | C1F0842 | C1G3518 | C1I1014 | C1J6542 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 | 2021-10-06 | 2021-10-19 | 2021-11-02 |
| | | | Sample ID | SW4_20210727 | SW4_20210811 | SW4_20210908 | SW4_20210923 | SW4_20211006 | SW4_20211019 | SW4_20211102 |
| | | | Lab Sample ID | QFJ452 | QIT120 | QPN179 | QTA030 | QWG507 | QZA166 | RCV732 |
| | | | Lab Job Number | C1L1105 | C1M6832 | C1P9560 | C1R6341 | C1T1039 | C1U4014 | C1W2029 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.057 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.057 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | 0.25 | < 0.090 | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | Yes | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **0.25** | < 0.090 | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2021-12-15 | 2022-03-24 | 2022-04-06 | 2022-04-19 |
| | | | Sample ID | SW4_20211121 | SW4_20211201 | DUP1_20211215 | SW4_20211215 | SW4_20220324 | SW4_20220406 | SW4_20220419 |
| | | | Lab Sample ID | RIY806 | RNH011 | RJJ620 | RJJ617 | SEH102 | SHG307 | SJT839 |
| | | | Lab Job Number | C1Z0716 | C1AG897 | C1Z2434 | C1Z2434 | C277826 | C290667 | C2A2126 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.096 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.096 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
# PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-05 | 2022-05-31 | 2022-06-16 | 2022-06-27 | 2022-09-29 | 2022-12-14 | 2023-04-14 |
| | | | Sample ID | SW4_20220505 | SW4_20220531 | SW4_20220616 | SW4_20220627 | SW4_20220929 | SW4_20221214 | SW4_20230414 |
| | | | Lab Sample ID | SNX123 | STQ320 | SXM269 | TAE936 | TWL534 | UPB185 | VNV582 |
| | | | Lab Job Number | C2C1673 | C2E8059 | C2G6058 | C2H8426 | C2S2675 | C2AH933 | C3A4090 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.054 | < 0.050 | < 0.054 | < 0.055 | < 0.050 | < 0.050 | < 0.054 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.054 | < 0.050 | < 0.054 | < 0.055 | < 0.050 | < 0.050 | < 0.054 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.097 | < 0.090 | < 0.097 | < 0.099 | < 0.090 | < 0.090 | < 0.097 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.097 | < 0.090 | < 0.097 | < 0.099 | < 0.090 | < 0.090 | < 0.097 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 | SW04 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2023-10-12 | 2023-12-01 | 2024-03-14 | 2024-06-28 | 2024-11-07 | 2024-12-09 | 2025-03-04 |
| | | | Sample ID | SW4_20231012 | SW4_20231201 | SW4_20240314 | SW4_20240628 | SW4_20241107 | SW4_20241209 | SW4_20250304 |
| | | | Lab Sample ID | XGT437 | XTQ429 | YQA662 | ZOY056 | HA2402851-001 | HA2403221-001 | HA2500561-001 |
| | | | Lab Job Number | C3V7537 | C3AS035 | C476965 | C4J7367 | HA2402851 | HA2403221 | HA2500561 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.00050 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.00050 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 | < 0.00050 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.00050 | < 0.00050 | < 0.00050 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 1 | < 1 | < 1 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.053 | < 0.050 | < 1 | < 1 | < 1 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.053 | < 0.050 | < 1 | < 1 | < 1 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.095 | < 0.090 | < 1 | < 1 | < 1 |
| Reached Baseline | | | none | NA | NA | NA | NA | Yes | Yes | Yes |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.095 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | N/A | N/A | N/A |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Location** | SW04 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
| | | | **Sample Date** | 2025-06-12 | 2020-06-01 | 2020-09-23 | 2020-10-06 | 2020-10-23 | 2020-11-05 | 2020-11-20 |
| | | | **Sample ID** | SW4_20250612 | 20X608058-1165254 | SW13_20200923 | SW13_20201006 | SW13_20201023 | SW13_20201105 | SW13_20201120 |
| | | | **Lab Sample ID** | HA2501804-013 | 1165254 | NRV927 | NUV955 | NYW157 | OBU584 | OFF870 |
| | | | **Lab Job Number** | HA2501804 | 20X608058 | C0O7061 | C0Q0953 | C0R9712 | C0T3354 | C0U8920 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.00050 | < 0.001 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.00050 | < 0.002 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 1 | < 0.01 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 1 | < 0.05 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 1 | < 0.10 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 1 | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | Yes | Y | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.09 | < 0.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | N/A | NR | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-11-20 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-03-25 | 2021-04-08 | 2021-04-08 |
| | | | Sample ID | DUP1_20201120 | SW13_20201130 | SW13_20201214 | SW13_20201228 | SW13_20210325 | SW13_20210408 | DUP1_20210408 |
| | | | Lab Sample ID | OFF872 | OHD061 | OKO554 | OMT744 | PEB835 | PGQ138 | PGQ141 |
| | | | Lab Job Number | C0U8920 | C0V7696 | C0X3829 | C0Y4558 | C179941 | C192270 | C192270 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | 0.12 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | Yes | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | **0.12** | < 0.090 | < 0.090 | — | — |
| Hydrocarbon Resemblance | | | none | NA | NA | UC (Lube) | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-04-21 | 2021-04-21 | 2021-05-05 | 2021-05-05 | 2021-05-19 | 2021-05-19 | 2021-06-03 |
| | | | Sample ID | DUP1_20210421 | SW13_20210421 | SW13_20210505 | DUP1_20210505 | DUP1_20210519 | SW13_20210519 | SW13_20210603 |
| | | | Lab Sample ID | PJV228 | PJV225 | PMO071 | PMO075 | PPM345 | PPM343 | PST791 |
| | | | Lab Job Number | C1A7947 | C1A7947 | C1C1117 | C1C1117 | C1D5211 | C1D5211 | C1F0842 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | 0.054 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-06-14 | 2021-06-14 | 2021-06-30 | 2021-06-30 | 2021-07-14 | 2021-07-14 | 2021-07-27 |
| | | | Sample ID | DUP1_20210614 | SW13_20210614 | SW13_20210630 | DUP1_20210630 | SW13_20210714 | DUP1_20210714 | DUP1_20210727 |
| | | | Lab Sample ID | PVK703 | PVK700 | PZB780 | PZB782 | QCI563 | QCI565 | QFJ456 |
| | | | Lab Job Number | C1G3518 | C1G3518 | C1I1014 | C1I1014 | C1J6542 | C1J6542 | C1L1105 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | 0.0022 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | 0.20 | 0.27 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | 1.4 | 2.1 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | 0.18 |
| Reached Baseline | | | none | Yes | Yes | NA | NA | NA | NA | Yes |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **1.6** | **2.3** | < 0.090 | < 0.090 | < 0.090 | < 0.090 | **0.18** |
| Hydrocarbon Resemblance | | | none | UC (Fuel/Lube) | UC (Fuel/Lube) | NA | NA | NA | NA | UC (Lube) |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-07-27 | 2021-08-11 | 2021-08-11 | 2021-09-01 | 2021-09-08 | 2021-09-08 | 2021-09-23 |
| | | | Sample ID | SW13_20210727 | DUP1_20210811 | SW13_20210811 | SW13_20210901 | DUP1_20210908 | SW13_20210908 | SW13_20210923 |
| | | | Lab Sample ID | QFJ453 | QIT124 | QIT121 | QNT693 | QPN183 | QPN180 | QTA031 |
| | | | Lab Job Number | C1L1105 | C1M6832 | C1M6832 | C1P1197 | C1P9560 | C1P9560 | C1R6341 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | 0.0021 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | 0.42 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | Yes | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **0.42** | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | UC (Lube) | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 |
| | | | Sample ID | SW13_20211006 | SW13_20211019 | SW13_20211102 | SW13_20211121 | SW13_20211201 | SW13_20211215 | SW13_20220324 |
| | | | Lab Sample ID | QWG508 | QZA167 | RCV733 | RIY807 | RNH013 | RJJ618 | SEH103 |
| | | | Lab Job Number | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.054 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.097 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.097 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-06 | 2022-04-19 | 2022-04-19 | 2022-05-05 | 2022-05-05 | 2022-05-19 | 2022-05-19 |
| | | | Sample ID | SW13_20220406 | DUP1_20220419 | SW13_20220419 | DUP1_20220505 | SW13_20220505 | DUP1_20220519 | SW13_20220519 |
| | | | Lab Sample ID | SHG308 | SJT842 | SJT840 | SNX126 | SNX124 | SRB991 | SRB989 |
| | | | Lab Job Number | C290667 | C2A2126 | C2A2126 | C2C1673 | C2C1673 | C2D6425 | C2D6425 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.053 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.053 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.096 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.096 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-05-31 | 2022-05-31 | 2022-06-16 | 2022-06-16 | 2022-06-27 | 2022-06-27 | 2022-09-29 |
| | | | Sample ID | DUP1_20220531 | SW13_20220531 | DUP1_20220616 | SW13_20220616 | DUP1_20220627 | SW13_20220627 | DUP1_20220929 |
| | | | Lab Sample ID | STQ323 | STQ321 | SXM272 | SXM270 | TAE939 | TAE937 | TWL538 |
| | | | Lab Job Number | C2E8059 | C2E8059 | C2G6058 | C2G6058 | C2H8426 | C2H8426 | C2S2675 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 | < 0.053 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 | < 0.053 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.095 | < 0.096 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.096 | < 0.095 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | ` | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-10-12 | 2023-10-12 | 2023-12-01 | 2024-03-14 |
| | | | Sample ID | SW13_20220929 | SW13_20221214 | SW13_20230414 | SW13_20231012 | SWDUP1_20231012 | SW13_20231201 | SW13_20240314 |
| | | | Lab Sample ID | TWL535 | UPB186 | VNV583 | XGT438 | XGT441 | XTQ430 | YQA663 |
| | | | Lab Job Number | C2S2675 | C2AH933 | C3A4090 | C3V7537 | C3V7537 | C3AS035 | C476965 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)**<br>**0.1 (Fuel)**<br>**0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 | SW13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-06-28 | 2024-11-07 | 2024-11-07 | 2024-12-09 | 2024-12-09 | 2025-03-04 | 2025-03-04 |
| | | | Sample ID | SW13_20240628 | SW13_20241107 | DUP1_20241107 | SW13_20241209 | DUP1_20241209 | DUP1_20250304 | SW13_20250304 |
| | | | Lab Sample ID | ZOY057 | HA2402851-002 | HA2402851-003 | HA2403221-002 | HA2403221-004 | HA2500561-003 | HA2500561-002 |
| | | | Lab Job Number | C4J7367 | HA2402851 | HA2402851 | HA2403221 | HA2403221 | HA2500561 | HA2500561 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 | < 0.00050 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Reached Baseline | | | none | NA | Yes | Yes | Yes | Yes | Yes | Yes |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | N/A | N/A | N/A | N/A | N/A | N/A |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW13 | SW13 | SW14 | SW14 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2025-06-12 | 2025-06-12 | 2020-09-23 | 2021-03-25 | 2020-06-01 | 2020-09-23 | 2020-10-06 |
| | | | Sample ID | DUP1_20250612 | SW13_20250612 | SW14_20200923 | SW14_20210325 | 20X608058-1165255 | SW19-20_20200923 | SW19-20_20201006 |
| | | | Lab Sample ID | HA2501804-016 | HA2501804-014 | NRV928 | PEB836 | 1165255 | NRV929 | NUV956 |
| | | | Lab Job Number | HA2501804 | HA2501804 | C0O7061 | C179941 | 20X608058 | C0O7061 | C0Q0953 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.00050 | < 0.00050 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.00050 | < 0.00050 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.00050 | < 0.00050 | < 0.0010 | < 0.0010 | < 0.001 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.00050 | < 0.00050 | < 0.0020 | < 0.0020 | < 0.002 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 1 | < 1 | < 0.090 | < 0.090 | < 0.01 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 1 | < 1 | < 0.050 | < 0.050 | < 0.05 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 1 | < 1 | < 0.050 | < 0.050 | < 0.10 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 1 | < 1 | < 0.090 | < 0.090 | < 0.1 | < 0.090 | < 0.11 |
| Reached Baseline | | | none | Yes | Yes | NA | NA | Y | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.09 | < 0.09 | < 0.090 | < 0.090 | < 0.1 | < 0.090 | **< 0.11** |
| Hydrocarbon Resemblance | | | none | N/A | N/A | NA | NA | NR | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2020-10-23 | 2020-11-05 | 2020-11-30 | 2020-12-14 | 2020-12-28 | 2021-04-08 | 2021-04-21 |
| | | | Sample ID | SW19-20_20201023 | SW19-20_20201105 | SW19-20_20201130 | SW19-20_20201214 | SW19-20_20201228 | SW19-20_20210408 | SW19-20_20210421 |
| | | | Lab Sample ID | NYW159 | OBU585 | OHD062 | OKO555 | OMT745 | PGQ139 | PJV226 |
| | | | Lab Job Number | C0R9712 | C0T3354 | C0V7696 | C0X3829 | C0Y4558 | C192270 | C1A7947 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.062 | < 0.050 | < 0.055 | < 0.050 | < 0.053 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.062 | < 0.050 | < 0.055 | < 0.050 | < 0.053 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.25 | < 0.090 | < 0.10 | < 0.090 | < 0.096 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | **< 0.25** | < 0.090 | < 0.10 | < 0.090 | < 0.096 | — | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-05-05 | 2021-06-03 | 2021-06-14 | 2021-07-27 | 2021-08-11 | 2021-09-08 | 2021-09-23 |
| | | | Sample ID | SW19-20_20210505 | SW19-20_20210603 | SW19-20_20210614 | SW19-20_20210727 | SW19-20_20210811 | SW19-20_20210908 | SW19-20_20210923 |
| | | | Lab Sample ID | PMO073 | PST792 | PVK701 | QFJ454 | QIT122 | QPN181 | QTA032 |
| | | | Lab Job Number | C1C1117 | C1F0842 | C1G3518 | C1L1105 | C1M6832 | C1P9560 | C1R6341 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.055 | < 0.050 | < 0.050 | < 0.055 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.055 | < 0.050 | < 0.050 | < 0.055 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.10 | < 0.090 | 0.13 | 0.39 | 0.19 | 0.14 | 0.11 |
| Reached Baseline | | | none | NA | NA | Yes | Yes | Yes | Yes | Yes |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.10 | < 0.090 | **0.13** | **0.39** | **0.19** | **0.14** | **0.11** |
| Hydrocarbon Resemblance | | | none | NA | NA | UC (Lube) | UC (Lube) | UC (Lube) | UC (Lube) | UC (Lube) |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2021-10-06 | 2021-10-19 | 2021-11-02 | 2021-11-21 | 2021-12-01 | 2021-12-15 | 2022-03-24 |
| | | | Sample ID | SW19-20_20211006 | SW19-20_20211019 | SW19-20_20211102 | SW19-20_20211121 | SW19-20_20211201 | SW19-20_20211215 | SW19-20_20220324 |
| | | | Lab Sample ID | QWG509 | QZA168 | RCV734 | RIY808 | RNH014 | RJJ619 | SEH104 |
| | | | Lab Job Number | C1T1039 | C1U4014 | C1W2029 | C1Z0716 | C1AG897 | C1Z2434 | C277826 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.056 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.056 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.10 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-04-06 | 2022-04-19 | 2022-05-05 | 2022-05-19 | 2022-05-31 | 2022-06-16 | 2022-06-27 |
| | | | Sample ID | SW19-20_20220406 | SW19-20_20220419 | SW19-20_20220505 | SW19-20_20220519 | SW19-20_20220531 | SW19-20_20220616 | SW19-20_20220627 |
| | | | Lab Sample ID | SHG309 | SJT841 | SNX125 | SRB990 | STQ322 | SXM271 | TAE938 |
| | | | Lab Job Number | C290667 | C2A2126 | C2C1673 | C2D6425 | C2E8059 | C2G6058 | C2H8426 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.053 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.095 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | NA | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.095 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | NA | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
## PHC in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2022-09-29 | 2022-12-14 | 2023-04-14 | 2023-04-14 | 2023-10-12 | 2023-12-01 | 2024-03-14 |
| | | | Sample ID | SW19-20_20220929 | SW19-20_20221214 | DUP1_20230414 | SW19-20_20230414 | SW19-20_20231012 | SW19-20_20231201 | SW19-20_20240314 |
| | | | Lab Sample ID | TWL536 | UPB187 | VNV586 | VNV584 | XGT439 | XTQ431 | YQA664 |
| | | | Lab Job Number | C2S2675 | C2AH933 | C3A4090 | C3A4090 | C3V7537 | C3AS035 | C476965 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 | < 0.090 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 0.060 | < 0.054 | < 0.053 | < 0.050 | < 0.050 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 0.060 | < 0.054 | < 0.053 | < 0.050 | < 0.050 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 0.11 | < 0.098 | < 0.096 | < 0.090 | < 0.090 |
| Reached Baseline | | | none | NA | NA | NA | NA | NA | < 0.0000 | NA |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | **< 0.11** | < 0.098 | < 0.096 | < 0.090 | < 0.090 |
| Hydrocarbon Resemblance | | | none | NA | NA | NA | NA | NA | < 0.0000 | NA |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

AECOM

# Table C6
# PHC in Surface Water Analytical Results

| | | | Sample Location | SW19-20 | SW19-20 | SW19-20 | SW19-20 |
|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2024-06-28 | 2024-06-28 | 2024-12-09 | 2025-06-12 |
| | | | Sample ID | SW19-20_20240628 | DUP1_20240628 | SW19-20_20241209 | SW19-20_20250612 |
| | | | Lab Sample ID | ZOY058 | ZOY059 | HA2403221-003 | HA2501804-015 |
| | | | Lab Job Number | C4J7367 | C4J7367 | HA2403221 | HA2501804 |
| **Parameter** | **NS-EQS[1]** | **Background[2]** | **Unit** | | | | |
| Benzene | 2.1 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 |
| Toluene | 0.77 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 |
| Ethylbenzene | 0.32 | 0.001 | mg/l | < 0.0010 | < 0.0010 | < 0.00050 | < 0.00050 |
| Xylenes, Total | 0.33 | 0.002 | mg/l | < 0.0020 | < 0.0020 | < 0.00050 | < 0.00050 |
| PHC F1 (C6-C10) minus BTEX | | 0.09 | mg/l | < 0.090 | < 0.090 | < 1 | < 1 |
| PHC F2 (>C10-C16) | | 0.05 | mg/l | < 0.050 | < 0.050 | < 1 | < 1 |
| PHC (>C16-C21) | | 0.1 | mg/l | < 0.050 | < 0.050 | < 1 | < 1 |
| PHC (>C21-C32) | | 0.1 | mg/l | < 0.090 | < 0.090 | < 1 | < 1 |
| Reached Baseline | | | none | NA | NA | Yes | Yes |
| Modified TPH Tier 1 | **1.5 (Gas)<br>0.1 (Fuel)<br>0.1 (Lube)** | 0.1 | mg/l | < 0.090 | < 0.090 | **< 0.150** | < 0.09 |
| Hydrocarbon Resemblance | | | none | NA | NA | N/A | N/A |

***Notes:***

[1] Nova Scotia Environment (NSE) Tier I Environmental Quality Standards (EQSs) for surface water (fresh water); Table 3, July 6, 2013.

[2] Background Concentration - based on 2001 -2020 analytical data from SW1 with outliers removed.

**VALUE** Results exceeds NSE-EQS (T3)/Surface Water/Freshwater

**VALUE** RDL for the Results exceeds, or is equal to, an applicable

VALUE Results exceeds Background Concentration

'-' = not applicable or not tested

Units: ug/l=microgram per litre

# Appendix D. Laboratory Certificate of Analysis

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2402851** | | |
| **Amendment** | : **1** | | |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax Nova Scotia Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth NS Canada B3B 1L2 |
| Telephone | : 902 428 2054 | E-mail | : emily.hansen@alsglobal.com |
| Project | : ---- | Telephone | : +1 902 707 4888 |
| PO | : ---- | Date Samples Received | : 07-Nov-2024 13:50 |
| C-O-C number | : ---- | Date Analysis Commenced | : 07-Nov-2024 |
| Sampler | : ---- | Issue Date | : 05-Nov-2025 11:05 |
| Site | : ---- | | |
| Quote number | : Harrietsfield LTM Program 2025 | | |
| No. of samples received | : 3 | | |
| No. of samples analysed | : 3 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Andrea Armstrong | Department Manager - Air Quality and Volatiles | VOC, Waterloo, Ontario |
| Greg Pokocky | Manager - Inorganics | Metals, Waterloo, Ontario |
| Jeremy Gingras | Supervisor - Semi-Volatile Instrumentation | Organics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Inorganics, Dartmouth, Nova Scotia |
| Kelly Fischer | Technical Specialist | Metals, Waterloo, Ontario |
| Melissa Freeman | Metal Analyst | Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Inorganics, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Metals, Waterloo, Ontario |
| Ping Yeung | Team Leader - Inorganics | Inorganics, Edmonton, Alberta |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

| *Unit* | *Description* |
|---|---|
| - | no units |
| % | percent |
| mg/L | milligrams per litre |
| none | none |
| pH units | pH units |
| µg/L | micrograms per litre |
| µS/cm | microsiemens per centimetre |

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Workorder Comments

Amendment (05-NOV-2025): This report has been amended to include requested guideline(s). All analysis results are as per the previous report.

Amendment (05-NOV-2025): This report has been amended and re-released to allow the reporting of additional analytical data.

## Sample Comments

| *Sample* | *Client Id* | *Comment* |
|---|---|---|
| HA2402851-001 | SW4 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2402851-002 | SW13 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2402851-003 | DUP1 | N/A: Resemblance Not Applicable (mTPH < LOR) |

## Qualifiers

| Qualifier | Description |
|---|---|
| DLDS | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity. |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 ---- | SW13 ---- | DUP1 ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 07-Nov-2024 12:02 | 07-Nov-2024 12:34 | 07-Nov-2024 12:39 | ---- | ---- |
| | | | | | | HA2402851-001 | HA2402851-002 | HA2402851-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 59.6 | 197 | 197 | ---- | ---- |
| **Hardness (as CaCO3), from total Ca/Mg** | ---- | EC100A/WT | 0.50 | mg/L | | 9.10 | 49.8 | 49.1 | ---- | ---- |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 5.75 | 7.04 | 6.89 | ---- | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 71 DLDS | 135 DLDS | 127 DLDS | ---- | ---- |
| **Solids, total suspended [TSS]** | ---- | E160/HA | 3.0 | mg/L | | 4.1 | 23.1 | <3.0 | ---- | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 2.8 | 24.8 | 24.4 | ---- | ---- |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | <0.0050 | 0.0257 | 0.0287 | ---- | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 8.67 | 39.5 | 39.1 | ---- | ---- |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.542 | 0.420 | 0.370 | ---- | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.020 | 0.037 | 0.037 | ---- | ---- |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | ---- | ---- |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.0288 | 0.0238 | 0.0145 | ---- | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 7.54 | 6.44 | 6.39 | ---- | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 17.6 | 11.0 | 16.6 | ---- | ---- |
| **Total Metals** | | | | | | | | | | |
| **Aluminum, total** | 7429-90-5 | E420/WT | 0.0030 | mg/L | | 0.473 | 0.172 | 0.126 | ---- | ---- |
| **Antimony, total** | 7440-36-0 | E420/WT | 0.00010 | mg/L | | <0.00010 | 0.00023 | 0.00015 | ---- | ---- |
| **Arsenic, total** | 7440-38-2 | E420/WT | 0.00010 | mg/L | | 0.00071 | 0.00090 | 0.00070 | ---- | ---- |
| **Barium, total** | 7440-39-3 | E420/WT | 0.00010 | mg/L | | 0.00507 | 0.0132 | 0.0122 | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 ---- | SW13 ---- | DUP1 ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 07-Nov-2024 12:02 | 07-Nov-2024 12:34 | 07-Nov-2024 12:39 | ---- | ---- |
| | | | | | | HA2402851-001 | HA2402851-002 | HA2402851-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Total Metals** | | | | | | | | | | |
| **Beryllium, total** | 7440-41-7 | E420/WT | 0.000020 | mg/L | | 0.000074 | 0.000026 | <0.000020 | ---- | ---- |
| **Bismuth, total** | 7440-69-9 | E420/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | ---- | ---- |
| **Boron, total** | 7440-42-8 | E420/WT | 0.010 | mg/L | | 0.018 | 0.022 | 0.022 | ---- | ---- |
| **Cadmium, total** | 7440-43-9 | E420/WT | 0.0000050 | mg/L | | 0.0000156 | 0.0000219 | 0.0000150 | ---- | ---- |
| **Calcium, total** | 7440-70-2 | E420/WT | 0.050 | mg/L | | 2.29 | 14.1 | 13.9 | ---- | ---- |
| **Cesium, total** | 7440-46-2 | E420/WT | 0.000010 | mg/L | | 0.000106 | 0.000093 | 0.000075 | ---- | ---- |
| **Chromium, total** | 7440-47-3 | E420/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Cobalt, total** | 7440-48-4 | E420/WT | 0.00010 | mg/L | | 0.00019 | 0.00034 | 0.00022 | ---- | ---- |
| **Copper, total** | 7440-50-8 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00105 | 0.00093 | ---- | ---- |
| **Iron, total** | 7439-89-6 | E420/WT | 0.010 | mg/L | | 0.546 | 0.846 | 0.573 | ---- | ---- |
| **Lead, total** | 7439-92-1 | E420/WT | 0.000050 | mg/L | | 0.000894 | 0.000997 | 0.000670 | ---- | ---- |
| **Lithium, total** | 7439-93-2 | E420/WT | 0.0010 | mg/L | | 0.0024 | 0.0011 | <0.0010 | ---- | ---- |
| **Magnesium, total** | 7439-95-4 | E420/WT | 0.0050 | mg/L | | 0.821 | 3.54 | 3.49 | ---- | ---- |
| **Manganese, total** | 7439-96-5 | E420/WT | 0.00010 | mg/L | | 0.0342 | 0.138 | 0.102 | ---- | ---- |
| **Mercury, total** | 7439-97-6 | E508/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | ---- | ---- |
| **Molybdenum, total** | 7439-98-7 | E420/WT | 0.000050 | mg/L | | 0.000061 | 0.000264 | 0.000270 | ---- | ---- |
| **Nickel, total** | 7440-02-0 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00097 | 0.00093 | ---- | ---- |
| **Phosphorus, total** | 7723-14-0 | E420/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **Potassium, total** | 7440-09-7 | E420/WT | 0.050 | mg/L | | 0.568 | 1.50 | 1.43 | ---- | ---- |
| **Rubidium, total** | 7440-17-7 | E420/WT | 0.00020 | mg/L | | 0.00190 | 0.00292 | 0.00283 | ---- | ---- |
| **Selenium, total** | 7782-49-2 | E420/WT | 0.000050 | mg/L | | 0.000131 | 0.000103 | 0.000101 | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 ---- | SW13 ---- | DUP1 ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 07-Nov-2024 12:02 | 07-Nov-2024 12:34 | 07-Nov-2024 12:39 | ---- | ---- |
| | | | | | | HA2402851-001 | HA2402851-002 | HA2402851-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Total Metals** | | | | | | | | | | |
| **Silicon, total** | 7440-21-3 | E420/WT | 0.10 | mg/L | | 2.49 | 3.73 | 3.65 | ---- | ---- |
| **Silver, total** | 7440-22-4 | E420/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | <0.000010 | ---- | ---- |
| **Sodium, total** | 7440-23-5 | E420/WT | 0.050 | mg/L | | 5.71 | 17.8 | 17.5 | ---- | ---- |
| **Strontium, total** | 7440-24-6 | E420/WT | 0.00020 | mg/L | | 0.0115 | 0.0428 | 0.0426 | ---- | ---- |
| **Sulfur, total** | 7704-34-9 | E420/WT | 0.50 | mg/L | | 1.25 | 2.35 | 2.21 | ---- | ---- |
| **Tellurium, total** | 13494-80-9 | E420/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 | ---- | ---- |
| **Thallium, total** | 7440-28-0 | E420/WT | 0.000010 | mg/L | | 0.000014 | <0.000010 | <0.000010 | ---- | ---- |
| **Thorium, total** | 7440-29-1 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | ---- | ---- |
| **Tin, total** | 7440-31-5 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | ---- | ---- |
| **Titanium, total** | 7440-32-6 | E420/WT | 0.00030 | mg/L | | 0.00532 | 0.00777 | 0.00320 | ---- | ---- |
| **Tungsten, total** | 7440-33-7 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | ---- | ---- |
| **Uranium, total** | 7440-61-1 | E420/WT | 0.000010 | mg/L | | 0.000244 | 0.000832 | 0.000793 | ---- | ---- |
| **Vanadium, total** | 7440-62-2 | E420/WT | 0.00050 | mg/L | | 0.00101 | 0.00068 | 0.00052 | ---- | ---- |
| **Zinc, total** | 7440-66-6 | E420/WT | 0.0030 | mg/L | | <0.0030 | 0.0060 | 0.0050 | ---- | ---- |
| **Zirconium, total** | 7440-67-7 | E420/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 | ---- | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Biochemical oxygen demand [BOD]** | ---- | E550/HA | 2.0 | mg/L | | 2.3 | <2.0 | <2.0 | ---- | ---- |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 48 | 28 | 21 | ---- | ---- |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | <0.0010 | 0.0028 | <0.0010 | ---- | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | ---- | ---- |


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## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID: SW4 ---- | SW13 ---- | DUP1 ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time: 07-Nov-2024 12:02 | 07-Nov-2024 12:34 | 07-Nov-2024 12:39 | ---- | ---- |
| | | | | | HA2402851-001 | HA2402851-002 | HA2402851-003 | ---- | ---- |
| | | | | | Result | Result | Result | ---- | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | ---- | ---- |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | ---- | ---- |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | ---- | ---- |
| **Hydrocarbons** | | | | | | | | | |
| **Benzene** | 71-43-2 | E611A/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Toluene** | 108-88-3 | E611A/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Ethylbenzene** | 100-41-4 | E611A/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Xylenes, total** | 1330-20-7 | E611A/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Xylene, o-** | 95-47-6 | E611A/WT | 0.00030 | mg/L | <0.00030 | <0.00030 | <0.00030 | ---- | ---- |
| **Xylene, m+p-** | 179601-23-1 | E611A/WT | 0.00040 | mg/L | <0.00040 | <0.00040 | <0.00040 | ---- | ---- |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | <0.025 | <0.025 | <0.025 | ---- | ---- |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | <0.025 | <0.025 | <0.025 | ---- | ---- |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | <0.10 | <0.10 | <0.10 | ---- | ---- |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | N/A | N/A | N/A | ---- | ---- |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | <0.090 | <0.090 | <0.090 | ---- | ---- |
| **return to baseline at C32** | n/a | E601F/WT | - | - | Yes | Yes | Yes | ---- | ---- |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | <0.100 | <0.100 | <0.100 | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 ---- | SW13 ---- | DUP1 ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 07-Nov-2024 12:02 | 07-Nov-2024 12:34 | 07-Nov-2024 12:39 | ---- | ---- |
| | | | | | | HA2402851-001 | HA2402851-002 | HA2402851-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Hydrocarbons Surrogates** | | | | | | | | | | |
| **dotriacontane, n- (EPH)** | n/a | E601F/WT | 1.0 | % | | 103 | 91.1 | 96.9 | ---- | ---- |
| **isobutylbenzene (EPH)** | 538-93-2 | E601F/WT | 1.0 | % | | 81.6 | 72.6 | 71.6 | ---- | ---- |
| **isobutylbenzene (VPH)** | 538-93-2 | E581.VPH/WT | 1.0 | % | | 96.0 | 86.3 | 104 | ---- | ---- |
| **Volatile Organic Compounds Surrogates** | | | | | | | | | | |
| **Bromofluorobenzene, 4-** | 460-00-4 | E611A/WT | 1.0 | % | | 81.9 | 80.1 | 80.9 | ---- | ---- |
| **Difluorobenzene, 1,4-** | 540-36-3 | E611A/WT | 1.0 | % | | 88.4 | 88.5 | 89.1 | ---- | ---- |

Please refer to the General Comments section for an explanation of any qualifiers detected.

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right solutions.
right partner.

# QUALITY CONTROL INTERPRETIVE REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2402851** | Page | : 1 of 17 |
| **Amendment** | : 1 | | |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : ---- | Date Samples Received | : 07-Nov-2024 13:50 |
| PO | : ---- | Issue Date | : 05-Nov-2025 11:06 |
| C-O-C number | : ---- | | |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield LTM Program 2025 | | |
| No. of samples received | : 3 | | |
| No. of samples analysed | : 3 | | |

**This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.**

**Key**

**Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.**
**CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.**
**DQO: Data Quality Objective.**
**LOR: Limit of Reporting (detection limit).**
**RPD: Relative Percent Difference.**

## *Workorder Comments*

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

### *Outliers: Reference Material (RM) Samples*

- No Reference Material (RM) Sample outliers occur.

## Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

## Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

## Outliers : Quality Control Samples

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

| Analyte Group | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Method | Result | Limits | Comment |
|---|---|---|---|---|---|---|---|---|
| **Method Blank (MB) Values** | | | | | | | | |
| Anions and Nutrients | QC-1760778-001 | ---- | Phosphorus, total | 7723-14-0 | E372-U | 0.0020 mg/L B | 0.002 mg/L | Blank result exceeds permitted value |

## Result Qualifiers

| Qualifier | Description |
|---|---|
| *B* | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

# Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** DUP1 | E550 | 07-Nov-2024 | ---- | ---- | ---- | | 07-Nov-2024 | 3 days | 0 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** SW13 | E550 | 07-Nov-2024 | ---- | ---- | ---- | | 07-Nov-2024 | 3 days | 0 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** SW4 | E550 | 07-Nov-2024 | ---- | ---- | ---- | | 07-Nov-2024 | 3 days | 0 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** DUP1 | E559-L | 07-Nov-2024 | ---- | ---- | ---- | | 11-Nov-2024 | 3 days | 4 days | × EHT |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW13 | E559-L | 07-Nov-2024 | ---- | ---- | ---- | | 11-Nov-2024 | 3 days | 4 days | × EHT |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW4 | E559-L | 07-Nov-2024 | ---- | ---- | ---- | | 11-Nov-2024 | 3 days | 4 days | × EHT |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E562 | 07-Nov-2024 | 13-Nov-2024 | 28 days | 6 days | ✓ | 13-Nov-2024 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E562 | 07-Nov-2024 | 13-Nov-2024 | 28 days | 6 days | ✓ | 13-Nov-2024 | 28 days | 6 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E562 | 07-Nov-2024 | 13-Nov-2024 | 28 days | 6 days | ✓ | 13-Nov-2024 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (lab preserved)** | | | | | | | | | | |
| DUP1 | E298 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 1 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (lab preserved)** | | | | | | | | | | |
| SW13 | E298 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 1 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (lab preserved)** | | | | | | | | | | |
| SW4 | E298 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 1 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E235.Cl | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 12-Nov-2024 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW13 | E235.Cl | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 12-Nov-2024 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E235.Cl | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 12-Nov-2024 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E235.NO3 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 3 days | 4 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO3 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 3 days | 4 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO3 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 3 days | 4 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO2 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 3 days | 4 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO2 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 3 days | 4 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO2 | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 3 days | 4 days | × EHT |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.SO4 | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 12-Nov-2024 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.SO4 | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 12-Nov-2024 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.SO4 | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 12-Nov-2024 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** DUP1 | E318 | 07-Nov-2024 | 12-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 0 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW13 | E318 | 07-Nov-2024 | 12-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 0 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW4 | E318 | 07-Nov-2024 | 12-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 0 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** DUP1 | E372-U | 07-Nov-2024 | 12-Nov-2024 | 3 days | 5 days | × EHT | 12-Nov-2024 | 28 days | 0 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW13 | E372-U | 07-Nov-2024 | 12-Nov-2024 | 3 days | 5 days | × EHT | 12-Nov-2024 | 28 days | 0 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW4 | E372-U | 07-Nov-2024 | 12-Nov-2024 | 3 days | 5 days | × EHT | 12-Nov-2024 | 28 days | 0 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** DUP1 | E601F | 07-Nov-2024 | 12-Nov-2024 | 14 days | 5 days | ✓ | 14-Nov-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW13 | E601F | 07-Nov-2024 | 12-Nov-2024 | 14 days | 5 days | ✓ | 14-Nov-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW4 | E601F | 07-Nov-2024 | 12-Nov-2024 | 14 days | 5 days | ✓ | 14-Nov-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP1 | E581.VPH | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 11-Nov-2024 | 14 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW13 | E581.VPH | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 11-Nov-2024 | 14 days | 4 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW4 | E581.VPH | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 11-Nov-2024 | 14 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** DUP1 | E355-L | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW13 | E355-L | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (lab preserved)** SW4 | E355-L | 07-Nov-2024 | 11-Nov-2024 | 3 days | 4 days | × EHT | 12-Nov-2024 | 28 days | 1 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP1 | E290 | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 13-Nov-2024 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW13 | E290 | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 13-Nov-2024 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW4 | E290 | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 13-Nov-2024 | 14 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP1 | E100 | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 13-Nov-2024 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW13 | E100 | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 13-Nov-2024 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW4 | E100 | 07-Nov-2024 | 11-Nov-2024 | 28 days | 4 days | ✓ | 13-Nov-2024 | 28 days | 4 days | ✓ |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP1 | E108 | 07-Nov-2024 | 08-Nov-2024 | 0.25 hrs | 23 hrs | × EHTR-FM | 08-Nov-2024 | 0.25 hrs | 23 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW13 | E108 | 07-Nov-2024 | 08-Nov-2024 | 0.25 hrs | 23 hrs | × EHTR-FM | 08-Nov-2024 | 0.25 hrs | 23 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW4 | E108 | 07-Nov-2024 | 08-Nov-2024 | 0.25 hrs | 23 hrs | × EHTR-FM | 08-Nov-2024 | 0.25 hrs | 23 hrs | × EHTR-FM |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E162 | 07-Nov-2024 | ---- | ---- | ---- | | 14-Nov-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW13 | E162 | 07-Nov-2024 | ---- | ---- | ---- | | 14-Nov-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW4 | E162 | 07-Nov-2024 | ---- | ---- | ---- | | 14-Nov-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E160 | 07-Nov-2024 | ---- | ---- | ---- | | 14-Nov-2024 | 7 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW13 | E160 | 07-Nov-2024 | ---- | ---- | ---- | | 14-Nov-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E160 | 07-Nov-2024 | ---- | ---- | ---- | | 14-Nov-2024 | 7 days | 7 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| DUP1 | E508 | 07-Nov-2024 | 12-Nov-2024 | 28 days | 5 days | ✓ | 12-Nov-2024 | 28 days | 5 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW13 | E508 | 07-Nov-2024 | 12-Nov-2024 | 28 days | 5 days | ✓ | 12-Nov-2024 | 28 days | 5 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW4 | E508 | 07-Nov-2024 | 12-Nov-2024 | 28 days | 5 days | ✓ | 12-Nov-2024 | 28 days | 5 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| DUP1 | E420 | 07-Nov-2024 | 12-Nov-2024 | 180 days | 5 days | ✓ | 12-Nov-2024 | 180 days | 5 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| SW13 | E420 | 07-Nov-2024 | 12-Nov-2024 | 180 days | 5 days | ✓ | 12-Nov-2024 | 180 days | 5 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| SW4 | E420 | 07-Nov-2024 | 12-Nov-2024 | 180 days | 5 days | ✓ | 12-Nov-2024 | 180 days | 5 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| DUP1 | E611A | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 11-Nov-2024 | 14 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW13 | E611A | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 11-Nov-2024 | 14 days | 4 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW4 | E611A | 07-Nov-2024 | 11-Nov-2024 | 14 days | 4 days | ✓ | 11-Nov-2024 | 14 days | 4 days | ✓ |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

# Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Conductivity in Water | E100 | 1760738 | 1 | 4 | 25.0 | 5.0 | ✓ |
| pH by Meter | E108 | 1757155 | 1 | 8 | 12.5 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 1765625 | 1 | 12 | 8.3 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1765629 | 1 | 13 | 7.6 | 5.2 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1760735 | 1 | 7 | 14.2 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1760732 | 1 | 8 | 12.5 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1760734 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 1760737 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1760779 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1760776 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1760777 | 1 | 5 | 20.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1760778 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1761028 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1760714 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1757049 | 1 | 14 | 7.1 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1760829 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1764213 | 1 | 13 | 7.6 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1760865 | 1 | 20 | 5.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1760866 | 1 | 20 | 5.0 | 5.0 | ✓ |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Conductivity in Water | E100 | 1760738 | 1 | 4 | 25.0 | 5.0 | ✓ |
| pH by Meter | E108 | 1757155 | 1 | 8 | 12.5 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 1765625 | 1 | 12 | 8.3 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1765629 | 1 | 13 | 7.6 | 5.2 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1760735 | 1 | 7 | 14.2 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1760732 | 1 | 8 | 12.5 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1760734 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 1760737 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1760779 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1760776 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1760777 | 1 | 5 | 20.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1760778 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1761028 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1760714 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1757049 | 1 | 14 | 7.1 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1760829 | 1 | 20 | 5.0 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Control Samples (LCS) - Continued** | | | | | | | |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1764213 | 1 | 13 | 7.6 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1760865 | 1 | 20 | 5.0 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1761065 | 1 | 19 | 5.2 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1760866 | 1 | 20 | 5.0 | 5.0 | ✓ |
| **Method Blanks (MB)** | | | | | | | |
| Conductivity in Water | E100 | 1760738 | 1 | 4 | 25.0 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 1765625 | 1 | 12 | 8.3 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1765629 | 1 | 13 | 7.6 | 5.2 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1760735 | 1 | 7 | 14.2 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1760732 | 1 | 8 | 12.5 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1760734 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 1760737 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1760779 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1760776 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1760777 | 1 | 5 | 20.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1760778 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1761028 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1760714 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1757049 | 1 | 14 | 7.1 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1760829 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1764213 | 1 | 13 | 7.6 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1760865 | 1 | 20 | 5.0 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1761065 | 1 | 19 | 5.2 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1760866 | 1 | 20 | 5.0 | 5.0 | ✓ |
| **Matrix Spikes (MS)** | | | | | | | |
| Nitrite in Water by IC | E235.NO2 | 1760735 | 1 | 7 | 14.2 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1760732 | 1 | 8 | 12.5 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1760734 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1760779 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1760776 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1760777 | 1 | 5 | 20.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1760778 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1761028 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1760714 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1760829 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1764213 | 1 | 13 | 7.6 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1760865 | 1 | 20 | 5.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1760866 | 1 | 20 | 5.0 | 5.0 | ✓ |

## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Conductivity in Water | E100<br>ALS Environmental - Waterloo | Water | APHA 2510 (mod) | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C. |
| pH by Meter | E108<br>ALS Environmental - Halifax | Water | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time. |
| TSS by Gravimetry | E160<br>ALS Environmental - Halifax | Water | APHA 2540 D (mod) | Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples. |
| TDS by Gravimetry | E162<br>ALS Environmental - Halifax | Water | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue. |
| Chloride in Water by IC | E235.Cl<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrite in Water by IC | E235.NO2<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrate in Water by IC | E235.NO3<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Sulfate in Water by IC | E235.SO4<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Alkalinity Species by Titration | E290<br>ALS Environmental - Waterloo | Water | APHA 2320 B (mod) | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Ammonia by Fluorescence | E298<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021) |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021). |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove carbonate-based Inorganic Carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. Forms of carbon associated with inorganic or organic molecules (e.g. SCN and CN) are included in NPOC if they are not removed by purging under acidic conditions. Notably, NPOC excludes most volatile organic compounds and free cyanide. For samples where the majority of Total Carbon is inorganic, this method provides greater accuracy and reliability versus the TOC by subtraction method (TC minus TIC). |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample. |
| Total Metals in Water by CRC ICPMS | E420<br>ALS Environmental - Waterloo | Water | EPA 200.2/6020B (mod) | Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |
| Total Mercury in Water by CVAAS | E508<br>ALS Environmental - Waterloo | Water | EPA 1631E (mod) | Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS |
| Biochemical Oxygen Demand - 5 day | E550<br>ALS Environmental - Halifax | Water | APHA 5210 B (mod) | Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter.<br><br>Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples. |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L<br>ALS Environmental - Waterloo | Water | APHA 5220 D (mod) | Samples are analyzed using the closed reflux colourimetric method. |
| Phenols (4AAP) in Water by Colorimetry | E562<br>ALS Environmental - Edmonton | Water | EPA 9066 | This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| VPH by Headspace GC-FID (RBCA) | E581.VPH<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH (Volatile Petroleum Hydrocarbons) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| EPH in Water by GC-FID (RBCA) | E601F<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Sample Extracts are analyzed by GC-FID for RBCA Tier I hydrocarbon fractions C10-C16, C16-C21, C21-C32. |
| BTEX by Headspace GC-MS | E611A<br>ALS Environmental - Waterloo | Water | EPA 8260D (mod) | Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| Hardness (Calculated) from Total Ca/Mg | EC100A<br>ALS Environmental - Waterloo | Water | APHA 2340B | "Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present. |
| VPH C6-C10 (less BTEX) [RBCA] | EC580C<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH C6-C10 (less BTEX) is calculated as follows: VPH (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). |
| Modified TPH (RBCA) Tier I | EC581D<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Modified TPH (PIRI), Tier I is the sum of PIRI Fraction (C6 - C10 - BTEX) + (>C10 - C16) + (>C16 – C21) + (>C21 - C32). |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Preparation for Ammonia | EP298<br>ALS Environmental - Waterloo | Water | | Sample preparation for Preserved Nutrients Water Quality Analysis. |
| Digestion for TKN in water | EP318<br>ALS Environmental - Waterloo | Water | APHA 4500-Norg D (mod) | Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low. |
| Preparation for Total Organic Carbon by Combustion | EP355<br>ALS Environmental - Waterloo | Water | | Preparation for Total Organic Carbon by Combustion |
| Digestion for Total Phosphorus in water | EP372 | Water | APHA 4500-P E (mod). | Samples are heated with a persulfate digestion reagent. |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| | ALS Environmental - Waterloo | | | |
| VOCs Preparation for Headspace Analysis | EP581<br><br>ALS Environmental - Waterloo | Water | EPA 5021A (mod) | Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID. |
| PHCs Hexane Extraction (RBCA) | EP601F<br><br>ALS Environmental - Waterloo | Water | EPA 3511 (mod) | Petroleum Hydrocarbons (PHCs) are extracted using a hexane liquid-liquid extraction. |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2402851** | Page | : 1 of 13 |
| **Amendment** | : **1** | | |
| Client | : AECOM Canada ULC | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : ---- | Date Samples Received | : 07-Nov-2024 13:50 |
| PO | : ---- | Date Analysis Commenced | : 07-Nov-2024 |
| C-O-C number | : ---- | Issue Date | : 05-Nov-2025 11:05 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield LTM Program 2025 | | |
| No. of samples received | : 3 | | |
| No. of samples analysed | : 3 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Andrea Armstrong | Department Manager - Air Quality and Volatiles | Waterloo VOC, Waterloo, Ontario |
| Greg Pokocky | Manager - Inorganics | Waterloo Metals, Waterloo, Ontario |
| Jeremy Gingras | Supervisor - Semi-Volatile Instrumentation | Waterloo Organics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Halifax Inorganics, Dartmouth, Nova Scotia |
| Kelly Fischer | Technical Specialist | Waterloo Metals, Waterloo, Ontario |
| Melissa Freeman | Metal Analyst | Waterloo Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Inorganics, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Metals, Waterloo, Ontario |
| Ping Yeung | Team Leader - Inorganics | Edmonton Inorganics, Edmonton, Alberta |

## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Physical Tests (QC Lot: 1757155)** | | | | | | | | | | | |
| HA2402693-001 | Anonymous | pH | ---- | E108 | 0.10 | pH units | 7.60 | 7.58 | 0.263% | 4% | ---- |
| **Physical Tests (QC Lot: 1760737)** | | | | | | | | | | | |
| WT2433544-001 | Anonymous | Alkalinity, total (as CaCO3) | ---- | E290 | 1.0 | mg/L | 318 | 315 | 0.890% | 20% | ---- |
| **Physical Tests (QC Lot: 1760738)** | | | | | | | | | | | |
| WT2433544-001 | Anonymous | Conductivity | ---- | E100 | 1.0 | µS/cm | 635 | 638 | 0.471% | 10% | ---- |
| **Physical Tests (QC Lot: 1765625)** | | | | | | | | | | | |
| HA2402805-001 | Anonymous | Solids, total suspended [TSS] | ---- | E160 | 3.0 | mg/L | <3.0 | <3.0 | 0 | Diff <2x LOR | ---- |
| **Physical Tests (QC Lot: 1765629)** | | | | | | | | | | | |
| HA2402851-001 | SW4 | Solids, total dissolved [TDS] | ---- | E162 | 13 | mg/L | 71 | 71 | 0.3 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1760732)** | | | | | | | | | | | |
| WT2433544-001 | Anonymous | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.020 | mg/L | <0.020 | <0.020 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1760734)** | | | | | | | | | | | |
| WT2433544-001 | Anonymous | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.30 | mg/L | 8.89 | 8.77 | 1.34% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1760735)** | | | | | | | | | | | |
| WT2433544-001 | Anonymous | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.010 | mg/L | <0.010 | <0.010 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1760776)** | | | | | | | | | | | |
| HA2402843-001 | Anonymous | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 5.00 | mg/L | 97.5 | 99.2 | 1.78% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1760778)** | | | | | | | | | | | |
| HA2402843-001 | Anonymous | Phosphorus, total | 7723-14-0 | E372-U | 0.0200 | mg/L | 6.94 | 6.91 | 0.520% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1760779)** | | | | | | | | | | | |
| HA2402851-001 | SW4 | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | <0.0050 | <0.0050 | 0 | Diff <2x LOR | ---- |
| **Organic / Inorganic Carbon (QC Lot: 1760777)** | | | | | | | | | | | |
| HA2402851-002 | SW13 | Carbon, total organic [TOC] | ---- | E355-L | 2.50 | mg/L | 11.0 | 10.8 | 0.19 | Diff <2x LOR | ---- |
| **Total Metals (QC Lot: 1760714)** | | | | | | | | | | | |
| HA2402851-001 | SW4 | Mercury, total | 7439-97-6 | E508 | 0.0000050 | mg/L | <0.0000050 | 0.0000052 | 0.0000002 | Diff <2x LOR | ---- |
| **Total Metals (QC Lot: 1761028)** | | | | | | | | | | | |
| HA2402851-001 | SW4 | Aluminum, total | 7429-90-5 | E420 | 0.0030 | mg/L | 0.473 | 0.461 | 2.65% | 20% | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.00010 | mg/L | <0.00010 | 0.00010 | 0.000001 | Diff <2x LOR | ---- |
| | | Arsenic, total | 7440-38-2 | E420 | 0.00010 | mg/L | 0.00071 | 0.00068 | 0.00004 | Diff <2x LOR | ---- |
| | | Barium, total | 7440-39-3 | E420 | 0.00010 | mg/L | 0.00507 | 0.00507 | 0.0315% | 20% | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Total Metals (QC Lot: 1761028) - continued** | | | | | | | | | | | |
| HA2402851-001 | SW4 | Beryllium, total | 7440-41-7 | E420 | 0.000020 | mg/L | 0.000074 | 0.000065 | 0.000008 | Diff <2x LOR | ---- |
| | | Bismuth, total | 7440-69-9 | E420 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.010 | mg/L | 0.018 | 0.019 | 0.0003 | Diff <2x LOR | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.0000050 | mg/L | 0.0000156 | 0.0000162 | 0.0000006 | Diff <2x LOR | ---- |
| | | Calcium, total | 7440-70-2 | E420 | 0.050 | mg/L | 2.29 | 2.28 | 0.432% | 20% | ---- |
| | | Cesium, total | 7440-46-2 | E420 | 0.000010 | mg/L | 0.000106 | 0.000107 | 0.656% | 20% | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Cobalt, total | 7440-48-4 | E420 | 0.00010 | mg/L | 0.00019 | 0.00019 | 0.000004 | Diff <2x LOR | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Iron, total | 7439-89-6 | E420 | 0.010 | mg/L | 0.546 | 0.549 | 0.608% | 20% | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.000050 | mg/L | 0.000894 | 0.000900 | 0.580% | 20% | ---- |
| | | Lithium, total | 7439-93-2 | E420 | 0.0010 | mg/L | 0.0024 | 0.0024 | 0.00002 | Diff <2x LOR | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | 0.0050 | mg/L | 0.821 | 0.806 | 1.78% | 20% | ---- |
| | | Manganese, total | 7439-96-5 | E420 | 0.00010 | mg/L | 0.0342 | 0.0342 | 0.129% | 20% | ---- |
| | | Molybdenum, total | 7439-98-7 | E420 | 0.000050 | mg/L | 0.000061 | 0.000063 | 0.000002 | Diff <2x LOR | ---- |
| | | Nickel, total | 7440-02-0 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Phosphorus, total | 7723-14-0 | E420 | 0.050 | mg/L | <0.050 | <0.050 | 0 | Diff <2x LOR | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 0.050 | mg/L | 0.568 | 0.563 | 0.972% | 20% | ---- |
| | | Rubidium, total | 7440-17-7 | E420 | 0.00020 | mg/L | 0.00190 | 0.00180 | 0.00010 | Diff <2x LOR | ---- |
| | | Selenium, total | 7782-49-2 | E420 | 0.000050 | mg/L | 0.000131 | 0.000141 | 0.000010 | Diff <2x LOR | ---- |
| | | Silicon, total | 7440-21-3 | E420 | 0.10 | mg/L | 2.49 | 2.46 | 0.835% | 20% | ---- |
| | | Silver, total | 7440-22-4 | E420 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Sodium, total | 7440-23-5 | E420 | 0.050 | mg/L | 5.71 | 5.60 | 1.85% | 20% | ---- |
| | | Strontium, total | 7440-24-6 | E420 | 0.00020 | mg/L | 0.0115 | 0.0114 | 1.50% | 20% | ---- |
| | | Sulfur, total | 7704-34-9 | E420 | 0.50 | mg/L | 1.25 | 1.17 | 0.08 | Diff <2x LOR | ---- |
| | | Tellurium, total | 13494-80-9 | E420 | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| | | Thallium, total | 7440-28-0 | E420 | 0.000010 | mg/L | 0.000014 | 0.000012 | 0.000001 | Diff <2x LOR | ---- |
| | | Thorium, total | 7440-29-1 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Tin, total | 7440-31-5 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Titanium, total | 7440-32-6 | E420 | 0.00030 | mg/L | 0.00532 | 0.00512 | 3.76% | 20% | ---- |
| | | Tungsten, total | 7440-33-7 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Uranium, total | 7440-61-1 | E420 | 0.000010 | mg/L | 0.000244 | 0.000247 | 1.35% | 20% | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.00050 | mg/L | 0.00101 | 0.00102 | 0.000006 | Diff <2x LOR | ---- |
| | | Zinc, total | 7440-66-6 | E420 | 0.0030 | mg/L | <0.0030 | <0.0030 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Total Metals (QC Lot: 1761028) - continued** | | | | | | | | | | | |
| HA2402851-001 | SW4 | Zirconium, total | 7440-67-7 | E420 | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1757049)** | | | | | | | | | | | |
| HA2402785-001 | Anonymous | Biochemical oxygen demand [BOD] | ---- | E550 | 300 | mg/L | 1180 | 1150 | 36.9 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1760829)** | | | | | | | | | | | |
| HA2402843-001 | Anonymous | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 663 | 650 | 2.01% | 20% | ---- |
| **Aggregate Organics (QC Lot: 1764213)** | | | | | | | | | | | |
| VA24D0408-001 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Volatile Organic Compounds (QC Lot: 1760866)** | | | | | | | | | | | |
| HA2402797-001 | Anonymous | Benzene | 71-43-2 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Ethylbenzene | 100-41-4 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Toluene | 108-88-3 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611A | 0.40 | µg/L | <0.00040 mg/L | <0.40 | 0 | Diff <2x LOR | ---- |
| | | Xylene, o- | 95-47-6 | E611A | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| **Hydrocarbons (QC Lot: 1760865)** | | | | | | | | | | | |
| HA2402797-001 | Anonymous | VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <0.025 mg/L | <25 | 0 | Diff <2x LOR | ---- |

## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Physical Tests (QCLot: 1760737)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 1760738)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | <1.0 | ---- |
| **Physical Tests (QCLot: 1765625)** | | | | | | |
| Solids, total suspended [TSS] | ---- | E160 | 3 | mg/L | <3.0 | ---- |
| **Physical Tests (QCLot: 1765629)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Anions and Nutrients (QCLot: 1760732)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1760734)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 1760735)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 1760776)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Anions and Nutrients (QCLot: 1760778)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | # 0.0020 | B |
| **Anions and Nutrients (QCLot: 1760779)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1760777)** | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | <0.50 | ---- |
| **Total Metals (QCLot: 1760714)** | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Total Metals (QCLot: 1761028)** | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Beryllium, total | 7440-41-7 | E420 | 0.00002 | mg/L | <0.000020 | ---- |
| Bismuth, total | 7440-69-9 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | <0.0000050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Total Metals (QCLot: 1761028) - continued** | | | | | | |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Cesium, total | 7440-46-2 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Cobalt, total | 7440-48-4 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Lithium, total | 7439-93-2 | E420 | 0.001 | mg/L | <0.0010 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Molybdenum, total | 7439-98-7 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Phosphorus, total | 7723-14-0 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Rubidium, total | 7440-17-7 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| Selenium, total | 7782-49-2 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Silicon, total | 7440-21-3 | E420 | 0.1 | mg/L | <0.10 | ---- |
| Silver, total | 7440-22-4 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Strontium, total | 7440-24-6 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| Sulfur, total | 7704-34-9 | E420 | 0.5 | mg/L | <0.50 | ---- |
| Tellurium, total | 13494-80-9 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| Thallium, total | 7440-28-0 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Thorium, total | 7440-29-1 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Tin, total | 7440-31-5 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Titanium, total | 7440-32-6 | E420 | 0.0003 | mg/L | <0.00030 | ---- |
| Tungsten, total | 7440-33-7 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| Zirconium, total | 7440-67-7 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| **Aggregate Organics (QCLot: 1757049)** | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | <2.0 | ---- |
| **Aggregate Organics (QCLot: 1760829)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Aggregate Organics (QCLot: 1764213)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Volatile Organic Compounds (QCLot: 1760866)** | | | | | | |
| Benzene | 71-43-2 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Ethylbenzene | 100-41-4 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Toluene | 108-88-3 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611A | 0.4 | µg/L | <0.40 | ---- |
| Xylene, o- | 95-47-6 | E611A | 0.3 | µg/L | <0.30 | ---- |
| **Hydrocarbons (QCLot: 1760865)** | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <25 | ---- |
| **Hydrocarbons (QCLot: 1761065)** | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | <100 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| B | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Physical Tests (QCLot: 1757155)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 100 | 98.0 | 102 | ---- |
| **Physical Tests (QCLot: 1760737)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 103 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1760738)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 101 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 1765625)** | | | | | | | | | |
| Solids, total suspended [TSS] | ---- | E160 | 3 | mg/L | 150 mg/L | 97.8 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1765629)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 97.0 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 1760732)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 98.0 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1760734)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 98.8 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1760735)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 96.8 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1760776)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 103 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1760778)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 101 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 1760779)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 95.8 | 85.0 | 115 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1760777)** | | | | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | 8.57 mg/L | 104 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 1760714)** | | | | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | 0 mg/L | 93.8 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 1761028)** | | | | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | 0.1 mg/L | 98.3 | 80.0 | 120 | ---- |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | 0.05 mg/L | 102 | 80.0 | 120 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | 0.05 mg/L | 106 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Total Metals (QCLot: 1761028) - continued** | | | | | | | | | |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | 0.012 mg/L | 103 | 80.0 | 120 | ---- |
| Beryllium, total | 7440-41-7 | E420 | 0.00002 | mg/L | 0.005 mg/L | 98.5 | 80.0 | 120 | ---- |
| Bismuth, total | 7440-69-9 | E420 | 0.00005 | mg/L | 0.05 mg/L | 100.0 | 80.0 | 120 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | 0.05 mg/L | 99.9 | 80.0 | 120 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | 0.005 mg/L | 101 | 80.0 | 120 | ---- |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | 2.5 mg/L | 100 | 80.0 | 120 | ---- |
| Cesium, total | 7440-46-2 | E420 | 0.00001 | mg/L | 0.002 mg/L | 103 | 80.0 | 120 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | 0.012 mg/L | 103 | 80.0 | 120 | ---- |
| Cobalt, total | 7440-48-4 | E420 | 0.0001 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | 0.05 mg/L | 102 | 80.0 | 120 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Lithium, total | 7439-93-2 | E420 | 0.001 | mg/L | 0.012 mg/L | 96.6 | 80.0 | 120 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | 2.5 mg/L | 107 | 80.0 | 120 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Molybdenum, total | 7439-98-7 | E420 | 0.00005 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Phosphorus, total | 7723-14-0 | E420 | 0.05 | mg/L | 0.5 mg/L | 102 | 80.0 | 120 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | 2.5 mg/L | 103 | 80.0 | 120 | ---- |
| Rubidium, total | 7440-17-7 | E420 | 0.0002 | mg/L | 0.005 mg/L | 100 | 80.0 | 120 | ---- |
| Selenium, total | 7782-49-2 | E420 | 0.00005 | mg/L | 0.05 mg/L | 99.0 | 80.0 | 120 | ---- |
| Silicon, total | 7440-21-3 | E420 | 0.1 | mg/L | 0.5 mg/L | 104 | 80.0 | 120 | ---- |
| Silver, total | 7440-22-4 | E420 | 0.00001 | mg/L | 0.005 mg/L | 98.8 | 80.0 | 120 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | 2.5 mg/L | 103 | 80.0 | 120 | ---- |
| Strontium, total | 7440-24-6 | E420 | 0.0002 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Sulfur, total | 7704-34-9 | E420 | 0.5 | mg/L | 2.5 mg/L | 95.7 | 80.0 | 120 | ---- |
| Tellurium, total | 13494-80-9 | E420 | 0.0002 | mg/L | 0.005 mg/L | 95.6 | 80.0 | 120 | ---- |
| Thallium, total | 7440-28-0 | E420 | 0.00001 | mg/L | 0.05 mg/L | 101 | 80.0 | 120 | ---- |
| Thorium, total | 7440-29-1 | E420 | 0.0001 | mg/L | 0.005 mg/L | 97.8 | 80.0 | 120 | ---- |
| Tin, total | 7440-31-5 | E420 | 0.0001 | mg/L | 0.025 mg/L | 101 | 80.0 | 120 | ---- |
| Titanium, total | 7440-32-6 | E420 | 0.0003 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Tungsten, total | 7440-33-7 | E420 | 0.0001 | mg/L | 0.005 mg/L | 98.0 | 80.0 | 120 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | 0 mg/L | 104 | 80.0 | 120 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | 0.025 mg/L | 104 | 80.0 | 120 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | 0.025 mg/L | 99.3 | 80.0 | 120 | ---- |
| Zirconium, total | 7440-67-7 | E420 | 0.0002 | mg/L | 0.005 mg/L | 96.8 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Aggregate Organics (QCLot: 1757049)** | | | | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | 198 mg/L | 104 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1760829)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 99.9 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1764213)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 95.8 | 85.0 | 115 | ---- |
| **Volatile Organic Compounds (QCLot: 1760866)** | | | | | | | | | |
| Benzene | 71-43-2 | E611A | 0.5 | µg/L | 100 µg/L | 91.0 | 70.0 | 130 | ---- |
| Ethylbenzene | 100-41-4 | E611A | 0.5 | µg/L | 100 µg/L | 79.5 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611A | 0.5 | µg/L | 100 µg/L | 81.6 | 70.0 | 130 | ---- |
| Xylene, m+p- | 179601-23-1 | E611A | 0.4 | µg/L | 200 µg/L | 78.7 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611A | 0.3 | µg/L | 100 µg/L | 80.3 | 70.0 | 130 | ---- |
| **Hydrocarbons (QCLot: 1760865)** | | | | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | 2000 µg/L | 85.2 | 80.0 | 120 | ---- |
| **Hydrocarbons (QCLot: 1761065)** | | | | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | 4480 µg/L | 90.6 | 70.0 | 130 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | 3640 µg/L | 100 | 70.0 | 130 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | 3160 µg/L | 99.6 | 70.0 | 130 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | 4190 µg/L | 99.4 | 70.0 | 130 | ---- |

## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 1760732)** | | | | | | | | | | |
| WT2433544-001 | Anonymous | Nitrate (as N) | 14797-55-8 | E235.NO3 | 2.27 mg/L | 2.5 mg/L | 90.7 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1760734)** | | | | | | | | | | |
| WT2433544-001 | Anonymous | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 91.9 mg/L | 100 mg/L | 91.9 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1760735)** | | | | | | | | | | |
| WT2433544-001 | Anonymous | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.468 mg/L | 0.5 mg/L | 93.6 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1760776)** | | | | | | | | | | |
| HA2402843-001 | Anonymous | Kjeldahl nitrogen, total [TKN] | ---- | E318 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1760778)** | | | | | | | | | | |
| HA2402843-001 | Anonymous | Phosphorus, total | 7723-14-0 | E372-U | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1760779)** | | | | | | | | | | |
| HA2402851-001 | SW4 | Ammonia, total (as N) | 7664-41-7 | E298 | 0.113 mg/L | 0.1 mg/L | 113 | 75.0 | 125 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1760777)** | | | | | | | | | | |
| HA2402851-002 | SW13 | Carbon, total organic [TOC] | ---- | E355-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 1760714)** | | | | | | | | | | |
| HA2402851-002 | SW13 | Mercury, total | 7439-97-6 | E508 | 0.000102 mg/L | 0 mg/L | 102 | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 1761028)** | | | | | | | | | | |
| HA2402851-002 | SW13 | Aluminum, total | 7429-90-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.0519 mg/L | 0.05 mg/L | 104 | 70.0 | 130 | ---- |
| | | Arsenic, total | 7440-38-2 | E420 | 0.0532 mg/L | 0.05 mg/L | 106 | 70.0 | 130 | ---- |
| | | Barium, total | 7440-39-3 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Beryllium, total | 7440-41-7 | E420 | 0.00490 mg/L | 0.005 mg/L | 98.0 | 70.0 | 130 | ---- |
| | | Bismuth, total | 7440-69-9 | E420 | 0.0498 mg/L | 0.05 mg/L | 99.5 | 70.0 | 130 | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.050 mg/L | 0.05 mg/L | 99.4 | 70.0 | 130 | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.00499 mg/L | 0.005 mg/L | 99.8 | 70.0 | 130 | ---- |
| | | Calcium, total | 7440-70-2 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cesium, total | 7440-46-2 | E420 | 0.00256 mg/L | 0.002 mg/L | 102 | 70.0 | 130 | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.0131 mg/L | 0.012 mg/L | 104 | 70.0 | 130 | ---- |
| | | Cobalt, total | 7440-48-4 | E420 | 0.0128 mg/L | 0.012 mg/L | 102 | 70.0 | 130 | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.0126 mg/L | 0.012 mg/L | 101 | 70.0 | 130 | ---- |
| | | Iron, total | 7439-89-6 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.0251 mg/L | 0.025 mg/L | 100 | 70.0 | 130 | ---- |
| | | Lithium, total | 7439-93-2 | E420 | 0.0121 mg/L | 0.012 mg/L | 96.8 | 70.0 | 130 | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, total | 7439-96-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Molybdenum, total | 7439-98-7 | E420 | 0.0128 mg/L | 0.012 mg/L | 102 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Total Metals (QCLot: 1761028) - continued** | | | | | | | | | | |
| HA2402851-002 | SW13 | Nickel, total | 7440-02-0 | E420 | 0.0256 mg/L | 0.025 mg/L | 102 | 70.0 | 130 | ---- |
| | | Phosphorus, total | 7723-14-0 | E420 | 0.510 mg/L | 0.5 mg/L | 102 | 70.0 | 130 | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 2.44 mg/L | 2.5 mg/L | 97.7 | 70.0 | 130 | ---- |
| | | Rubidium, total | 7440-17-7 | E420 | 0.00473 mg/L | 0.005 mg/L | 94.5 | 70.0 | 130 | ---- |
| | | Selenium, total | 7782-49-2 | E420 | 0.0504 mg/L | 0.05 mg/L | 101 | 70.0 | 130 | ---- |
| | | Silicon, total | 7440-21-3 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Silver, total | 7440-22-4 | E420 | 0.00487 mg/L | 0.005 mg/L | 97.3 | 70.0 | 130 | ---- |
| | | Sodium, total | 7440-23-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Strontium, total | 7440-24-6 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sulfur, total | 7704-34-9 | E420 | 2.25 mg/L | 2.5 mg/L | 89.9 | 70.0 | 130 | ---- |
| | | Tellurium, total | 13494-80-9 | E420 | 0.00495 mg/L | 0.005 mg/L | 99.0 | 70.0 | 130 | ---- |
| | | Thallium, total | 7440-28-0 | E420 | 0.0500 mg/L | 0.05 mg/L | 99.9 | 70.0 | 130 | ---- |
| | | Thorium, total | 7440-29-1 | E420 | 0.00486 mg/L | 0.005 mg/L | 97.2 | 70.0 | 130 | ---- |
| | | Tin, total | 7440-31-5 | E420 | 0.0252 mg/L | 0.025 mg/L | 101 | 70.0 | 130 | ---- |
| | | Titanium, total | 7440-32-6 | E420 | 0.0113 mg/L | 0.012 mg/L | 90.5 | 70.0 | 130 | ---- |
| | | Tungsten, total | 7440-33-7 | E420 | 0.00498 mg/L | 0.005 mg/L | 99.7 | 70.0 | 130 | ---- |
| | | Uranium, total | 7440-61-1 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.0260 mg/L | 0.025 mg/L | 104 | 70.0 | 130 | ---- |
| | | Zinc, total | 7440-66-6 | E420 | 0.0250 mg/L | 0.025 mg/L | 100 | 70.0 | 130 | ---- |
| | | Zirconium, total | 7440-67-7 | E420 | 0.00448 mg/L | 0.005 mg/L | 89.6 | 70.0 | 130 | ---- |
| **Aggregate Organics (QCLot: 1760829)** | | | | | | | | | | |
| HA2402843-001 | Anonymous | Chemical oxygen demand [COD] | ---- | E559-L | ND mg/L | ---- | ND | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1764213)** | | | | | | | | | | |
| VA24D0408-002 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0191 mg/L | 0.02 mg/L | 95.5 | 75.0 | 125 | ---- |
| **Volatile Organic Compounds (QCLot: 1760866)** | | | | | | | | | | |
| HA2402797-001 | Anonymous | Benzene | 71-43-2 | E611A | 90.0 µg/L | 100 µg/L | 90.0 | 60.0 | 140 | ---- |
| | | Ethylbenzene | 100-41-4 | E611A | 82.2 µg/L | 100 µg/L | 82.2 | 60.0 | 140 | ---- |
| | | Toluene | 108-88-3 | E611A | 80.9 µg/L | 100 µg/L | 80.9 | 60.0 | 140 | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611A | 163 µg/L | 200 µg/L | 81.7 | 60.0 | 140 | ---- |
| | | Xylene, o- | 95-47-6 | E611A | 83.0 µg/L | 100 µg/L | 83.0 | 60.0 | 140 | ---- |
| **Hydrocarbons (QCLot: 1760865)** | | | | | | | | | | |
| HA2402797-001 | Anonymous | VPH C6-C10 | n/a | E581.VPH | 1670 µg/L | 2000 µg/L | 83.5 | 60.0 | 140 | ---- |

# Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page 1 of 1

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division Halifax

Work Order Reference HA2402851

Telephone : +1 902 707 4888

| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM Canada Ltd. |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis St, SH400 PO Box 576 CRO |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| **Invoice To** | Same as Report To ☒ YES ☐ NO |
| | Copy of Invoice with Report ☒ YES ☐ NO |
| Company: | |
| Contact: | |

**Reports / Recipients**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax janice.shea@aecom.com

Email 2

Email 3

**Invoice Recipients**

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

**Turnaround Time (TAT) Requested**

☒ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge mini

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge min

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge min

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mini

☐ Same day [E2] if received by 10am M-S - 200% rush surchar

Additional fees may apply to rush requests on weeken

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please

**Project Information**

ALS Account # / Quote #: AECO100

Job #:

PO / AFE:

LSD:

**Oil and Gas Required Fields (client use)**

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (ALS use only): HA2402851

ALS Contact: EHANSEN Sampler:

Analysis Re

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

| ALS Sample # (ALS use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | NUMBER OF CONTAINERS | Alkalinity | Ammonia | Total Metals, ~~Dissolved Metals~~ | Total Mercury, ~~Dissolved Mercury~~ | TKN | Nitrate, Nitrite | Conductivity, pH | Total Phosphorus | TSS, TDS | Sulphate | BOD, COD, TOC, Phenols (4AAP) | ~~TDS~~ | TPH and BTEX | SAMPLES ON HOLD | EXTENDED STORAGE REQUIRED | SUSPECTED HAZARD (see notes) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SW4 | 07-11-24 | 12:02 | WATER | 10 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | ↓ | | | |
| | SW13 | ↓ | 12:34 | WATER | 10 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | ↓ | | | |
| | ~~SW19~~ 20 | ↓ | ↓ | ~~WATER~~ | | | | | | | | | | | | | | | | | |
| | ~~SW20~~ | | ↓ | ~~WATER~~ | | | | | | | | | | | | | | | | | |
| | DUP1 | 07-11-24 | 12:39 | WATER | 10 | X | X | X | X | X | X | X | X | X | X | X | | X | | | |

**SAMPLE RECEIPT DETAILS (ALS use only)**

Cooling Method: ☐ NONE ☒ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

| INITIAL COOLER TEMPERATURES °C | | | | FINAL COOLER TEMPERATURES °C | | | |
|---|---|---|---|---|---|---|---|
| 9.5 | 8.4 | | | | | | |

**Drinking Water (DW) Samples[1] (client use)**

Are samples taken from a Regulated DW System? ☐ YES ☒ NO

Are samples for human consumption/ use? ☐ YES ☒ NO

**Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)**

**SHIPMENT RELEASE (client use)**

| Released by: | Date: | Time: |
|---|---|---|
| Nicolas Duval | 07-11-24 | 13:58 |

**INITIAL SHIPMENT RECEPTION (ALS use only)**

| Received by: | Date: | Time: |
|---|---|---|
| Shone | 7 November 2024 | 1:50 |

**FINAL SHIPMENT RECEPTION (ALS use only)**

| Received by: | Date: | Time: |
|---|---|---|
| | | |

FEB 2022 FRONT

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2403221** | | |
| Client | : **AECOM Canada Ltd.** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO Halifax Nova Scotia Canada B3J 3M8 | Address | : 13-100 Wright Ave Dartmouth NS Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 09-Dec-2024 10:45 |
| PO | : ---- | Date Analysis Commenced | : 10-Dec-2024 |
| C-O-C number | : ---- | Issue Date | : 16-Dec-2024 15:55 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : ---- | | |
| No. of samples received | : 4 | | |
| No. of samples analysed | : 4 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Brooke Miller | Laboratory Analyst | Inorganics, Edmonton, Alberta |
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Organics, Waterloo, Ontario |
| Greg Pokocky | Manager - Inorganics | Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Inorganics, Dartmouth, Nova Scotia |
| Jon Fisher | Production Manager, Environmental | Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Inorganics, Waterloo, Ontario |
| Sarah Birch | VOC Section Supervisor | VOC, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Inorganics, Waterloo, Ontario |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

| *Unit* | *Description* |
|---|---|
| - | no units |
| % | percent |
| CU | colour units (1 cu = 1 mg/l pt) |
| meq/L | milliequivalents per litre |
| mg/L | milligrams per litre |
| none | none |
| NTU | nephelometric turbidity units |
| pH units | pH units |
| µg/L | micrograms per litre |
| µS/cm | microsiemens per centimetre |

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Sample Comments

| *Sample* | *Client Id* | *Comment* |
|---|---|---|
| HA2403221-001 | SW4 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403221-002 | SW13 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403221-003 | SW19-20 | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403221-003 | SW19-20 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403221-004 | DUP1 | N/A: Resemblance Not Applicable (mTPH < LOR) |

## Qualifiers

| Qualifier | Description |
|---|---|
| RRR | Refer to report comments for issues regarding this analysis. |
| SUR-ND | Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected. |
| VOCHS | VOC analysis was conducted for a water sample that contained > 5% headspace. Results may be biased low. |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Physical Tests** | | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | | 5.8 | 4.8 | 239 | 222 | ---- |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | ---- |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | | 4.8 | 4.0 | 196 | 182 | ---- |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | | 156 | 138 | 44.1 | 56.1 | ---- |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | | 62.9 | 90.9 | 684 | 628 | ---- |
| **Hardness (as CaCO3), from total Ca/Mg** | ---- | EC100A/WT | 0.50 | mg/L | | 16.8 | 18.4 | 298 | 295 | ---- |
| **Langelier index (@ 20°C)** | ---- | EC105A/WT | 0.010 | - | | -3.79 | -3.88 | 0.948 | 0.336 | ---- |
| **Langelier index (@ 4°C)** | ---- | EC105A/WT | 0.010 | - | | -4.04 | -4.14 | 0.701 | 0.088 | ---- |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 6.18 | 6.17 | 8.11 | 7.52 | ---- |
| **pH, saturation (@ 20°C)** | ---- | EC105A/WT | 0.010 | pH units | | 9.97 | 10.0 | 7.16 | 7.18 | ---- |
| **pH, saturation (@ 4°C)** | ---- | EC105A/WT | 0.010 | pH units | | 10.2 | 10.3 | 7.41 | 7.43 | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 72 | 84 | 403 | 366 | ---- |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | | 2.38 | 3.53 | 16.5 | 12.6 | ---- |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0094 | 0.0121 | 0.0833 | 0.0979 | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 9.12 | 17.4 | 12.1 | 11.6 | ---- |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | | 0.024 | 0.021 | 0.074 | 0.072 | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | 0.028 | 0.151 | 0.021 | 0.025 | ---- |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | | 0.0280 | 0.151 | <0.0224 | 0.0250 | ---- |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | <0.010 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Anions and Nutrients** | | | | | | | | | | |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | | <0.0010 | 0.0050 | 0.0040 | 0.0058 | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 5.64 | 4.88 | 149 | 132 | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 18.6 | 16.9 | 9.11 | 10.2 | ---- |
| **Ion Balance** | | | | | | | | | | |
| **Anion sum** | ---- | EC101A/WT | 0.10 | meq/L | | 0.47 | 0.68 | 7.36 | 6.72 | ---- |
| **Cation sum (total)** | ---- | EC101A/WT | 0.10 | meq/L | | 0.68 | 0.87 | 6.80 | 6.71 | ---- |
| **Ion balance (cations/anions)** | ---- | EC101A/WT | 0.01 | % | | 145 | 128 | 92.4 | 99.8 | ---- |
| **Total Metals** | | | | | | | | | | |
| **Aluminum, total** | 7429-90-5 | E420/WT | 0.0030 | mg/L | | 0.512 | 0.537 | 0.424 | 0.339 | ---- |
| **Antimony, total** | 7440-36-0 | E420/WT | 0.00010 | mg/L | | 0.00012 | 0.00010 | 0.00025 | 0.00023 | ---- |
| **Arsenic, total** | 7440-38-2 | E420/WT | 0.00010 | mg/L | | 0.00048 | 0.00053 | 0.00128 | 0.00115 | ---- |
| **Barium, total** | 7440-39-3 | E420/WT | 0.00010 | mg/L | | 0.00561 | 0.00939 | 0.0370 | 0.0370 | ---- |
| **Beryllium, total** | 7440-41-7 | E420/WT | 0.000020 | mg/L | | 0.000086 | 0.000070 | 0.000030 | 0.000028 | ---- |
| **Bismuth, total** | 7440-69-9 | E420/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | <0.000050 | ---- |
| **Boron, total** | 7440-42-8 | E420/WT | 0.010 | mg/L | | 0.031 | 0.012 | 0.214 | 0.206 | ---- |
| **Cadmium, total** | 7440-43-9 | E420/WT | 0.0000050 | mg/L | | 0.0000258 | 0.0000411 | 0.0000203 | 0.0000222 | ---- |
| **Calcium, total** | 7440-70-2 | E420/WT | 0.100 | mg/L | | 4.68 | 4.70 | 99.9 | 99.2 | ---- |
| **Cesium, total** | 7440-46-2 | E420/WT | 0.000010 | mg/L | | 0.000099 | 0.000058 | 0.000115 | 0.000111 | ---- |
| **Chromium, total** | 7440-47-3 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00066 | 0.00081 | 0.00069 | ---- |
| **Cobalt, total** | 7440-48-4 | E420/WT | 0.00010 | mg/L | | 0.00021 | 0.00029 | 0.00104 | 0.00098 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Total Metals** | | | | | | | | | | |
| **Copper, total** | 7440-50-8 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00156 | 0.00205 | 0.00200 | ---- |
| **Iron, total** | 7439-89-6 | E420/WT | 0.010 | mg/L | | 0.516 | 0.614 | 1.16 | 0.952 | ---- |
| **Lead, total** | 7439-92-1 | E420/WT | 0.000050 | mg/L | | 0.000895 | 0.000706 | 0.000945 | 0.000918 | ---- |
| **Lithium, total** | 7439-93-2 | E420/WT | 0.0010 | mg/L | | <0.0010 | <0.0010 | 0.0020 | 0.0017 | ---- |
| **Magnesium, total** | 7439-95-4 | E420/WT | 0.0050 | mg/L | | 1.24 | 1.61 | 11.7 | 11.4 | ---- |
| **Manganese, total** | 7439-96-5 | E420/WT | 0.00010 | mg/L | | 0.0255 | 0.0529 | 0.827 | 0.763 | ---- |
| **Mercury, total** | 7439-97-6 | E508/WT | 0.0000050 | mg/L | | 0.0000058 | 0.0000056 | <0.0000050 | <0.0000050 | ---- |
| **Molybdenum, total** | 7439-98-7 | E420/WT | 0.000050 | mg/L | | 0.000060 | 0.000079 | 0.000943 | 0.000869 | ---- |
| **Nickel, total** | 7440-02-0 | E420/WT | 0.00050 | mg/L | | 0.00052 | 0.00108 | 0.00158 | 0.00145 | ---- |
| **Phosphorus, total** | 7723-14-0 | E420/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | ---- |
| **Potassium, total** | 7440-09-7 | E420/WT | 0.050 | mg/L | | 0.525 | 1.01 | 8.14 | 7.80 | ---- |
| **Rubidium, total** | 7440-17-7 | E420/WT | 0.00020 | mg/L | | 0.00141 | 0.00190 | 0.00511 | 0.00497 | ---- |
| **Selenium, total** | 7782-49-2 | E420/WT | 0.000050 | mg/L | | 0.000127 | 0.000151 | 0.000096 | 0.000110 | ---- |
| **Silicon (as SiO2), total** | 7631-86-9 | EC420.SiO2/WT | 0.25 | mg/L | | 4.11 | 5.18 | 7.68 | 7.59 | ---- |
| **Silicon, total** | 7440-21-3 | E420/WT | 0.10 | mg/L | | 1.92 | 2.42 | 3.59 | 3.55 | ---- |
| **Silver, total** | 7440-22-4 | E420/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | <0.000010 | <0.000010 | ---- |
| **Sodium, total** | 7440-23-5 | E420/WT | 0.050 | mg/L | | 5.82 | 8.99 | 11.9 | 11.9 | ---- |
| **Strontium, total** | 7440-24-6 | E420/WT | 0.00020 | mg/L | | 0.0188 | 0.0167 | 0.349 | 0.345 | ---- |
| **Sulfur, total** | 7704-34-9 | E420/WT | 0.50 | mg/L | | 2.15 | 1.59 | 48.0 | 48.2 | ---- |
| **Tellurium, total** | 13494-80-9 | E420/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 | <0.00020 | ---- |
| **Thallium, total** | 7440-28-0 | E420/WT | 0.000010 | mg/L | | 0.000011 | <0.000010 | <0.000010 | <0.000010 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Total Metals** | | | | | | | | | | |
| **Thorium, total** | 7440-29-1 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | ---- |
| **Tin, total** | 7440-31-5 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | ---- |
| **Titanium, total** | 7440-32-6 | E420/WT | 0.00030 | mg/L | | 0.00774 | 0.0101 | 0.0174 | 0.0140 | ---- |
| **Tungsten, total** | 7440-33-7 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | ---- |
| **Uranium, total** | 7440-61-1 | E420/WT | 0.000010 | mg/L | | 0.00160 | 0.000321 | 0.0128 | 0.0130 | ---- |
| **Vanadium, total** | 7440-62-2 | E420/WT | 0.00050 | mg/L | | 0.00100 | 0.00114 | 0.00108 | 0.00096 | ---- |
| **Zinc, total** | 7440-66-6 | E420/WT | 0.0030 | mg/L | | 0.0049 | 0.0078 | 0.0069 | 0.0060 | ---- |
| **Zirconium, total** | 7440-67-7 | E420/WT | 0.00020 | mg/L | | <0.00020 | 0.00023 | 0.00023 | 0.00026 | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Biochemical oxygen demand [BOD]** | ---- | E550/HA | 2.0 | mg/L | | <2.0 | <2.0 | <2.0 | <2.0 | ---- |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 46 | 45 | 18 | 28 | ---- |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | 0.0149 | <0.0010 | 0.0035 | 0.0030 | ---- |
| **Volatile Organic Compounds** | | | | | | | | | | |
| **Bromodichloromethane** | 75-27-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCHS | <0.00050 | ---- |
| **Bromoform** | 75-25-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCHS | <0.00050 | ---- |
| **Bromomethane** | 74-83-9 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCHS | <0.00050 | ---- |
| **Carbon tetrachloride** | 56-23-5 | E611D/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 VOCHS | <0.00020 | ---- |
| **Chlorobenzene** | 108-90-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCHS | <0.00050 | ---- |
| **Chloroethane** | 75-00-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCHS | <0.00050 | ---- |
| **Chloroform** | 67-66-3 | E611D/WT | 0.00050 | mg/L | | 0.00077 | 0.00055 | <0.00050 VOCHS | <0.00050 | ---- |
| **Chloromethane** | 74-87-3 | E611D/WT | 0.0020 | mg/L | | <0.0020 | <0.0020 | <0.0020 VOCHS | <0.0020 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Volatile Organic Compounds** | | | | | | | | | | |
| **Dibromochloromethane** | 124-48-1 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dibromoethane, 1,2-** | 106-93-4 | E611D/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 VOCS | <0.00020 | ---- |
| **Dichlorobenzene, 1,2-** | 95-50-1 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichlorobenzene, 1,3-** | 541-73-1 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichlorobenzene, 1,4-** | 106-46-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichloroethane, 1,1-** | 75-34-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichloroethane, 1,2-** | 107-06-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichloroethylene, 1,1-** | 75-35-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichloroethylene, cis-1,2-** | 156-59-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichloroethylene, trans-1,2-** | 156-60-5 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Dichloromethane** | 75-09-2 | E611D/WT | 0.0010 | mg/L | | <0.0010 | <0.0010 | <0.0010 VOCS | <0.0010 | ---- |
| **Dichloropropane, 1,2-** | 78-87-5 | E611D/WT | 0.50 | µg/L | | <0.50 | <0.50 | <0.50 VOCS | <0.50 | ---- |
| **Dichloropropylene, cis-1,3-** | 10061-01-5 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 VOCS | <0.00030 | ---- |
| **Dichloropropylene, cis+trans-1,3-** | 542-75-6 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Dichloropropylene, trans-1,3-** | 10061-02-6 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 VOCS | <0.00030 | ---- |
| **Styrene** | 100-42-5 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Tetrachloroethane, 1,1,1,2-** | 630-20-6 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Tetrachloroethane, 1,1,2,2-** | 79-34-5 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Tetrachloroethylene** | 127-18-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Trichloroethane, 1,1,1-** | 71-55-6 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Trichloroethane, 1,1,2-** | 79-00-5 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Volatile Organic Compounds** | | | | | | | | | | |
| **Trichloroethylene** | 79-01-6 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Vinyl chloride** | 75-01-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | ---- |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | ---- |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | ---- |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | ---- |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 VOCS | <0.00050 | ---- |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 VOCS | <0.00030 | ---- |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | | <0.00040 | <0.00040 | <0.00040 VOCS | <0.00040 | ---- |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 VOCS | <0.025 | ---- |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | ---- |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.100 RRR | <0.050 | ---- |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.100 RRR | <0.050 | ---- |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | ---- |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | <0.10 | <0.10 | <0.10 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | SW19-20 | DUP1 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 09-Dec-2024 07:55 | 09-Dec-2024 08:31 | 09-Dec-2024 08:15 | 09-Dec-2024 08:33 | ---- |
| | | | | | | HA2403221-001 | HA2403221-002 | HA2403221-003 | HA2403221-004 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Hydrocarbons** | | | | | | | | | | |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | N/A | N/A | N/A | ---- |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.090 | <0.090 | <0.150 | <0.090 | ---- |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | Yes | Yes | Yes | ---- |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.100 | <0.100 | <0.150 RRR | <0.100 | ---- |
| **Hydrocarbons Surrogates** | | | | | | | | | | |
| **dotriacontane, n- (EPH)** | n/a | E601F/WT | 1.0 | % | | 112 | 108 | 105 | 108 | ---- |
| **isobutylbenzene (EPH)** | 538-93-2 | E601F/WT | 1.0 | % | | 53.2 SUR-ND | 64.0 | 48.5 RRR | 57.6 SUR-ND | ---- |
| **isobutylbenzene (VPH)** | 538-93-2 | E581.VPH/WT | 1.0 | % | | 91.8 | 91.2 | 84.7 | 84.7 | ---- |
| **Volatile Organic Compounds Surrogates** | | | | | | | | | | |
| **Bromofluorobenzene, 4-** | 460-00-4 | E611D/WT | 1.0 | % | | 92.8 | 91.5 | 90.7 | 89.4 | ---- |
| **Difluorobenzene, 1,4-** | 540-36-3 | E611D/WT | 1.0 | % | | 94.8 | 94.4 | 94.7 | 94.6 | ---- |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

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right partner.

# QUALITY CONTROL INTERPRETIVE REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2403221** | Page | : 1 of 21 |
| Client | : **AECOM Canada Ltd.** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 09-Dec-2024 10:45 |
| PO | : ---- | Issue Date | : 16-Dec-2024 15:54 |
| C-O-C number | : ---- | | |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : ---- | | |
| No. of samples received | : 4 | | |
| No. of samples analysed | : 4 | | |

**This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.**

**Key**

**Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.**
**CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.**
**DQO: Data Quality Objective.**
**LOR: Limit of Reporting (detection limit).**
**RPD: Relative Percent Difference.**

## *Workorder Comments*

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Test sample Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.

### *Outliers: Reference Material (RM) Samples*

- No Reference Material (RM) Sample outliers occur.

## Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

## Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

## Outliers : Quality Control Samples

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

| Analyte Group | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Method | Result | Limits | Comment |
|---|---|---|---|---|---|---|---|---|
| **Method Blank (MB) Values** | | | | | | | | |
| Volatile Organic Compounds | QC-MRG2-1808231001 | ---- | Toluene | 108-88-3 | E611D | 4.95 µg/L MB-LOR | 0.5 µg/L | Blank result exceeds permitted value |

## Result Qualifiers

| Qualifier | Description |
|---|---|
| *MB-LOR* | *Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.* |

### Regular Sample Surrogates

Sub-Matrix: **Water**

| Analyte Group | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Result | Limits | Comment |
|---|---|---|---|---|---|---|---|
| **Samples Submitted** | | | | | | | |
| Hydrocarbons Surrogates | HA2403221-001 | SW4 | isobutylbenzene (EPH) | 538-93-2 | 53.2 % | 60.0-140 % | Recovery less than lower data quality objective |
| Hydrocarbons Surrogates | HA2403221-003 | SW19-20 | isobutylbenzene (EPH) | 538-93-2 | 48.5 % | 60.0-140 % | Recovery less than lower data quality objective |
| Hydrocarbons Surrogates | HA2403221-004 | DUP1 | isobutylbenzene (EPH) | 538-93-2 | 57.6 % | 60.0-140 % | Recovery less than lower data quality objective |

## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E550 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW13 | E550 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW19-20 | E550 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E550 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E559-L | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E559-L | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E559-L | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 28 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E559-L | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E562 | 09-Dec-2024 | 12-Dec-2024 | 28 days | 3 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E562 | 09-Dec-2024 | 12-Dec-2024 | 28 days | 3 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E562 | 09-Dec-2024 | 12-Dec-2024 | 28 days | 3 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E562 | 09-Dec-2024 | 12-Dec-2024 | 28 days | 3 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E298 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E298 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E298 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E298 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.Cl | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.Cl | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.Cl | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.Cl | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** DUP1 | E378-U | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** SW13 | E378-U | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** SW19-20 | E378-U | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** SW4 | E378-U | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.F | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.F | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.F | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.F | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO3 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO3 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.NO3 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO3 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO2 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO2 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.NO2 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO2 | 09-Dec-2024 | 10-Dec-2024 | 3 days | 1 days | ✓ | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.SO4 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.SO4 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.SO4 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.SO4 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** DUP1 | E601F | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW13 | E601F | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW19-20 | E601F | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 40 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW4 | E601F | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP1 | E581.VPH | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW13 | E581.VPH | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW19-20 | E581.VPH | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW4 | E581.VPH | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E355-L | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW13 | E355-L | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW19-20 | E355-L | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW4 | E355-L | 09-Dec-2024 | 10-Dec-2024 | 28 days | 2 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP1 | E290 | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 14 days | 2 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW13 | E290 | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 14 days | 2 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW19-20 | E290 | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 14 days | 2 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW4 | E290 | 09-Dec-2024 | 10-Dec-2024 | 14 days | 1 days | ✓ | 11-Dec-2024 | 14 days | 2 days | ✓ |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** DUP1 | E330 | 09-Dec-2024 | ---- | ---- | ---- | | 10-Dec-2024 | 48 hrs | 28 hrs | ✓ |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** SW13 | E330 | 09-Dec-2024 | ---- | ---- | ---- | | 10-Dec-2024 | 48 hrs | 29 hrs | ✓ |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** SW19-20 | E330 | 09-Dec-2024 | ---- | ---- | ---- | | 10-Dec-2024 | 48 hrs | 29 hrs | ✓ |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** SW4 | E330 | 09-Dec-2024 | ---- | ---- | ---- | | 10-Dec-2024 | 48 hrs | 29 hrs | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP1 | E100 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW13 | E100 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW19-20 | E100 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW4 | E100 | 09-Dec-2024 | 10-Dec-2024 | 28 days | 1 days | ✓ | 11-Dec-2024 | 28 days | 2 days | ✓ |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW4 | E108 | 09-Dec-2024 | 13-Dec-2024 | 0.25 hrs | 97 hrs | × EHTR-FM | 13-Dec-2024 | 0.25 hrs | 100 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP1 | E108 | 09-Dec-2024 | 13-Dec-2024 | 0.25 hrs | 97 hrs | × EHTR-FM | 13-Dec-2024 | 0.25 hrs | 99 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW13 | E108 | 09-Dec-2024 | 13-Dec-2024 | 0.25 hrs | 97 hrs | × EHTR-FM | 13-Dec-2024 | 0.25 hrs | 99 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW19-20 | E108 | 09-Dec-2024 | 13-Dec-2024 | 0.25 hrs | 97 hrs | × EHTR-FM | 13-Dec-2024 | 0.25 hrs | 99 hrs | × EHTR-FM |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E162 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 7 days | 2 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW13 | E162 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 7 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW19-20 | E162 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 7 days | 2 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW4 | E162 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 7 days | 2 days | ✓ |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** DUP1 | E121 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** SW13 | E121 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** SW19-20 | E121 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** SW4 | E121 | 09-Dec-2024 | ---- | ---- | ---- | | 11-Dec-2024 | 3 days | 2 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** DUP1 | E508 | 09-Dec-2024 | 11-Dec-2024 | 28 days | 2 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** SW13 | E508 | 09-Dec-2024 | 11-Dec-2024 | 28 days | 2 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** SW19-20 | E508 | 09-Dec-2024 | 11-Dec-2024 | 28 days | 2 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** SW4 | E508 | 09-Dec-2024 | 11-Dec-2024 | 28 days | 2 days | ✓ | 12-Dec-2024 | 28 days | 3 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** DUP1 | E420 | 09-Dec-2024 | 11-Dec-2024 | 180 days | 2 days | ✓ | 11-Dec-2024 | 180 days | 2 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** SW13 | E420 | 09-Dec-2024 | 11-Dec-2024 | 180 days | 2 days | ✓ | 11-Dec-2024 | 180 days | 2 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** SW19-20 | E420 | 09-Dec-2024 | 11-Dec-2024 | 180 days | 2 days | ✓ | 11-Dec-2024 | 180 days | 2 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** SW4 | E420 | 09-Dec-2024 | 11-Dec-2024 | 180 days | 2 days | ✓ | 11-Dec-2024 | 180 days | 2 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP1 | E611D | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW13 | E611D | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW19-20 | E611D | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW4 | E611D | 09-Dec-2024 | 13-Dec-2024 | 14 days | 4 days | ✓ | 13-Dec-2024 | 14 days | 4 days | ✓ |

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

# Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Alkalinity Species by Titration | E290 | 1803274 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1803530 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1804861 | 1 | 10 | 10.0 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1804460 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1803271 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Colour (Apparent) by Spectrometer | E330 | 1803031 | 1 | 12 | 8.3 | 5.0 | ✓ |
| Conductivity in Water | E100 | 1803273 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1803276 | 1 | 8 | 12.5 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1803268 | 1 | 9 | 11.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1803269 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1803270 | 1 | 10 | 10.0 | 5.0 | ✓ |
| pH by Meter | E108 | 1808021 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1806472 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1803272 | 1 | 15 | 6.6 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1804357 | 1 | 9 | 11.1 | 5.2 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1804195 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1803942 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1803529 | 1 | 12 | 8.3 | 5.0 | ✓ |
| Turbidity by Nephelometry | E121 | 1804409 | 1 | 20 | 5.0 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1808231 | 2 | 5 | 40.0 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1808232 | 1 | 4 | 25.0 | 5.0 | ✓ |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Alkalinity Species by Titration | E290 | 1803274 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1803530 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1804861 | 1 | 10 | 10.0 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1804460 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1803271 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Colour (Apparent) by Spectrometer | E330 | 1803031 | 1 | 12 | 8.3 | 5.0 | ✓ |
| Conductivity in Water | E100 | 1803273 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1803276 | 1 | 8 | 12.5 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1803278 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1803268 | 1 | 9 | 11.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1803269 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1803270 | 1 | 10 | 10.0 | 5.0 | ✓ |
| pH by Meter | E108 | 1808021 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1806472 | 1 | 20 | 5.0 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Control Samples (LCS) - Continued** | | | | | | | |
| Sulfate in Water by IC | E235.SO4 | 1803272 | 1 | 15 | 6.6 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1804357 | 1 | 9 | 11.1 | 5.2 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1804195 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1803942 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1803529 | 1 | 12 | 8.3 | 5.0 | ✓ |
| Turbidity by Nephelometry | E121 | 1804409 | 1 | 20 | 5.0 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1808231 | 2 | 5 | 40.0 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1808232 | 1 | 4 | 25.0 | 5.0 | ✓ |
| **Method Blanks (MB)** | | | | | | | |
| Alkalinity Species by Titration | E290 | 1803274 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1803530 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1804861 | 1 | 10 | 10.0 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1804460 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1803271 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Colour (Apparent) by Spectrometer | E330 | 1803031 | 1 | 12 | 8.3 | 5.0 | ✓ |
| Conductivity in Water | E100 | 1803273 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1803276 | 1 | 8 | 12.5 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1803278 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1803268 | 1 | 9 | 11.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1803269 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1803270 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1806472 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1803272 | 1 | 15 | 6.6 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1804357 | 1 | 9 | 11.1 | 5.2 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1804195 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1803942 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1803529 | 1 | 12 | 8.3 | 5.0 | ✓ |
| Turbidity by Nephelometry | E121 | 1804409 | 1 | 20 | 5.0 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1808231 | 2 | 5 | 40.0 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1808232 | 1 | 4 | 25.0 | 5.0 | ✓ |
| **Matrix Spikes (MS)** | | | | | | | |
| Ammonia by Fluorescence | E298 | 1803530 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1804460 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1803271 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1803276 | 1 | 8 | 12.5 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1803268 | 1 | 9 | 11.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1803269 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1803270 | 1 | 10 | 10.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1806472 | 1 | 20 | 5.0 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| Matrix Spikes (MS) - Continued | | | | | | | |
| Sulfate in Water by IC | E235.SO4 | 1803272 | 1 | 15 | 6.6 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1804195 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1803942 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1803529 | 1 | 12 | 8.3 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1808231 | 1 | 5 | 20.0 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1808232 | 1 | 4 | 25.0 | 5.0 | ✓ |

## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Conductivity in Water | E100<br>ALS Environmental - Waterloo | Water | APHA 2510 (mod) | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C. |
| pH by Meter | E108<br>ALS Environmental - Halifax | Water | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time. |
| Turbidity by Nephelometry | E121<br>ALS Environmental - Waterloo | Water | APHA 2130 B (mod) | Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions. |
| TDS by Gravimetry | E162<br>ALS Environmental - Halifax | Water | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue. |
| Chloride in Water by IC | E235.Cl<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Fluoride in Water by IC | E235.F<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrite in Water by IC | E235.NO2<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrate in Water by IC | E235.NO3<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Sulfate in Water by IC | E235.SO4<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Alkalinity Species by Titration | E290<br>ALS Environmental - Waterloo | Water | APHA 2320 B (mod) | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Ammonia by Fluorescence | E298<br><br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021) |
| Colour (Apparent) by Spectrometer | E330<br><br>ALS Environmental - Waterloo | Water | APHA 2120 C (mod) | Colour (Apparent) is measured in an unfiltered sample spectrophotometrically using the single wavelength method. The colour contribution of settleable solids are not included in the result. This method is intended for potable waters.<br><br>Colour measurements can be highly pH dependent, and apply to the pH of the sample as received (at time of testing), without pH adjustment. |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L<br><br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of $CO_2$. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC). |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U<br><br>ALS Environmental - Waterloo | Water | APHA 4500-P F (mod) | Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.<br><br>Field filtration is recommended to ensure test results represent conditions at time of sampling. |
| Total Metals in Water by CRC ICPMS | E420<br><br>ALS Environmental - Waterloo | Water | EPA 200.2/6020B (mod) | Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |
| Total Mercury in Water by CVAAS | E508<br><br>ALS Environmental - Waterloo | Water | EPA 1631E (mod) | Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS |
| Biochemical Oxygen Demand - 5 day | E550<br><br>ALS Environmental - Halifax | Water | APHA 5210 B (mod) | Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter.<br><br>Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples. |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L<br><br>ALS Environmental - Waterloo | Water | APHA 5220 D (mod) | Samples are analyzed using the closed reflux colourimetric method. |
| Phenols (4AAP) in Water by Colorimetry | E562<br><br>ALS Environmental - Edmonton | Water | EPA 9066 | This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide ($K_3Fe(CN)_6$) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| VPH by Headspace GC-FID (RBCA) | E581.VPH<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH (Volatile Petroleum Hydrocarbons) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| EPH in Water by GC-FID (RBCA) | E601F<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Sample Extracts are analyzed by GC-FID for RBCA Tier I hydrocarbon fractions C10-C16, C16-C21, C21-C32. |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D<br>ALS Environmental - Waterloo | Water | EPA 8260D (mod) | Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| Hardness (Calculated) from Total Ca/Mg | EC100A<br>ALS Environmental - Waterloo | Water | APHA 2340B | "Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters. |
| Ion Balance using Total Metals | EC101A<br>ALS Environmental - Waterloo | Water | APHA 1030E | Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC). |
| Saturation Index using Laboratory pH (Ca-T) | EC105A<br>ALS Environmental - Waterloo | Water | APHA 2330B | Langelier Index provides an indication of scale formation potential at a given pH and temperature, and is calculated as per APHA 2330B Saturation Index. Positive values indicate oversaturation with respect to CaCO3. Negative values indicate undersaturation of CaCO3. This calculation uses laboratory pH measurements and provides estimates of Langelier Index at temperatures of 4, 15, 20, 25, 66, and 77°C. Ryznar Stability Index is an alternative index used for scale formation and corrosion potential. |
| Nitrate and Nitrite (as N) (Calculation) | EC235.N+N<br>ALS Environmental - Waterloo | Water | EPA 300.0 | Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N). |
| Total Silicon as Silica (Calculation) | EC420.SiO2<br>ALS Environmental - Waterloo | Water | N/A | Total Silicon (as SiO2) is a calculated parameter. Total Silicon (as SiO2 mg/L) = 2.139 x Total Silicon (mg/L). |
| VPH C6-C10 (less BTEX) [RBCA] | EC580C<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH C6-C10 (less BTEX) is calculated as follows: VPH (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Modified TPH (RBCA) Tier I | EC581D<br><br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Modified TPH (PIRI), Tier I is the sum of PIRI Fraction (C6 - C10 - BTEX) + (>C10 - C16) + (>C16 – C21) + (>C21 - C32). |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Preparation for Ammonia | EP298<br><br>ALS Environmental - Waterloo | Water | | Sample preparation for Preserved Nutrients Water Quality Analysis. |
| Preparation for Total Organic Carbon by Combustion | EP355<br><br>ALS Environmental - Waterloo | Water | | Preparation for Total Organic Carbon by Combustion |
| VOCs Preparation for Headspace Analysis | EP581<br><br>ALS Environmental - Waterloo | Water | EPA 5021A (mod) | Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID. |
| PHCs Hexane Extraction (RBCA) | EP601F<br><br>ALS Environmental - Waterloo | Water | EPA 3511 (mod) | Petroleum Hydrocarbons (PHCs) are extracted using a hexane liquid-liquid extraction. |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2403221** | Page | : 1 of 19 |
| Client | : AECOM Canada Ltd. | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 09-Dec-2024 10:45 |
| PO | : ---- | Date Analysis Commenced | : 10-Dec-2024 |
| C-O-C number | : ---- | Issue Date | : 16-Dec-2024 15:54 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : ---- | | |
| No. of samples received | : 4 | | |
| No. of samples analysed | : 4 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Brooke Miller | Laboratory Analyst | Edmonton Inorganics, Edmonton, Alberta |
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Waterloo Organics, Waterloo, Ontario |
| Greg Pokocky | Manager - Inorganics | Waterloo Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Halifax Inorganics, Dartmouth, Nova Scotia |
| Jon Fisher | Production Manager, Environmental | Waterloo Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Waterloo Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Inorganics, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Metals, Waterloo, Ontario |
| Sarah Birch | VOC Section Supervisor | Waterloo VOC, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Inorganics, Waterloo, Ontario |

## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Physical Tests (QC Lot: 1803031)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Colour, apparent | ---- | E330 | 2.0 | CU | 156 | 155 | 0.924% | 20% | ---- |
| **Physical Tests (QC Lot: 1803273)** | | | | | | | | | | | |
| WT2436473-001 | Anonymous | Conductivity | ---- | E100 | 1.0 | µS/cm | 756 | 751 | 0.664% | 10% | ---- |
| **Physical Tests (QC Lot: 1803274)** | | | | | | | | | | | |
| WT2436473-001 | Anonymous | Alkalinity, total (as CaCO3) | ---- | E290 | 2.0 | mg/L | 282 | 274 | 2.85% | 20% | ---- |
| **Physical Tests (QC Lot: 1804357)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 72 | 71 | 1 | Diff <2x LOR | ---- |
| **Physical Tests (QC Lot: 1804409)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Turbidity | ---- | E121 | 0.10 | NTU | 2.38 | 2.44 | 2.49% | 15% | ---- |
| **Physical Tests (QC Lot: 1808021)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | pH | ---- | E108 | 0.10 | pH units | 6.18 | 6.12 | 1.09% | 4% | ---- |
| **Anions and Nutrients (QC Lot: 1803268)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Fluoride | 16984-48-8 | E235.F | 0.020 | mg/L | 0.024 | 0.023 | 0.001 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1803269)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.020 | mg/L | 0.028 | 0.026 | 0.001 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1803270)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.010 | mg/L | <0.010 | <0.010 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1803271)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Chloride | 16887-00-6 | E235.Cl | 0.50 | mg/L | 9.12 | 9.04 | 0.960% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1803272)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.30 | mg/L | 5.64 | 5.62 | 0.428% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1803276)** | | | | | | | | | | | |
| HA2403221-002 | SW13 | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0010 | mg/L | 0.0050 | 0.0050 | 0.00001 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1803530)** | | | | | | | | | | | |
| HA2403221-002 | SW13 | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | 0.0121 | 0.0131 | 0.0010 | Diff <2x LOR | ---- |
| **Organic / Inorganic Carbon (QC Lot: 1803529)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Carbon, total organic [TOC] | ---- | E355-L | 0.50 | mg/L | 18.6 | 18.9 | 1.38% | 20% | ---- |
| **Total Metals (QC Lot: 1803942)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Aluminum, total | 7429-90-5 | E420 | 0.0030 | mg/L | 0.512 | 0.502 | 1.95% | 20% | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.00010 | mg/L | 0.00012 | 0.00012 | 0.000007 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Total Metals (QC Lot: 1803942) - continued** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Arsenic, total | 7440-38-2 | E420 | 0.00010 | mg/L | 0.00048 | 0.00046 | 0.00003 | Diff <2x LOR | ---- |
| | | Barium, total | 7440-39-3 | E420 | 0.00010 | mg/L | 0.00561 | 0.00573 | 2.09% | 20% | ---- |
| | | Beryllium, total | 7440-41-7 | E420 | 0.000020 | mg/L | 0.000086 | 0.000079 | 0.000007 | Diff <2x LOR | ---- |
| | | Bismuth, total | 7440-69-9 | E420 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.010 | mg/L | 0.031 | 0.032 | 0.0007 | Diff <2x LOR | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.0000050 | mg/L | 0.0000258 | 0.0000224 | 0.0000034 | Diff <2x LOR | ---- |
| | | Calcium, total | 7440-70-2 | E420 | 0.100 | mg/L | 4.68 | 4.73 | 1.03% | 20% | ---- |
| | | Cesium, total | 7440-46-2 | E420 | 0.000010 | mg/L | 0.000099 | 0.000096 | 0.000003 | Diff <2x LOR | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Cobalt, total | 7440-48-4 | E420 | 0.00010 | mg/L | 0.00021 | 0.00021 | 0.000002 | Diff <2x LOR | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.00050 | mg/L | <0.00050 | 0.00051 | 0.00001 | Diff <2x LOR | ---- |
| | | Iron, total | 7439-89-6 | E420 | 0.010 | mg/L | 0.516 | 0.500 | 3.14% | 20% | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.000050 | mg/L | 0.000895 | 0.000886 | 1.07% | 20% | ---- |
| | | Lithium, total | 7439-93-2 | E420 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | 0.0050 | mg/L | 1.24 | 1.23 | 0.971% | 20% | ---- |
| | | Manganese, total | 7439-96-5 | E420 | 0.00010 | mg/L | 0.0255 | 0.0250 | 2.05% | 20% | ---- |
| | | Molybdenum, total | 7439-98-7 | E420 | 0.000050 | mg/L | 0.000060 | 0.000057 | 0.000002 | Diff <2x LOR | ---- |
| | | Nickel, total | 7440-02-0 | E420 | 0.00050 | mg/L | 0.00052 | 0.00054 | 0.00001 | Diff <2x LOR | ---- |
| | | Phosphorus, total | 7723-14-0 | E420 | 0.050 | mg/L | <0.050 | <0.050 | 0 | Diff <2x LOR | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 0.050 | mg/L | 0.525 | 0.516 | 1.81% | 20% | ---- |
| | | Rubidium, total | 7440-17-7 | E420 | 0.00020 | mg/L | 0.00141 | 0.00150 | 0.00009 | Diff <2x LOR | ---- |
| | | Selenium, total | 7782-49-2 | E420 | 0.000050 | mg/L | 0.000127 | 0.000124 | 0.000003 | Diff <2x LOR | ---- |
| | | Silicon, total | 7440-21-3 | E420 | 0.10 | mg/L | 1.92 | 1.89 | 1.20% | 20% | ---- |
| | | Silver, total | 7440-22-4 | E420 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Sodium, total | 7440-23-5 | E420 | 0.050 | mg/L | 5.82 | 5.90 | 1.33% | 20% | ---- |
| | | Strontium, total | 7440-24-6 | E420 | 0.00020 | mg/L | 0.0188 | 0.0186 | 0.877% | 20% | ---- |
| | | Sulfur, total | 7704-34-9 | E420 | 0.50 | mg/L | 2.15 | 2.00 | 0.14 | Diff <2x LOR | ---- |
| | | Tellurium, total | 13494-80-9 | E420 | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| | | Thallium, total | 7440-28-0 | E420 | 0.000010 | mg/L | 0.000011 | <0.000010 | 0.0000006 | Diff <2x LOR | ---- |
| | | Thorium, total | 7440-29-1 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Tin, total | 7440-31-5 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Titanium, total | 7440-32-6 | E420 | 0.00030 | mg/L | 0.00774 | 0.00774 | 0.0698% | 20% | ---- |
| | | Tungsten, total | 7440-33-7 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Uranium, total | 7440-61-1 | E420 | 0.000010 | mg/L | 0.00160 | 0.00158 | 1.30% | 20% | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Total Metals (QC Lot: 1803942) - continued** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Vanadium, total | 7440-62-2 | E420 | 0.00050 | mg/L | 0.00100 | 0.00102 | 0.00002 | Diff <2x LOR | ---- |
| | | Zinc, total | 7440-66-6 | E420 | 0.0030 | mg/L | 0.0049 | 0.0048 | 0.0001 | Diff <2x LOR | ---- |
| | | Zirconium, total | 7440-67-7 | E420 | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| **Total Metals (QC Lot: 1804195)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Mercury, total | 7439-97-6 | E508 | 0.0000050 | mg/L | 0.0000058 | 0.0000069 | 0.0000011 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1804460)** | | | | | | | | | | | |
| HA2403164-002 | Anonymous | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 55 | 54 | 1 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1804861)** | | | | | | | | | | | |
| HA2402694-001 | Anonymous | Biochemical oxygen demand [BOD] | ---- | E550 | 2.0 | mg/L | <2.0 | <2.0 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1806472)** | | | | | | | | | | | |
| VA24D3269-001 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Volatile Organic Compounds (QC Lot: 1808231)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Toluene | 108-88-3 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| HA2403221-001 | SW4 | Benzene | 71-43-2 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Bromodichloromethane | 75-27-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Bromoform | 75-25-2 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Bromomethane | 74-83-9 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Carbon tetrachloride | 56-23-5 | E611D | 0.20 | µg/L | <0.00020 mg/L | <0.20 | 0 | Diff <2x LOR | ---- |
| | | Chlorobenzene | 108-90-7 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Chloroethane | 75-00-3 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Chloroform | 67-66-3 | E611D | 0.50 | µg/L | 0.00077 mg/L | 0.80 | 0.03 | Diff <2x LOR | ---- |
| | | Chloromethane | 74-87-3 | E611D | 2.0 | µg/L | <0.0020 mg/L | <2.0 | 0 | Diff <2x LOR | ---- |
| | | Dibromochloromethane | 124-48-1 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dibromoethane, 1,2- | 106-93-4 | E611D | 0.20 | µg/L | <0.00020 mg/L | <0.20 | 0 | Diff <2x LOR | ---- |
| | | Dichlorobenzene, 1,2- | 95-50-1 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichlorobenzene, 1,3- | 541-73-1 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichlorobenzene, 1,4- | 106-46-7 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichloroethane, 1,1- | 75-34-3 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Volatile Organic Compounds (QC Lot: 1808231) - continued** | | | | | | | | | | | |
| HA2403221-001 | SW4 | Dichloroethane, 1,2- | 107-06-2 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichloroethylene, 1,1- | 75-35-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichloroethylene, cis-1,2- | 156-59-2 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichloroethylene, trans-1,2- | 156-60-5 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichloromethane | 75-09-2 | E611D | 1.0 | µg/L | <0.0010 mg/L | <1.0 | 0 | Diff <2x LOR | ---- |
| | | Dichloropropane, 1,2- | 78-87-5 | E611D | 0.50 | µg/L | <0.50 | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Dichloropropylene, cis-1,3- | 10061-01-5 | E611D | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| | | Dichloropropylene, trans-1,3- | 10061-02-6 | E611D | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| | | Ethylbenzene | 100-41-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Styrene | 100-42-5 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Tetrachloroethane, 1,1,1,2- | 630-20-6 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Tetrachloroethane, 1,1,2,2- | 79-34-5 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Tetrachloroethylene | 127-18-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Trichloroethane, 1,1,1- | 71-55-6 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Trichloroethane, 1,1,2- | 79-00-5 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Trichloroethylene | 79-01-6 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Vinyl chloride | 75-01-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611D | 0.40 | µg/L | <0.00040 mg/L | <0.40 | 0 | Diff <2x LOR | ---- |
| | | Xylene, o- | 95-47-6 | E611D | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| **Hydrocarbons (QC Lot: 1808232)** | | | | | | | | | | | |
| HA2403221-001 | SW4 | VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <0.025 mg/L | <25 | 0 | Diff <2x LOR | ---- |

## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Physical Tests (QCLot: 1803031)** | | | | | | |
| Colour, apparent | ---- | E330 | 2 | CU | <2.0 | ---- |
| **Physical Tests (QCLot: 1803273)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1.5 | ---- |
| **Physical Tests (QCLot: 1803274)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 1.1 | ---- |
| **Physical Tests (QCLot: 1804357)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Physical Tests (QCLot: 1804409)** | | | | | | |
| Turbidity | ---- | E121 | 0.1 | NTU | <0.10 | ---- |
| **Anions and Nutrients (QCLot: 1803268)** | | | | | | |
| Fluoride | 16984-48-8 | E235.F | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1803269)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1803270)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 1803271)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 1803272)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 1803276)** | | | | | | |
| Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.001 | mg/L | <0.0010 | ---- |
| **Anions and Nutrients (QCLot: 1803530)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1803529)** | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | <0.50 | ---- |
| **Total Metals (QCLot: 1803942)** | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Beryllium, total | 7440-41-7 | E420 | 0.00002 | mg/L | <0.000020 | ---- |
| Bismuth, total | 7440-69-9 | E420 | 0.00005 | mg/L | <0.000050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Total Metals (QCLot: 1803942) - continued** | | | | | | |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Cesium, total | 7440-46-2 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Cobalt, total | 7440-48-4 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Lithium, total | 7439-93-2 | E420 | 0.001 | mg/L | <0.0010 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Molybdenum, total | 7439-98-7 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Phosphorus, total | 7723-14-0 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Rubidium, total | 7440-17-7 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| Selenium, total | 7782-49-2 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Silicon, total | 7440-21-3 | E420 | 0.1 | mg/L | <0.10 | ---- |
| Silver, total | 7440-22-4 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Strontium, total | 7440-24-6 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| Sulfur, total | 7704-34-9 | E420 | 0.5 | mg/L | <0.50 | ---- |
| Tellurium, total | 13494-80-9 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| Thallium, total | 7440-28-0 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Thorium, total | 7440-29-1 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Tin, total | 7440-31-5 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Titanium, total | 7440-32-6 | E420 | 0.0003 | mg/L | <0.00030 | ---- |
| Tungsten, total | 7440-33-7 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| Zirconium, total | 7440-67-7 | E420 | 0.0002 | mg/L | <0.00020 | ---- |
| **Total Metals (QCLot: 1804195)** | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | <0.0000050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Aggregate Organics (QCLot: 1804460)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |
| **Aggregate Organics (QCLot: 1804861)** | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | <2.0 | ---- |
| **Aggregate Organics (QCLot: 1806472)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Volatile Organic Compounds (QCLot: 1808231)** | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Bromodichloromethane | 75-27-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Bromoform | 75-25-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Bromomethane | 74-83-9 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Carbon tetrachloride | 56-23-5 | E611D | 0.2 | µg/L | <0.20 | ---- |
| Chlorobenzene | 108-90-7 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Chloroethane | 75-00-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Chloroform | 67-66-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Chloromethane | 74-87-3 | E611D | 2 | µg/L | <2.0 | ---- |
| Dibromochloromethane | 124-48-1 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dibromoethane, 1,2- | 106-93-4 | E611D | 0.2 | µg/L | <0.20 | ---- |
| Dichlorobenzene, 1,2- | 95-50-1 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichlorobenzene, 1,3- | 541-73-1 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichlorobenzene, 1,4- | 106-46-7 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethane, 1,1- | 75-34-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethane, 1,2- | 107-06-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethylene, 1,1- | 75-35-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethylene, cis-1,2- | 156-59-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethylene, trans-1,2- | 156-60-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloromethane | 75-09-2 | E611D | 1 | µg/L | <1.0 | ---- |
| Dichloropropane, 1,2- | 78-87-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloropropylene, cis-1,3- | 10061-01-5 | E611D | 0.3 | µg/L | <0.30 | ---- |
| Dichloropropylene, trans-1,3- | 10061-02-6 | E611D | 0.3 | µg/L | <0.30 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Styrene | 100-42-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Tetrachloroethane, 1,1,1,2- | 630-20-6 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Tetrachloroethane, 1,1,2,2- | 79-34-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Tetrachloroethylene | 127-18-4 | E611D | 0.5 | µg/L | <0.50 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds (QCLot: 1808231) - continued** | | | | | | |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | # 4.95 | MB-LOR |
| Trichloroethane, 1,1,1- | 71-55-6 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Trichloroethane, 1,1,2- | 79-00-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Trichloroethylene | 79-01-6 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Vinyl chloride | 75-01-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | <0.40 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | <0.30 | ---- |
| **Volatile Organic Compounds (QCLot: 1810492)** | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Bromodichloromethane | 75-27-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Bromoform | 75-25-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Bromomethane | 74-83-9 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Carbon tetrachloride | 56-23-5 | E611D | 0.2 | µg/L | <0.20 | ---- |
| Chlorobenzene | 108-90-7 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Chloroethane | 75-00-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Chloroform | 67-66-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Chloromethane | 74-87-3 | E611D | 2 | µg/L | <2.0 | ---- |
| Dibromochloromethane | 124-48-1 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dibromoethane, 1,2- | 106-93-4 | E611D | 0.2 | µg/L | <0.20 | ---- |
| Dichlorobenzene, 1,2- | 95-50-1 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichlorobenzene, 1,3- | 541-73-1 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichlorobenzene, 1,4- | 106-46-7 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethane, 1,1- | 75-34-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethane, 1,2- | 107-06-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethylene, 1,1- | 75-35-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethylene, cis-1,2- | 156-59-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloroethylene, trans-1,2- | 156-60-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloromethane | 75-09-2 | E611D | 1 | µg/L | <1.0 | ---- |
| Dichloropropane, 1,2- | 78-87-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Dichloropropylene, cis-1,3- | 10061-01-5 | E611D | 0.3 | µg/L | <0.30 | ---- |
| Dichloropropylene, trans-1,3- | 10061-02-6 | E611D | 0.3 | µg/L | <0.30 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Styrene | 100-42-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Tetrachloroethane, 1,1,1,2- | 630-20-6 | E611D | 0.5 | µg/L | <0.50 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds (QCLot: 1810492) - continued** | | | | | | |
| Tetrachloroethane, 1,1,2,2- | 79-34-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Tetrachloroethylene | 127-18-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Trichloroethane, 1,1,1- | 71-55-6 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Trichloroethane, 1,1,2- | 79-00-5 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Trichloroethylene | 79-01-6 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Vinyl chloride | 75-01-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | <0.40 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | <0.30 | ---- |
| **Hydrocarbons (QCLot: 1803278)** | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | <100 | ---- |
| **Hydrocarbons (QCLot: 1808232)** | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <25 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| *MB-LOR* | *Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.* |

## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Physical Tests (QCLot: 1803031)** | | | | | | | | | |
| Colour, apparent | ---- | E330 | 2 | CU | 25 CU | 99.9 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1803273)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 103 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 1803274)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 102 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1804357)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 87.4 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1804409)** | | | | | | | | | |
| Turbidity | ---- | E121 | 0.1 | NTU | 200 NTU | 98.0 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1808021)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 100 | 98.0 | 102 | ---- |
| **Anions and Nutrients (QCLot: 1803268)** | | | | | | | | | |
| Fluoride | 16984-48-8 | E235.F | 0.02 | mg/L | 1 mg/L | 102 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1803269)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 99.6 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1803270)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1803271)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 100.0 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1803272)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1803276)** | | | | | | | | | |
| Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.001 | mg/L | 0.05 mg/L | 96.8 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 1803530)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 98.2 | 85.0 | 115 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1803529)** | | | | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | 8.57 mg/L | 102 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 1803942)** | | | | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | 0.1 mg/L | 96.2 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Total Metals (QCLot: 1803942) - continued** | | | | | | | | | |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | 0.05 mg/L | 102 | 80.0 | 120 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | 0.05 mg/L | 104 | 80.0 | 120 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Beryllium, total | 7440-41-7 | E420 | 0.00002 | mg/L | 0.005 mg/L | 97.0 | 80.0 | 120 | ---- |
| Bismuth, total | 7440-69-9 | E420 | 0.00005 | mg/L | 0.05 mg/L | 99.6 | 80.0 | 120 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | 0.05 mg/L | 98.4 | 80.0 | 120 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | 0.005 mg/L | 101 | 80.0 | 120 | ---- |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | 2.5 mg/L | 100 | 80.0 | 120 | ---- |
| Cesium, total | 7440-46-2 | E420 | 0.00001 | mg/L | 0.002 mg/L | 103 | 80.0 | 120 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Cobalt, total | 7440-48-4 | E420 | 0.0001 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | 0.012 mg/L | 99.2 | 80.0 | 120 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | 0.05 mg/L | 97.8 | 80.0 | 120 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | 0.025 mg/L | 101 | 80.0 | 120 | ---- |
| Lithium, total | 7439-93-2 | E420 | 0.001 | mg/L | 0.012 mg/L | 94.0 | 80.0 | 120 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | 2.5 mg/L | 102 | 80.0 | 120 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | 0.012 mg/L | 99.2 | 80.0 | 120 | ---- |
| Molybdenum, total | 7439-98-7 | E420 | 0.00005 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | 0.025 mg/L | 99.2 | 80.0 | 120 | ---- |
| Phosphorus, total | 7723-14-0 | E420 | 0.05 | mg/L | 0.5 mg/L | 103 | 80.0 | 120 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | 2.5 mg/L | 102 | 80.0 | 120 | ---- |
| Rubidium, total | 7440-17-7 | E420 | 0.0002 | mg/L | 0.005 mg/L | 106 | 80.0 | 120 | ---- |
| Selenium, total | 7782-49-2 | E420 | 0.00005 | mg/L | 0.05 mg/L | 99.0 | 80.0 | 120 | ---- |
| Silicon, total | 7440-21-3 | E420 | 0.1 | mg/L | 0.5 mg/L | 100 | 80.0 | 120 | ---- |
| Silver, total | 7440-22-4 | E420 | 0.00001 | mg/L | 0.005 mg/L | 95.6 | 80.0 | 120 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | 2.5 mg/L | 108 | 80.0 | 120 | ---- |
| Strontium, total | 7440-24-6 | E420 | 0.0002 | mg/L | 0.012 mg/L | 106 | 80.0 | 120 | ---- |
| Sulfur, total | 7704-34-9 | E420 | 0.5 | mg/L | 2.5 mg/L | 101 | 80.0 | 120 | ---- |
| Tellurium, total | 13494-80-9 | E420 | 0.0002 | mg/L | 0.005 mg/L | 97.6 | 80.0 | 120 | ---- |
| Thallium, total | 7440-28-0 | E420 | 0.00001 | mg/L | 0.05 mg/L | 99.9 | 80.0 | 120 | ---- |
| Thorium, total | 7440-29-1 | E420 | 0.0001 | mg/L | 0.005 mg/L | 99.3 | 80.0 | 120 | ---- |
| Tin, total | 7440-31-5 | E420 | 0.0001 | mg/L | 0.025 mg/L | 98.6 | 80.0 | 120 | ---- |
| Titanium, total | 7440-32-6 | E420 | 0.0003 | mg/L | 0.012 mg/L | 97.2 | 80.0 | 120 | ---- |
| Tungsten, total | 7440-33-7 | E420 | 0.0001 | mg/L | 0.005 mg/L | 98.4 | 80.0 | 120 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | 0 mg/L | 101 | 80.0 | 120 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Total Metals (QCLot: 1803942) - continued** | | | | | | | | | |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | 0.025 mg/L | 93.8 | 80.0 | 120 | ---- |
| Zirconium, total | 7440-67-7 | E420 | 0.0002 | mg/L | 0.005 mg/L | 99.9 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 1804195)** | | | | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | 0 mg/L | 97.9 | 80.0 | 120 | ---- |
| **Aggregate Organics (QCLot: 1804460)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 107 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1804861)** | | | | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | 198 mg/L | 113 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1806472)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 92.1 | 85.0 | 115 | ---- |
| **Volatile Organic Compounds (QCLot: 1808231)** | | | | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | 100 µg/L | 119 | 70.0 | 130 | ---- |
| Bromodichloromethane | 75-27-4 | E611D | 0.5 | µg/L | 100 µg/L | 110 | 70.0 | 130 | ---- |
| Bromoform | 75-25-2 | E611D | 0.5 | µg/L | 100 µg/L | 114 | 70.0 | 130 | ---- |
| Bromomethane | 74-83-9 | E611D | 0.5 | µg/L | 100 µg/L | 91.0 | 60.0 | 140 | ---- |
| Carbon tetrachloride | 56-23-5 | E611D | 0.2 | µg/L | 100 µg/L | 104 | 70.0 | 130 | ---- |
| Chlorobenzene | 108-90-7 | E611D | 0.5 | µg/L | 100 µg/L | 106 | 70.0 | 130 | ---- |
| Chloroethane | 75-00-3 | E611D | 0.5 | µg/L | 100 µg/L | 119 | 60.0 | 140 | ---- |
| Chloroform | 67-66-3 | E611D | 0.5 | µg/L | 100 µg/L | 108 | 70.0 | 130 | ---- |
| Chloromethane | 74-87-3 | E611D | 2 | µg/L | 100 µg/L | 129 | 60.0 | 140 | ---- |
| Dibromochloromethane | 124-48-1 | E611D | 0.5 | µg/L | 100 µg/L | 104 | 70.0 | 130 | ---- |
| Dibromoethane, 1,2- | 106-93-4 | E611D | 0.2 | µg/L | 100 µg/L | 93.6 | 70.0 | 130 | ---- |
| Dichlorobenzene, 1,2- | 95-50-1 | E611D | 0.5 | µg/L | 100 µg/L | 107 | 70.0 | 130 | ---- |
| Dichlorobenzene, 1,3- | 541-73-1 | E611D | 0.5 | µg/L | 100 µg/L | 109 | 70.0 | 130 | ---- |
| Dichlorobenzene, 1,4- | 106-46-7 | E611D | 0.5 | µg/L | 100 µg/L | 110 | 70.0 | 130 | ---- |
| Dichloroethane, 1,1- | 75-34-3 | E611D | 0.5 | µg/L | 100 µg/L | 110 | 70.0 | 130 | ---- |
| Dichloroethane, 1,2- | 107-06-2 | E611D | 0.5 | µg/L | 100 µg/L | 101 | 70.0 | 130 | ---- |
| Dichloroethylene, 1,1- | 75-35-4 | E611D | 0.5 | µg/L | 100 µg/L | 116 | 70.0 | 130 | ---- |
| Dichloroethylene, cis-1,2- | 156-59-2 | E611D | 0.5 | µg/L | 100 µg/L | 108 | 70.0 | 130 | ---- |
| Dichloroethylene, trans-1,2- | 156-60-5 | E611D | 0.5 | µg/L | 100 µg/L | 116 | 70.0 | 130 | ---- |
| Dichloromethane | 75-09-2 | E611D | 1 | µg/L | 100 µg/L | 106 | 70.0 | 130 | ---- |
| Dichloropropane, 1,2- | 78-87-5 | E611D | 0.5 | µg/L | 100 µg/L | 110 | 70.0 | 130 | ---- |
| Dichloropropylene, cis-1,3- | 10061-01-5 | E611D | 0.3 | µg/L | 100 µg/L | 100 | 70.0 | 130 | ---- |
| Dichloropropylene, trans-1,3- | 10061-02-6 | E611D | 0.3 | µg/L | 100 µg/L | 97.8 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Volatile Organic Compounds (QCLot: 1808231) - continued** | | | | | | | | | |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | 100 µg/L | 116 | 70.0 | 130 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | 100 µg/L | 103 | 70.0 | 130 | ---- |
| Styrene | 100-42-5 | E611D | 0.5 | µg/L | 100 µg/L | 108 | 70.0 | 130 | ---- |
| Tetrachloroethane, 1,1,1,2- | 630-20-6 | E611D | 0.5 | µg/L | 100 µg/L | 100 | 70.0 | 130 | ---- |
| Tetrachloroethane, 1,1,2,2- | 79-34-5 | E611D | 0.5 | µg/L | 100 µg/L | 112 | 70.0 | 130 | ---- |
| Tetrachloroethylene | 127-18-4 | E611D | 0.5 | µg/L | 100 µg/L | 110 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | 100 µg/L | 120 | 70.0 | 130 | ---- |
| Trichloroethane, 1,1,1- | 71-55-6 | E611D | 0.5 | µg/L | 100 µg/L | 100 | 70.0 | 130 | ---- |
| Trichloroethane, 1,1,2- | 79-00-5 | E611D | 0.5 | µg/L | 100 µg/L | 97.7 | 70.0 | 130 | ---- |
| Trichloroethylene | 79-01-6 | E611D | 0.5 | µg/L | 100 µg/L | 110 | 70.0 | 130 | ---- |
| Vinyl chloride | 75-01-4 | E611D | 0.5 | µg/L | 100 µg/L | 124 | 60.0 | 140 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | 200 µg/L | 111 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | 100 µg/L | 113 | 70.0 | 130 | ---- |
| **Volatile Organic Compounds (QCLot: 1810492)** | | | | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | 100 µg/L | 103 | 70.0 | 130 | ---- |
| Bromodichloromethane | 75-27-4 | E611D | 0.5 | µg/L | 100 µg/L | 97.3 | 70.0 | 130 | ---- |
| Bromoform | 75-25-2 | E611D | 0.5 | µg/L | 100 µg/L | 109 | 70.0 | 130 | ---- |
| Bromomethane | 74-83-9 | E611D | 0.5 | µg/L | 100 µg/L | 74.5 | 60.0 | 140 | ---- |
| Carbon tetrachloride | 56-23-5 | E611D | 0.2 | µg/L | 100 µg/L | 93.5 | 70.0 | 130 | ---- |
| Chlorobenzene | 108-90-7 | E611D | 0.5 | µg/L | 100 µg/L | 95.5 | 70.0 | 130 | ---- |
| Chloroethane | 75-00-3 | E611D | 0.5 | µg/L | 100 µg/L | 97.4 | 60.0 | 140 | ---- |
| Chloroform | 67-66-3 | E611D | 0.5 | µg/L | 100 µg/L | 95.6 | 70.0 | 130 | ---- |
| Chloromethane | 74-87-3 | E611D | 2 | µg/L | 100 µg/L | 98.1 | 60.0 | 140 | ---- |
| Dibromochloromethane | 124-48-1 | E611D | 0.5 | µg/L | 100 µg/L | 95.7 | 70.0 | 130 | ---- |
| Dibromoethane, 1,2- | 106-93-4 | E611D | 0.2 | µg/L | 100 µg/L | 84.1 | 70.0 | 130 | ---- |
| Dichlorobenzene, 1,2- | 95-50-1 | E611D | 0.5 | µg/L | 100 µg/L | 101 | 70.0 | 130 | ---- |
| Dichlorobenzene, 1,3- | 541-73-1 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Dichlorobenzene, 1,4- | 106-46-7 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Dichloroethane, 1,1- | 75-34-3 | E611D | 0.5 | µg/L | 100 µg/L | 96.4 | 70.0 | 130 | ---- |
| Dichloroethane, 1,2- | 107-06-2 | E611D | 0.5 | µg/L | 100 µg/L | 90.8 | 70.0 | 130 | ---- |
| Dichloroethylene, 1,1- | 75-35-4 | E611D | 0.5 | µg/L | 100 µg/L | 97.5 | 70.0 | 130 | ---- |
| Dichloroethylene, cis-1,2- | 156-59-2 | E611D | 0.5 | µg/L | 100 µg/L | 96.2 | 70.0 | 130 | ---- |
| Dichloroethylene, trans-1,2- | 156-60-5 | E611D | 0.5 | µg/L | 100 µg/L | 98.2 | 70.0 | 130 | ---- |
| Dichloromethane | 75-09-2 | E611D | 1 | µg/L | 100 µg/L | 92.7 | 70.0 | 130 | ---- |
| Dichloropropane, 1,2- | 78-87-5 | E611D | 0.5 | µg/L | 100 µg/L | 95.9 | 70.0 | 130 | ---- |
| Dichloropropylene, cis-1,3- | 10061-01-5 | E611D | 0.3 | µg/L | 100 µg/L | 87.7 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Volatile Organic Compounds (QCLot: 1810492) - continued** | | | | | | | | | |
| Dichloropropylene, trans-1,3- | 10061-02-6 | E611D | 0.3 | µg/L | 100 µg/L | 88.0 | 70.0 | 130 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | 100 µg/L | 93.4 | 70.0 | 130 | ---- |
| Styrene | 100-42-5 | E611D | 0.5 | µg/L | 100 µg/L | 97.6 | 70.0 | 130 | ---- |
| Tetrachloroethane, 1,1,1,2- | 630-20-6 | E611D | 0.5 | µg/L | 100 µg/L | 91.2 | 70.0 | 130 | ---- |
| Tetrachloroethane, 1,1,2,2- | 79-34-5 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Tetrachloroethylene | 127-18-4 | E611D | 0.5 | µg/L | 100 µg/L | 98.9 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Trichloroethane, 1,1,1- | 71-55-6 | E611D | 0.5 | µg/L | 100 µg/L | 89.6 | 70.0 | 130 | ---- |
| Trichloroethane, 1,1,2- | 79-00-5 | E611D | 0.5 | µg/L | 100 µg/L | 87.9 | 70.0 | 130 | ---- |
| Trichloroethylene | 79-01-6 | E611D | 0.5 | µg/L | 100 µg/L | 96.6 | 70.0 | 130 | ---- |
| Vinyl chloride | 75-01-4 | E611D | 0.5 | µg/L | 100 µg/L | 97.4 | 60.0 | 140 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | 200 µg/L | 96.5 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | 100 µg/L | 99.4 | 70.0 | 130 | ---- |
| **Hydrocarbons (QCLot: 1803278)** | | | | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | 4480 µg/L | 87.3 | 70.0 | 130 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | 3640 µg/L | 76.0 | 70.0 | 130 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | 3160 µg/L | 94.2 | 70.0 | 130 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | 4190 µg/L | 80.0 | 70.0 | 130 | ---- |
| **Hydrocarbons (QCLot: 1808232)** | | | | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | 2000 µg/L | 102 | 80.0 | 120 | ---- |

## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 1803268)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Fluoride | 16984-48-8 | E235.F | 0.997 mg/L | 1 mg/L | 99.7 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1803269)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Nitrate (as N) | 14797-55-8 | E235.NO3 | 2.43 mg/L | 2.5 mg/L | 97.3 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1803270)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.495 mg/L | 0.5 mg/L | 99.0 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1803271)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Chloride | 16887-00-6 | E235.Cl | 97.5 mg/L | 100 mg/L | 97.5 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1803272)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 98.7 mg/L | 100 mg/L | 98.7 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1803276)** | | | | | | | | | | |
| HA2403221-002 | SW13 | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0182 mg/L | 0.02 mg/L | 93.1 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1803530)** | | | | | | | | | | |
| HA2403221-002 | SW13 | Ammonia, total (as N) | 7664-41-7 | E298 | 0.108 mg/L | 0.1 mg/L | 108 | 75.0 | 125 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1803529)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Carbon, total organic [TOC] | ---- | E355-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 1803942)** | | | | | | | | | | |
| HA2403221-002 | SW13 | Aluminum, total | 7429-90-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.0524 mg/L | 0.05 mg/L | 105 | 70.0 | 130 | ---- |
| | | Arsenic, total | 7440-38-2 | E420 | 0.0529 mg/L | 0.05 mg/L | 106 | 70.0 | 130 | ---- |
| | | Barium, total | 7440-39-3 | E420 | 0.0126 mg/L | 0.012 mg/L | 101 | 70.0 | 130 | ---- |
| | | Beryllium, total | 7440-41-7 | E420 | 0.00498 mg/L | 0.005 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Bismuth, total | 7440-69-9 | E420 | 0.0487 mg/L | 0.05 mg/L | 97.4 | 70.0 | 130 | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.049 mg/L | 0.05 mg/L | 97.6 | 70.0 | 130 | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.00558 mg/L | 0.005 mg/L | 112 | 70.0 | 130 | ---- |
| | | Calcium, total | 7440-70-2 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cesium, total | 7440-46-2 | E420 | 0.00264 mg/L | 0.002 mg/L | 106 | 70.0 | 130 | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.0129 mg/L | 0.012 mg/L | 104 | 70.0 | 130 | ---- |
| | | Cobalt, total | 7440-48-4 | E420 | 0.0127 mg/L | 0.012 mg/L | 102 | 70.0 | 130 | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.0128 mg/L | 0.012 mg/L | 103 | 70.0 | 130 | ---- |
| | | Iron, total | 7439-89-6 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.0251 mg/L | 0.025 mg/L | 100 | 70.0 | 130 | ---- |
| | | Lithium, total | 7439-93-2 | E420 | 0.0116 mg/L | 0.012 mg/L | 92.5 | 70.0 | 130 | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | 2.78 mg/L | 2.5 mg/L | 111 | 70.0 | 130 | ---- |
| | | Manganese, total | 7439-96-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Molybdenum, total | 7439-98-7 | E420 | 0.0128 mg/L | 0.012 mg/L | 102 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Total Metals (QCLot: 1803942) - continued** | | | | | | | | | | |
| HA2403221-002 | SW13 | Nickel, total | 7440-02-0 | E420 | 0.0252 mg/L | 0.025 mg/L | 101 | 70.0 | 130 | ---- |
| | | Phosphorus, total | 7723-14-0 | E420 | 0.498 mg/L | 0.5 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 2.49 mg/L | 2.5 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Rubidium, total | 7440-17-7 | E420 | 0.00506 mg/L | 0.005 mg/L | 101 | 70.0 | 130 | ---- |
| | | Selenium, total | 7782-49-2 | E420 | 0.0532 mg/L | 0.05 mg/L | 106 | 70.0 | 130 | ---- |
| | | Silicon, total | 7440-21-3 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Silver, total | 7440-22-4 | E420 | 0.00482 mg/L | 0.005 mg/L | 96.5 | 70.0 | 130 | ---- |
| | | Sodium, total | 7440-23-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Strontium, total | 7440-24-6 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sulfur, total | 7704-34-9 | E420 | 2.58 mg/L | 2.5 mg/L | 103 | 70.0 | 130 | ---- |
| | | Tellurium, total | 13494-80-9 | E420 | 0.00491 mg/L | 0.005 mg/L | 98.2 | 70.0 | 130 | ---- |
| | | Thallium, total | 7440-28-0 | E420 | 0.0500 mg/L | 0.05 mg/L | 100.0 | 70.0 | 130 | ---- |
| | | Thorium, total | 7440-29-1 | E420 | 0.00453 mg/L | 0.005 mg/L | 90.7 | 70.0 | 130 | ---- |
| | | Tin, total | 7440-31-5 | E420 | 0.0247 mg/L | 0.025 mg/L | 98.7 | 70.0 | 130 | ---- |
| | | Titanium, total | 7440-32-6 | E420 | 0.0124 mg/L | 0.012 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Tungsten, total | 7440-33-7 | E420 | 0.00487 mg/L | 0.005 mg/L | 97.5 | 70.0 | 130 | ---- |
| | | Uranium, total | 7440-61-1 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.0257 mg/L | 0.025 mg/L | 103 | 70.0 | 130 | ---- |
| | | Zinc, total | 7440-66-6 | E420 | 0.0244 mg/L | 0.025 mg/L | 97.8 | 70.0 | 130 | ---- |
| | | Zirconium, total | 7440-67-7 | E420 | 0.00381 mg/L | 0.005 mg/L | 76.2 | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 1804195)** | | | | | | | | | | |
| HA2403221-002 | SW13 | Mercury, total | 7439-97-6 | E508 | 0.0000928 mg/L | 0 mg/L | 92.8 | 70.0 | 130 | ---- |
| **Aggregate Organics (QCLot: 1804460)** | | | | | | | | | | |
| HA2403164-002 | Anonymous | Chemical oxygen demand [COD] | ---- | E559-L | 101 mg/L | 100 mg/L | 101 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1806472)** | | | | | | | | | | |
| WT2436546-004 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0209 mg/L | 0.02 mg/L | 104 | 75.0 | 125 | ---- |
| **Volatile Organic Compounds (QCLot: 1808231)** | | | | | | | | | | |
| HA2403221-001 | SW4 | Benzene | 71-43-2 | E611D | 117 µg/L | 100 µg/L | 117 | 60.0 | 140 | ---- |
| | | Bromodichloromethane | 75-27-4 | E611D | 112 µg/L | 100 µg/L | 112 | 60.0 | 140 | ---- |
| | | Bromoform | 75-25-2 | E611D | 116 µg/L | 100 µg/L | 116 | 60.0 | 140 | ---- |
| | | Bromomethane | 74-83-9 | E611D | 91.5 µg/L | 100 µg/L | 91.5 | 60.0 | 140 | ---- |
| | | Carbon tetrachloride | 56-23-5 | E611D | 103 µg/L | 100 µg/L | 103 | 60.0 | 140 | ---- |
| | | Chlorobenzene | 108-90-7 | E611D | 105 µg/L | 100 µg/L | 105 | 60.0 | 140 | ---- |
| | | Chloroethane | 75-00-3 | E611D | 118 µg/L | 100 µg/L | 118 | 60.0 | 140 | ---- |
| | | Chloroform | 67-66-3 | E611D | 109 µg/L | 100 µg/L | 109 | 60.0 | 140 | ---- |
| | | Chloromethane | 74-87-3 | E611D | 128 µg/L | 100 µg/L | 128 | 60.0 | 140 | ---- |
| | | Dibromochloromethane | 124-48-1 | E611D | 105 µg/L | 100 µg/L | 105 | 60.0 | 140 | ---- |
| | | Dibromoethane, 1,2- | 106-93-4 | E611D | 95.7 µg/L | 100 µg/L | 95.7 | 60.0 | 140 | ---- |
| | | Dichlorobenzene, 1,2- | 95-50-1 | E611D | 106 µg/L | 100 µg/L | 106 | 60.0 | 140 | ---- |
| | | Dichlorobenzene, 1,3- | 541-73-1 | E611D | 105 µg/L | 100 µg/L | 105 | 60.0 | 140 | ---- |
| | | Dichlorobenzene, 1,4- | 106-46-7 | E611D | 106 µg/L | 100 µg/L | 106 | 60.0 | 140 | ---- |
| | | Dichloroethane, 1,1- | 75-34-3 | E611D | 110 µg/L | 100 µg/L | 110 | 60.0 | 140 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Volatile Organic Compounds (QCLot: 1808231) - continued** | | | | | | | | | | |
| HA2403221-001 | SW4 | Dichloroethane, 1,2- | 107-06-2 | E611D | 105 µg/L | 100 µg/L | 105 | 60.0 | 140 | ---- |
| | | Dichloroethylene, 1,1- | 75-35-4 | E611D | 114 µg/L | 100 µg/L | 114 | 60.0 | 140 | ---- |
| | | Dichloroethylene, cis-1,2- | 156-59-2 | E611D | 108 µg/L | 100 µg/L | 108 | 60.0 | 140 | ---- |
| | | Dichloroethylene, trans-1,2- | 156-60-5 | E611D | 115 µg/L | 100 µg/L | 115 | 60.0 | 140 | ---- |
| | | Dichloromethane | 75-09-2 | E611D | 108 µg/L | 100 µg/L | 108 | 60.0 | 140 | ---- |
| | | Dichloropropane, 1,2- | 78-87-5 | E611D | 112 µg/L | 100 µg/L | 112 | 60.0 | 140 | ---- |
| | | Dichloropropylene, cis-1,3- | 10061-01-5 | E611D | 103 µg/L | 100 µg/L | 103 | 60.0 | 140 | ---- |
| | | Dichloropropylene, trans-1,3- | 10061-02-6 | E611D | 100.0 µg/L | 100 µg/L | 100.0 | 60.0 | 140 | ---- |
| | | Ethylbenzene | 100-41-4 | E611D | 110 µg/L | 100 µg/L | 110 | 60.0 | 140 | ---- |
| | | Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 102 µg/L | 100 µg/L | 102 | 60.0 | 140 | ---- |
| | | Styrene | 100-42-5 | E611D | 108 µg/L | 100 µg/L | 108 | 60.0 | 140 | ---- |
| | | Tetrachloroethane, 1,1,1,2- | 630-20-6 | E611D | 100 µg/L | 100 µg/L | 100 | 60.0 | 140 | ---- |
| | | Tetrachloroethane, 1,1,2,2- | 79-34-5 | E611D | 117 µg/L | 100 µg/L | 117 | 60.0 | 140 | ---- |
| | | Tetrachloroethylene | 127-18-4 | E611D | 106 µg/L | 100 µg/L | 106 | 60.0 | 140 | ---- |
| | | Trichloroethane, 1,1,1- | 71-55-6 | E611D | 99.1 µg/L | 100 µg/L | 99.1 | 60.0 | 140 | ---- |
| | | Trichloroethane, 1,1,2- | 79-00-5 | E611D | 99.8 µg/L | 100 µg/L | 99.8 | 60.0 | 140 | ---- |
| | | Trichloroethylene | 79-01-6 | E611D | 108 µg/L | 100 µg/L | 108 | 60.0 | 140 | ---- |
| | | Vinyl chloride | 75-01-4 | E611D | 122 µg/L | 100 µg/L | 122 | 60.0 | 140 | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611D | 214 µg/L | 200 µg/L | 107 | 60.0 | 140 | ---- |
| | | Xylene, o- | 95-47-6 | E611D | 108 µg/L | 100 µg/L | 108 | 60.0 | 140 | ---- |
| **Hydrocarbons (QCLot: 1808232)** | | | | | | | | | | |
| HA2403221-001 | SW4 | VPH C6-C10 | n/a | E581.VPH | 1920 µg/L | 2000 µg/L | 96.2 | 60.0 | 140 | ---- |

# Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 1 of 1

Environmental Division Halifax

Work Order Reference HA2403221

Telephone : +1 902 707 4888

| Report To | Contact and company name below will appear on the final report | Report Format / Distribution | Select Service Level Below - Please confirm all E&P TATs w |
|---|---|---|---|
| Company: | AECOM | Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL) | Regular [R] ☐ Standard TAT if rece |
| Contact: | Janice Shea | Quality Control (QC) Report with Report ☑ YES ☐ NO | PRIORITY (Business Days): 4 day [P4] ☐ / 3 day [P3] ☐ / 2 day [P2] ☐ — EMERGENCY |
| Phone: | 902-428-2054 | ☐ Compare Results to Criteria on Report - provide details below if box checked | |
| | Company address below will appear on the final report | Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX | Date and Time Required for all E&P TATs: |
| Street: | 1701 Hollis Street, SH400 | Email 1 or Fax | For tests that can not be performed according to the service |
| City/Province: | Halifax, NS | Email 2 | Analysis |
| Postal Code: | B3J 3M8 | Email 3 | Indicate Filtered (F), Preserved (P) or Filtered |
| Invoice To | Same as Report To ☑ YES ☐ NO | Invoice Distribution | |
| | Copy of Invoice with Report ☑ YES ☐ NO | Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☑ FAX | |
| Company: | | Email 1 or Fax | |
| Contact: | | Email 2 | |

| Project Information | | Oil and Gas Required Fields (client use) | |
|---|---|---|---|
| ALS Account # / Quote #: | | AFE/Cost Center: | PO# |
| Job #: | 60718540 | Major/Minor Code: | Routing Code: |
| PO / AFE: | | Requisitioner: | |
| LSD: | | Location: | |
| ALS Lab Work Order # (lab use only) | HA2403221 | ALS Contact: | Sampler: |

| ALS Sample # (lab use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | General Chemistry | Total Dissolved Metals (Field Filter) | Total Dissolved Mercury (Field Filter) | VOC | TPH | BOD | Phenols, TOC, COD | Number of Contain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SW4 | 09-12-24 | 7:55 | Water | X | X | X | X | X | X | X | |
| | SW13 | 1 | 8:31 | 1 | X | X | X | X | X | X | X | |
| | SW19-20 | 1 | 8:15 | 1 | X | X | X | X | X | X | X | |
| | DUP1 | 1 | 8:33 | 1 | X | X | X | X | X | X | X | |

| Drinking Water (DW) Samples[1] (client use) | Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only) |
|---|---|
| Are samples taken from a Regulated DW System? ☐ YES ☐ NO | |
| Are samples for human drinking water use? ☐ YES ☐ NO | |

**SAMPLE CONDITION AS RECEIVED (lab use only)**

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

| INITIAL COOLER TEMPERATURES °C | | | FINAL COOLER TEMPERATURES °C | | |
|---|---|---|---|---|---|
| 4.7 | | | | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (lab use only) | | | FINAL SHIPMENT RECEPTION (lab use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: Nicolas Duval | Date: 24-12-09 | Time: 10:42 | Received by: | Date: Dec 9 2024 | Time: 10:45 | Received by: | Date: | Time: |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System please submit using an Authorized DW COC form.

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2403274** | | |
| **Amendment** | : **1** | | |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax Nova Scotia Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth NS Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 11-Dec-2024 15:30 |
| PO | : ---- | Date Analysis Commenced | : 16-Dec-2024 |
| C-O-C number | : ---- | Issue Date | : 17-Jan-2025 19:47 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 29 | | |
| No. of samples analysed | : 29 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Brooke Miller | Laboratory Analyst | Inorganics, Edmonton, Alberta |
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Organics, Waterloo, Ontario |
| Greg Pokocky | Manager - Inorganics | Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Metals, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Inorganics, Dartmouth, Nova Scotia |
| Melissa Freeman | Metal Analyst | Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Inorganics, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Metals, Waterloo, Ontario |
| Ping Yeung | Team Leader - Inorganics | Inorganics, Edmonton, Alberta |
| Sarah Birch | VOC Section Supervisor | VOC, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Metals, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Inorganics, Waterloo, Ontario |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

| *Unit* | *Description* |
|---|---|
| - | no units |
| % | percent |
| CU | colour units (1 cu = 1 mg/l pt) |
| meq/L | milliequivalents per litre |
| mg/L | milligrams per litre |
| none | none |
| NTU | nephelometric turbidity units |
| pH units | pH units |
| µS/cm | microsiemens per centimetre |

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Workorder Comments

Amendment (17-JAN-2025): This report has been amended and re-released to allow the reporting of additional analytical data.

## Sample Comments

| *Sample* | *Client Id* | *Comment* |
|---|---|---|
| HA2403274-001 | MW1 - S D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-002 | MW1 - D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-003 | MW7 - D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-004 | MW5 - S | N/A: Resemblance Not Applicable (mTPH < LOR) |

| | | |
|---|---|---|
| HA2403274-005 | MW5 - D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-006 | MW20 - 16 | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-006 | MW20 - 16 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-007 | MW20 - 17 S | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-008 | MW20 - 17 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-009 | MW3 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-010 | MW19 - 03 D | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-010 | MW19 - 03 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-011 | MW19 - 8 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-012 | MW2 - S | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-012 | MW2 - S | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-014 | MW8 - 12 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-015 | MW19 - 11 M | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-016 | MW19 - 11 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-017 | MW20 - 14 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-018 | MW20 - 14 S | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-018 | MW20 - 14 S | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-019 | MW20 - 15 D | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-019 | MW20 - 15 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-020 | MW20 - 15 S | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-020 | MW20 - 15 S | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-021 | MW6 - S | NR: No Resemblance to Petroleum Hydrocarbons |
| HA2403274-022 | MW6 - D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-023 | MW19 - 13 D | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-023 | MW19 - 13 D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-024 | MW19 - 13 S | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-025 | MW2 - M | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-025 | MW2 - M | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-026 | MW2 - D | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-026 | MW2 - D | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-027 | DUP 1 | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-027 | DUP 1 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-028 | DUP 2 | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-028 | DUP 2 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-029 | DUP 3 | RRR: Surrogate recovery is outside ALS DQO. Detection limits for affected compounds have been raised accordingly. |
| HA2403274-029 | DUP 3 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2403274-030 | MW19 - 8 S | NR: No Resemblance to Petroleum Hydrocarbons |

## Qualifiers

| Qualifier | Description |
|---|---|
| DLDS | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity. |
| DLHC | Detection Limit Raised: Dilution required due to high concentration of test analyte(s). |
| DLM | Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity). |
| RRR | Refer to report comments for issues regarding this analysis. |
| RRV | Reported result verified by repeat analysis. |
| TMV | Turbidity exceeded upper limit of the nephelometric method. Minimum value reported. |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1 - S D | MW1 - D | MW7 - D | MW5 - S | MW5 - D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-001 | HA2403274-002 | HA2403274-003 | HA2403274-004 | HA2403274-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Physical Tests** | | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | | 600 | 997 | 190 | 89.6 | 106 |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | | 491 | 817 | 156 | 73.5 | 87.0 |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | | 11200 | 60.4 | 106 | 306 | 175 |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | | 1140 | 2040 | 417 | 187 | 228 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 587 | 1120 | 181 | 72.4 | 85.5 |
| **Langelier index (@ 20°C)** | ---- | EC105/WT | 0.010 | - | | 0.932 | 1.10 | -0.884 | -1.32 | -0.348 |
| **Langelier index (@ 4°C)** | ---- | EC105/WT | 0.010 | - | | 0.684 | 0.859 | -1.13 | -1.57 | -0.600 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 7.48 | 7.31 | 6.56 | 6.82 | 7.66 |
| **pH, saturation (@ 20°C)** | ---- | EC105/WT | 0.010 | pH units | | 6.55 | 6.20 | 7.44 | 8.14 | 8.01 |
| **pH, saturation (@ 4°C)** | ---- | EC105/WT | 0.010 | pH units | | 6.80 | 6.45 | 7.69 | 8.39 | 8.26 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 651 | 1400 | 263 | 100 | 118 |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | | 2780 | 21.1 | 11.3 | 40.0 | 26.4 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0936 | 0.351 | 0.590 | 0.0073 | <0.0050 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 20.3 DLDS | 27.4 DLDS | 6.22 | 10.5 | 16.7 |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | | <0.100 DLDS | 0.131 DLDS | 0.031 | 0.368 | 0.475 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 2.75 | 1.45 | 1.25 | 0.113 | <0.050 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | 0.165 DLDS | <0.100 DLDS | 0.284 | <0.020 | 0.052 |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | | 0.165 | <0.112 | 0.316 | <0.0224 | 0.0520 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | MW1 - S D | MW1 - D | MW7 - D | MW5 - S | MW5 - D |
|---|---|---|---|---|---|---|---|---|---|
| *Client sample ID* | | | | | | | | | |
| *Client sampling date / time* | | | | | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | HA2403274-001 | HA2403274-002 | HA2403274-003 | HA2403274-004 | HA2403274-005 |
| | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | <0.050 DLDS | <0.050 DLDS | 0.032 | <0.010 | <0.010 |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | 0.0010 | <0.0010 | 0.0012 | 0.0306 | 0.0658 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | 1.84 | 0.107 | 0.0333 | 0.0870 | 0.114 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | 188 DLDS | 490 DLDS | 52.2 | 7.38 | 6.08 |
| **Organic / Inorganic Carbon** | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | 18.0 | 20.4 | 19.2 | 1.56 | 0.90 |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | 41.6 | 18.5 | 19.8 | 2.66 | 1.13 |
| **Ion Balance** | | | | | | | | | |
| **Anion sum** | ---- | EC101/WT | 0.10 | meq/L | 14.3 | 27.3 | 4.40 | 1.94 | 2.36 |
| **Cation sum** | ---- | EC101/WT | 0.10 | meq/L | 13.5 | 26.1 | 4.32 | 1.86 | 2.27 |
| **Ion balance (cations/anions)** | ---- | EC101/WT | 0.010 | % | 94.4 | 95.6 | 98.2 | 95.9 | 96.2 |
| **Dissolved Metals** | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | 0.0121 | 0.0107 DLHC | 0.0556 | 0.0084 | 0.128 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | 0.00014 | <0.00100 DLHC | <0.00010 | <0.00010 | <0.00010 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | 0.00070 | 0.00282 DLHC | 0.00296 | 0.00600 | 0.0125 |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | 0.0260 | 0.0310 DLHC | 0.0333 | 0.00904 | 0.00601 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | 1.55 | 4.59 DLHC | 0.364 | 0.028 | 0.025 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | 0.0000204 | 0.00595 DLHC | 0.000198 | 0.000202 | 0.0000454 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | 182 | 301 DLHC | 59.0 | 21.6 | 25.5 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | <0.00050 | <0.00500 DLHC | 0.00062 | <0.00050 | <0.00050 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | 0.00085 | 0.00295 DLHC | 0.00562 | 0.00096 | 0.00098 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1 - S D | MW1 - D | MW7 - D | MW5 - S | MW5 - D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-001 | HA2403274-002 | HA2403274-003 | HA2403274-004 | HA2403274-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.540 | 0.689 DLHC | 0.261 | 0.019 | 0.089 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.000066 | <0.000500 DLHC | 0.000836 | 0.000071 | 0.000340 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 32.1 | 90.4 DLHC | 8.14 | 4.48 | 5.31 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 4.58 | 9.37 DLHC | 3.11 | 0.0810 | 0.0117 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00481 | 0.0196 DLHC | 0.00162 | <0.00050 | <0.00050 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 5.07 | 3.07 DLHC | 2.69 | 0.862 | 1.13 |
| **Silicon (as SiO2), dissolved** | 7440-21-3 | EC421.SiO2/ WT | 0.15 | mg/L | | 8.98 | 10.7 | 5.48 | 13.9 | 13.8 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 4.20 | 5.01 DLHC | 2.56 | 6.48 | 6.47 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 32.6 | 73.7 DLHC | 10.8 | 8.89 | 11.9 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.115 | 0.599 DLHC | 0.00327 | 0.00878 | 0.0240 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00500 DLHC | <0.00050 | <0.00050 | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0046 | 0.0253 DLHC | 0.0339 | 0.0052 | 0.0052 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 157 | 65 | 66 | 10 | <10 |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | 0.0033 | <0.0020 DLM | 0.0114 | <0.0010 | 0.0014 |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | MW1 - S D | MW1 - D | MW7 - D | MW5 - S | MW5 - D |
|---|---|---|---|---|---|---|---|---|---|
| *Client sample ID* | | | | | | | | | |
| *Client sampling date / time* | | | | | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | HA2403274-001 | HA2403274-002 | HA2403274-003 | HA2403274-004 | HA2403274-005 |
| | | | | | Result | Result | Result | Result | Result |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | <1 | <1 |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | <1 | <1 |
| **Hydrocarbons** | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | N/A | N/A | N/A | N/A | N/A |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | <0.090 | <0.090 | <0.090 | <0.090 | <0.090 |
| **return to baseline at C32** | n/a | E601F/WT | - | - | Yes | Yes | Yes | Yes | Yes |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | MW20 - 16 | MW20 - 17 S | MW20 - 17 D | MW3 | MW19 - 03 D |
|---|---|---|---|---|---|---|---|---|---|
| *Client sample ID* | | | | | MW20 - 16 | MW20 - 17 S | MW20 - 17 D | MW3 | MW19 - 03 D |
| *Client sampling date / time* | | | | | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | HA2403274-006 | HA2403274-007 | HA2403274-008 | HA2403274-009 | HA2403274-010 |
| | | | | | Result | Result | Result | Result | Result |
| **Physical Tests** | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | 107 | 103 | 123 | 134 | 25.5 |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | 88.0 | 84.6 | 101 | 110 | 20.9 |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | 78.2 | 3950 | 4840 | 4380 | 226 |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | 238 | 195 | 219 | 243 | 189 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | 87.4 | 76.1 | 80.9 | 94.3 | 52.3 |
| **Langelier index (@ 20°C)** | ---- | EC105/WT | 0.010 | - | -0.749 | -0.068 | 0.020 | 0.262 | -2.78 |
| **Langelier index (@ 4°C)** | ---- | EC105/WT | 0.010 | - | -1.00 | -0.318 | -0.230 | 0.012 | -3.03 |
| **pH** | ---- | E108/HA | 0.10 | pH units | 7.24 | 7.97 | 7.96 | 8.12 | 6.12 |
| **pH, saturation (@ 20°C)** | ---- | EC105/WT | 0.010 | pH units | 7.99 | 8.04 | 7.94 | 7.86 | 8.90 |
| **pH, saturation (@ 4°C)** | ---- | EC105/WT | 0.010 | pH units | 8.24 | 8.29 | 8.19 | 8.11 | 9.15 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | 115 | 113 | 114 | 120 | 112 |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | 33.8 | 1180 | 884 | 1570 | 99.9 |
| **Anions and Nutrients** | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | <0.0050 | <0.0050 | 0.0060 | <0.0050 | <0.0050 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | 19.3 | 9.37 | 8.31 | 9.29 | 10.1 |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | 0.399 | 0.096 | 0.192 | 0.161 | 0.094 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | 0.137 | 0.430 | 0.435 | 0.312 | <0.050 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | 0.053 | 0.023 | <0.020 | <0.020 | 0.054 |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | 0.0530 | 0.0230 | <0.0224 | <0.0224 | 0.0540 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 16 | MW20 - 17 S | MW20 - 17 D | MW3 | MW19 - 03 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-006 | HA2403274-007 | HA2403274-008 | HA2403274-009 | HA2403274-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | | 0.0570 | 0.0098 | 0.0024 | 0.0123 | 0.0555 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.148 | 1.12 | 0.628 | 0.708 | 0.216 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 7.14 | 6.83 | 5.67 | 12.5 | 51.3 |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 1.51 | 0.59 | 0.52 | <0.50 | 0.58 |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 2.18 | <5.00 DLM | <5.00 DLM | <5.00 DLM | 0.97 |
| **Ion Balance** | | | | | | | | | | |
| **Anion sum** | ---- | EC101/WT | 0.10 | meq/L | | 2.48 | 2.10 | 2.38 | 2.73 | 1.78 |
| **Cation sum** | ---- | EC101/WT | 0.10 | meq/L | | 2.28 | 1.94 | 2.20 | 2.46 | 1.68 |
| **Ion balance (cations/anions)** | ---- | EC101/WT | 0.010 | % | | 91.9 | 92.4 | 92.4 | 90.1 | 94.4 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0165 | 0.0066 | 0.0100 | 0.0017 | 0.0219 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00772 | 0.00155 | 0.00165 | 0.00239 | 0.00135 |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0110 | 0.0172 | 0.0246 | 0.0218 | 0.0595 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.021 | 0.012 | 0.018 | 0.015 | 0.209 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000235 | <0.0000050 | <0.0000050 | <0.0000050 | 0.000158 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 26.1 | 24.5 | 25.7 | 28.8 | 13.6 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | 0.00054 | <0.00050 | <0.00050 | <0.00050 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00172 | 0.00150 | 0.00035 | 0.00030 | 0.00608 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 16 | MW20 - 17 S | MW20 - 17 D | MW3 | MW19 - 03 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-006 | HA2403274-007 | HA2403274-008 | HA2403274-009 | HA2403274-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.016 | <0.010 | 0.642 | <0.010 | 0.016 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.000084 | <0.000050 | 0.000065 | 0.000056 | 0.000083 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 5.40 | 3.63 | 4.07 | 5.43 | 4.45 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.00250 | 0.00274 | 0.538 | 0.00400 | 0.0622 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | <0.00050 | 0.00747 | <0.00050 | <0.00050 | 0.00113 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.09 | 1.20 | 1.22 | 1.49 | 1.07 |
| **Silicon (as SiO2), dissolved** | 7440-21-3 | EC421.SiO2/ WT | 0.15 | mg/L | | 12.7 | 11.2 | 10.2 | 11.2 | 18.4 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 5.92 | 5.22 | 4.79 | 5.24 | 8.60 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 11.6 | 9.00 | 11.7 | 12.5 | 13.9 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.0145 | 0.00199 | 0.00797 | 0.0112 | 0.00295 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | 0.00066 | <0.00050 | 0.00067 | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0048 | 0.0055 | 0.0034 | 0.0036 | 0.0145 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | <10 | 32 | 27 | 17 | <10 |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | <0.0010 RRV | 0.0023 | 0.0033 | 0.0022 | 0.0015 |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 16 | MW20 - 17 S | MW20 - 17 D | MW3 | MW19 - 03 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-006 | HA2403274-007 | HA2403274-008 | HA2403274-009 | HA2403274-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.125 RRR | <0.050 | <0.050 | <0.050 | <0.100 RRR |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.125 RRR | <0.050 | <0.050 | <0.050 | <0.100 RRR |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | N/A | N/A | N/A | N/A |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.184 | <0.090 | <0.090 | <0.090 | <0.150 |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | Yes | Yes | Yes | Yes |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.184 RRR | <0.100 | <0.100 | <0.100 | <0.150 RRR |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19 - 8 D | MW2 - S | MW8 - 12 D | MW19 - 11 M | MW19 - 11 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-011 | HA2403274-012 | HA2403274-014 | HA2403274-015 | HA2403274-016 |
| | | | | | | Result | Result | Result | Result | Result |
| **Physical Tests** | | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | | 217 | 173 | 185 | 457 | 701 |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | | 178 | 142 | 152 | 374 | 575 |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | | 63.6 | 5280 | 17.6 | 19800 | 568 |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | | 812 | 350 | 381 | 756 | 1220 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 194 | 144 | 185 | 347 | 611 |
| **Langelier index (@ 20°C)** | ---- | EC105/WT | 0.010 | - | | 0.511 | -0.537 | 0.478 | 0.776 | 0.317 |
| **Langelier index (@ 4°C)** | ---- | EC105/WT | 0.010 | - | | 0.264 | -0.786 | 0.228 | 0.527 | 0.069 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 7.91 | 7.01 | 7.91 | 7.60 | 6.78 |
| **pH, saturation (@ 20°C)** | ---- | EC105/WT | 0.010 | pH units | | 7.40 | 7.55 | 7.43 | 6.82 | 6.46 |
| **pH, saturation (@ 4°C)** | ---- | EC105/WT | 0.010 | pH units | | 7.65 | 7.80 | 7.68 | 7.07 | 6.71 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 329 | 172 | 199 | 407 | 730 |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | | 10.6 | 1810 | 2.65 | >4000 TMV | 92.5 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | <0.0050 | 0.0083 | <0.0050 | 1.27 | 4.31 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 65.4 | 11.0 | 9.66 | 7.60 | 13.3 DLDS |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | | 0.523 | 0.104 | 0.118 | 0.058 | <0.100 DLDS |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.061 | 1.14 | 0.242 | 3.89 | 5.45 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.020 | 0.040 | 0.182 | 0.264 | <0.100 DLDS |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | | <0.0224 | 0.0400 | 0.182 | 0.280 | <0.112 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19 - 8 D | MW2 - S | MW8 - 12 D | MW19 - 11 M | MW19 - 11 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-011 | HA2403274-012 | HA2403274-014 | HA2403274-015 | HA2403274-016 |
| | | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | 0.016 | <0.050 DLDS |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | | 0.0471 | 0.0186 | 0.0383 | 0.0029 | <0.0010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.0675 | 1.10 | 0.0538 | 1.08 | 0.0561 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 165 | 26.0 | 36.3 | 61.1 | 152 DLDS |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 1.12 | 4.68 | 3.99 | 12.1 | 14.2 |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 1.60 | 9.91 | 3.13 | 31.6 | 15.3 |
| **Ion Balance** | | | | | | | | | | |
| **Anion sum** | ---- | EC101/WT | 0.10 | meq/L | | 8.86 | 3.70 | 4.08 | 8.98 | 15.0 |
| **Cation sum** | ---- | EC101/WT | 0.10 | meq/L | | 4.96 | 3.50 | 4.13 | 7.96 | 14.6 |
| **Ion balance (cations/anions)** | ---- | EC101/WT | 0.010 | % | | 56.0 | 94.6 | 101 | 88.6 | 97.3 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0022 | 0.0032 | 0.0027 | 0.0338 | 0.0237 DLHC |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | 0.00050 | 0.00030 | <0.00010 | <0.00100 DLHC |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00983 | 0.00038 | 0.00194 | 0.00145 | 0.0112 DLHC |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.00908 | 0.0540 | 0.0400 | 0.0472 | 0.0506 DLHC |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.052 | 0.041 | 0.063 | 0.669 | 1.70 DLHC |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000098 | 0.0000293 | 0.0000794 | 0.0000217 | <0.0000500 DLHC |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 60.7 | 47.7 | 59.8 | 113 | 194 DLHC |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00500 DLHC |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00036 | 0.00462 | 0.00462 | 0.00142 | <0.00200 DLHC |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19 - 8 D | MW2 - S | MW8 - 12 D | MW19 - 11 M | MW19 - 11 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-011 | HA2403274-012 | HA2403274-014 | HA2403274-015 | HA2403274-016 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | 0.627 | 5.27 DLHC |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.000058 | 0.000068 | 0.000106 | 0.000066 | <0.000500 DLHC |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 10.2 | 6.06 | 8.62 | 15.7 | 30.7 DLHC |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.0162 | 0.00212 | 0.00049 | 5.62 | 10.8 DLHC |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00058 | 0.00089 | 0.00093 | 0.00109 | <0.00500 DLHC |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.56 | 2.41 | 3.12 | 4.98 | 8.45 DLHC |
| **Silicon (as SiO2), dissolved** | 7440-21-3 | EC421.SiO2/ WT | 0.15 | mg/L | | 13.8 | 11.3 | 8.64 | 5.22 | 7.61 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 6.44 | 5.28 | 4.04 | 2.44 | 3.56 DLHC |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 24.1 | 12.9 | 8.28 | 13.3 | 29.4 DLHC |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.371 | 0.000326 | 0.0119 | 0.0304 | 0.122 DLHC |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00500 DLHC |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0042 | 0.0120 | 0.0152 | 0.0054 | <0.0100 DLHC |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | <10 | 99 | 19 | 92 | 59 |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | 0.0044 | 0.0026 | 0.0041 | 0.0029 | 0.0024 |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19 - 8 D | MW2 - S | MW8 - 12 D | MW19 - 11 M | MW19 - 11 D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-011 | HA2403274-012 | HA2403274-014 | HA2403274-015 | HA2403274-016 |
| | | | | | | Result | Result | Result | Result | Result |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | | 0.00241 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 RRR | <0.050 | <0.050 | <0.050 |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.100 RRR | <0.050 | <0.050 | <0.050 |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | N/A | N/A | N/A | N/A |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.090 | <0.122 | <0.090 | <0.090 | <0.090 |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | Yes | Yes | Yes | Yes |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.100 | <0.122 RRR | <0.100 | <0.100 | <0.100 |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 14 D | MW20 - 14 S | MW20 - 15 D | MW20 - 15 S | MW6 - S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-017 | HA2403274-018 | HA2403274-019 | HA2403274-020 | HA2403274-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Physical Tests** | | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | | 92.4 | 49.0 | 386 | 153 | 190 |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | | 75.8 | 40.1 | 316 | 126 | 156 |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | | 52.4 | 10600 | 24.2 | 1580 | 64.9 |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | | 482 | 158 | 1050 | 406 | 408 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 179 | 50.9 | 514 | 149 | 184 |
| **Langelier index (@ 20°C)** | ---- | EC105/WT | 0.010 | - | | -1.61 | -2.69 | 0.544 | -0.905 | -0.427 |
| **Langelier index (@ 4°C)** | ---- | EC105/WT | 0.010 | - | | -1.86 | -2.95 | 0.296 | -1.16 | -0.676 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 6.28 | 5.94 | 7.39 | 6.80 | 6.97 |
| **pH, saturation (@ 20°C)** | ---- | EC105/WT | 0.010 | pH units | | 7.89 | 8.63 | 6.84 | 7.70 | 7.40 |
| **pH, saturation (@ 4°C)** | ---- | EC105/WT | 0.010 | pH units | | 8.14 | 8.89 | 7.09 | 7.96 | 7.65 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 253 | 92 | 681 | 247 | 208 |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | | 13.7 | 3640 | 7.53 | 323 | 14.4 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | <0.0050 | 0.0100 | <0.0050 | <0.0050 | <0.0050 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 8.75 | 5.26 | 19.6 DLDS | 5.57 | 6.58 |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | | 0.063 | 0.042 | 0.108 DLDS | 0.041 | <0.020 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.204 | 3.34 | 0.123 | <0.500 DLM | 0.493 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | 0.507 | 0.352 | 0.158 DLDS | 0.291 | 0.555 |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | | 0.507 | 0.352 | 0.158 | 0.291 | 0.555 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 14 D | MW20 - 14 S | MW20 - 15 D | MW20 - 15 S | MW6 - S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-017 | HA2403274-018 | HA2403274-019 | HA2403274-020 | HA2403274-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.050 DLDS | <0.010 | <0.010 |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | | 0.0385 | 0.0134 | 0.0367 | 0.0034 | <0.0010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.108 | 1.85 | 0.0639 | 0.225 | 0.0267 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 155 | 28.5 | 278 DLDS | 79.2 | 51.0 |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 2.05 | 4.38 | 2.46 | 2.16 | 15.7 |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 2.24 | 32.9 | 2.94 | 4.48 | 18.2 |
| **Ion Balance** | | | | | | | | | | |
| **Anion sum** | ---- | EC101/WT | 0.10 | meq/L | | 5.03 | 1.57 | 12.7 | 4.35 | 4.40 |
| **Cation sum** | ---- | EC101/WT | 0.10 | meq/L | | 4.71 | 1.42 | 12.3 | 4.44 | 4.16 |
| **Ion balance (cations/anions)** | ---- | EC101/WT | 0.010 | % | | 93.6 | 90.4 | 96.8 | 102 | 94.5 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0036 | 0.0501 | 0.0018 | 0.0020 | 0.0481 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | 0.00020 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00127 | 0.00049 | 0.00190 | 0.00046 | 0.00040 |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0199 | 0.0230 | 0.0501 | 0.0270 | 0.0224 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.247 | 0.056 | 0.070 | 0.194 | 0.187 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.000201 | 0.0000404 | 0.0000503 | 0.0000281 | 0.0000066 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 43.4 | 12.6 | 144 | 39.6 | 63.3 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00079 | 0.00350 | 0.00058 | 0.00932 | 0.00193 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 14 D | MW20 - 14 S | MW20 - 15 D | MW20 - 15 S | MW6 - S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-017 | HA2403274-018 | HA2403274-019 | HA2403274-020 | HA2403274-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | <0.010 | 0.050 | 0.026 | <0.010 | <0.010 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.000065 | 0.000172 | 0.000066 | 0.000051 | 0.000080 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 17.1 | 4.72 | 37.4 | 12.1 | 6.19 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.00415 | 0.0152 | 0.0135 | 0.0119 | 0.00326 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00176 | 0.00436 | 0.00126 | 0.00852 | <0.00050 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.45 | 0.900 | 2.14 | 1.57 | 1.20 |
| **Silicon (as SiO2), dissolved** | 7440-21-3 | EC421.SiO2/ WT | 0.15 | mg/L | | 12.3 | 7.83 | 26.7 | 18.8 | 3.81 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 5.74 | 3.66 | 12.5 | 8.78 | 1.78 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 25.2 | 8.64 | 46.6 | 32.7 | 10.4 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.00151 | 0.000056 | 0.248 | 0.000349 | 0.00156 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | 0.00079 | <0.00050 | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0266 | 0.0060 | 0.0098 | 0.0204 | 0.0051 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | <10 | 98 | <10 | 18 | 58 |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | 0.0030 | 0.0014 | 0.0025 | 0.0028 | 0.0011 |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20 - 14 D | MW20 - 14 S | MW20 - 15 D | MW20 - 15 S | MW6 - S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-017 | HA2403274-018 | HA2403274-019 | HA2403274-020 | HA2403274-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | <1 | <1 | |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | <1 | 100 | |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | <0.00050 | <0.00050 | 0.00059 | <0.00050 | <0.00050 | |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 | |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 | |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.100 RRR | <0.100 RRR | <0.125 RRR | <0.050 | |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.100 RRR | <0.100 RRR | <0.125 RRR | <0.050 | |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | <0.050 | <0.050 | <0.050 | <0.050 | 0.051 | |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | N/A | N/A | N/A | N/A | NR | |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | <0.090 | <0.150 | <0.150 | <0.184 | <0.090 | |
| **return to baseline at C32** | n/a | E601F/WT | - | - | Yes | Yes | Yes | Yes | Yes | |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | <0.100 | <0.150 RRR | <0.150 RRR | <0.184 RRR | <0.100 | |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW6 - D | MW19 - 13 D | MW19 - 13 S | MW2 - M | MW2 - D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-022 | HA2403274-023 | HA2403274-024 | HA2403274-025 | HA2403274-026 |
| | | | | | | Result | Result | Result | Result | Result |
| **Physical Tests** | | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | | 931 | 111 | 7.4 | 141 | 188 |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | | 763 | 90.9 | 6.0 | 116 | 154 |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | | 460 | 19.0 | 6730 | 213 | 1530 |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | | 1760 | 217 | 120 | 354 | 432 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 786 | 67.0 | 31.5 | 136 | 177 |
| **Langelier index (@ 20°C)** | ---- | EC105/WT | 0.010 | - | | 0.457 | -0.189 | -3.98 | -0.953 | -0.562 |
| **Langelier index (@ 4°C)** | ---- | EC105/WT | 0.010 | - | | 0.210 | -0.439 | -4.23 | -1.20 | -0.811 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 6.78 | 7.87 | 5.66 | 6.84 | 6.97 |
| **pH, saturation (@ 20°C)** | ---- | EC105/WT | 0.010 | pH units | | 6.32 | 8.06 | 9.64 | 7.79 | 7.53 |
| **pH, saturation (@ 4°C)** | ---- | EC105/WT | 0.010 | pH units | | 6.57 | 8.31 | 9.89 | 8.04 | 7.78 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 916 | 95 | 77 | 191 | 223 |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | | 105 | 3.21 | 3670 | 41.2 | 331 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 9.80 | 0.0058 | 0.0156 | <0.0050 | <0.0050 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 28.4 DLDS | 7.79 | 12.3 | 9.06 | 16.4 |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | | 0.143 DLDS | 0.609 | <0.020 | 0.088 | 0.112 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 12.9 | <0.050 | 1.72 | 0.090 | <0.500 DLM |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.100 DLDS | <0.020 | 0.040 | 0.245 | 0.064 |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | | <0.112 | <0.0224 | 0.0400 | 0.245 | 0.0640 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID: MW6 - D | MW19 - 13 D | MW19 - 13 S | MW2 - M | MW2 - D |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time: 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | HA2403274-022 | HA2403274-023 | HA2403274-024 | HA2403274-025 | HA2403274-026 |
| | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | <0.050 DLDS | <0.010 | <0.010 | <0.010 | <0.010 |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | <0.0010 | 0.0776 | 0.0021 | 0.0422 | 0.0450 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | 0.189 | 0.0927 | 4.31 | 0.0997 | 0.566 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | 187 DLDS | 4.29 | 23.5 | 42.6 | 41.2 |
| **Organic / Inorganic Carbon** | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | 34.1 | <0.50 | 8.65 | 0.72 | 0.86 |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | 37.2 | <0.50 | 33.8 | 1.69 | 2.77 |
| **Ion Balance** | | | | | | | | | |
| **Anion sum** | ---- | EC101/WT | 0.10 | meq/L | 19.9 | 2.16 | 0.96 | 3.48 | 4.41 |
| **Cation sum** | ---- | EC101/WT | 0.10 | meq/L | 20.9 | 2.10 | 1.04 | 3.35 | 4.39 |
| **Ion balance (cations/anions)** | ---- | EC101/WT | 0.010 | % | 105 | 97.2 | 108 | 96.3 | 99.5 |
| **Dissolved Metals** | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | 0.0462 DLHC | 0.0049 | 0.342 | 0.0012 | 0.0030 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | <0.00100 DLHC | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | 0.0366 DLHC | 0.00506 | 0.00035 | 0.00139 | 0.00182 |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | 0.0439 DLHC | 0.00635 | 0.0112 | 0.0158 | 0.0186 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | 3.89 DLHC | 0.029 | 0.134 | 0.089 | 0.058 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | <0.0000500 DLHC | <0.0000050 | 0.0000456 | 0.0000522 | 0.0000468 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | 216 DLHC | 21.2 | 8.06 | 33.6 | 47.6 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | <0.00500 DLHC | <0.00050 | <0.00050 | 0.00073 | <0.00050 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | <0.00200 DLHC | 0.00026 | 0.00142 | 0.00039 | 0.00109 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW6 - D | MW19 - 13 D | MW19 - 13 S | MW2 - M | MW2 - D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-022 | HA2403274-023 | HA2403274-024 | HA2403274-025 | HA2403274-026 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 10.6 DLHC | <0.010 | 0.339 | <0.010 | <0.010 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | <0.000500 DLHC | 0.000051 | 0.000254 | 0.000062 | 0.000069 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 59.8 DLHC | 3.42 | 2.77 | 12.6 | 14.2 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 17.3 DLHC | 0.00313 | 0.0745 | 0.00037 | 0.00041 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.0117 DLHC | <0.00050 | 0.00081 | <0.00050 | <0.00050 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 7.01 DLHC | 1.07 | 0.660 | 0.928 | 1.05 |
| **Silicon (as SiO2), dissolved** | 7440-21-3 | EC421.SiO2/ WT | 0.15 | mg/L | | 10.3 | 8.49 | 4.17 | 13.4 | 15.3 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 4.81 DLHC | 3.97 | 1.95 | 6.28 | 7.16 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 76.8 DLHC | 16.8 | 7.67 | 14.1 | 18.9 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.0954 DLHC | 0.0204 | 0.000195 | 0.00906 | 0.100 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00500 DLHC | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | <0.0100 DLHC | 0.0039 | 0.0045 | 0.0053 | 0.0056 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 117 | <10 | 116 | <10 | 15 |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | | 0.0018 | 0.0014 | 0.0015 | 0.0043 | 0.0022 |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW6 - D | MW19 - 13 D | MW19 - 13 S | MW2 - M | MW2 - D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 |
| | | | | | | HA2403274-022 | HA2403274-023 | HA2403274-024 | HA2403274-025 | HA2403274-026 |
| | | | | | | Result | Result | Result | Result | Result |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | <1 |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.125 RRR | <0.050 | <0.125 RRR | <0.125 RRR |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.125 RRR | <0.050 | <0.125 RRR | <0.125 RRR |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | N/A | N/A | N/A | N/A |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.090 | <0.184 | <0.090 | <0.184 | <0.184 |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | Yes | Yes | Yes | Yes |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.100 | <0.184 RRR | <0.100 | <0.184 RRR | <0.184 RRR |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | DUP 1 | DUP 2 | DUP 3 | MW19 - 8 S | ---- |
|---|---|---|---|---|---|---|---|---|---|
| *Client sample ID* | | | | | DUP 1 | DUP 2 | DUP 3 | MW19 - 8 S | ---- |
| *Client sampling date / time* | | | | | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | ---- |
| | | | | | HA2403274-027 | HA2403274-028 | HA2403274-029 | HA2403274-030 | ---- |
| | | | | | Result | Result | Result | Result | ---- |
| **Physical Tests** | | | | | | | | | |
| **Alkalinity, bicarbonate (as HCO3)** | 71-52-3 | E290/WT | 1.0 | mg/L | 216 | 103 | 107 | 336 | ---- |
| **Alkalinity, carbonate (as CO3)** | 3812-32-6 | E290/WT | 1.0 | mg/L | <1.0 | <1.0 | <1.0 | <1.0 | ---- |
| **Alkalinity, hydroxide (as OH)** | 14280-30-9 | E290/WT | 1.0 | mg/L | <1.0 | <1.0 | <1.0 | <1.0 | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 1.0 | mg/L | 177 | 84.6 | 88.0 | 275 | ---- |
| **Colour, apparent** | ---- | E330/WT | 2.0 | CU | 65.9 | 4550 | 125 | 37.2 | ---- |
| **Conductivity** | ---- | E100/WT | 1.0 | µS/cm | 845 | 201 | 252 | 1270 | ---- |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | 195 | 74.6 | 86.9 | 478 | ---- |
| **Langelier index (@ 20°C)** | ---- | EC105/WT | 0.010 | - | 0.415 | -0.107 | -0.708 | 1.09 | ---- |
| **Langelier index (@ 4°C)** | ---- | EC105/WT | 0.010 | - | 0.167 | -0.356 | -0.960 | 0.841 | ---- |
| **pH** | ---- | E108/HA | 0.10 | pH units | 7.84 | 7.95 | 7.29 | 7.98 | ---- |
| **pH, saturation (@ 20°C)** | ---- | EC105/WT | 0.010 | pH units | 7.42 | 8.06 | 8.00 | 6.89 | ---- |
| **pH, saturation (@ 4°C)** | ---- | EC105/WT | 0.010 | pH units | 7.67 | 8.31 | 8.25 | 7.14 | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | 456 | 133 | 130 | 752 | ---- |
| **Turbidity** | ---- | E121/WT | 0.10 | NTU | 11.7 | 1120 | 70.3 | 15.1 | ---- |
| **Anions and Nutrients** | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | <0.0050 | <0.0050 | <0.0050 | <0.0050 | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | 64.3 | 9.46 | 19.6 | 73.4 DLDS | ---- |
| **Fluoride** | 16984-48-8 | E235.F/WT | 0.020 | mg/L | 0.493 | 0.089 | 0.381 | 0.134 DLDS | ---- |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | 0.083 | 0.518 | 0.162 | 0.168 | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | <0.020 | 0.023 | 0.057 | 0.234 DLDS | ---- |
| **Nitrate + Nitrite (as N)** | ---- | EC235.N+N/WT | 0.0032 | mg/L | <0.0224 | 0.0230 | 0.0570 | 0.234 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | DUP 1 | DUP 2 | DUP 3 | MW19 - 8 S | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | ---- |
| | | | | | | HA2403274-027 | HA2403274-028 | HA2403274-029 | HA2403274-030 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Anions and Nutrients** | | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | <0.050 DLDS | ---- |
| **Phosphate, ortho-, dissolved (as P)** | 14265-44-2 | E378-U/WT | 0.0010 | mg/L | | 0.0492 | 0.0103 | 0.0476 | 0.0230 | ---- |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.0643 | 0.892 | 0.184 | 0.0358 | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 160 | 6.69 | 7.00 | 299 DLDS | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 1.15 | <0.50 | 1.45 | 3.03 | ---- |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 1.62 | <5.00 DLM | 2.76 | 2.62 | ---- |
| **Ion Balance** | | | | | | | | | | |
| **Anion sum** | ---- | EC101/WT | 0.10 | meq/L | | 8.71 | 2.10 | 2.48 | 13.8 | ---- |
| **Cation sum** | ---- | EC101/WT | 0.10 | meq/L | | 4.95 | 1.90 | 2.27 | 13.1 | ---- |
| **Ion balance (cations/anions)** | ---- | EC101/WT | 0.010 | % | | 56.8 | 90.5 | 91.5 | 94.9 | ---- |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0016 | 0.0099 | 0.0150 | 0.0018 | ---- |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | 0.00015 | ---- |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00986 | 0.00157 | 0.00789 | 0.00287 | ---- |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.00862 | 0.0170 | 0.00999 | 0.0310 | ---- |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.050 | 0.011 | 0.019 | 0.133 | ---- |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000062 | <0.0000050 | 0.0000231 | 0.0000259 | ---- |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 61.6 | 24.0 | 26.0 | 154 | ---- |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | 0.00051 | <0.00050 | <0.00050 | ---- |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | <0.00020 | 0.00142 | 0.00103 | 0.00276 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | DUP 1 | DUP 2 | DUP 3 | MW19 - 8 S | ---- |
|---|---|---|---|---|---|---|---|---|---|
| *Client sample ID* | | | | | DUP 1 | DUP 2 | DUP 3 | MW19 - 8 S | ---- |
| *Client sampling date / time* | | | | | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | ---- |
| | | | | | HA2403274-027 | HA2403274-028 | HA2403274-029 | HA2403274-030 | ---- |
| | | | | | Result | Result | Result | Result | ---- |
| **Dissolved Metals** | | | | | | | | | |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | <0.010 | <0.010 | <0.010 | <0.010 | ---- |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | <0.000050 | <0.000050 | <0.000050 | 0.000063 | ---- |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | 9.96 | 3.57 | 5.34 | 22.6 | ---- |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | 0.0160 | 0.00278 | 0.00139 | 0.00256 | ---- |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | ---- |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | 0.00050 | 0.00736 | <0.00050 | 0.00390 | ---- |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | 1.57 | 1.18 | 1.09 | 3.00 | ---- |
| **Silicon (as SiO2), dissolved** | 7440-21-3 | EC421.SiO2/ WT | 0.15 | mg/L | 13.8 | 11.2 | 12.5 | 16.1 | ---- |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | 6.43 | 5.22 | 5.84 | 7.53 | ---- |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | 23.3 | 8.63 | 11.6 | 79.9 | ---- |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | 0.367 | 0.00194 | 0.0154 | 0.154 | ---- |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | <0.00050 | 0.00065 | <0.00050 | 0.00060 | ---- |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | 0.0010 | 0.0052 | 0.0017 | 0.0055 | ---- |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | Field | Field | Field | Field | ---- |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | Field | Field | Field | Field | ---- |
| **Aggregate Organics** | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | <10 | 24 | <10 | <10 | ---- |
| **Phenols, total (4AAP)** | ---- | E562/EO | 0.0010 | mg/L | 0.0043 RRV | 0.0018 | 0.0035 RRV | 0.0013 | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | <1 | ---- |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | <1 | <1 | <1 | <1 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| | | | | | Client sample ID | DUP 1 | DUP 2 | DUP 3 | MW19 - 8 S | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | 10-Dec-2024 00:00 | ---- |
| Analyte | CAS Number | Method/Lab | LOR | Unit | | HA2403274-027 | HA2403274-028 | HA2403274-029 | HA2403274-030 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | ---- |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | <1 | ---- |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Toluene** | 108-88-3 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Ethylbenzene** | 100-41-4 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Xylenes, total** | 1330-20-7 | E611D/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | ---- |
| **Methyl-tert-butyl ether [MTBE]** | 1634-04-4 | E611D/WT | 0.00050 | mg/L | | 0.00225 | <0.00050 | <0.00050 | 0.00094 | ---- |
| **Xylene, o-** | 95-47-6 | E611D/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | ---- |
| **Xylene, m+p-** | 179601-23-1 | E611D/WT | 0.00040 | mg/L | | <0.00040 | <0.00040 | <0.00040 | <0.00040 | ---- |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | ---- |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | <0.025 | ---- |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.125 RRR | <0.100 RRR | <0.100 RRR | <0.050 | ---- |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.125 RRR | <0.100 RRR | <0.100 RRR | <0.050 | ---- |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | ---- |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | <0.10 | <0.10 | <0.10 | ---- |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | N/A | N/A | NR | ---- |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.184 | <0.150 | <0.150 | <0.090 | ---- |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | Yes | Yes | Yes | ---- |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.184 RRR | <0.150 RRR | <0.150 RRR | <0.100 | ---- |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

ALS Canada Ltd.

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# QUALITY CONTROL INTERPRETIVE REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2403274** | Page | : 1 of 88 |
| **Amendment** | : 1 | | |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 11-Dec-2024 15:30 |
| PO | : ---- | Issue Date | : 17-Jan-2025 19:45 |
| C-O-C number | : ---- | | |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 29 | | |
| No. of samples analysed | : 29 | | |

**This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.**

**Key**

**Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.**
**CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.**
**DQO: Data Quality Objective.**
**LOR: Limit of Reporting (detection limit).**
**RPD: Relative Percent Difference.**

## *Workorder Comments*

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

### *Outliers: Reference Material (RM) Samples*

- No Reference Material (RM) Sample outliers occur.

## Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

## Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

# Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 1 | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 2 | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 3 | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - S D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 03 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 M | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - M | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 16 | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW3 | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6 - D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6 - S | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7 - D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8 - 12 D | E559-L | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP 1 | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP 2 | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP 3 | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1 - S D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1 - D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 03 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 M | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - M | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 16 | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW3 | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5 - S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6 - D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6 - S | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7 - D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8 - 12 D | E562 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 10 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19 - 8 S | E562 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1 - S D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1 - D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19 - 03 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 M | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 16 | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW3 | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7 - D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW8 - 12 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 1 | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 2 | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 3 | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 S | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - M | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - D | E298 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - S D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - S | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - S | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - S | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW7 - D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E235.Cl | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 1 | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 2 | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 3 | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - D | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - M | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW6 - D | E235.Cl | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1 - S D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1 - D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 03 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 11 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 11 M | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 8 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2 - S | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 14 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 14 S | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 15 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 15 S | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 16 | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 17 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20 - 17 S | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW3 | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW5 - D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW5 - S | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** MW6 - S | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** MW7 - D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E378-U | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** DUP 1 | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** DUP 2 | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** DUP 3 | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2 - D | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2 - M | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW6 - D | E378-U | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 3 days | 9 days | × EHT |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1 - S D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1 - D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 03 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 11 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 11 M | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19 - 8 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - S | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - S | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - S | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW7 - D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E235.F | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 1 | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 2 | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 3 | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - D | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - M | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Fluoride in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - D | E235.F | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - S D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - S | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - S | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - S | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW7 - D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E235.NO3 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 1 | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 2 | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 3 | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - D | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - M | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - D | E235.NO3 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - S D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - S | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - S | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - S | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW7 - D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E235.NO2 | 10-Dec-2024 | 16-Dec-2024 | 3 days | 7 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 1 | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 2 | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 3 | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - D | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - M | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - D | E235.NO2 | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 17-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - S D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW1 - D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - S | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5 - S | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - S | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW7 - D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E235.SO4 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 1 | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 2 | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP 3 | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - D | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2 - M | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW6 - D | E235.SO4 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 1 | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 2 | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 3 | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 D | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 M | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 D | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 S | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 S | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - D | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - M | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 D | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 S | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 D | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 S | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - D | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - S | E318 | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - S D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 03 D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - S | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 16 | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 S | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW3 | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - S | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7 - D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW8 - 12 D | E318 | 10-Dec-2024 | 19-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 1 | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 2 | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 3 | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 D | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 M | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 D | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 S | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 S | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - D | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - M | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 D | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 S | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 D | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 S | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - D | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - S | E372-U | 10-Dec-2024 | 16-Jan-2025 | 28 days | 38 days | × EHT | 16-Jan-2025 | 28 days | 38 days | × EHT |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - S D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 03 D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - S | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 16 | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20 - 17 S | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW3 | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5 - D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5 - S | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7 - D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8 - 12 D | E372-U | 10-Dec-2024 | 18-Dec-2024 | 28 days | 9 days | ✓ | 19-Dec-2024 | 28 days | 10 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| DUP 1 | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| DUP 2 | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| DUP 3 | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW1 - S D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW1 - D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 03 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 11 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 11 M | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 13 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 13 S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 8 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19 - 8 S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW2 - D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW2 - M | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW2 - S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20 - 14 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20 - 14 S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20 - 15 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20 - 15 S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20 - 16 | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20 - 17 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW20 - 17 S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW3 | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW5 - D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW5 - S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW6 - D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW6 - S | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW7 - D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW8 - 12 D | E509 | 10-Dec-2024 | 18-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| DUP 1 | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| DUP 2 | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| DUP 3 | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW1 - S D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW1 - D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19 - 03 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19 - 11 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19 - 11 M | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19 - 13 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19 - 13 S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW19 - 8 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW19 - 8 S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW2 - D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW2 - M | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW2 - S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW20 - 14 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW20 - 14 S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW20 - 15 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW20 - 15 S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20 - 16 | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20 - 17 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20 - 17 S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW3 | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW5 - D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW5 - S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW6 - D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW6 - S | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW7 - D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW8 - 12 D | E421 | 10-Dec-2024 | 17-Dec-2024 | 180 days | 7 days | ✓ | 17-Dec-2024 | 180 days | 7 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW1 - S D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW1 - D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW19 - 03 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW19 - 11 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW19 - 11 M | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW19 - 8 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW2 - S | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| MW20 - 14 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW20 - 14 S | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW20 - 15 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW20 - 15 S | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW20 - 16 | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW20 - 17 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW20 - 17 S | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW3 | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW5 - D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW5 - S | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW6 - S | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW7 - D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW8 - 12 D | E601F | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 18-Dec-2024 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** DUP 1 | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** DUP 2 | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** DUP 3 | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW19 - 13 D | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW19 - 13 S | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW19 - 8 S | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW2 - D | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW2 - M | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** MW6 - D | E601F | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 40 days | 1 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP 1 | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP 2 | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP 3 | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW1 - S D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW1 - D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 03 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 11 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 11 M | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 13 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 13 S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 8 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 8 S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW2 - D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW2 - M | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW2 - S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 14 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 14 S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 15 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 15 S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 16 | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 17 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 17 S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW3 | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW5 - D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW5 - S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW6 - D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW6 - S | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW7 - D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW8 - 12 D | E581.VPH | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** DUP 1 | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** DUP 2 | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** DUP 3 | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW2 - D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW2 - M | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW6 - D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW6 - S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 0 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW1 - S D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW1 - D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW2 - S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW3 | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW5 - D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW5 - S | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW7 - D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E358-L | 10-Dec-2024 | 17-Dec-2024 | 3 days | 8 days | × EHT | 18-Dec-2024 | 28 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - S D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1 - D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 03 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 11 M | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 14 S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 15 S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 16 | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20 - 17 S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW3 | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5 - S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7 - D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW8 - 12 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 1 | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 2 | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP 3 | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 13 S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19 - 8 S | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2 - M | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6 - D | E355-L | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW1 - S D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW1 - D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW2 - S | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW3 | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW5 - D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW5 - S | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW6 - S | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW7 - D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E290 | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 17-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP 1 | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP 2 | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP 3 | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW2 - D | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW2 - M | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW6 - D | E290 | 10-Dec-2024 | 17-Dec-2024 | 14 days | 8 days | ✓ | 18-Dec-2024 | 14 days | 8 days | ✓ |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** DUP 1 | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** DUP 2 | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** DUP 3 | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW1 - S D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW1 - D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW2 - D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW2 - M | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW2 - S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW3 | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW5 - D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW5 - S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW6 - D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW6 - S | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW7 - D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Colour (Apparent) by Spectrometer** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E330 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 48 hrs | 200 hrs | × EHTL |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW1 - S D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW1 - D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW2 - S | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW3 | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW5 - D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW5 - S | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW6 - S | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW7 - D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E100 | 10-Dec-2024 | 16-Dec-2024 | 28 days | 7 days | ✓ | 17-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP 1 | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP 2 | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP 3 | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW2 - D | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW2 - M | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW6 - D | E100 | 10-Dec-2024 | 17-Dec-2024 | 28 days | 8 days | ✓ | 18-Dec-2024 | 28 days | 8 days | ✓ |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW1 - S D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW1 - D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW2 - S | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW3 | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW5 - D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW5 - S | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW7 - D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E108 | 10-Dec-2024 | 17-Dec-2024 | 0.25 hrs | 177 hrs | × EHTR-FM | 17-Dec-2024 | 0.25 hrs | 183 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP 1 | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP 2 | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP 3 | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW2 - D | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW2 - M | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW6 - D | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW6 - S | E108 | 10-Dec-2024 | 18-Dec-2024 | 0.25 hrs | 201 hrs | × EHTR-FM | 18-Dec-2024 | 0.25 hrs | 206 hrs | × EHTR-FM |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW1 - S D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW1 - D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW2 - S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW3 | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW5 - D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW5 - S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW7 - D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP 1 | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP 2 | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP 3 | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW2 - D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW2 - M | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW6 - D | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW6 - S | E162 | 10-Dec-2024 | ---- | ---- | ---- | | 17-Dec-2024 | 7 days | 8 days | ✓ |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** DUP 1 | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** DUP 2 | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** DUP 3 | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW1 - S D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW1 - D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 03 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 11 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 11 M | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 13 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 13 S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 8 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW19 - 8 S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW2 - D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW2 - M | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW2 - S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 14 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 14 S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 15 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 15 S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 16 | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 17 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW20 - 17 S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW3 | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW5 - D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW5 - S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW6 - D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW6 - S | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW7 - D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Physical Tests : Turbidity by Nephelometry** | | | | | | | | | | |
| **HDPE** MW8 - 12 D | E121 | 10-Dec-2024 | ---- | ---- | ---- | | 18-Dec-2024 | 3 days | 8 days | × EHT |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP 1 | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP 2 | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP 3 | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW1 - S D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW1 - D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 03 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 11 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 11 M | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 13 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 13 S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 8 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW19 - 8 S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW2 - D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW2 - M | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW2 - S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 14 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 14 S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 15 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 15 S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 16 | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 17 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW20 - 17 S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW3 | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW5 - D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| *Analyte Group : Analytical Method* / Container / Client Sample ID(s) | *Method* | *Sampling Date* | *Extraction / Preparation* | | | | *Analysis* | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Preparation Date* | *Holding Times* | | *Eval* | *Analysis Date* | *Holding Times* | | *Eval* |
| | | | | *Rec* | *Actual* | | | *Rec* | *Actual* | |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW5 - S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW6 - D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW6 - S | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW7 - D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |
| **Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** MW8 - 12 D | E611D | 10-Dec-2024 | 16-Dec-2024 | 14 days | 7 days | ✓ | 16-Dec-2024 | 14 days | 7 days | ✓ |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

# Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Alkalinity Species by Titration | E290 | 1811181 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1811955 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1812680 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1811178 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Colour (Apparent) by Spectrometer | E330 | 1813835 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Conductivity in Water | E100 | 1811180 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 1813870 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 1811658 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 1813346 | 2 | 32 | 6.2 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1811182 | 2 | 35 | 5.7 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1811175 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1811176 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1811177 | 2 | 40 | 5.0 | 5.0 | ✓ |
| pH by Meter | E108 | 1812004 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1812498 | 3 | 57 | 5.2 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1811179 | 2 | 39 | 5.1 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1812003 | 2 | 34 | 5.8 | 5.2 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1814385 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1811956 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1814386 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Turbidity by Nephelometry | E121 | 1813881 | 2 | 40 | 5.0 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1811196 | 2 | 29 | 6.9 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1811197 | 2 | 29 | 6.9 | 5.0 | ✓ |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Alkalinity Species by Titration | E290 | 1811181 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1811955 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1812680 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1811178 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Colour (Apparent) by Spectrometer | E330 | 1813835 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Conductivity in Water | E100 | 1811180 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 1813870 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 1811658 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 1813346 | 2 | 32 | 6.2 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1811182 | 2 | 35 | 5.7 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1811539 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1811175 | 2 | 39 | 5.1 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Control Samples (LCS) - Continued** | | | | | | | |
| Nitrate in Water by IC | E235.NO3 | 1811176 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1811177 | 2 | 40 | 5.0 | 5.0 | ✓ |
| pH by Meter | E108 | 1812004 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1812498 | 3 | 57 | 5.2 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1811179 | 2 | 39 | 5.1 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1812003 | 2 | 34 | 5.8 | 5.2 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1814385 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1811956 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1814386 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Turbidity by Nephelometry | E121 | 1813881 | 2 | 40 | 5.0 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1811196 | 2 | 29 | 6.9 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1811197 | 2 | 29 | 6.9 | 5.0 | ✓ |
| **Method Blanks (MB)** | | | | | | | |
| Alkalinity Species by Titration | E290 | 1811181 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1811955 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1812680 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 1811178 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Colour (Apparent) by Spectrometer | E330 | 1813835 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Conductivity in Water | E100 | 1811180 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 1813870 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 1811658 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 1813346 | 2 | 32 | 6.2 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1811182 | 2 | 35 | 5.7 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1811539 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1811175 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1811176 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1811177 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1812498 | 3 | 57 | 5.2 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1811179 | 2 | 39 | 5.1 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1812003 | 2 | 34 | 5.8 | 5.2 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1814385 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1811956 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1814386 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Turbidity by Nephelometry | E121 | 1813881 | 2 | 40 | 5.0 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1811196 | 2 | 29 | 6.9 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1811197 | 2 | 29 | 6.9 | 5.0 | ✓ |
| **Matrix Spikes (MS)** | | | | | | | |
| Ammonia by Fluorescence | E298 | 1811955 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1812680 | 2 | 37 | 5.4 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| Matrix Spikes (MS) - Continued | | | | | | | |
| Chloride in Water by IC | E235.Cl | 1811178 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 1813870 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 1811658 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 1813346 | 2 | 32 | 6.2 | 5.0 | ✓ |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U | 1811182 | 2 | 35 | 5.7 | 5.0 | ✓ |
| Fluoride in Water by IC | E235.F | 1811175 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1811176 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1811177 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1812498 | 3 | 57 | 5.2 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1811179 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1814385 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1811956 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1814386 | 2 | 36 | 5.5 | 5.0 | ✓ |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D | 1811196 | 2 | 29 | 6.9 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1811197 | 2 | 29 | 6.9 | 5.0 | ✓ |

## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Conductivity in Water | E100<br>ALS Environmental - Waterloo | Water | APHA 2510 (mod) | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C. |
| pH by Meter | E108<br>ALS Environmental - Halifax | Water | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time. |
| Turbidity by Nephelometry | E121<br>ALS Environmental - Waterloo | Water | APHA 2130 B (mod) | Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions. |
| TDS by Gravimetry | E162<br>ALS Environmental - Halifax | Water | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue. |
| Chloride in Water by IC | E235.Cl<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Fluoride in Water by IC | E235.F<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrite in Water by IC | E235.NO2<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrate in Water by IC | E235.NO3<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Sulfate in Water by IC | E235.SO4<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Alkalinity Species by Titration | E290<br>ALS Environmental - Waterloo | Water | APHA 2320 B (mod) | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Ammonia by Fluorescence | E298<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021) |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021). |
| Colour (Apparent) by Spectrometer | E330<br>ALS Environmental - Waterloo | Water | APHA 2120 C (mod) | Colour (Apparent) is measured in an unfiltered sample spectrophotometrically using the single wavelength method. The colour contribution of settleable solids are not included in the result. This method is intended for potable waters.<br><br>Colour measurements can be highly pH dependent, and apply to the pH of the sample as received (at time of testing), without pH adjustment. |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of $CO_2$. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC). |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of $CO_2$. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC). |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample. |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U<br>ALS Environmental - Waterloo | Water | APHA 4500-P F (mod) | Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.<br><br>Field filtration is recommended to ensure test results represent conditions at time of sampling. |
| Dissolved Metals in Water by CRC ICPMS | E421<br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 6020B (mod) | Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Dissolved Mercury in Water by CVAAS | E509<br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 1631E (mod) | Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS. |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L<br>ALS Environmental - Waterloo | Water | APHA 5220 D (mod) | Samples are analyzed using the closed reflux colourimetric method. |
| Phenols (4AAP) in Water by Colorimetry | E562<br>ALS Environmental - Edmonton | Water | EPA 9066 | This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically. |
| VPH by Headspace GC-FID (RBCA) | E581.VPH<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH (Volatile Petroleum Hydrocarbons) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| EPH in Water by GC-FID (RBCA) | E601F<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Sample Extracts are analyzed by GC-FID for RBCA Tier I hydrocarbon fractions C10-C16, C16-C21, C21-C32. |
| VOCs (Eastern Canada List) by Headspace GC-MS | E611D<br>ALS Environmental - Waterloo | Water | EPA 8260D (mod) | Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| Dissolved Hardness (Calculated) | EC100<br>ALS Environmental - Waterloo | Water | APHA 2340B | "Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. |
| Ion Balance using Dissolved Metals | EC101<br>ALS Environmental - Waterloo | Water | APHA 1030E | Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present.<br>Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC). |
| Saturation Index using Laboratory pH (Ca-D) | EC105<br>ALS Environmental - Waterloo | Water | APHA 2330B | Langelier Index provides an indication of scale formation potential at a given pH and temperature, and is calculated as per APHA 2330B Saturation Index. Positive values indicate oversaturation with respect to CaCO3. Negative values indicate undersaturation of CaCO3. This calculation uses laboratory pH measurements and provides estimates of Langelier Index at temperatures of 4, 15, 20, 25, 66, and 77°C. Ryznar Stability Index is an alternative index used for scale formation and corrosion potential. If available, Field pH measurements are recommended for best accuracy (test code EC104). |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Nitrate and Nitrite (as N) (Calculation) | EC235.N+N<br>ALS Environmental - Waterloo | Water | EPA 300.0 | Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N). |
| Dissolved Silicon as Silica (Calculation) | EC421.SiO2<br>ALS Environmental - Waterloo | Water | N/A | Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L). |
| VPH C6-C10 (less BTEX) [RBCA] | EC580C<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH C6-C10 (less BTEX) is calculated as follows: VPH (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). |
| Modified TPH (RBCA) Tier I | EC581D<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Modified TPH (PIRI), Tier I is the sum of PIRI Fraction (C6 - C10 - BTEX) + (>C10 - C16) + (>C16 – C21) + (>C21 - C32). |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Preparation for Ammonia | EP298<br>ALS Environmental - Waterloo | Water | | Sample preparation for Preserved Nutrients Water Quality Analysis. |
| Digestion for TKN in water | EP318<br>ALS Environmental - Waterloo | Water | APHA 4500-Norg D (mod) | Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low. |
| Preparation for Total Organic Carbon by Combustion | EP355<br>ALS Environmental - Waterloo | Water | | Preparation for Total Organic Carbon by Combustion |
| Preparation for Dissolved Organic Carbon for Combustion | EP358<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Preparation for Dissolved Organic Carbon |
| Digestion for Total Phosphorus in water | EP372<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Samples are heated with a persulfate digestion reagent. |
| Dissolved Metals Water Filtration | EP421<br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um), and preserved with HNO3. |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Dissolved Mercury Water Filtration | EP509<br><br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um), and preserved with HCl. |
| VOCs Preparation for Headspace Analysis | EP581<br><br>ALS Environmental - Waterloo | Water | EPA 5021A (mod) | Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID. |
| PHCs Hexane Extraction (RBCA) | EP601F<br><br>ALS Environmental - Waterloo | Water | EPA 3511 (mod) | Petroleum Hydrocarbons (PHCs) are extracted using a hexane liquid-liquid extraction. |

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## QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2403274** | Page | : 1 of 21 |
| **Amendment** | : **1** | | |
| Client | : AECOM Canada ULC | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 11-Dec-2024 15:30 |
| PO | : ---- | Date Analysis Commenced | : 16-Dec-2024 |
| C-O-C number | : ---- | Issue Date | : 17-Jan-2025 19:45 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 29 | | |
| No. of samples analysed | : 29 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

### *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Brooke Miller | Laboratory Analyst | Edmonton Inorganics, Edmonton, Alberta |
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Waterloo Organics, Waterloo, Ontario |
| Greg Pokocky | Manager - Inorganics | Waterloo Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Halifax Inorganics, Dartmouth, Nova Scotia |
| Jon Fisher | Production Manager, Environmental | Waterloo Inorganics, Waterloo, Ontario |
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| Sarah Birch | VOC Section Supervisor | Waterloo VOC, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Inorganics, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Metals, Waterloo, Ontario |

## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | LOR | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| **Physical Tests (QC Lot: 1811180)** | | | | | | | | | | | |
| HA2403274-003 | MW7 - D | Conductivity | ---- | E100 | 1.0 | µS/cm | 417 | 419 | 0.478% | 10% | ---- |
| **Physical Tests (QC Lot: 1811181)** | | | | | | | | | | | |
| HA2403274-003 | MW7 - D | Alkalinity, total (as CaCO3) | ---- | E290 | 1.0 | mg/L | 156 | 159 | 2.13% | 20% | ---- |
| **Physical Tests (QC Lot: 1812003)** | | | | | | | | | | | |
| HA2403180-003 | Anonymous | Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 49 | 50 | 0.2 | Diff <2x LOR | ---- |
| **Physical Tests (QC Lot: 1812004)** | | | | | | | | | | | |
| HA2403180-003 | Anonymous | pH | ---- | E108 | 0.10 | pH units | 5.38 | 5.21 | 3.10% | 4% | ---- |
| **Physical Tests (QC Lot: 1812051)** | | | | | | | | | | | |
| WT2437020-001 | Anonymous | Alkalinity, total (as CaCO3) | ---- | E290 | 2.0 | mg/L | 118 | 115 | 3.10% | 20% | ---- |
| **Physical Tests (QC Lot: 1812052)** | | | | | | | | | | | |
| WT2437020-001 | Anonymous | Conductivity | ---- | E100 | 2.0 | µS/cm | 440 | 437 | 0.684% | 10% | ---- |
| **Physical Tests (QC Lot: 1812326)** | | | | | | | | | | | |
| HA2403270-001 | Anonymous | Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 4260 | 4460 | 4.68% | 20% | ---- |
| **Physical Tests (QC Lot: 1813835)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Colour, apparent | ---- | E330 | 200 | CU | 11200 | 11200 | 0.366% | 20% | ---- |
| **Physical Tests (QC Lot: 1813836)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Colour, apparent | ---- | E330 | 8.0 | CU | 460 | 434 | 6.03% | 20% | ---- |
| **Physical Tests (QC Lot: 1813881)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Turbidity | ---- | E121 | 0.10 | NTU | 2780 | 2790 | 0.574% | 15% | ---- |
| **Physical Tests (QC Lot: 1813882)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Turbidity | ---- | E121 | 0.10 | NTU | 105 | 104 | 0.957% | 15% | ---- |
| **Physical Tests (QC Lot: 1813887)** | | | | | | | | | | | |
| HA2403274-021 | MW6 - S | pH | ---- | E108 | 0.10 | pH units | 6.97 | 6.79 | 2.60% | 4% | ---- |
| **Anions and Nutrients (QC Lot: 1811175)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Fluoride | 16984-48-8 | E235.F | 0.100 | mg/L | <0.100 | <0.100 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1811176)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.100 | mg/L | 0.165 | 0.157 | 0.008 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1811177)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.050 | mg/L | <0.050 | <0.050 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1811178)** | | | | | | | | | | | |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Anions and Nutrients (QC Lot: 1811178) - continued** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Chloride | 16887-00-6 | E235.Cl | 2.50 | mg/L | 20.3 | 19.9 | 0.42 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1811179)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 1.50 | mg/L | 188 | 188 | 0.0759% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1811182)** | | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1811955)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | 0.0936 | 0.0943 | 0.745% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1811958)** | | | | | | | | | | | |
| HA2403270-001 | Anonymous | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | 0.109 | 0.111 | 1.73% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1812054)** | | | | | | | | | | | |
| WT2437141-001 | Anonymous | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.020 | mg/L | 0.109 | 0.108 | 0.001 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1812055)** | | | | | | | | | | | |
| WT2437141-001 | Anonymous | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.010 | mg/L | 0.018 | 0.018 | 0.0002 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1812056)** | | | | | | | | | | | |
| WT2437141-001 | Anonymous | Chloride | 16887-00-6 | E235.Cl | 0.50 | mg/L | 26.6 | 26.4 | 0.400% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1812057)** | | | | | | | | | | | |
| WT2437141-001 | Anonymous | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.30 | mg/L | 42.8 | 42.6 | 0.390% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1812058)** | | | | | | | | | | | |
| WT2437141-001 | Anonymous | Fluoride | 16984-48-8 | E235.F | 0.020 | mg/L | 0.260 | 0.250 | 3.97% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1812060)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1814385)** | | | | | | | | | | | |
| HA2403274-003 | MW7 - D | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.050 | mg/L | 1.25 | 1.40 | 11.2% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1814386)** | | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Phosphorus, total | 7723-14-0 | E372-U | 0.0020 | mg/L | 0.107 | 0.107 | 0.233% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1841449)** | | | | | | | | | | | |
| HA2403274-015 | MW19 - 11 M | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.500 | mg/L | 3.89 | 3.24 | 0.642 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1841450)** | | | | | | | | | | | |
| HA2403274-016 | MW19 - 11 D | Phosphorus, total | 7723-14-0 | E372-U | 0.0040 | mg/L | 0.0561 | 0.0570 | 1.64% | 20% | ---- |
| **Organic / Inorganic Carbon (QC Lot: 1811956)** | | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Carbon, total organic [TOC] | ---- | E355-L | 2.50 | mg/L | 18.5 | 17.4 | 1.10 | Diff <2x LOR | ---- |
| **Organic / Inorganic Carbon (QC Lot: 1811959)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Carbon, total organic [TOC] | ---- | E355-L | 2.50 | mg/L | 37.2 | 34.3 | 8.05% | 20% | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Organic / Inorganic Carbon (QC Lot: 1813346)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Carbon, dissolved organic [DOC] | ---- | E358-L | 0.50 | mg/L | 18.0 | 18.6 | 2.85% | 20% | ---- |
| **Organic / Inorganic Carbon (QC Lot: 1813347)** | | | | | | | | | | | |
| HA2403274-021 | MW6 - S | Carbon, dissolved organic [DOC] | ---- | E358-L | 0.50 | mg/L | 15.7 | 16.4 | 4.78% | 20% | ---- |
| **Dissolved Metals (QC Lot: 1811658)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Aluminum, dissolved | 7429-90-5 | E421 | 0.0010 | mg/L | 0.0121 | 0.0124 | 2.74% | 20% | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.00010 | mg/L | 0.00014 | 0.00014 | 0.0000002 | Diff <2x LOR | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.00010 | mg/L | 0.00070 | 0.00068 | 0.00002 | Diff <2x LOR | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.00010 | mg/L | 0.0260 | 0.0258 | 0.793% | 20% | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | 0.010 | mg/L | 1.55 | 1.54 | 0.598% | 20% | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0000050 | mg/L | 0.0000204 | 0.0000223 | 0.0000019 | Diff <2x LOR | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | 0.050 | mg/L | 182 | 179 | 1.56% | 20% | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.00020 | mg/L | 0.00085 | 0.00084 | 0.00001 | Diff <2x LOR | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.010 | mg/L | 0.540 | 0.528 | 2.23% | 20% | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.000050 | mg/L | 0.000066 | 0.000067 | 0.0000001 | Diff <2x LOR | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | 0.0050 | mg/L | 32.1 | 32.0 | 0.292% | 20% | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | 0.00010 | mg/L | 4.58 | 4.52 | 1.35% | 20% | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.00050 | mg/L | 0.00481 | 0.00491 | 0.00010 | Diff <2x LOR | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 0.050 | mg/L | 5.07 | 4.98 | 1.63% | 20% | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | 0.050 | mg/L | 4.20 | 4.18 | 0.297% | 20% | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | 0.050 | mg/L | 32.6 | 32.7 | 0.425% | 20% | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | 0.000010 | mg/L | 0.115 | 0.114 | 0.538% | 20% | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0010 | mg/L | 0.0046 | 0.0049 | 0.0003 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 1811664)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Aluminum, dissolved | 7429-90-5 | E421 | 0.0100 | mg/L | 0.0462 | 0.0491 | 0.0028 | Diff <2x LOR | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.00100 | mg/L | <0.00100 | <0.00100 | 0 | Diff <2x LOR | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.00100 | mg/L | 0.0366 | 0.0366 | 0.0565% | 20% | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.00100 | mg/L | 0.0439 | 0.0440 | 0.362% | 20% | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | 0.100 | mg/L | 3.89 | 4.03 | 3.42% | 20% | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0000500 | mg/L | <0.0000500 | <0.0000500 | 0 | Diff <2x LOR | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | 0.500 | mg/L | 216 | 214 | 1.26% | 20% | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.00500 | mg/L | <0.00500 | <0.00500 | 0 | Diff <2x LOR | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.00200 | mg/L | <0.00200 | <0.00200 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Dissolved Metals (QC Lot: 1811664) - continued** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Iron, dissolved | 7439-89-6 | E421 | 0.100 | mg/L | 10.6 | 10.6 | 0.298% | 20% | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.000500 | mg/L | <0.000500 | <0.000500 | 0 | Diff <2x LOR | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | 0.0500 | mg/L | 59.8 | 58.9 | 1.49% | 20% | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | 0.00100 | mg/L | 17.3 | 17.0 | 1.54% | 20% | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.00500 | mg/L | 0.0117 | 0.0115 | 0.00019 | Diff <2x LOR | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 0.500 | mg/L | 7.01 | 6.94 | 0.996% | 20% | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | 0.500 | mg/L | 4.81 | 4.89 | 0.080 | Diff <2x LOR | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | 0.500 | mg/L | 76.8 | 74.8 | 2.60% | 20% | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | 0.000100 | mg/L | 0.0954 | 0.0934 | 2.02% | 20% | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.00500 | mg/L | <0.00500 | <0.00500 | 0 | Diff <2x LOR | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0100 | mg/L | <0.0100 | <0.0100 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 1813870)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Mercury, dissolved | 7439-97-6 | E509 | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 1813871)** | | | | | | | | | | | |
| HA2403274-018 | MW20 - 14 S | Mercury, dissolved | 7439-97-6 | E509 | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1812498)** | | | | | | | | | | | |
| HA2403249-005 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | 0.0119 | 0.0121 | 1.83% | 20% | ---- |
| **Aggregate Organics (QC Lot: 1812680)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 157 | 169 | 7.28% | 20% | ---- |
| **Aggregate Organics (QC Lot: 1812681)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 117 | 121 | 3.28% | 20% | ---- |
| **Aggregate Organics (QC Lot: 1816286)** | | | | | | | | | | | |
| EO2411258-001 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1816287)** | | | | | | | | | | | |
| HA2403274-019 | MW20 - 15 D | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | 0.0025 | 0.0024 | 0.00006 | Diff <2x LOR | ---- |
| **Volatile Organic Compounds (QC Lot: 1811196)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Benzene | 71-43-2 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Ethylbenzene | 100-41-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Toluene | 108-88-3 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611D | 0.40 | µg/L | <0.00040 mg/L | <0.40 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Volatile Organic Compounds (QC Lot: 1811196) - continued** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Xylene, o- | 95-47-6 | E611D | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| **Volatile Organic Compounds (QC Lot: 1811350)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Benzene | 71-43-2 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Ethylbenzene | 100-41-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Toluene | 108-88-3 | E611D | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611D | 0.40 | µg/L | <0.00040 mg/L | <0.40 | 0 | Diff <2x LOR | ---- |
| | | Xylene, o- | 95-47-6 | E611D | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| **Hydrocarbons (QC Lot: 1811197)** | | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <0.025 mg/L | <25 | 0 | Diff <2x LOR | ---- |
| **Hydrocarbons (QC Lot: 1811349)** | | | | | | | | | | | |
| HA2403274-022 | MW6 - D | VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <0.025 mg/L | <25 | 0 | Diff <2x LOR | ---- |

## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Physical Tests (QCLot: 1811180)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | <1.0 | ---- |
| **Physical Tests (QCLot: 1811181)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 1812003)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Physical Tests (QCLot: 1812051)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 1812052)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | <1.0 | ---- |
| **Physical Tests (QCLot: 1812326)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Physical Tests (QCLot: 1813835)** | | | | | | |
| Colour, apparent | ---- | E330 | 2 | CU | <2.0 | ---- |
| **Physical Tests (QCLot: 1813836)** | | | | | | |
| Colour, apparent | ---- | E330 | 2 | CU | <2.0 | ---- |
| **Physical Tests (QCLot: 1813881)** | | | | | | |
| Turbidity | ---- | E121 | 0.1 | NTU | <0.10 | ---- |
| **Physical Tests (QCLot: 1813882)** | | | | | | |
| Turbidity | ---- | E121 | 0.1 | NTU | <0.10 | ---- |
| **Anions and Nutrients (QCLot: 1811175)** | | | | | | |
| Fluoride | 16984-48-8 | E235.F | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1811176)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1811177)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 1811178)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 1811179)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 1811182)** | | | | | | |
| Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.001 | mg/L | <0.0010 | ---- |
| **Anions and Nutrients (QCLot: 1811955)** | | | | | | |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Anions and Nutrients (QCLot: 1811955) - continued** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Anions and Nutrients (QCLot: 1811958)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Anions and Nutrients (QCLot: 1812054)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1812055)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 1812056)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 1812057)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 1812058)** | | | | | | |
| Fluoride | 16984-48-8 | E235.F | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1812060)** | | | | | | |
| Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.001 | mg/L | <0.0010 | ---- |
| **Anions and Nutrients (QCLot: 1814385)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Anions and Nutrients (QCLot: 1814386)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | <0.0020 | ---- |
| **Anions and Nutrients (QCLot: 1841449)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Anions and Nutrients (QCLot: 1841450)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | <0.0020 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1811956)** | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | <0.50 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1811959)** | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | <0.50 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1813346)** | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | <0.50 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1813347)** | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | <0.50 | ---- |
| **Dissolved Metals (QCLot: 1811658)** | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | <0.00010 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 1811658) - continued** | | | | | | |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| **Dissolved Metals (QCLot: 1811664)** | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | <0.050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 1811664) - continued** | | | | | | |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| **Dissolved Metals (QCLot: 1813870)** | | | | | | |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Dissolved Metals (QCLot: 1813871)** | | | | | | |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Aggregate Organics (QCLot: 1812498)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Aggregate Organics (QCLot: 1812680)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |
| **Aggregate Organics (QCLot: 1812681)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |
| **Aggregate Organics (QCLot: 1816286)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Aggregate Organics (QCLot: 1816287)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Volatile Organic Compounds (QCLot: 1811196)** | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | <0.40 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | <0.30 | ---- |
| **Volatile Organic Compounds (QCLot: 1811350)** | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | <0.40 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | <0.30 | ---- |
| **Hydrocarbons (QCLot: 1811197)** | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <25 | ---- |
| **Hydrocarbons (QCLot: 1811349)** | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <25 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Hydrocarbons (QCLot: 1811539)** | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | <100 | ---- |
| **Hydrocarbons (QCLot: 1811718)** | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | <100 | ---- |

## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Physical Tests (QCLot: 1811180)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 102 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 1811181)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 102 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1812003)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 87.6 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1812004)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 101 | 98.0 | 102 | ---- |
| **Physical Tests (QCLot: 1812051)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 102 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1812052)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 103 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 1812326)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 88.8 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1813835)** | | | | | | | | | |
| Colour, apparent | ---- | E330 | 2 | CU | 25 CU | 98.0 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1813836)** | | | | | | | | | |
| Colour, apparent | ---- | E330 | 2 | CU | 25 CU | 100 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1813881)** | | | | | | | | | |
| Turbidity | ---- | E121 | 0.1 | NTU | 200 NTU | 99.5 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1813882)** | | | | | | | | | |
| Turbidity | ---- | E121 | 0.1 | NTU | 200 NTU | 99.5 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1813887)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 100 | 98.0 | 102 | ---- |
| **Anions and Nutrients (QCLot: 1811175)** | | | | | | | | | |
| Fluoride | 16984-48-8 | E235.F | 0.02 | mg/L | 1 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1811176)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 99.5 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1811177)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1811178)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 100 | 90.0 | 110 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 1811179)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1811182)** | | | | | | | | | |
| Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.001 | mg/L | 0.05 mg/L | 97.8 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 1811955)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 100 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 1811958)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 98.9 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 1812054)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 99.9 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1812055)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1812056)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 99.8 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1812057)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1812058)** | | | | | | | | | |
| Fluoride | 16984-48-8 | E235.F | 0.02 | mg/L | 1 mg/L | 97.7 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1812060)** | | | | | | | | | |
| Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.001 | mg/L | 0.05 mg/L | 97.6 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 1814385)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 105 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1814386)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 99.9 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 1841449)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 95.5 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1841450)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 98.1 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1811956)** | | | | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | 8.57 mg/L | 105 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1811959)** | | | | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | 8.57 mg/L | 109 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1813346)** | | | | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | 8.57 mg/L | 112 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1813347)** | | | | | | | | | |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report: Spike: Target Concentration | Recovery (%): LCS | Recovery Limits (%): Low | Recovery Limits (%): High | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Organic / Inorganic Carbon (QCLot: 1813347) - continued** | | | | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | 8.57 mg/L | 107 | 80.0 | 120 | ---- |
| **Dissolved Metals (QCLot: 1811658)** | | | | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | 0.1 mg/L | 93.4 | 80.0 | 120 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | 0.05 mg/L | 100 | 80.0 | 120 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | 0.05 mg/L | 105 | 80.0 | 120 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | 0.012 mg/L | 105 | 80.0 | 120 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | 0.05 mg/L | 95.0 | 80.0 | 120 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | 0.005 mg/L | 99.4 | 80.0 | 120 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | 2.5 mg/L | 100 | 80.0 | 120 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | 0.012 mg/L | 100 | 80.0 | 120 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | 0.05 mg/L | 98.5 | 80.0 | 120 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | 0.025 mg/L | 103 | 80.0 | 120 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | 2.5 mg/L | 107 | 80.0 | 120 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | 0.025 mg/L | 99.5 | 80.0 | 120 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | 2.5 mg/L | 96.6 | 80.0 | 120 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | 0.5 mg/L | 100 | 60.0 | 140 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | 2.5 mg/L | 102 | 80.0 | 120 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | 0 mg/L | 105 | 80.0 | 120 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | 0.025 mg/L | 98.0 | 80.0 | 120 | ---- |
| **Dissolved Metals (QCLot: 1811664)** | | | | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | 0.1 mg/L | 96.5 | 80.0 | 120 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | 0.05 mg/L | 102 | 80.0 | 120 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | 0.05 mg/L | 105 | 80.0 | 120 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | 0.012 mg/L | 103 | 80.0 | 120 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | 0.05 mg/L | 99.5 | 80.0 | 120 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | 0.005 mg/L | 102 | 80.0 | 120 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | 2.5 mg/L | 101 | 80.0 | 120 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | 0.012 mg/L | 100 | 80.0 | 120 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | 0.05 mg/L | 99.1 | 80.0 | 120 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | 0.025 mg/L | 103 | 80.0 | 120 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | 2.5 mg/L | 104 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 1811664) - continued** | | | | | | | | | |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | 0.012 mg/L | 99.9 | 80.0 | 120 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | 0.025 mg/L | 101 | 80.0 | 120 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | 2.5 mg/L | 96.0 | 80.0 | 120 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | 0.5 mg/L | 100 | 60.0 | 140 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | 2.5 mg/L | 104 | 80.0 | 120 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | 0 mg/L | 106 | 80.0 | 120 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | 0.025 mg/L | 98.8 | 80.0 | 120 | ---- |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | 0 mg/L | 101 | 80.0 | 120 | ---- |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | 0 mg/L | 101 | 80.0 | 120 | ---- |
| **Aggregate Organics (QCLot: 1812498)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 103 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1812680)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 106 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1812681)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 103 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1816286)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 104 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1816287)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 101 | 85.0 | 115 | ---- |
| **Volatile Organic Compounds (QCLot: 1811196)** | | | | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | 100 µg/L | 115 | 70.0 | 130 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | 100 µg/L | 104 | 70.0 | 130 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | 100 µg/L | 101 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | 100 µg/L | 106 | 70.0 | 130 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | 200 µg/L | 100 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | 100 µg/L | 104 | 70.0 | 130 | ---- |
| **Volatile Organic Compounds (QCLot: 1811350)** | | | | | | | | | |
| Benzene | 71-43-2 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Ethylbenzene | 100-41-4 | E611D | 0.5 | µg/L | 100 µg/L | 99.6 | 70.0 | 130 | ---- |
| Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 0.5 | µg/L | 100 µg/L | 94.0 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611D | 0.5 | µg/L | 100 µg/L | 102 | 70.0 | 130 | ---- |
| Xylene, m+p- | 179601-23-1 | E611D | 0.4 | µg/L | 200 µg/L | 101 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611D | 0.3 | µg/L | 100 µg/L | 101 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Hydrocarbons (QCLot: 1811197)** | | | | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | 2000 µg/L | 94.9 | 80.0 | 120 | ---- |
| **Hydrocarbons (QCLot: 1811349)** | | | | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | 2000 µg/L | 106 | 80.0 | 120 | ---- |
| **Hydrocarbons (QCLot: 1811539)** | | | | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | 4480 µg/L | 75.6 | 70.0 | 130 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | 3640 µg/L | 85.0 | 70.0 | 130 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | 3160 µg/L | 91.3 | 70.0 | 130 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | 4190 µg/L | 79.5 | 70.0 | 130 | ---- |
| **Hydrocarbons (QCLot: 1811718)** | | | | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | 4480 µg/L | 77.8 | 70.0 | 130 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | 3640 µg/L | 87.9 | 70.0 | 130 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | 3160 µg/L | 98.7 | 70.0 | 130 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | 4190 µg/L | 81.5 | 70.0 | 130 | ---- |

## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 1811175)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Fluoride | 16984-48-8 | E235.F | 5.16 mg/L | 5 mg/L | 103 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1811176)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Nitrate (as N) | 14797-55-8 | E235.NO3 | 12.3 mg/L | 12.5 mg/L | 98.6 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1811177)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Nitrite (as N) | 14797-65-0 | E235.NO2 | 2.52 mg/L | 2.5 mg/L | 101 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1811178)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Chloride | 16887-00-6 | E235.Cl | 502 mg/L | 500 mg/L | 100 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1811179)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 497 mg/L | 500 mg/L | 99.4 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1811182)** | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0207 mg/L | 0.02 mg/L | 106 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1811955)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0982 mg/L | 0.1 mg/L | 98.2 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1811958)** | | | | | | | | | | |
| HA2403270-001 | Anonymous | Ammonia, total (as N) | 7664-41-7 | E298 | ND mg/L | ---- | ND | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1812054)** | | | | | | | | | | |
| WT2437141-001 | Anonymous | Nitrate (as N) | 14797-55-8 | E235.NO3 | 2.40 mg/L | 2.5 mg/L | 96.2 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1812055)** | | | | | | | | | | |
| WT2437141-001 | Anonymous | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.497 mg/L | 0.5 mg/L | 99.4 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1812056)** | | | | | | | | | | |
| WT2437141-001 | Anonymous | Chloride | 16887-00-6 | E235.Cl | 98.2 mg/L | 100 mg/L | 98.2 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1812057)** | | | | | | | | | | |
| WT2437141-001 | Anonymous | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 97.0 mg/L | 100 mg/L | 97.0 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1812058)** | | | | | | | | | | |
| WT2437141-001 | Anonymous | Fluoride | 16984-48-8 | E235.F | 0.902 mg/L | 1 mg/L | 90.2 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1812060)** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0197 mg/L | 0.02 mg/L | 101 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1814385)** | | | | | | | | | | |
| HA2403274-003 | MW7 - D | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 3.12 mg/L | 2.5 mg/L | 125 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1814386)** | | | | | | | | | | |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 1814386) - continued** | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Phosphorus, total | 7723-14-0 | E372-U | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1841449)** | | | | | | | | | | |
| HA2403274-015 | MW19 - 11 M | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 27.9 mg/L | 25 mg/L | 112 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1841450)** | | | | | | | | | | |
| HA2403274-016 | MW19 - 11 D | Phosphorus, total | 7723-14-0 | E372-U | 0.100 mg/L | 0.1 mg/L | 100 | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1811956)** | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Carbon, total organic [TOC] | ---- | E355-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1811959)** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Carbon, total organic [TOC] | ---- | E355-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1813346)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Carbon, dissolved organic [DOC] | ---- | E358-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1813347)** | | | | | | | | | | |
| HA2403274-021 | MW6 - S | Carbon, dissolved organic [DOC] | ---- | E358-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 1811658)** | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Aluminum, dissolved | 7429-90-5 | E421 | 0.899 mg/L | 1 mg/L | 89.9 | 70.0 | 130 | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.480 mg/L | 0.5 mg/L | 96.0 | 70.0 | 130 | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.505 mg/L | 0.5 mg/L | 101 | 70.0 | 130 | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.118 mg/L | 0.125 mg/L | 94.9 | 70.0 | 130 | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0460 mg/L | 0.05 mg/L | 92.0 | 70.0 | 130 | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.121 mg/L | 0.125 mg/L | 96.5 | 70.0 | 130 | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.116 mg/L | 0.125 mg/L | 92.9 | 70.0 | 130 | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.236 mg/L | 0.25 mg/L | 94.5 | 70.0 | 130 | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.230 mg/L | 0.25 mg/L | 92.1 | 70.0 | 130 | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 22.7 mg/L | 25 mg/L | 90.7 | 70.0 | 130 | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.245 mg/L | 0.25 mg/L | 98.1 | 70.0 | 130 | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.223 mg/L | 0.25 mg/L | 89.3 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 1811664)** | | | | | | | | | | |
| HA2403274-023 | MW19 - 13 D | Aluminum, dissolved | 7429-90-5 | E421 | 0.0978 mg/L | 0.1 mg/L | 97.8 | 70.0 | 130 | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.0511 mg/L | 0.05 mg/L | 102 | 70.0 | 130 | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.0546 mg/L | 0.05 mg/L | 109 | 70.0 | 130 | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.0127 mg/L | 0.012 mg/L | 101 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 1811664) - continued** | | | | | | | | | | |
| HA2403274-023 | MW19 - 13 D | Boron, dissolved | 7440-42-8 | E421 | 0.046 mg/L | 0.05 mg/L | 92.9 | 70.0 | 130 | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.00507 mg/L | 0.005 mg/L | 101 | 70.0 | 130 | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.0125 mg/L | 0.012 mg/L | 100 | 70.0 | 130 | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.0123 mg/L | 0.012 mg/L | 98.4 | 70.0 | 130 | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.048 mg/L | 0.05 mg/L | 96.3 | 70.0 | 130 | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.0248 mg/L | 0.025 mg/L | 99.3 | 70.0 | 130 | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | 0.0122 mg/L | 0.012 mg/L | 97.3 | 70.0 | 130 | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.0243 mg/L | 0.025 mg/L | 97.3 | 70.0 | 130 | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 2.36 mg/L | 2.5 mg/L | 94.5 | 70.0 | 130 | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.0257 mg/L | 0.025 mg/L | 103 | 70.0 | 130 | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0257 mg/L | 0.025 mg/L | 103 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 1813870)** | | | | | | | | | | |
| HA2403274-002 | MW1 - D | Mercury, dissolved | 7439-97-6 | E509 | 0.0000930 mg/L | 0 mg/L | 93.0 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 1813871)** | | | | | | | | | | |
| HA2403274-019 | MW20 - 15 D | Mercury, dissolved | 7439-97-6 | E509 | 0.0000972 mg/L | 0 mg/L | 97.2 | 70.0 | 130 | ---- |
| **Aggregate Organics (QCLot: 1812498)** | | | | | | | | | | |
| HA2403274-030 | MW19 - 8 S | Phenols, total (4AAP) | ---- | E562 | 0.0206 mg/L | 0.02 mg/L | 103 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1812680)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Chemical oxygen demand [COD] | ---- | E559-L | ND mg/L | ---- | ND | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1812681)** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Chemical oxygen demand [COD] | ---- | E559-L | ND mg/L | ---- | ND | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1816286)** | | | | | | | | | | |
| EO2411258-001 | Anonymous | Phenols, total (4AAP) | ---- | E562 | 0.0192 mg/L | 0.02 mg/L | 95.8 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1816287)** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Phenols, total (4AAP) | ---- | E562 | 0.0189 mg/L | 0.02 mg/L | 94.4 | 75.0 | 125 | ---- |
| **Volatile Organic Compounds (QCLot: 1811196)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | Benzene | 71-43-2 | E611D | 113 µg/L | 100 µg/L | 113 | 60.0 | 140 | ---- |
| | | Ethylbenzene | 100-41-4 | E611D | 101 µg/L | 100 µg/L | 101 | 60.0 | 140 | ---- |
| | | Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 98.6 µg/L | 100 µg/L | 98.6 | 60.0 | 140 | ---- |
| | | Toluene | 108-88-3 | E611D | 102 µg/L | 100 µg/L | 102 | 60.0 | 140 | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611D | 197 µg/L | 200 µg/L | 98.4 | 60.0 | 140 | ---- |
| | | Xylene, o- | 95-47-6 | E611D | 101 µg/L | 100 µg/L | 101 | 60.0 | 140 | ---- |
| **Volatile Organic Compounds (QCLot: 1811350)** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Benzene | 71-43-2 | E611D | 93.8 µg/L | 100 µg/L | 93.8 | 60.0 | 140 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Volatile Organic Compounds (QCLot: 1811350) - continued** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | Ethylbenzene | 100-41-4 | E611D | 90.6 µg/L | 100 µg/L | 90.6 | 60.0 | 140 | ---- |
| | | Methyl-tert-butyl ether [MTBE] | 1634-04-4 | E611D | 85.2 µg/L | 100 µg/L | 85.2 | 60.0 | 140 | ---- |
| | | Toluene | 108-88-3 | E611D | 92.2 µg/L | 100 µg/L | 92.2 | 60.0 | 140 | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611D | 187 µg/L | 200 µg/L | 93.4 | 60.0 | 140 | ---- |
| | | Xylene, o- | 95-47-6 | E611D | 91.4 µg/L | 100 µg/L | 91.4 | 60.0 | 140 | ---- |
| **Hydrocarbons (QCLot: 1811197)** | | | | | | | | | | |
| HA2403274-001 | MW1 - S D | VPH C6-C10 | n/a | E581.VPH | 1630 µg/L | 2000 µg/L | 81.5 | 60.0 | 140 | ---- |
| **Hydrocarbons (QCLot: 1811349)** | | | | | | | | | | |
| HA2403274-022 | MW6 - D | VPH C6-C10 | n/a | E581.VPH | 1670 µg/L | 2000 µg/L | 83.3 | 60.0 | 140 | ---- |

# Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 1 of 3

| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis Street, SH400 |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| Invoice To | Same as Report To ☐ YES ☐ NO |
| | Copy of Invoice with Report ☐ YES ☐ NO |
| Company: | |
| Contact: | |

**Report Format / Distribution**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax
Email 2
Email 3

**Invoice Distribution**

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☑ FAX
Email 1 or Fax
Email 2

**Project Information**

ALS Account # / Quote #:
Job #: 60718540
PO / AFE:
LSD:

**Oil and Gas Required Fields (client use)**

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

**ALS Lab Work Order # (lab use only):** HA2403274

**ALS Contact:** **Sampler:**

**Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply**

Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4] ☐ | 3 day [P3] ☐ | 2 day [P2] ☐ — EMERGENCY

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the serv

Analys

Indicate Filtered (F), Preserved (P) or Filte

Environmental Division Halifax
Work Order Reference
HA2403274

Telephone : +1 902 707 4886

| ALS Sample # (lab use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | General Chemistry | Dissolved Metals (Field Filter) | Dissolved Mercury (Field Filter) | VOC | TPH | Chlorophenol | Phenols, COD | Number of |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW1-S | 10-Dec-24 | | Water | Y | X | X | X | X | X | Y | 10 |
| | MW4-D | | | | | | | | | | | |
| | MW7-D | | | | | | | | | | | |
| | MW5-S | | | | | | | | | | | |
| | MW5-D | | | | | | | | | | | |
| | MW20-16 | | | | | | | | | | | |
| | MW20-17S | | | | | | | | | | | |
| | MW20-17D | | | | | | | | | | | |
| | MW3 | | | | | | | | | | | |
| | MW19-08D | | | | | | | | | | | |
| | ~~MW8-D~~ MW19-12D | | | | | | | | | | | |
| | MW2-S | | | | | | | | | | | |

**Drinking Water (DW) Samples[1] (client use)**

Are samples taken from a Regulated DW System? ☐ YES ☐ NO
Are samples for human drinking water use? ☐ YES ☐ NO

**Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)**

**SAMPLE CONDITION AS RECEIVED (lab use only)**

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice ~~Packs~~ ☐ Ice Cubes ☒ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

| INITIAL COOLER TEMPERATURES °C | | | | FINAL COOLER TEMPERATURES °C | | |
|---|---|---|---|---|---|---|
| 12.6 | 11.4 | 13.2 | 13 | 14.2 | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (lab use only) | | | FINAL SHIPMENT RECEPTION (lab use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: | Date: | Time: | Received by: | Date: | Time: | Received by: | Date: | Time: |
| Nicolas Duret | 11-12-24 | 15:32 | Shore | 11 December 2024 | 3:30 | | | |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form

# Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 3 of 3

| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis Street, SH400 |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| Invoice To | Same as Report To ☐ YES ☐ NO |
| | Copy of Invoice with Report ☐ YES ☐ NO |
| Company: | |
| Contact: | |

**Report Format / Distribution**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Email 3

**Invoice Distribution**

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☑ FAX

Email 1 or Fax

Email 2

**Project Information**

ALS Account # / Quote #:

Job #: 60718540

PO / AFE:

LSD:

**Oil and Gas Required Fields (client use)**

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Sampler:

**Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply**

Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4] ☐ 3 day [P3] ☐ 2 day [P2] ☐

EMERGENCY: 1 Business day [E1] ☐ Same Day, Weekend or Statutory holiday [E0] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

**Analysis Request**

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

| ALS Sample # (lab use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | General Chemistry | Dissolved Metals (Field Filter) | Dissolved Mercury (Field Filter) | VOC | TPH | Chlorophenol | Phenols, COD | Number of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW-8S | 10-12-24 | | Water | X | X | X | X | X | X | X | 16 |
| | MW-8D | | | | | | | | | | | |
| | MW19-11M | | | | | | | | | | | |
| | MW19-11D | | | | | | | | | | | |
| | MW20-14D | | | | | | | | | | | |
| | MW20-14S | | | | | | | | | | | |
| | MW20-15D | | | | | | | | | | | |
| | MW20-15S | | | | | | | | | | | |
| | MW6-S | | | | | | | | | | | |
| | MW6-D | | | | | | | | | | | |
| | MW19-13D | | | | | | | | | | | |
| | MW19-13S | | | | | | | | | | | |

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human drinking water use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

**SAMPLE CONDITION AS RECEIVED (lab use only)**

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

| INITIAL COOLER TEMPERATURES °C | | | FINAL COOLER TEMPERATURES °C | | |
|---|---|---|---|---|---|
| | | | | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (lab use only) | | | FINAL SHIPMENT RECEPTION (lab use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: Nicolas Doucet | Date: 11-12-24 | Time: 15:30 | Received by: | Date: | Time: | Received by: | Date: | Time: |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form

ALS Environmental

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# Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -



| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
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| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| Invoice To | Same as Report To ☐ YES ☐ NO |
| | Copy of Invoice with Report ☐ YES ☐ NO |
| Company: | |
| Contact: | |

**Report Format / Distribution**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Email 3

**Invoice Distribution**

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☑ FAX

Email 1 or Fax

Email 2

**Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply**

Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply

| PRIORITY (Business Days) | | EMERGENCY | |
|---|---|---|---|
| | 4 day [P4] ☐ | | 1 Business day [E1] ☐ |
| | 3 day [P3] ☐ | | Same Day, Weekend or Statutory holiday [E0] ☐ |
| | 2 day [P2] ☐ | | |

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

**Project Information**

ALS Account # / Quote #:

Job #: 60718540

PO / AFE:

LSD:

**Oil and Gas Required Fields (client use)**

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Sampler:

**Analysis Request**

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

| ALS Sample # (lab use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | General Chemistry | Dissolved Metals (Field Filter) | Dissolved Mercury (Field Filter) | VOC | TPH | Chlorophenol | Phenols, COD | Number of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW2-M | 10-12-24 | | Water | X | X | X | X | X | X | X | 10 |
| | MW2D | " | | " | X | X | X | X | X | X | X | 1 |
| | DUP1 | " | | " | X | X | X | | X | X | X | 10 |
| | DUP2 | " | | " | X | X | X | X | X | X | X | 1 |
| | DUP3 | " | | " | X | X | X | X | X | X | X | |

**Drinking Water (DW) Samples[1] (client use)**

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human drinking water use? ☐ YES ☐ NO

**Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)**

**SAMPLE CONDITION AS RECEIVED (lab use only)**

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

| INITIAL COOLER TEMPERATURES °C | | | FINAL COOLER TEMPERATURES °C | | |
|---|---|---|---|---|---|
| | | | | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (lab use only) | | | FINAL SHIPMENT RECEPTION (lab use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: Nicolas Doucet | Date: 11-12-24 | Time: 15:30 | Received by: | Date: | Time: | Received by: | Date: | Time: |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

# CERTIFICATE OF ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Work Order** | : | **HA2500561** | | |
| Client | : | **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : | Janice Shea | Account Manager | : Emily Hansen |
| Address | : | 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax Nova Scotia Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth NS Canada B3B 1L2 |
| Telephone | : | 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : | 60718540 | Date Samples Received | : 04-Mar-2025 13:50 |
| PO | : | 1687450 | Date Analysis Commenced | : 05-Mar-2025 |
| C-O-C number | : | ---- | Issue Date | : 11-Mar-2025 11:07 |
| Sampler | : | ---- | | |
| Site | : | ---- | | |
| Quote number | : | Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : | 3 | | |
| No. of samples analysed | : | 3 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Organics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Inorganics, Dartmouth, Nova Scotia |
| Nik Perkio | Senior Analyst | Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Inorganics, Waterloo, Ontario |
| Sarah Birch | VOC Section Supervisor | VOC, Waterloo, Ontario |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

| *Unit* | *Description* |
|---|---|
| - | no units |
| % | percent |
| mg/L | milligrams per litre |
| none | none |
| pH units | pH units |
| µg/L | micrograms per litre |
| µS/cm | microsiemens per centimetre |

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Sample Comments

| *Sample* | *Client Id* | *Comment* |
|---|---|---|
| HA2500561-001 | SW4 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2500561-002 | SW13 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2500561-003 | DUP1 | N/A: Resemblance Not Applicable (mTPH < LOR) |

## Qualifiers

| *Qualifier* | Description |
|---|---|
| DLDS | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity. |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | DUP1 | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 04-Mar-2025 09:20 | 04-Mar-2025 09:50 | 04-Mar-2025 00:00 | ---- | ---- |
| | | | | | | HA2500561-001 | HA2500561-002 | HA2500561-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 40.7 | 103 | 105 | ---- | ---- |
| **Hardness (as CaCO3), from total Ca/Mg** | ---- | EC100A/WT | 0.50 | mg/L | | 5.00 | 16.4 | 16.2 | ---- | ---- |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 4.68 | 6.30 | 6.35 | ---- | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 34 | 66 DLDS | 70 DLDS | ---- | ---- |
| **Solids, total suspended [TSS]** | ---- | E160/HA | 3.0 | mg/L | | <3.0 | <3.0 | <3.0 | ---- | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | <2.0 | 4.5 | 4.5 | ---- | ---- |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0113 | 0.0381 | 0.0389 | ---- | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 6.61 | 23.0 | 23.2 | ---- | ---- |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.331 | 0.384 | 0.409 | ---- | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.020 | 0.273 | 0.273 | ---- | ---- |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | ---- | ---- |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.0132 | 0.0219 | 0.0206 | ---- | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 2.49 | 3.77 | 3.82 | ---- | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | 14.8 | 11.8 | 11.6 | ---- | ---- |
| **Total Metals** | | | | | | | | | | |
| **Aluminum, total** | 7429-90-5 | E420/WT | 0.0030 | mg/L | | 0.428 | 0.410 | 0.401 | ---- | ---- |
| **Antimony, total** | 7440-36-0 | E420/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | ---- | ---- |
| **Arsenic, total** | 7440-38-2 | E420/WT | 0.00010 | mg/L | | 0.00045 | 0.00046 | 0.00045 | ---- | ---- |
| **Barium, total** | 7440-39-3 | E420/WT | 0.00010 | mg/L | | 0.00346 | 0.00830 | 0.00816 | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | DUP1 | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 04-Mar-2025 09:20 | 04-Mar-2025 09:50 | 04-Mar-2025 00:00 | ---- | ---- |
| | | | | | | HA2500561-001 | HA2500561-002 | HA2500561-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Total Metals** | | | | | | | | | | |
| **Boron, total** | 7440-42-8 | E420/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | ---- | ---- |
| **Cadmium, total** | 7440-43-9 | E420/WT | 0.0000050 | mg/L | | 0.0000191 | 0.0000234 | 0.0000272 | ---- | ---- |
| **Calcium, total** | 7440-70-2 | E420/WT | 0.050 | mg/L | | 1.09 | 4.35 | 4.32 | ---- | ---- |
| **Chromium, total** | 7440-47-3 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00053 | 0.00050 | ---- | ---- |
| **Cobalt, total** | 7440-48-4 | E420/WT | 0.00010 | mg/L | | 0.00019 | 0.00024 | 0.00026 | ---- | ---- |
| **Copper, total** | 7440-50-8 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00112 | 0.00111 | ---- | ---- |
| **Iron, total** | 7439-89-6 | E420/WT | 0.010 | mg/L | | 0.416 | 0.482 | 0.489 | ---- | ---- |
| **Lead, total** | 7439-92-1 | E420/WT | 0.000050 | mg/L | | 0.000836 | 0.000548 | 0.000547 | ---- | ---- |
| **Magnesium, total** | 7439-95-4 | E420/WT | 0.0050 | mg/L | | 0.553 | 1.34 | 1.32 | ---- | ---- |
| **Manganese, total** | 7439-96-5 | E420/WT | 0.00010 | mg/L | | 0.0214 | 0.0509 | 0.0502 | ---- | ---- |
| **Mercury, total** | 7439-97-6 | E508/WT | 0.0000050 | mg/L | | 0.0000063 | 0.0000055 | 0.0000055 | ---- | ---- |
| **Nickel, total** | 7440-02-0 | E420/WT | 0.00050 | mg/L | | <0.00050 | 0.00078 | 0.00082 | ---- | ---- |
| **Potassium, total** | 7440-09-7 | E420/WT | 0.050 | mg/L | | 0.297 | 0.767 | 0.760 | ---- | ---- |
| **Sodium, total** | 7440-23-5 | E420/WT | 0.050 | mg/L | | 4.33 | 12.4 | 12.1 | ---- | ---- |
| **Uranium, total** | 7440-61-1 | E420/WT | 0.000010 | mg/L | | 0.000207 | 0.000523 | 0.000528 | ---- | ---- |
| **Vanadium, total** | 7440-62-2 | E420/WT | 0.00050 | mg/L | | 0.00116 | 0.00100 | 0.00098 | ---- | ---- |
| **Zinc, total** | 7440-66-6 | E420/WT | 0.0030 | mg/L | | <0.0030 | 0.0059 | 0.0059 | ---- | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Biochemical oxygen demand [BOD]** | ---- | E550/HA | 2.0 | mg/L | | 2.3 | <2.0 | <2.0 | ---- | ---- |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 45 | 31 | 33 | ---- | ---- |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | <0.0010 | <0.0010 | <0.0010 | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | DUP1 | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 04-Mar-2025 09:20 | 04-Mar-2025 09:50 | 04-Mar-2025 00:00 | ---- | ---- |
| | | | | | | HA2500561-001 | HA2500561-002 | HA2500561-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | ---- | ---- |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | ---- | ---- |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | ---- | ---- |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | <1 | <1 | ---- | ---- |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611A/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Toluene** | 108-88-3 | E611A/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Ethylbenzene** | 100-41-4 | E611A/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Xylenes, total** | 1330-20-7 | E611A/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | ---- | ---- |
| **Xylene, o-** | 95-47-6 | E611A/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | ---- | ---- |
| **Xylene, m+p-** | 179601-23-1 | E611A/WT | 0.00040 | mg/L | | <0.00040 | <0.00040 | <0.00040 | ---- | ---- |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | ---- | ---- |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | <0.025 | <0.025 | ---- | ---- |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | ---- | ---- |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | <0.10 | <0.10 | ---- | ---- |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | N/A | N/A | ---- | ---- |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.090 | <0.090 | <0.090 | ---- | ---- |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | Yes | Yes | ---- | ---- |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.100 | <0.100 | <0.100 | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | SW4 | SW13 | DUP1 | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 04-Mar-2025 09:20 | 04-Mar-2025 09:50 | 04-Mar-2025 00:00 | ---- | ---- |
| | | | | | | HA2500561-001 | HA2500561-002 | HA2500561-003 | ---- | ---- |
| | | | | | | Result | Result | Result | ---- | ---- |
| **Hydrocarbons Surrogates** | | | | | | | | | | |
| **dotriacontane, n- (EPH)** | n/a | E601F/WT | 1.0 | % | | 90.9 | 89.7 | 84.6 | ---- | ---- |
| **isobutylbenzene (EPH)** | 538-93-2 | E601F/WT | 1.0 | % | | 79.3 | 69.0 | 72.8 | ---- | ---- |
| **isobutylbenzene (VPH)** | 538-93-2 | E581.VPH/WT | 1.0 | % | | 94.2 | 103 | 93.8 | ---- | ---- |
| **Volatile Organic Compounds Surrogates** | | | | | | | | | | |
| **Bromofluorobenzene, 4-** | 460-00-4 | E611A/WT | 1.0 | % | | 93.4 | 96.2 | 94.1 | ---- | ---- |
| **Difluorobenzene, 1,4-** | 540-36-3 | E611A/WT | 1.0 | % | | 92.2 | 92.0 | 92.4 | ---- | ---- |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

ALS Canada Ltd.

right solutions.
right partner.

# QUALITY CONTROL INTERPRETIVE REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2500561** | Page | : 1 of 18 |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 04-Mar-2025 13:50 |
| PO | : 1687450 | Issue Date | : 11-Mar-2025 11:07 |
| C-O-C number | : ---- | | |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 3 | | |
| No. of samples analysed | : 3 | | |

**This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.**

**Key**

**Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.**
**CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.**
**DQO: Data Quality Objective.**
**LOR: Limit of Reporting (detection limit).**
**RPD: Relative Percent Difference.**

## *Workorder Comments*

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

### *Outliers: Reference Material (RM) Samples*

- No Reference Material (RM) Sample outliers occur.

## Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

## Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

## Outliers : Quality Control Samples

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

| Analyte Group | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Method | Result | Limits | Comment |
|---|---|---|---|---|---|---|---|---|
| **Method Blank (MB) Values** | | | | | | | | |
| Anions and Nutrients | QC-1897689-001 | ---- | Phosphorus, total | 7723-14-0 | E372-U | 0.0034 mg/L B | 0.002 mg/L | Blank result exceeds permitted value |
| Total Metals | QC-1897140-001 | ---- | Manganese, total | 7439-96-5 | E420 | 0.00139 mg/L B | 0.0001 mg/L | Blank result exceeds permitted value |

## Result Qualifiers

| *Qualifier* | *Description* |
|---|---|
| *B* | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

# Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** DUP1 | E550 | 04-Mar-2025 | ---- | ---- | ---- | | 05-Mar-2025 | 3 days | 1 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** SW13 | E550 | 04-Mar-2025 | ---- | ---- | ---- | | 05-Mar-2025 | 3 days | 1 days | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE** SW4 | E550 | 04-Mar-2025 | ---- | ---- | ---- | | 05-Mar-2025 | 3 days | 1 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E559-L | 04-Mar-2025 | ---- | ---- | ---- | | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW13 | E559-L | 04-Mar-2025 | ---- | ---- | ---- | | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW4 | E559-L | 04-Mar-2025 | ---- | ---- | ---- | | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E562 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E562 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E562 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E298 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E298 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E298 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E235.Cl | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW13 | E235.Cl | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E235.Cl | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E235.NO3 | 04-Mar-2025 | 05-Mar-2025 | 3 days | 1 days | ✓ | 06-Mar-2025 | 3 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO3 | 04-Mar-2025 | 05-Mar-2025 | 3 days | 1 days | ✓ | 06-Mar-2025 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO3 | 04-Mar-2025 | 05-Mar-2025 | 3 days | 1 days | ✓ | 06-Mar-2025 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO2 | 04-Mar-2025 | 05-Mar-2025 | 3 days | 1 days | ✓ | 06-Mar-2025 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO2 | 04-Mar-2025 | 05-Mar-2025 | 3 days | 1 days | ✓ | 06-Mar-2025 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO2 | 04-Mar-2025 | 05-Mar-2025 | 3 days | 1 days | ✓ | 06-Mar-2025 | 3 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.SO4 | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.SO4 | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.SO4 | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E318 | 04-Mar-2025 | 07-Mar-2025 | 28 days | 3 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW13 | E318 | 04-Mar-2025 | 07-Mar-2025 | 28 days | 3 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW4 | E318 | 04-Mar-2025 | 07-Mar-2025 | 28 days | 3 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E372-U | 04-Mar-2025 | 07-Mar-2025 | 28 days | 3 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW13 | E372-U | 04-Mar-2025 | 07-Mar-2025 | 28 days | 3 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW4 | E372-U | 04-Mar-2025 | 07-Mar-2025 | 28 days | 3 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** DUP1 | E601F | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 07-Mar-2025 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW13 | E601F | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 07-Mar-2025 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** SW4 | E601F | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 07-Mar-2025 | 40 days | 2 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP1 | E581.VPH | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW13 | E581.VPH | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW4 | E581.VPH | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E355-L | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW13 | E355-L | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** SW4 | E355-L | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 07-Mar-2025 | 28 days | 3 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP1 | E290 | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW13 | E290 | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW4 | E290 | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP1 | E100 | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 05-Mar-2025 | 28 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW13 | E100 | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 05-Mar-2025 | 28 days | 1 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW4 | E100 | 04-Mar-2025 | 05-Mar-2025 | 28 days | 1 days | ✓ | 05-Mar-2025 | 28 days | 1 days | ✓ |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP1 | E108 | 04-Mar-2025 | 05-Mar-2025 | 0.25 hrs | 18 hrs | × EHTL | 05-Mar-2025 | 0.25 hrs | 24 hrs | × EHTL |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW13 | E108 | 04-Mar-2025 | 05-Mar-2025 | 0.25 hrs | 23 hrs | × EHTR-FM | 05-Mar-2025 | 0.25 hrs | 29 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW4 | E108 | 04-Mar-2025 | 05-Mar-2025 | 0.25 hrs | 24 hrs | × EHTR-FM | 05-Mar-2025 | 0.25 hrs | 29 hrs | × EHTR-FM |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E162 | 04-Mar-2025 | ---- | ---- | ---- | | 07-Mar-2025 | 7 days | 3 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW13 | E162 | 04-Mar-2025 | ---- | ---- | ---- | | 07-Mar-2025 | 7 days | 3 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW4 | E162 | 04-Mar-2025 | ---- | ---- | ---- | | 07-Mar-2025 | 7 days | 3 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E160 | 04-Mar-2025 | ---- | ---- | ---- | | 07-Mar-2025 | 7 days | 3 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW13 | E160 | 04-Mar-2025 | ---- | ---- | ---- | | 07-Mar-2025 | 7 days | 3 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E160 | 04-Mar-2025 | ---- | ---- | ---- | | 07-Mar-2025 | 7 days | 3 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| DUP1 | E508 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW13 | E508 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW4 | E508 | 04-Mar-2025 | 06-Mar-2025 | 28 days | 2 days | ✓ | 06-Mar-2025 | 28 days | 2 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| DUP1 | E420 | 04-Mar-2025 | 06-Mar-2025 | 180 days | 2 days | ✓ | 06-Mar-2025 | 180 days | 2 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| SW13 | E420 | 04-Mar-2025 | 06-Mar-2025 | 180 days | 2 days | ✓ | 06-Mar-2025 | 180 days | 2 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| SW4 | E420 | 04-Mar-2025 | 06-Mar-2025 | 180 days | 2 days | ✓ | 06-Mar-2025 | 180 days | 2 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| DUP1 | E611A | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| SW13 | E611A | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| SW4 | E611A | 04-Mar-2025 | 05-Mar-2025 | 14 days | 1 days | ✓ | 05-Mar-2025 | 14 days | 1 days | ✓ |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

# Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Conductivity in Water | E100 | 1896185 | 1 | 9 | 11.1 | 5.0 | ✓ |
| pH by Meter | E108 | 1895674 | 1 | 13 | 7.6 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 1899441 | 1 | 19 | 5.2 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1899443 | 1 | 5 | 20.0 | 5.2 | ✓ |
| Chloride in Water by IC | E235.Cl | 1896180 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1896179 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1896178 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1896181 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 1896184 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1897686 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1897688 | 1 | 13 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1897687 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1897689 | 2 | 20 | 10.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1897140 | 1 | 17 | 5.8 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1897347 | 1 | 6 | 16.6 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1896319 | 1 | 8 | 12.5 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1897356 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1897690 | 1 | 9 | 11.1 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1896677 | 1 | 5 | 20.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1896678 | 1 | 5 | 20.0 | 5.0 | ✓ |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Conductivity in Water | E100 | 1896185 | 1 | 9 | 11.1 | 5.0 | ✓ |
| pH by Meter | E108 | 1895674 | 1 | 13 | 7.6 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 1899441 | 1 | 19 | 5.2 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1899443 | 1 | 5 | 20.0 | 5.2 | ✓ |
| Chloride in Water by IC | E235.Cl | 1896180 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1896179 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1896178 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1896181 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 1896184 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1897686 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1897688 | 1 | 13 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1897687 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1897689 | 2 | 20 | 10.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1897140 | 1 | 17 | 5.8 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1897347 | 1 | 6 | 16.6 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Control Samples (LCS) - Continued** | | | | | | | |
| Biochemical Oxygen Demand - 5 day | E550 | 1896319 | 1 | 8 | 12.5 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1897356 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1897690 | 1 | 9 | 11.1 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1896677 | 1 | 5 | 20.0 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1896375 | 1 | 5 | 20.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1896678 | 1 | 5 | 20.0 | 5.0 | ✓ |
| **Method Blanks (MB)** | | | | | | | |
| Conductivity in Water | E100 | 1896185 | 1 | 9 | 11.1 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 1899441 | 1 | 19 | 5.2 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 1899443 | 1 | 5 | 20.0 | 5.2 | ✓ |
| Chloride in Water by IC | E235.Cl | 1896180 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1896179 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1896178 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1896181 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 1896184 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1897686 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1897688 | 1 | 13 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1897687 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1897689 | 2 | 20 | 10.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1897140 | 1 | 17 | 5.8 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1897347 | 1 | 6 | 16.6 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 1896319 | 1 | 8 | 12.5 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1897356 | 1 | 11 | 9.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1897690 | 1 | 9 | 11.1 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1896677 | 1 | 5 | 20.0 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 1896375 | 1 | 5 | 20.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1896678 | 1 | 5 | 20.0 | 5.0 | ✓ |
| **Matrix Spikes (MS)** | | | | | | | |
| Chloride in Water by IC | E235.Cl | 1896180 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 1896179 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 1896178 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 1896181 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 1897686 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 1897688 | 1 | 13 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 1897687 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 1897689 | 2 | 20 | 10.0 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 1897140 | 1 | 17 | 5.8 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 1897347 | 1 | 6 | 16.6 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 1897356 | 1 | 11 | 9.0 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| Matrix Spikes (MS) - Continued | | | | | | | |
| Phenols (4AAP) in Water by Colorimetry | E562 | 1897690 | 1 | 9 | 11.1 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 1896677 | 1 | 5 | 20.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 1896678 | 1 | 5 | 20.0 | 5.0 | ✓ |

## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Conductivity in Water | E100<br>ALS Environmental - Waterloo | Water | APHA 2510 (mod) | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C. |
| pH by Meter | E108<br>ALS Environmental - Halifax | Water | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time. |
| TSS by Gravimetry | E160<br>ALS Environmental - Halifax | Water | APHA 2540 D (mod) | Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples. |
| TDS by Gravimetry | E162<br>ALS Environmental - Halifax | Water | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue. |
| Chloride in Water by IC | E235.Cl<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrite in Water by IC | E235.NO2<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrate in Water by IC | E235.NO3<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Sulfate in Water by IC | E235.SO4<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Alkalinity Species by Titration | E290<br>ALS Environmental - Waterloo | Water | APHA 2320 B (mod) | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Ammonia by Fluorescence | E298<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021) |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021). |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove carbonate-based Inorganic Carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. Forms of carbon associated with inorganic or organic molecules (e.g. SCN and CN) are included in NPOC if they are not removed by purging under acidic conditions. Notably, NPOC excludes most volatile organic compounds and free cyanide. For samples where the majority of Total Carbon is inorganic, this method provides greater accuracy and reliability versus the TOC by subtraction method (TC minus TIC). |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample. |
| Total Metals in Water by CRC ICPMS | E420<br>ALS Environmental - Waterloo | Water | EPA 200.2/6020B (mod) | Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |
| Total Mercury in Water by CVAAS | E508<br>ALS Environmental - Waterloo | Water | EPA 1631E (mod) | Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS |
| Biochemical Oxygen Demand - 5 day | E550<br>ALS Environmental - Halifax | Water | APHA 5210 B (mod) | Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter.<br><br>Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples. |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L<br>ALS Environmental - Waterloo | Water | APHA 5220 D (mod) | Samples are analyzed using the closed reflux colourimetric method. |
| Phenols (4AAP) in Water by Colorimetry | E562<br>ALS Environmental - Waterloo | Water | EPA 9066 | This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| VPH by Headspace GC-FID (RBCA) | E581.VPH<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH (Volatile Petroleum Hydrocarbons) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| EPH in Water by GC-FID (RBCA) | E601F<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Sample Extracts are analyzed by GC-FID for RBCA Tier I hydrocarbon fractions C10-C16, C16-C21, C21-C32. |
| BTEX by Headspace GC-MS | E611A<br>ALS Environmental - Waterloo | Water | EPA 8260D (mod) | Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| Hardness (Calculated) from Total Ca/Mg | EC100A<br>ALS Environmental - Waterloo | Water | APHA 2340B | "Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters. |
| VPH C6-C10 (less BTEX) [RBCA] | EC580C<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH C6-C10 (less BTEX) is calculated as follows: VPH (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). |
| Modified TPH (RBCA) Tier I | EC581D<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Modified TPH (PIRI), Tier I is the sum of PIRI Fraction (C6 - C10 - BTEX) + (>C10 - C16) + (>C16 – C21) + (>C21 - C32). |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Preparation for Ammonia | EP298<br>ALS Environmental - Waterloo | Water | | Sample preparation for Preserved Nutrients Water Quality Analysis. |
| Digestion for TKN in water | EP318<br>ALS Environmental - Waterloo | Water | APHA 4500-Norg D (mod) | Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low. |
| Preparation for Total Organic Carbon by Combustion | EP355<br>ALS Environmental - Waterloo | Water | | Preparation for Total Organic Carbon by Combustion |
| Digestion for Total Phosphorus in water | EP372<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Samples are heated with a persulfate digestion reagent. |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| VOCs Preparation for Headspace Analysis | EP581<br><br>ALS Environmental - Waterloo | Water | EPA 5021A (mod) | Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID. |
| PHCs Hexane Extraction (RBCA) | EP601F<br><br>ALS Environmental - Waterloo | Water | EPA 3511 (mod) | Petroleum Hydrocarbons (PHCs) are extracted using a hexane liquid-liquid extraction. |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2500561** | Page | : 1 of 13 |
| Client | : AECOM Canada ULC | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 04-Mar-2025 13:50 |
| PO | : 1687450 | Date Analysis Commenced | : 05-Mar-2025 |
| C-O-C number | : ---- | Issue Date | : 11-Mar-2025 11:07 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 3 | | |
| No. of samples analysed | : 3 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Waterloo Organics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Halifax Inorganics, Dartmouth, Nova Scotia |
| Nik Perkio | Senior Analyst | Waterloo Inorganics, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Metals, Waterloo, Ontario |
| Sarah Birch | VOC Section Supervisor | Waterloo VOC, Waterloo, Ontario |

## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Physical Tests (QC Lot: 1895674)** | | | | | | | | | | | |
| HA2500520-001 | Anonymous | pH | ---- | E108 | 0.10 | pH units | 7.54 | 7.52 | 0.279% | 4% | ---- |
| **Physical Tests (QC Lot: 1896184)** | | | | | | | | | | | |
| WT2504068-001 | Anonymous | Alkalinity, total (as CaCO3) | ---- | E290 | 1.0 | mg/L | 27.0 | 28.3 | 4.55% | 20% | ---- |
| **Physical Tests (QC Lot: 1896185)** | | | | | | | | | | | |
| WT2504068-001 | Anonymous | Conductivity | ---- | E100 | 2.0 | µS/cm | 1200 | 1200 | 0.250% | 10% | ---- |
| **Physical Tests (QC Lot: 1899441)** | | | | | | | | | | | |
| HA2500003-001 | Anonymous | Solids, total suspended [TSS] | ---- | E160 | 3.0 | mg/L | <3.0 | <3.0 | 0 | Diff <2x LOR | ---- |
| **Physical Tests (QC Lot: 1899443)** | | | | | | | | | | | |
| HA2500561-001 | SW4 | Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 34 | 32 | 2 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1896178)** | | | | | | | | | | | |
| WT2504017-001 | Anonymous | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.020 | mg/L | 4.38 | 4.38 | 0.0608% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1896179)** | | | | | | | | | | | |
| WT2504017-001 | Anonymous | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.010 | mg/L | 0.038 | 0.038 | 0.0002 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1896180)** | | | | | | | | | | | |
| WT2504017-001 | Anonymous | Chloride | 16887-00-6 | E235.Cl | 0.50 | mg/L | 104 | 104 | 0.00843% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1896181)** | | | | | | | | | | | |
| WT2504017-001 | Anonymous | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.30 | mg/L | 21.0 | 20.9 | 0.360% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1897686)** | | | | | | | | | | | |
| HA2500546-001 | Anonymous | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | <0.0050 | <0.0050 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1897688)** | | | | | | | | | | | |
| HA2500561-002 | SW13 | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.050 | mg/L | 0.384 | 0.374 | 0.010 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 1897689)** | | | | | | | | | | | |
| HA2500561-003 | DUP1 | Phosphorus, total | 7723-14-0 | E372-U | 0.0020 | mg/L | 0.0206 | 0.0204 | 0.585% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 1900974)** | | | | | | | | | | | |
| WT2504050-001 | Anonymous | Phosphorus, total | 7723-14-0 | E372-U | 0.0020 | mg/L | 0.0023 | 0.0024 | 0.0001 | Diff <2x LOR | ---- |
| **Organic / Inorganic Carbon (QC Lot: 1897687)** | | | | | | | | | | | |
| HA2500550-001 | Anonymous | Carbon, total organic [TOC] | ---- | E355-L | 0.50 | mg/L | 2.28 | 2.26 | 0.01 | Diff <2x LOR | ---- |
| **Total Metals (QC Lot: 1897140)** | | | | | | | | | | | |
| HA2500551-001 | Anonymous | Aluminum, total | 7429-90-5 | E420 | 0.0030 | mg/L | 24.2 µg/L | 0.0240 | 0.0002 | Diff <2x LOR | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Total Metals (QC Lot: 1897140) - continued** | | | | | | | | | | | |
| HA2500551-001 | Anonymous | Arsenic, total | 7440-38-2 | E420 | 0.00010 | mg/L | 0.00014 | 0.00014 | 0.0000006 | Diff <2x LOR | ---- |
| | | Barium, total | 7440-39-3 | E420 | 0.00010 | mg/L | 0.00391 | 0.00393 | 0.493% | 20% | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.010 | mg/L | <0.010 | <0.010 | 0 | Diff <2x LOR | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.0000050 | mg/L | 0.0000114 | 0.0000100 | 0.0000014 | Diff <2x LOR | ---- |
| | | Calcium, total | 7440-70-2 | E420 | 0.050 | mg/L | 7.71 | 7.35 | 4.70% | 20% | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Cobalt, total | 7440-48-4 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Iron, total | 7439-89-6 | E420 | 0.010 | mg/L | <10 µg/L | <0.010 | 0 | Diff <2x LOR | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | 0.0050 | mg/L | 0.434 | 0.425 | 1.91% | 20% | ---- |
| | | Manganese, total | 7439-96-5 | E420 | 0.00010 | mg/L | 8.31 µg/L | 0.00811 | 2.51% | 20% | ---- |
| | | Nickel, total | 7440-02-0 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 0.050 | mg/L | 0.315 | 0.316 | 0.0008 | Diff <2x LOR | ---- |
| | | Sodium, total | 7440-23-5 | E420 | 0.050 | mg/L | 11.7 | 11.2 | 4.04% | 20% | ---- |
| | | Uranium, total | 7440-61-1 | E420 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Zinc, total | 7440-66-6 | E420 | 0.0030 | mg/L | 160 µg/L | 0.158 | 1.41% | 20% | ---- |
| **Total Metals (QC Lot: 1897347)** | | | | | | | | | | | |
| HA2500561-001 | SW4 | Mercury, total | 7439-97-6 | E508 | 0.0000050 | mg/L | 0.0000063 | 0.0000062 | 0.0000001 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1896319)** | | | | | | | | | | | |
| HA2500417-001 | Anonymous | Biochemical oxygen demand [BOD] | ---- | E550 | 2.0 | mg/L | <2.0 | <2.0 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1897356)** | | | | | | | | | | | |
| HA2500561-001 | SW4 | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 45 | 44 | 1 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 1897690)** | | | | | | | | | | | |
| HA2500561-001 | SW4 | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Volatile Organic Compounds (QC Lot: 1896678)** | | | | | | | | | | | |
| HA2500561-001 | SW4 | Benzene | 71-43-2 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Ethylbenzene | 100-41-4 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Toluene | 108-88-3 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611A | 0.40 | µg/L | <0.00040 mg/L | <0.40 | 0 | Diff <2x LOR | ---- |
| | | Xylene, o- | 95-47-6 | E611A | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Hydrocarbons (QC Lot: 1896677)** | | | | | | | | | | | |
| HA2500561-001 | SW4 | VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <0.025 mg/L | <25 | 0 | Diff <2x LOR | ---- |

## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Physical Tests (QCLot: 1896184)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 1896185)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | <1.0 | ---- |
| **Physical Tests (QCLot: 1899441)** | | | | | | |
| Solids, total suspended [TSS] | ---- | E160 | 3 | mg/L | <3.0 | ---- |
| **Physical Tests (QCLot: 1899443)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Anions and Nutrients (QCLot: 1896178)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 1896179)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 1896180)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 1896181)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 1897686)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Anions and Nutrients (QCLot: 1897688)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Anions and Nutrients (QCLot: 1897689)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | # 0.0034 | B |
| **Anions and Nutrients (QCLot: 1900974)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | <0.0020 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1897687)** | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | <0.50 | ---- |
| **Total Metals (QCLot: 1897140)** | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | <0.0000050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Total Metals (QCLot: 1897140) - continued** | | | | | | |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Cobalt, total | 7440-48-4 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | # 0.00139 | B |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| **Total Metals (QCLot: 1897347)** | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Aggregate Organics (QCLot: 1896319)** | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | <2.0 | ---- |
| **Aggregate Organics (QCLot: 1897356)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |
| **Aggregate Organics (QCLot: 1897690)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Volatile Organic Compounds (QCLot: 1896678)** | | | | | | |
| Benzene | 71-43-2 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Ethylbenzene | 100-41-4 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Toluene | 108-88-3 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611A | 0.4 | µg/L | <0.40 | ---- |
| Xylene, o- | 95-47-6 | E611A | 0.3 | µg/L | <0.30 | ---- |
| **Hydrocarbons (QCLot: 1896375)** | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | <100 | ---- |
| **Hydrocarbons (QCLot: 1896677)** | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <25 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| B | Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable. |

## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Physical Tests (QCLot: 1895674)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 101 | 98.0 | 102 | ---- |
| **Physical Tests (QCLot: 1896184)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 101 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1896185)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 97.5 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 1899441)** | | | | | | | | | |
| Solids, total suspended [TSS] | ---- | E160 | 3 | mg/L | 150 mg/L | 96.0 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 1899443)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 96.6 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 1896178)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 100 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1896179)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 101 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1896180)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 100 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1896181)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 102 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 1897686)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 105 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 1897688)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 106 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1897689)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 98.3 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 1900974)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 99.5 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1897687)** | | | | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | 8.57 mg/L | 105 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 1897140)** | | | | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | 0.1 mg/L | 96.0 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Total Metals (QCLot: 1897140) - continued** | | | | | | | | | |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | 0.05 mg/L | 104 | 80.0 | 120 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | 0.05 mg/L | 107 | 80.0 | 120 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | 0.012 mg/L | 100 | 80.0 | 120 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | 0.05 mg/L | 95.2 | 80.0 | 120 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | 0.005 mg/L | 98.4 | 80.0 | 120 | ---- |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | 2.5 mg/L | 94.5 | 80.0 | 120 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | 0.012 mg/L | 98.9 | 80.0 | 120 | ---- |
| Cobalt, total | 7440-48-4 | E420 | 0.0001 | mg/L | 0.012 mg/L | 97.8 | 80.0 | 120 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | 0.012 mg/L | 99.0 | 80.0 | 120 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | 0.05 mg/L | 98.6 | 80.0 | 120 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | 0.025 mg/L | 97.3 | 80.0 | 120 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | 2.5 mg/L | 106 | 80.0 | 120 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | 0.012 mg/L | 99.8 | 80.0 | 120 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | 0.025 mg/L | 98.4 | 80.0 | 120 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | 2.5 mg/L | 101 | 80.0 | 120 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | 2.5 mg/L | 95.2 | 80.0 | 120 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | 0 mg/L | 101 | 80.0 | 120 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | 0.025 mg/L | 100 | 80.0 | 120 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | 0.025 mg/L | 99.6 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 1897347)** | | | | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | 0 mg/L | 94.3 | 80.0 | 120 | ---- |
| **Aggregate Organics (QCLot: 1896319)** | | | | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | 198 mg/L | 102 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1897356)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 107 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 1897690)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 106 | 85.0 | 115 | ---- |
| **Volatile Organic Compounds (QCLot: 1896678)** | | | | | | | | | |
| Benzene | 71-43-2 | E611A | 0.5 | µg/L | 100 µg/L | 96.3 | 70.0 | 130 | ---- |
| Ethylbenzene | 100-41-4 | E611A | 0.5 | µg/L | 100 µg/L | 93.5 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611A | 0.5 | µg/L | 100 µg/L | 101 | 70.0 | 130 | ---- |
| Xylene, m+p- | 179601-23-1 | E611A | 0.4 | µg/L | 200 µg/L | 89.7 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611A | 0.3 | µg/L | 100 µg/L | 90.0 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Hydrocarbons (QCLot: 1896375)** | | | | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | 4060 µg/L | 71.0 | 70.0 | 130 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | 3530 µg/L | 91.1 | 70.0 | 130 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | 3310 µg/L | 86.5 | 70.0 | 130 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | 4010 µg/L | 98.5 | 70.0 | 130 | ---- |
| **Hydrocarbons (QCLot: 1896677)** | | | | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | 2000 µg/L | 89.6 | 80.0 | 120 | ---- |

## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 1896178)** | | | | | | | | | | |
| WT2504017-001 | Anonymous | Nitrate (as N) | 14797-55-8 | E235.NO3 | ND mg/L | ---- | ND | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1896179)** | | | | | | | | | | |
| WT2504017-001 | Anonymous | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.508 mg/L | 0.5 mg/L | 102 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1896180)** | | | | | | | | | | |
| WT2504017-001 | Anonymous | Chloride | 16887-00-6 | E235.Cl | ND mg/L | ---- | ND | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1896181)** | | | | | | | | | | |
| WT2504017-001 | Anonymous | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 100 mg/L | 100 mg/L | 100 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1897686)** | | | | | | | | | | |
| HA2500546-001 | Anonymous | Ammonia, total (as N) | 7664-41-7 | E298 | 0.111 mg/L | 0.1 mg/L | 111 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 1897688)** | | | | | | | | | | |
| HA2500561-002 | SW13 | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 3.03 mg/L | 2.5 mg/L | 121 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1897689)** | | | | | | | | | | |
| HA2500561-003 | DUP1 | Phosphorus, total | 7723-14-0 | E372-U | 0.102 mg/L | 0.1 mg/L | 102 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 1900974)** | | | | | | | | | | |
| WT2504050-001 | Anonymous | Phosphorus, total | 7723-14-0 | E372-U | 0.0951 mg/L | 0.1 mg/L | 95.1 | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 1897687)** | | | | | | | | | | |
| HA2500550-001 | Anonymous | Carbon, total organic [TOC] | ---- | E355-L | 5.69 mg/L | 5 mg/L | 114 | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 1897140)** | | | | | | | | | | |
| HA2500551-002 | Anonymous | Aluminum, total | 7429-90-5 | E420 | 0.0936 mg/L | 0.1 mg/L | 93.6 | 70.0 | 130 | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.0511 mg/L | 0.05 mg/L | 102 | 70.0 | 130 | ---- |
| | | Arsenic, total | 7440-38-2 | E420 | 0.0534 mg/L | 0.05 mg/L | 107 | 70.0 | 130 | ---- |
| | | Barium, total | 7440-39-3 | E420 | 0.0118 mg/L | 0.012 mg/L | 94.3 | 70.0 | 130 | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.050 mg/L | 0.05 mg/L | 100 | 70.0 | 130 | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.00491 mg/L | 0.005 mg/L | 98.3 | 70.0 | 130 | ---- |
| | | Calcium, total | 7440-70-2 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.0126 mg/L | 0.012 mg/L | 101 | 70.0 | 130 | ---- |
| | | Cobalt, total | 7440-48-4 | E420 | 0.0125 mg/L | 0.012 mg/L | 99.8 | 70.0 | 130 | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.0123 mg/L | 0.012 mg/L | 98.2 | 70.0 | 130 | ---- |
| | | Iron, total | 7439-89-6 | E420 | 0.048 mg/L | 0.05 mg/L | 96.0 | 70.0 | 130 | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.0240 mg/L | 0.025 mg/L | 96.1 | 70.0 | 130 | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | 2.54 mg/L | 2.5 mg/L | 102 | 70.0 | 130 | ---- |
| | | Manganese, total | 7439-96-5 | E420 | 0.0117 mg/L | 0.012 mg/L | 93.4 | 70.0 | 130 | ---- |
| | | Nickel, total | 7440-02-0 | E420 | 0.0248 mg/L | 0.025 mg/L | 99.2 | 70.0 | 130 | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 2.52 mg/L | 2.5 mg/L | 101 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Total Metals (QCLot: 1897140) - continued** | | | | | | | | | | |
| HA2500551-002 | Anonymous | Sodium, total | 7440-23-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Uranium, total | 7440-61-1 | E420 | 0.000258 mg/L | 0 mg/L | 103 | 70.0 | 130 | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.0255 mg/L | 0.025 mg/L | 102 | 70.0 | 130 | ---- |
| | | Zinc, total | 7440-66-6 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 1897347)** | | | | | | | | | | |
| HA2500561-002 | SW13 | Mercury, total | 7439-97-6 | E508 | 0.0000907 mg/L | 0 mg/L | 90.7 | 70.0 | 130 | ---- |
| **Aggregate Organics (QCLot: 1897356)** | | | | | | | | | | |
| HA2500561-001 | SW4 | Chemical oxygen demand [COD] | ---- | E559-L | 105 mg/L | 100 mg/L | 105 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 1897690)** | | | | | | | | | | |
| HA2500561-001 | SW4 | Phenols, total (4AAP) | ---- | E562 | 0.0213 mg/L | 0.02 mg/L | 106 | 75.0 | 125 | ---- |
| **Volatile Organic Compounds (QCLot: 1896678)** | | | | | | | | | | |
| HA2500561-001 | SW4 | Benzene | 71-43-2 | E611A | 93.7 µg/L | 100 µg/L | 93.7 | 60.0 | 140 | ---- |
| | | Ethylbenzene | 100-41-4 | E611A | 93.1 µg/L | 100 µg/L | 93.1 | 60.0 | 140 | ---- |
| | | Toluene | 108-88-3 | E611A | 100.0 µg/L | 100 µg/L | 100.0 | 60.0 | 140 | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611A | 180 µg/L | 200 µg/L | 90.0 | 60.0 | 140 | ---- |
| | | Xylene, o- | 95-47-6 | E611A | 89.6 µg/L | 100 µg/L | 89.6 | 60.0 | 140 | ---- |
| **Hydrocarbons (QCLot: 1896677)** | | | | | | | | | | |
| HA2500561-001 | SW4 | VPH C6-C10 | n/a | E581.VPH | 1760 µg/L | 2000 µg/L | 87.8 | 60.0 | 140 | ---- |

# Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 22 -

Page 1 of 1

Environmental Division Halifax

Work Order Reference HA2500561

Telephone : +1 902 707 4888

| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis Street, SH400 |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| Invoice To | Same as Report To ☐ YES ☐ NO |
| | Copy of Invoice with Report ☐ YES ☐ NO |
| Company: | AECOM |
| Contact: | Janice Shea |

**Reports / Recipients**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Janice.Shea@aecom.com

Email 2:

Email 3:

**Invoice Recipients**

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Janice.Shea@aecom.com

Email 2:

**Turnaround Time (TAT) Requested**

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minim

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minir

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minir

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minir

☐ Same day [E2] if received by 10am M-S - 200% rush surcharg

Additional fees may apply to rush requests on weekend

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please c

**Project Information**

| | |
|---|---|
| ALS Account # / Quote #: | AECO100 / HA2024AECO1000002 |
| Job #: | 60718540 |
| PO / AFE: | |
| LSD: | |

**Oil and Gas Required Fields (client use)**

| | |
|---|---|
| AFE/Cost Center: | PO#: |
| Major/Minor Code: | Routing Code: |
| Requisitioner: | |
| Location: | |

**ALS Lab Work Order # (ALS use only):** HA2500561

**ALS Contact:** Emily Hansen **Sampler:**

**Analysis Re**

Indicate Filtered (F), Preserved (P) or Filtered a

| ALS Sample # (ALS use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | NUMBER OF CONTAINERS | Schedule 1 - Column 2 - Surface Wat | BTEX/TPH (RBCA Tier 1) | SAMPLES ON HOLD | EXTENDED STORAGE REQUI | SUSPECTED HAZARD (see n |
|---|---|---|---|---|---|---|---|---|---|---|
| | SW4 | 04-Mar-24 | 09:20 | Water | 9 | X | X | | | |
| | SW13 | 1 | 08:50 | Water | 9 | X | X | | | |
| | SW19-20 | — | — | Water | 9 | | | | | |
| | DUP1 | 04-Mar-24 | — | Water | 9 | X | X | | | |

**Drinking Water (DW) Samples[1] (client use)**

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

**Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)**

Please report cobalt with the metals

**SAMPLE RECEIPT DETAILS (ALS use only)**

Cooling Method: ☐ NONE ☑ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

| INITIAL COOLER TEMPERATURES °C | | | | FINAL COOLER TEMPERATURES °C | | | |
|---|---|---|---|---|---|---|---|
| 0.1 | | | | | | | |

**SHIPMENT RELEASE (client use)**

| Released by: | Date: | Time: |
|---|---|---|
| | Mar 4/25 | 13:48 |

**INITIAL SHIPMENT RECEPTION (ALS use only)**

| Received by: | Date: | Time: |
|---|---|---|
| | Mar 4 2025 | 1:50pm |

**FINAL SHIPMENT RECEPTION (ALS use only)**

| Received by: | Date: | Time: |
|---|---|---|
| | | |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FEB 2022 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**

# CERTIFICATE OF ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Work Order** | : | **HA2501779** | | |
| Client | : | **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : | Janice Shea | Account Manager | : Emily Hansen |
| Address | : | 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax Nova Scotia Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth NS Canada B3B 1L2 |
| Telephone | : | 902 428 2054 | E-mail | : emily.hansen@alsglobal.com |
| Project | : | 60718540 | Telephone | : +1 902 707 4888 |
| PO | : | ---- | Date Samples Received | : 11-Jun-2025 13:50 |
| C-O-C number | : | ---- | Date Analysis Commenced | : 14-Jun-2025 |
| Sampler | : | ---- | Issue Date | : 20-Jun-2025 12:56 |
| Site | : | ---- | | |
| Quote number | : | Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : | 14 | | |
| No. of samples analysed | : | 14 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Greg Pokocky | | Inorganics, Waterloo, Ontario |
| Jon Fisher | | Metals, Waterloo, Ontario |
| Jon Fisher | | Inorganics, Waterloo, Ontario |
| Jon Fisher | | Centralized Prep, Waterloo, Ontario |
| Walt Kippenhuck | | Inorganics, Waterloo, Ontario |
| Walt Kippenhuck | | Metals, Waterloo, Ontario |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

| *Unit* | *Description* |
|---|---|
| - | no units |
| mg/L | milligrams per litre |
| pH units | pH units |
| µS/cm | microsiemens per centimetre |

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Qualifiers

| *Qualifier* | Description |
|---|---|
| DLDS | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity. |
| DLHC | Detection Limit Raised: Dilution required due to high concentration of test analyte(s). |
| DLUI | Detection Limit Raised: Unknown interference generated an apparent false positive test result. |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1-S | MW1-D | MW20-14D | MW20-14S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-001 | HA2501779-002 | HA2501779-003 | HA2501779-004 | HA2501779-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | field | field | field | field |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 966 | 1820 | 446 | 179 | 122 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 393 | 867 | 160 | 45.2 | 30.9 |
| **pH** | ---- | E108/WT | 0.10 | pH units | | 7.45 | 6.86 | 7.34 | 6.38 | 5.64 |
| **Solids, total dissolved [TDS]** | ---- | E162/WT | 10 | mg/L | | 652 DLDS | 1330 DLDS | 322 DLDS | 152 DLDS | 166 DLDS |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 422 | 673 | 78.1 | 48.9 | 6.6 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0698 | 0.609 | 0.0066 | 0.0297 | 0.0255 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 9.69 DLDS | 22.0 DLDS | 7.06 | 2.34 | 8.05 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.938 | 1.41 | 0.153 | 3.20 | 0.712 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.040 DLDS | <0.100 DLDS | 0.312 | 0.180 | 0.036 |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.020 DLDS | <0.050 DLDS | <0.010 | <0.010 | <0.010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.467 | 0.362 | 0.193 | 1.58 | 2.41 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 106 DLDS | 372 DLDS | 127 | 31.1 | 31.1 |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 13.6 | 12.8 | 1.73 | 7.58 | 4.45 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E423A/WT | 0.0030 | mg/L | | ---- | ---- | ---- | 5.21 | ---- |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.116 DLHC | 0.0274 | 0.0398 | ---- | 0.193 |
| **Antimony, dissolved** | 7440-36-0 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00018 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1-S | MW1-D | MW20-14D | MW20-14S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-001 | HA2501779-002 | HA2501779-003 | HA2501779-004 | HA2501779-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00100 | <0.00100 | <0.00010 | ---- | <0.00010 |
| **Arsenic, dissolved** | 7440-38-2 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00544 | ---- |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00114 | 0.00861 | 0.00097 | ---- | 0.00032 |
| **Barium, dissolved** | 7440-39-3 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.0816 | ---- |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0229 | 0.0378 | 0.0165 | ---- | 0.0164 |
| **Beryllium, dissolved** | 7440-41-7 | E423A/WT | 0.000020 | mg/L | | ---- | ---- | ---- | 0.000486 | ---- |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | <0.000200 | <0.000200 | 0.000206 | ---- | 0.000137 |
| **Bismuth, dissolved** | 7440-69-9 | E423A/WT | 0.000050 | mg/L | | ---- | ---- | ---- | 0.000121 | ---- |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000500 | <0.000500 | <0.000050 | ---- | <0.000050 |
| **Boron, dissolved** | 7440-42-8 | E423A/WT | 0.010 | mg/L | | ---- | ---- | ---- | 0.043 | ---- |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 1.07 DLHC | 3.76 | 0.210 | ---- | 0.196 |
| **Cadmium, dissolved** | 7440-43-9 | E423A/WT | 0.0000050 | mg/L | | ---- | ---- | ---- | 0.0000624 | ---- |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | <0.0000500 | 0.00110 | 0.000172 | ---- | 0.0000894 |
| **Calcium, dissolved** | 7440-70-2 | E423A/WT | 0.050 | mg/L | | ---- | ---- | ---- | 10.0 | ---- |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 121 | 231 | 38.2 | ---- | 7.74 |
| **Cesium, dissolved** | 7440-46-2 | E423A/WT | 0.000010 | mg/L | | ---- | ---- | ---- | 0.00101 | ---- |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | <0.000100 | 0.000370 | 0.00241 | ---- | 0.000073 |
| **Chromium, dissolved** | 7440-47-3 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00536 | ---- |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00500 | <0.00500 | <0.00050 | ---- | <0.00050 |
| **Cobalt, dissolved** | 7440-48-4 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00487 | ---- |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | <0.00100 | 0.00724 | 0.00014 | ---- | 0.00054 |


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## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1-S | MW1-D | MW20-14D | MW20-14S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-001 | HA2501779-002 | HA2501779-003 | HA2501779-004 | HA2501779-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Copper, dissolved** | 7440-50-8 | E423A/WT | 0.00050 | mg/L | | ---- | ---- | ---- | 0.0162 | ---- |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | <0.00200 | <0.00200 | 0.00092 | ---- | 0.00084 |
| **Iron, dissolved** | 7439-89-6 | E423A/WT | 0.010 | mg/L | | ---- | ---- | ---- | 7.17 | ---- |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.744 | 1.36 | 0.029 | ---- | 0.162 |
| **Lead, dissolved** | 7439-92-1 | E423A/WT | 0.000050 | mg/L | | ---- | ---- | ---- | 0.00495 | ---- |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | <0.000500 | 0.00112 | 0.000119 | ---- | 0.000077 |
| **Lithium, dissolved** | 7439-93-2 | E423A/WT | 0.0010 | mg/L | | ---- | ---- | ---- | 0.0087 | ---- |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | <0.0100 | <0.0100 | 0.0081 | ---- | <0.0010 |
| **Magnesium, dissolved** | 7439-95-4 | E423A/WT | 0.0050 | mg/L | | ---- | ---- | ---- | 4.92 | ---- |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 22.0 | 70.4 | 15.6 | ---- | 2.82 |
| **Manganese, dissolved** | 7439-96-5 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.367 | ---- |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 2.47 | 6.85 | 0.00576 | ---- | 0.182 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Molybdenum, dissolved** | 7439-98-7 | E423A/WT | 0.000050 | mg/L | | ---- | ---- | ---- | 0.000199 | ---- |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.000543 | 0.00116 | 0.000084 | ---- | <0.000050 |
| **Nickel, dissolved** | 7440-02-0 | E423A/WT | 0.00050 | mg/L | | ---- | ---- | ---- | 0.00983 | ---- |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | <0.00500 | 0.0153 | 0.00129 | ---- | 0.00078 |
| **Phosphorus, dissolved** | 7723-14-0 | E423A/WT | 0.050 | mg/L | | ---- | ---- | ---- | 0.190 | ---- |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | <0.500 | <0.500 | <0.050 | ---- | <0.050 |
| **Potassium, dissolved** | 7440-09-7 | E423A/WT | 0.050 | mg/L | | ---- | ---- | ---- | 1.91 | ---- |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 3.95 | 2.72 | 1.23 | ---- | 0.768 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1-S | MW1-D | MW20-14D | MW20-14S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-001 | HA2501779-002 | HA2501779-003 | HA2501779-004 | HA2501779-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Rubidium, dissolved** | 7440-17-7 | E423A/WT | 0.00020 | mg/L | | ---- | ---- | ---- | 0.00998 | ---- |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00280 | 0.00240 | 0.00180 | ---- | 0.00198 |
| **Selenium, dissolved** | 7782-49-2 | E423A/WT | 0.000050 | mg/L | | ---- | ---- | ---- | 0.000060 | ---- |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | <0.000500 | <0.000500 | <0.000050 | ---- | 0.000100 |
| **Silicon, dissolved** | 7440-21-3 | E423A/WT | 0.10 | mg/L | | ---- | ---- | ---- | 10.8 | ---- |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 3.70 | 4.73 | 5.13 | ---- | 2.60 |
| **Silver, dissolved** | 7440-22-4 | E423A/WT | 0.000010 | mg/L | | ---- | ---- | ---- | 0.000605 | ---- |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | <0.000100 | <0.000100 | 0.000012 | ---- | <0.000010 |
| **Sodium, dissolved** | 7440-23-5 | E423A/WT | 0.050 | mg/L | | ---- | ---- | ---- | 9.00 | ---- |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 23.0 | 59.1 | 22.3 | ---- | 7.61 |
| **Strontium, dissolved** | 7440-24-6 | E423A/WT | 0.00020 | mg/L | | ---- | ---- | ---- | 0.0652 | ---- |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.510 | 0.628 | 0.180 | ---- | 0.0240 |
| **Sulfur, dissolved** | 7704-34-9 | E423A/WT | 0.50 | mg/L | | ---- | ---- | ---- | 4.59 | ---- |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 27.8 | 132 | 48.3 | ---- | 11.0 |
| **Tellurium, dissolved** | 13494-80-9 | E423A/WT | 0.00020 | mg/L | | ---- | ---- | ---- | <0.00020 | ---- |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00200 | <0.00200 | <0.00020 | ---- | <0.00020 |
| **Thallium, dissolved** | 7440-28-0 | E423A/WT | 0.000010 | mg/L | | ---- | ---- | ---- | 0.000078 | ---- |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | <0.000100 | <0.000100 | 0.000053 | ---- | 0.000011 |
| **Thorium, dissolved** | 7440-29-1 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00347 | ---- |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00100 | <0.00100 | <0.00010 | ---- | <0.00010 |
| **Tin, dissolved** | 7440-31-5 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00036 | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW1-S | MW1-D | MW20-14D | MW20-14S | MW19-13S |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-001 | HA2501779-002 | HA2501779-003 | HA2501779-004 | HA2501779-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00100 | <0.00100 | <0.00010 | ---- | <0.00010 |
| **Titanium, dissolved** | 7440-32-6 | E423A/WT | 0.00030 | mg/L | | ---- | ---- | ---- | 0.133 | ---- |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | 0.00338 | <0.00300 | <0.00090 DLUI | ---- | <0.00090 DLUI |
| **Tungsten, dissolved** | 7440-33-7 | E423A/WT | 0.00010 | mg/L | | ---- | ---- | ---- | 0.00642 | ---- |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | <0.00100 | <0.00100 | 0.00034 | ---- | 0.00056 |
| **Uranium, dissolved** | 7440-61-1 | E423A/WT | 0.000010 | mg/L | | ---- | ---- | ---- | 0.00144 | ---- |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.0509 | 0.393 | 0.00134 | ---- | 0.000169 |
| **Vanadium, dissolved** | 7440-62-2 | E423A/WT | 0.00050 | mg/L | | ---- | ---- | ---- | 0.00734 | ---- |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00500 | <0.00500 | <0.00050 | ---- | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E423A/WT | 0.0030 | mg/L | | ---- | ---- | ---- | 0.0203 | ---- |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | <0.0100 | 0.0742 | 0.0241 | ---- | 0.0028 |
| **Zirconium, dissolved** | 7440-67-7 | E423A/WT | 0.00020 | mg/L | | ---- | ---- | ---- | 0.00252 | ---- |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00300 | <0.00300 | <0.00030 | ---- | <0.00030 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP423/WT | - | - | | ---- | ---- | ---- | Field | ---- |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | ---- | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 83 | 61 | 22 | 111 | 58 |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | <0.0010 | <0.0010 | 0.0016 | <0.0010 | 0.0024 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19-13D | MW19-11M | MW19-11D | MW6-S | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-006 | HA2501779-007 | HA2501779-008 | HA2501779-009 | HA2501779-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | field | field | field | field |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 192 | 960 | 1420 | 471 | 1710 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 51.5 | 439 | 712 | 209 | 753 |
| **pH** | ---- | E108/WT | 0.10 | pH units | | 6.64 | 6.93 | 7.02 | 7.02 | 6.81 |
| **Solids, total dissolved [TDS]** | ---- | E162/WT | 10 | mg/L | | 124 DLDS | 627 DLDS | 933 DLDS | 299 DLDS | 1120 DLDS |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 20.8 | 441 | 632 | 204 | 774 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | <0.0050 | 1.83 | 5.00 | 0.0302 | 7.50 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 9.87 | 7.78 DLDS | 14.6 DLDS | 4.78 | 24.1 DLDS |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.135 | 3.14 | 6.85 | 0.666 | 12.1 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | 0.047 | 0.148 DLDS | <0.100 DLDS | 0.252 | <0.100 DLDS |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | 0.066 DLDS | 0.061 DLDS | 0.012 | <0.050 DLDS |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.626 | 0.476 | 0.0800 | 0.0152 | 0.143 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 49.6 | 83.8 DLDS | 173 DLDS | 30.6 | 162 DLDS |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 1.10 | 10.2 | 13.3 | 13.3 | 27.6 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0491 | 0.0812 | 0.0246 | 0.0508 | 0.0418 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00100 | <0.00100 | 0.00023 | <0.00100 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00154 | 0.00771 | 0.0270 | 0.00047 | 0.0294 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19-13D | MW19-11M | MW19-11D | MW6-S | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-006 | HA2501779-007 | HA2501779-008 | HA2501779-009 | HA2501779-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0577 | 0.0440 | 0.0444 | 0.0244 | 0.0431 |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | 0.000997 | <0.000200 | <0.000200 | 0.000041 | 0.000218 |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000500 | <0.000500 | <0.000050 | <0.000500 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.190 | 0.904 | 2.33 | 0.254 | 3.59 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.000145 | <0.0000500 | <0.0000500 | 0.0000057 | <0.0000500 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 13.5 | 144 | 226 | 70.7 | 209 |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | 0.000380 | 0.00105 | 0.00202 | 0.000214 | 0.00164 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00500 | <0.00500 | <0.00050 | <0.00500 |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00046 | 0.00351 | 0.00609 | 0.00013 | 0.0119 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00311 | <0.00200 | <0.00200 | 0.00187 | <0.00200 |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.047 | 4.32 | 8.45 | 0.012 | 11.0 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.000570 | <0.000500 | <0.000500 | <0.000050 | <0.000500 |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | 0.0173 | <0.0100 | <0.0100 | <0.0010 | <0.0100 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 4.33 | 19.3 | 36.0 | 7.95 | 56.2 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.127 | 6.47 | 9.78 | 0.0228 | 16.5 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.000709 | 0.00122 | 0.00164 | 0.000165 | 0.00183 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00106 | <0.00500 | <0.00500 | 0.00055 | 0.0103 |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | 0.078 | <0.500 | <0.500 | <0.050 | <0.500 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.12 | 6.00 | 9.93 | 1.32 | 6.22 |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00483 | 0.00786 | 0.0127 | 0.00256 | 0.0103 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW19-13D | MW19-11M | MW19-11D | MW6-S | MW6-D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 |
| | | | | | | HA2501779-006 | HA2501779-007 | HA2501779-008 | HA2501779-009 | HA2501779-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | 0.000098 | <0.000500 | <0.000500 | 0.000279 | <0.000500 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 7.95 | 3.11 | 4.05 | 1.93 | 4.64 |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | 0.000272 | <0.000100 | <0.000100 | <0.000010 | <0.000100 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 13.2 | 16.5 | 33.8 | 8.67 | 65.6 |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.0888 | 0.537 | 1.02 | 0.212 | 0.740 |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 17.9 | 30.5 | 70.1 | 12.0 | 61.4 |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | <0.00200 | <0.00200 | <0.00020 | <0.00200 |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | 0.000012 | <0.000100 | <0.000100 | <0.000010 | <0.000100 |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00100 | <0.00100 | <0.00010 | <0.00100 |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00100 | <0.00100 | <0.00010 | <0.00100 |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | 0.00392 | <0.00300 | <0.00300 | <0.00030 | <0.00300 |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.0294 | 0.00118 | 0.00239 | 0.00014 | <0.00100 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.00252 | 0.0500 | 0.139 | 0.00306 | 0.0818 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00500 | <0.00500 | <0.00050 | <0.00500 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0116 | <0.0100 | <0.0100 | 0.0015 | <0.0100 |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00300 | <0.00300 | <0.00030 | <0.00300 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 17 | 67 | 58 | 40 | 102 |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | <0.0010 | <0.0010 | 0.0015 | <0.0010 | 0.0011 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW7-S | MW7-D | DUP1 | DUP2 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | ---- |
| | | | | | | HA2501779-011 | HA2501779-012 | HA2501779-013 | HA2501779-014 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | field | field | field | ---- |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 420 | 292 | 946 | 1800 | ---- |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 174 | 153 | 495 | 1010 | ---- |
| **pH** | ---- | E108/WT | 0.10 | pH units | | 6.95 | 7.12 | 6.92 | 6.99 | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/WT | 10 | mg/L | | 277 DLDS | 220 DLDS | 622 DLDS | 1330 DLDS | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 157 | 144 | 433 | 684 | ---- |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.687 | 0.0198 | 1.93 | 0.607 | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 5.33 | 0.82 | 7.49 DLDS | 21.4 DLDS | ---- |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 1.12 | 1.94 | 2.97 | 1.40 | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.020 | <0.020 | 0.103 DLDS | <0.100 DLDS | ---- |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | 0.062 DLDS | <0.050 DLDS | ---- |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.0330 | 0.759 | 0.494 | 0.351 | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 42.7 | 2.75 | 80.6 DLDS | 373 DLDS | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 12.6 | 3.65 | 10.2 | 12.7 | ---- |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0631 | 0.0234 | 0.0635 DLHC | 0.0245 DLHC | ---- |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | 0.00033 | <0.00100 DLHC | <0.00100 DLHC | ---- |


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## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW7-S | MW7-D | DUP1 | DUP2 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | ---- |
| | | | | | | HA2501779-011 | HA2501779-012 | HA2501779-013 | HA2501779-014 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Dissolved Metals** | | | | | | | | | | |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00619 | 0.00026 | 0.00819 DLHC | 0.00860 DLHC | ---- |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0268 | 0.0137 | 0.0430 DLHC | 0.0293 DLHC | ---- |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | 0.000157 | <0.000020 | <0.000200 DLHC | 0.000206 DLHC | ---- |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000500 DLHC | <0.000500 DLHC | ---- |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.325 | 0.020 | 0.941 DLHC | 4.19 DLHC | ---- |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000516 | 0.0000157 | <0.0000500 DLHC | 0.00131 DLHC | ---- |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 55.1 | 54.4 | 164 DLHC | 269 DLHC | ---- |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | 0.000849 | 0.000017 | 0.00110 DLHC | 0.000419 DLHC | ---- |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00500 DLHC | <0.00500 DLHC | ---- |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00299 | <0.00010 | 0.00397 DLHC | 0.00829 DLHC | ---- |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00102 | 0.00200 | <0.00200 DLHC | <0.00200 DLHC | ---- |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.684 | 0.011 | 4.68 DLHC | 1.62 DLHC | ---- |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.000849 | <0.000050 | <0.000500 DLHC | 0.00109 DLHC | ---- |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | <0.0010 | 0.0013 | <0.0100 DLHC | <0.0100 DLHC | ---- |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 8.80 | 4.17 | 20.8 DLHC | 81.9 DLHC | ---- |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 2.23 | 0.00139 | 7.50 DLHC | 8.27 DLHC | ---- |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | ---- |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.000453 | 0.000538 | 0.00138 DLHC | 0.00126 DLHC | ---- |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00123 | <0.00050 | <0.00500 DLHC | 0.0180 DLHC | ---- |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.500 DLHC | <0.500 DLHC | ---- |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 2.20 | 2.16 | 6.33 DLHC | 2.94 DLHC | ---- |


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## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW7-S | MW7-D | DUP1 | DUP2 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | ---- |
| | | | | | | HA2501779-011 | HA2501779-012 | HA2501779-013 | HA2501779-014 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Dissolved Metals** | | | | | | | | | | |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00570 | 0.00297 | 0.00935 DLHC | 0.00309 DLHC | ---- |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | 0.000211 | 0.000144 | <0.000500 DLHC | <0.000500 DLHC | ---- |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 2.41 | 3.90 | 3.49 DLHC | 5.67 DLHC | ---- |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | <0.000100 DLHC | <0.000100 DLHC | ---- |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 9.62 | 3.01 | 18.3 DLHC | 67.6 DLHC | ---- |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.188 | 0.144 | 0.571 DLHC | 0.701 DLHC | ---- |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 16.7 | 1.22 | 32.7 DLHC | 142 DLHC | ---- |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00200 DLHC | <0.00200 DLHC | ---- |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | 0.000087 | <0.000010 | <0.000100 DLHC | <0.000100 DLHC | ---- |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00100 DLHC | <0.00100 DLHC | ---- |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00100 DLHC | <0.00100 DLHC | ---- |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | <0.00060 DLUI | 0.00033 | <0.00300 DLHC | <0.00300 DLHC | ---- |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.00034 | 0.00383 | 0.00130 DLHC | <0.00100 DLHC | ---- |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.00347 | 0.000300 | 0.0586 DLHC | 0.497 DLHC | ---- |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00500 DLHC | <0.00500 DLHC | ---- |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0121 | 0.0024 | <0.0100 DLHC | 0.0884 DLHC | ---- |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00300 DLHC | <0.00300 DLHC | ---- |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | ---- |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 43 | 96 | 68 | 56 | ---- |


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## Analytical Results

| Sub-Matrix: Water (Matrix: Water) | | | | | Client sample ID | MW7-S | MW7-D | DUP1 | DUP2 | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | 11-Jun-2025 00:00 | ---- |
| Analyte | CAS Number | Method/Lab | LOR | Unit | | HA2501779-011 | HA2501779-012 | HA2501779-013 | HA2501779-014 | ---- |
| | | | | | | Result | Result | Result | Result | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | 0.0025 | 0.0012 | 0.0010 | 0.0010 | ---- |

Please refer to the General Comments section for an explanation of any qualifiers detected.


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# QUALITY CONTROL INTERPRETIVE REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2501779** | Page | : 1 of 34 |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 11-Jun-2025 13:50 |
| PO | : ---- | Issue Date | : 20-Jun-2025 12:55 |
| C-O-C number | : ---- | | |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 14 | | |
| No. of samples analysed | : 14 | | |

**This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.**

**Key**

**Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.**
**CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.**
**DQO: Data Quality Objective.**
**LOR: Limit of Reporting (detection limit).**
**RPD: Relative Percent Difference.**

## *Workorder Comments*

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

- No Duplicate outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

### *Outliers: Reference Material (RM) Samples*

- No Reference Material (RM) Sample outliers occur.

## Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

## Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

## Outliers : Quality Control Samples

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

| Analyte Group | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Method | Result | Limits | Comment |
|---|---|---|---|---|---|---|---|---|
| **Method Blank (MB) Values** | | | | | | | | |
| Anions and Nutrients | QC-2052444-001 | ---- | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.102 B mg/L | 0.05 mg/L | Blank result exceeds permitted value |

### Result Qualifiers

| Qualifier | Description |
|---|---|
| *B* | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

| Laboratory Control Sample (LCS) Recoveries | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dissolved Metals | QC-2055626-002 | ---- | Magnesium, dissolved | 7439-95-4 | E423A | 122 % MES | 80.0-120% | Recovery greater than upper control limit |

### Result Qualifiers

| Qualifier | Description |
|---|---|
| *MES* | *Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).* |

| Matrix Spike (MS) Recoveries | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dissolved Metals | HA2501779-002 | MW1-D | Silver, dissolved | 7440-22-4 | E421 | 64.6 % | 70.0-130% | Recovery less than lower data quality objective |
| Dissolved Metals | Anonymous | Anonymous | Thorium, dissolved | 7440-29-1 | E423A | 49.2 % MS-Th | 70.0-130% | Recovery less than lower data quality objective |
| Dissolved Metals | Anonymous | Anonymous | Zirconium, dissolved | 7440-67-7 | E423A | 41.8 % K | 70.0-130% | Recovery less than lower data quality objective |

### Result Qualifiers

| Qualifier | Description |
|---|---|
| *K* | *Matrix Spike recovery outside ALS DQO due to sample matrix effects.* |
| *MS-Th* | *Matrix Spike recovery for thorium was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Thorium was not detected. Reported result (< LOR) is reliable* |

# Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP2 | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-11D | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-11M | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-13D | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-13S | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1-D | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-S | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-14D | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-14S | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6-D | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6-S | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7-D | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7-S | E559-L | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP2 | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11D | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11M | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13D | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13S | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-D | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-S | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-14D | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-14S | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6-D | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6-S | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7-D | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7-S | E562 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP2 | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11D | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11M | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13D | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13S | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1-D | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW1-S | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-14D | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-14S | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6-D | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6-S | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7-D | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7-S | E298 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP2 | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-11D | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-11M | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-13D | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-13S | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1-D | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1-S | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-14D | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-14S | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW6-D | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW6-S | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW7-D | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW7-S | E235.Cl | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP2 | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-11D | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-11M | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-13D | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-13S | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW1-D | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW1-S | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-14D | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-14S | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW6-D | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW6-S | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW7-D | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW7-S | E235.NO3 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP2 | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-11D | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-11M | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-13D | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-13S | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW1-D | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW1-S | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-14D | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-14S | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW6-D | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW6-S | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW7-D | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW7-S | E235.NO2 | 11-Jun-2025 | 14-Jun-2025 | 3 days | 3 days | ✓ | 16-Jun-2025 | 3 days | 3 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP2 | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-11D | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-11M | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-13D | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-13S | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1-D | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW1-S | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-14D | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-14S | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW6-D | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW6-S | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW7-D | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW7-S | E235.SO4 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP2 | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11D | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11M | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13D | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13S | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-D | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-S | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-14D | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-14S | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6-D | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW6-S | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7-D | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW7-S | E318 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP2 | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-11D | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-11M | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13D | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-13S | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-D | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW1-S | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-14D | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-14S | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6-D | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW6-S | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7-D | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW7-S | E372-U | 11-Jun-2025 | 16-Jun-2025 | 28 days | 6 days | ✓ | 16-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Digested Dissolved Metals by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-14S | E423A | 11-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| DUP1 | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| DUP2 | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19-11D | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19-11M | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW6-D | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW6-S | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW7-D | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW7-S | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW19-13D | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 7 days | ✓ | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW19-13S | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 7 days | ✓ | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW1-D | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 7 days | ✓ | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW1-S | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 7 days | ✓ | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20-14D | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 7 days | ✓ | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW20-14S | E509 | 11-Jun-2025 | 17-Jun-2025 | 28 days | 7 days | ✓ | 17-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** DUP1 | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| DUP2 | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19-11D | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19-11M | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19-13D | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19-13S | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW1-D | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW1-S | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-14D | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW6-D | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW6-S | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW7-D | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW7-S | E421 | 11-Jun-2025 | 16-Jun-2025 | 180 days | 5 days | ✓ | 16-Jun-2025 | 180 days | 5 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** DUP1 | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** DUP2 | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** MW19-11D | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** MW19-11M | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** MW19-13D | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** MW19-13S | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW1-D | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW1-S | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-14D | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-14S | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW6-D | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW6-S | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW7-D | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW7-S | E358-L | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 16-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP2 | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-11D | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-11M | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-13D | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-13S | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW1-D | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW1-S | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-14D | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-14S | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW6-D | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW6-S | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW7-D | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW7-S | E290 | 11-Jun-2025 | 14-Jun-2025 | 14 days | 4 days | ✓ | 14-Jun-2025 | 14 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP1 | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP2 | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-11D | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-11M | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-13D | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-13S | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW1-D | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW1-S | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-14D | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-14S | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW6-D | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW6-S | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW7-D | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW7-S | E100 | 11-Jun-2025 | 14-Jun-2025 | 28 days | 4 days | ✓ | 14-Jun-2025 | 28 days | 4 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP1 | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP2 | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-11D | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-11M | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-13D | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-13S | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW1-D | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW1-S | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-14D | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-14S | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW6-D | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW6-S | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW7-D | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW7-S | E108 | 11-Jun-2025 | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM | 17-Jun-2025 | 0.25 hrs | 159 hrs | × EHTR-FM |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP2 | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-11D | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-11M | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-13D | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-13S | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW1-D | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW1-S | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-14D | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-14S | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW6-D | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW6-S | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW7-D | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW7-S | E162 | 11-Jun-2025 | ---- | ---- | ---- | | 17-Jun-2025 | 7 days | 7 days | ✓ |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

# Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Conductivity in Water | E100 | 2052454 | 1 | 20 | 5.0 | 5.0 | ✓ |
| pH by Meter | E108 | 2055883 | 1 | 20 | 5.0 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 2057109 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 2052458 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2052457 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2052456 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2052459 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 2052453 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2052443 | 1 | 18 | 5.5 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2052444 | 1 | 18 | 5.5 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2052426 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2052441 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2053828 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Digested Dissolved Metals by CRC ICPMS | E423A | 2055626 | 1 | 3 | 33.3 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055817 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2056378 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2052442 | 1 | 19 | 5.2 | 5.0 | ✓ |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Conductivity in Water | E100 | 2052454 | 1 | 20 | 5.0 | 5.0 | ✓ |
| pH by Meter | E108 | 2055883 | 1 | 20 | 5.0 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 2057109 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 2052458 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2052457 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2052456 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2052459 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 2052453 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2052443 | 1 | 18 | 5.5 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2052444 | 2 | 18 | 11.1 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2052426 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2052441 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2053828 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Digested Dissolved Metals by CRC ICPMS | E423A | 2055626 | 1 | 3 | 33.3 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055817 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2056378 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2052442 | 1 | 19 | 5.2 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| Method Blanks (MB) | | | | | | | |
| Conductivity in Water | E100 | 2052454 | 1 | 20 | 5.0 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 2057109 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Chloride in Water by IC | E235.Cl | 2052458 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2052457 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2052456 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2052459 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 2052453 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2052443 | 1 | 18 | 5.5 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2052444 | 2 | 18 | 11.1 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2052426 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2052441 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2053828 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Digested Dissolved Metals by CRC ICPMS | E423A | 2055626 | 1 | 3 | 33.3 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055817 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2056378 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2052442 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Matrix Spikes (MS) | | | | | | | |
| Chloride in Water by IC | E235.Cl | 2052458 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2052457 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2052456 | 1 | 14 | 7.1 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2052459 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2052443 | 1 | 18 | 5.5 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2052444 | 1 | 18 | 5.5 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2052426 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2052441 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2053828 | 1 | 19 | 5.2 | 5.0 | ✓ |
| Digested Dissolved Metals by CRC ICPMS | E423A | 2055626 | 1 | 3 | 33.3 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055817 | 2 | 39 | 5.1 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2056378 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2052442 | 1 | 19 | 5.2 | 5.0 | ✓ |

## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Conductivity in Water | E100<br>ALS Environmental - Waterloo | Water | APHA 2510 (mod) | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C. |
| pH by Meter | E108<br>ALS Environmental - Waterloo | Water | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time. |
| TDS by Gravimetry | E162<br>ALS Environmental - Waterloo | Water | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue. |
| Chloride in Water by IC | E235.Cl<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrite in Water by IC | E235.NO2<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrate in Water by IC | E235.NO3<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Sulfate in Water by IC | E235.SO4<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Alkalinity Species by Titration | E290<br>ALS Environmental - Waterloo | Water | APHA 2320 B (mod) | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. |
| Ammonia by Fluorescence | E298<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021) |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318<br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021). |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC). |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample. |
| Dissolved Metals in Water by CRC ICPMS | E421<br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 6020B (mod) | Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |
| Digested Dissolved Metals by CRC ICPMS | E423A<br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 6020B (mod) | Water samples are filtered (0.45um), digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. |
| Dissolved Mercury in Water by CVAAS | E509<br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 1631E (mod) | Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS. |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L<br>ALS Environmental - Waterloo | Water | APHA 5220 D (mod) | Samples are analyzed using the closed reflux colourimetric method. |
| Phenols (4AAP) in Water by Colorimetry | E562<br>ALS Environmental - Waterloo | Water | EPA 9066 | This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically. |
| Dissolved Hardness (Calculated) | EC100<br>ALS Environmental - Waterloo | Water | APHA 2340B | “Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Preparation for Ammonia | EP298<br>ALS Environmental - Waterloo | Water | | Sample preparation for Preserved Nutrients Water Quality Analysis. |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Digestion for TKN in water | EP318<br><br>ALS Environmental - Waterloo | Water | APHA 4500-Norg D (mod) | Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low. |
| Preparation for Dissolved Organic Carbon for Combustion | EP358<br><br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Preparation for Dissolved Organic Carbon |
| Digestion for Total Phosphorus in water | EP372<br><br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Samples are heated with a persulfate digestion reagent. |
| Dissolved Metals Water Filtration | EP421<br><br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um), and preserved with HNO3. |
| Dissolved Metals Water Digestion and Filtration | EP423<br><br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um) and digested with nitric and hydrochloric acids. |
| Dissolved Mercury Water Filtration | EP509<br><br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um), and preserved with HCl. |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2501779** | Page | : 1 of 17 |
| Client | : AECOM Canada ULC | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 11-Jun-2025 13:50 |
| PO | : ---- | Date Analysis Commenced | : 14-Jun-2025 |
| C-O-C number | : ---- | Issue Date | : 20-Jun-2025 12:55 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 14 | | |
| No. of samples analysed | : 14 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Greg Pokocky | Manager - Inorganics | Waterloo Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Waterloo Centralized Prep, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Waterloo Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Waterloo Metals, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Inorganics, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Metals, Waterloo, Ontario |

## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Physical Tests (QC Lot: 2052453)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Alkalinity, total (as CaCO3) | ---- | E290 | 2.0 | mg/L | 422 | 424 | 0.548% | 20% | ---- |
| **Physical Tests (QC Lot: 2052454)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Conductivity | ---- | E100 | 2.0 | µS/cm | 966 | 963 | 0.311% | 10% | ---- |
| **Physical Tests (QC Lot: 2055883)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | pH | ---- | E108 | 0.10 | pH units | 7.45 | 7.42 | 0.403% | 4% | ---- |
| **Physical Tests (QC Lot: 2057109)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Solids, total dissolved [TDS] | ---- | E162 | 20 | mg/L | 652 | 645 | 1.00% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2052441)** | | | | | | | | | | | |
| HA2501779-004 | MW20-14S | Phosphorus, total | 7723-14-0 | E372-U | 0.200 | mg/L | 1.58 | 1.57 | 0.0080 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2052443)** | | | | | | | | | | | |
| HA2501779-003 | MW20-14D | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | 0.0066 | <0.0050 | 0.0016 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2052444)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.500 | mg/L | 0.938 | 1.64 | 0.705 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2052456)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.040 | mg/L | <0.040 | <0.040 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2052457)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.020 | mg/L | <0.020 | <0.020 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2052458)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Chloride | 16887-00-6 | E235.Cl | 1.00 | mg/L | 9.69 | 9.43 | 0.27 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2052459)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.60 | mg/L | 106 | 105 | 0.236% | 20% | ---- |
| **Organic / Inorganic Carbon (QC Lot: 2052426)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Carbon, dissolved organic [DOC] | ---- | E358-L | 0.50 | mg/L | 13.6 | 13.6 | 0.367% | 20% | ---- |
| **Dissolved Metals (QC Lot: 2053828)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Aluminum, dissolved | 7429-90-5 | E421 | 0.0100 | mg/L | 0.116 | 0.118 | 2.03% | 20% | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.00100 | mg/L | <0.00100 | <0.00100 | 0 | Diff <2x LOR | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.00100 | mg/L | 0.00114 | 0.00117 | 0.00003 | Diff <2x LOR | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.00100 | mg/L | 0.0229 | 0.0230 | 0.797% | 20% | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E421 | 0.000200 | mg/L | <0.000200 | <0.000200 | 0 | Diff <2x LOR | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E421 | 0.000500 | mg/L | <0.000500 | <0.000500 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Dissolved Metals (QC Lot: 2053828) - continued** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Boron, dissolved | 7440-42-8 | E421 | 0.100 | mg/L | 1.07 | 1.09 | 2.20% | 20% | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0000500 | mg/L | <0.0000500 | <0.0000500 | 0 | Diff <2x LOR | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | 0.500 | mg/L | 121 | 123 | 1.73% | 20% | ---- |
| | | Cesium, dissolved | 7440-46-2 | E421 | 0.000100 | mg/L | <0.000100 | <0.000100 | 0 | Diff <2x LOR | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.00500 | mg/L | <0.00500 | <0.00500 | 0 | Diff <2x LOR | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E421 | 0.00100 | mg/L | <0.00100 | <0.00100 | 0 | Diff <2x LOR | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.00200 | mg/L | <0.00200 | <0.00200 | 0 | Diff <2x LOR | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.100 | mg/L | 0.744 | 0.759 | 0.015 | Diff <2x LOR | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.000500 | mg/L | <0.000500 | <0.000500 | 0 | Diff <2x LOR | ---- |
| | | Lithium, dissolved | 7439-93-2 | E421 | 0.0100 | mg/L | <0.0100 | <0.0100 | 0 | Diff <2x LOR | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | 0.0500 | mg/L | 22.0 | 22.8 | 3.80% | 20% | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | 0.00100 | mg/L | 2.47 | 2.55 | 3.16% | 20% | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E421 | 0.000500 | mg/L | 0.000543 | 0.000634 | 0.000091 | Diff <2x LOR | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.00500 | mg/L | <0.00500 | <0.00500 | 0 | Diff <2x LOR | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E421 | 0.500 | mg/L | <0.500 | <0.500 | 0 | Diff <2x LOR | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 0.500 | mg/L | 3.95 | 4.09 | 0.138 | Diff <2x LOR | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E421 | 0.00200 | mg/L | 0.00280 | 0.00337 | 0.00056 | Diff <2x LOR | ---- |
| | | Selenium, dissolved | 7782-49-2 | E421 | 0.000500 | mg/L | <0.000500 | <0.000500 | 0 | Diff <2x LOR | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | 0.500 | mg/L | 3.70 | 3.83 | 0.126 | Diff <2x LOR | ---- |
| | | Silver, dissolved | 7440-22-4 | E421 | 0.000100 | mg/L | <0.000100 | <0.000100 | 0 | Diff <2x LOR | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | 0.500 | mg/L | 23.0 | 23.7 | 2.66% | 20% | ---- |
| | | Strontium, dissolved | 7440-24-6 | E421 | 0.00200 | mg/L | 0.510 | 0.524 | 2.86% | 20% | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E421 | 5.00 | mg/L | 27.8 | 28.7 | 0.88 | Diff <2x LOR | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E421 | 0.00200 | mg/L | <0.00200 | <0.00200 | 0 | Diff <2x LOR | ---- |
| | | Thallium, dissolved | 7440-28-0 | E421 | 0.000100 | mg/L | <0.000100 | <0.000100 | 0 | Diff <2x LOR | ---- |
| | | Thorium, dissolved | 7440-29-1 | E421 | 0.00100 | mg/L | <0.00100 | <0.00100 | 0 | Diff <2x LOR | ---- |
| | | Tin, dissolved | 7440-31-5 | E421 | 0.00100 | mg/L | <0.00100 | <0.00100 | 0 | Diff <2x LOR | ---- |
| | | Titanium, dissolved | 7440-32-6 | E421 | 0.00300 | mg/L | 0.00338 | <0.00300 | 0.00038 | Diff <2x LOR | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E421 | 0.00100 | mg/L | <0.00100 | <0.00100 | 0 | Diff <2x LOR | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | 0.000100 | mg/L | 0.0509 | 0.0525 | 3.19% | 20% | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.00500 | mg/L | <0.00500 | <0.00500 | 0 | Diff <2x LOR | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0100 | mg/L | <0.0100 | <0.0100 | 0 | Diff <2x LOR | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E421 | 0.00300 | mg/L | <0.00300 | <0.00300 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 2055626)** | | | | | | | | | | | |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Dissolved Metals (QC Lot: 2055626) - continued** | | | | | | | | | | | |
| HA2501779-004 | MW20-14S | Aluminum, dissolved | 7429-90-5 | E423A | 0.0030 | mg/L | 5.21 | 5.21 | 0.0997% | 20% | ---- |
| | | Antimony, dissolved | 7440-36-0 | E423A | 0.00010 | mg/L | 0.00018 | 0.00018 | 0.000005 | Diff <2x LOR | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E423A | 0.00010 | mg/L | 0.00544 | 0.00553 | 1.72% | 20% | ---- |
| | | Barium, dissolved | 7440-39-3 | E423A | 0.00010 | mg/L | 0.0816 | 0.0819 | 0.437% | 20% | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E423A | 0.000020 | mg/L | 0.000486 | 0.000471 | 3.13% | 20% | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E423A | 0.000050 | mg/L | 0.000121 | 0.000121 | 0.0000002 | Diff <2x LOR | ---- |
| | | Boron, dissolved | 7440-42-8 | E423A | 0.010 | mg/L | 0.043 | 0.043 | 0.00005 | Diff <2x LOR | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E423A | 0.0000050 | mg/L | 0.0000624 | 0.0000664 | 6.21% | 20% | ---- |
| | | Calcium, dissolved | 7440-70-2 | E423A | 0.050 | mg/L | 10.0 | 10.0 | 0.349% | 20% | ---- |
| | | Cesium, dissolved | 7440-46-2 | E423A | 0.000010 | mg/L | 0.00101 | 0.00102 | 0.903% | 20% | ---- |
| | | Chromium, dissolved | 7440-47-3 | E423A | 0.00010 | mg/L | 0.00536 | 0.00523 | 2.46% | 20% | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E423A | 0.00010 | mg/L | 0.00487 | 0.00486 | 0.144% | 20% | ---- |
| | | Copper, dissolved | 7440-50-8 | E423A | 0.00050 | mg/L | 0.0162 | 0.0163 | 0.844% | 20% | ---- |
| | | Iron, dissolved | 7439-89-6 | E423A | 0.010 | mg/L | 7.17 | 7.17 | 0.0506% | 20% | ---- |
| | | Lead, dissolved | 7439-92-1 | E423A | 0.000050 | mg/L | 0.00495 | 0.00437 | 12.5% | 20% | ---- |
| | | Lithium, dissolved | 7439-93-2 | E423A | 0.0010 | mg/L | 0.0087 | 0.0085 | 0.0002 | Diff <2x LOR | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E423A | 0.0050 | mg/L | 4.92 | 5.02 | 1.85% | 20% | ---- |
| | | Manganese, dissolved | 7439-96-5 | E423A | 0.00010 | mg/L | 0.367 | 0.367 | 0.0742% | 20% | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E423A | 0.000050 | mg/L | 0.000199 | 0.000197 | 0.000002 | Diff <2x LOR | ---- |
| | | Nickel, dissolved | 7440-02-0 | E423A | 0.00050 | mg/L | 0.00983 | 0.0118 | 18.0% | 20% | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E423A | 0.050 | mg/L | 0.190 | 0.178 | 0.012 | Diff <2x LOR | ---- |
| | | Potassium, dissolved | 7440-09-7 | E423A | 0.050 | mg/L | 1.91 | 1.91 | 0.0789% | 20% | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E423A | 0.00020 | mg/L | 0.00998 | 0.0101 | 0.859% | 20% | ---- |
| | | Selenium, dissolved | 7782-49-2 | E423A | 0.000050 | mg/L | 0.000060 | 0.000057 | 0.000003 | Diff <2x LOR | ---- |
| | | Silicon, dissolved | 7440-21-3 | E423A | 0.10 | mg/L | 10.8 | 10.8 | 0.132% | 20% | ---- |
| | | Silver, dissolved | 7440-22-4 | E423A | 0.000010 | mg/L | 0.000605 | 0.000577 | 4.67% | 20% | ---- |
| | | Sodium, dissolved | 7440-23-5 | E423A | 0.050 | mg/L | 9.00 | 8.98 | 0.275% | 20% | ---- |
| | | Strontium, dissolved | 7440-24-6 | E423A | 0.00020 | mg/L | 0.0652 | 0.0654 | 0.167% | 20% | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E423A | 0.50 | mg/L | 4.59 | 4.56 | 0.03 | Diff <2x LOR | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E423A | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| | | Thallium, dissolved | 7440-28-0 | E423A | 0.000010 | mg/L | 0.000078 | 0.000079 | 0.000001 | Diff <2x LOR | ---- |
| | | Thorium, dissolved | 7440-29-1 | E423A | 0.00010 | mg/L | 0.00347 | 0.00337 | 3.06% | 20% | ---- |
| | | Tin, dissolved | 7440-31-5 | E423A | 0.00010 | mg/L | 0.00036 | 0.00036 | 0.000008 | Diff <2x LOR | ---- |
| | | Titanium, dissolved | 7440-32-6 | E423A | 0.00030 | mg/L | 0.133 | 0.132 | 0.886% | 20% | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Dissolved Metals (QC Lot: 2055626) - continued** | | | | | | | | | | | |
| HA2501779-004 | MW20-14S | Tungsten, dissolved | 7440-33-7 | E423A | 0.00010 | mg/L | 0.00642 | 0.00647 | 0.875% | 20% | ---- |
| | | Uranium, dissolved | 7440-61-1 | E423A | 0.000010 | mg/L | 0.00144 | 0.00138 | 4.63% | 20% | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E423A | 0.00050 | mg/L | 0.00734 | 0.00727 | 0.875% | 20% | ---- |
| | | Zinc, dissolved | 7440-66-6 | E423A | 0.0030 | mg/L | 0.0203 | 0.0209 | 0.0006 | Diff <2x LOR | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E423A | 0.00020 | mg/L | 0.00252 | 0.00257 | 1.70% | 20% | ---- |
| **Dissolved Metals (QC Lot: 2055817)** | | | | | | | | | | | |
| HA2501767-001 | Anonymous | Mercury, dissolved | 7439-97-6 | E509 | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 2055818)** | | | | | | | | | | | |
| HA2501779-007 | MW19-11M | Mercury, dissolved | 7439-97-6 | E509 | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 2052442)** | | | | | | | | | | | |
| HA2501779-002 | MW1-D | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 2056378)** | | | | | | | | | | | |
| HA2501779-001 | MW1-S | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 83 | 90 | 7 | Diff <2x LOR | ---- |

## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Physical Tests (QCLot: 2052453)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 2052454)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | <1.0 | ---- |
| **Physical Tests (QCLot: 2057109)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Anions and Nutrients (QCLot: 2052441)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | <0.0020 | ---- |
| **Anions and Nutrients (QCLot: 2052443)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Anions and Nutrients (QCLot: 2052444)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | # 0.102 | B |
| **Anions and Nutrients (QCLot: 2052456)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 2052457)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 2052458)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 2052459)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 2060116)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2052426)** | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | <0.50 | ---- |
| **Dissolved Metals (QCLot: 2053828)** | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Beryllium, dissolved | 7440-41-7 | E421 | 0.00002 | mg/L | <0.000020 | ---- |
| Bismuth, dissolved | 7440-69-9 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | <0.0000050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 2053828) - continued** | | | | | | |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Cesium, dissolved | 7440-46-2 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Cobalt, dissolved | 7440-48-4 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Lithium, dissolved | 7439-93-2 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Rubidium, dissolved | 7440-17-7 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Selenium, dissolved | 7782-49-2 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Silver, dissolved | 7440-22-4 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Strontium, dissolved | 7440-24-6 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Sulfur, dissolved | 7704-34-9 | E421 | 0.5 | mg/L | <0.50 | ---- |
| Tellurium, dissolved | 13494-80-9 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Thallium, dissolved | 7440-28-0 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Thorium, dissolved | 7440-29-1 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Tin, dissolved | 7440-31-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Titanium, dissolved | 7440-32-6 | E421 | 0.0003 | mg/L | <0.00030 | ---- |
| Tungsten, dissolved | 7440-33-7 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Zirconium, dissolved | 7440-67-7 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| **Dissolved Metals (QCLot: 2055626)** | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E423A | 0.003 | mg/L | <0.0030 | ---- |
| Antimony, dissolved | 7440-36-0 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, dissolved | 7440-38-2 | E423A | 0.0001 | mg/L | <0.00010 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 2055626) - continued** | | | | | | |
| Barium, dissolved | 7440-39-3 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Beryllium, dissolved | 7440-41-7 | E423A | 0.00002 | mg/L | <0.000020 | ---- |
| Bismuth, dissolved | 7440-69-9 | E423A | 0.00005 | mg/L | <0.000050 | ---- |
| Boron, dissolved | 7440-42-8 | E423A | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, dissolved | 7440-43-9 | E423A | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, dissolved | 7440-70-2 | E423A | 0.05 | mg/L | <0.050 | ---- |
| Cesium, dissolved | 7440-46-2 | E423A | 0.00001 | mg/L | <0.000010 | ---- |
| Chromium, dissolved | 7440-47-3 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Cobalt, dissolved | 7440-48-4 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, dissolved | 7440-50-8 | E423A | 0.0005 | mg/L | <0.00050 | ---- |
| Iron, dissolved | 7439-89-6 | E423A | 0.01 | mg/L | <0.010 | ---- |
| Lead, dissolved | 7439-92-1 | E423A | 0.00005 | mg/L | <0.000050 | ---- |
| Lithium, dissolved | 7439-93-2 | E423A | 0.001 | mg/L | <0.0010 | ---- |
| Magnesium, dissolved | 7439-95-4 | E423A | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, dissolved | 7439-96-5 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E423A | 0.00005 | mg/L | <0.000050 | ---- |
| Nickel, dissolved | 7440-02-0 | E423A | 0.0005 | mg/L | <0.00050 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E423A | 0.05 | mg/L | <0.050 | ---- |
| Potassium, dissolved | 7440-09-7 | E423A | 0.05 | mg/L | <0.050 | ---- |
| Rubidium, dissolved | 7440-17-7 | E423A | 0.0002 | mg/L | <0.00020 | ---- |
| Selenium, dissolved | 7782-49-2 | E423A | 0.00005 | mg/L | <0.000050 | ---- |
| Silicon, dissolved | 7440-21-3 | E423A | 0.1 | mg/L | <0.10 | ---- |
| Silver, dissolved | 7440-22-4 | E423A | 0.00001 | mg/L | <0.000010 | ---- |
| Sodium, dissolved | 7440-23-5 | E423A | 0.05 | mg/L | <0.050 | ---- |
| Strontium, dissolved | 7440-24-6 | E423A | 0.0002 | mg/L | <0.00020 | ---- |
| Sulfur, dissolved | 7704-34-9 | E423A | 0.5 | mg/L | <0.50 | ---- |
| Tellurium, dissolved | 13494-80-9 | E423A | 0.0002 | mg/L | <0.00020 | ---- |
| Thallium, dissolved | 7440-28-0 | E423A | 0.00001 | mg/L | <0.000010 | ---- |
| Thorium, dissolved | 7440-29-1 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Tin, dissolved | 7440-31-5 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Titanium, dissolved | 7440-32-6 | E423A | 0.0003 | mg/L | <0.00030 | ---- |
| Tungsten, dissolved | 7440-33-7 | E423A | 0.0001 | mg/L | <0.00010 | ---- |
| Uranium, dissolved | 7440-61-1 | E423A | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, dissolved | 7440-62-2 | E423A | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, dissolved | 7440-66-6 | E423A | 0.003 | mg/L | <0.0030 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 2055626) - continued** | | | | | | |
| Zirconium, dissolved | 7440-67-7 | E423A | 0.0002 | mg/L | <0.00020 | ---- |
| **Dissolved Metals (QCLot: 2055817)** | | | | | | |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Dissolved Metals (QCLot: 2055818)** | | | | | | |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Aggregate Organics (QCLot: 2052442)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Aggregate Organics (QCLot: 2056378)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| B | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Physical Tests (QCLot: 2052453)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 99.0 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 2052454)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 99.1 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 2055883)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 101 | 98.0 | 102 | ---- |
| **Physical Tests (QCLot: 2057109)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 97.8 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 2052441)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 100 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 2052443)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 99.7 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 2052444)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 115 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2052456)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 100 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2052457)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 99.9 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2052458)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 100 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2052459)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 96.4 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2060116)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 104 | 75.0 | 125 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2052426)** | | | | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | 8.57 mg/L | 96.9 | 80.0 | 120 | ---- |
| **Dissolved Metals (QCLot: 2053828)** | | | | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | 0.1 mg/L | 99.2 | 80.0 | 120 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | 0.05 mg/L | 99.2 | 80.0 | 120 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | 0.05 mg/L | 102 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2053828) - continued** | | | | | | | | | |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | 0.012 mg/L | 105 | 80.0 | 120 | ---- |
| Beryllium, dissolved | 7440-41-7 | E421 | 0.00002 | mg/L | 0.005 mg/L | 93.2 | 80.0 | 120 | ---- |
| Bismuth, dissolved | 7440-69-9 | E421 | 0.00005 | mg/L | 0.05 mg/L | 97.1 | 80.0 | 120 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | 0.05 mg/L | 104 | 80.0 | 120 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | 0.005 mg/L | 95.5 | 80.0 | 120 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | 2.5 mg/L | 96.9 | 80.0 | 120 | ---- |
| Cesium, dissolved | 7440-46-2 | E421 | 0.00001 | mg/L | 0.002 mg/L | 99.4 | 80.0 | 120 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | 0.012 mg/L | 99.5 | 80.0 | 120 | ---- |
| Cobalt, dissolved | 7440-48-4 | E421 | 0.0001 | mg/L | 0.012 mg/L | 96.1 | 80.0 | 120 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | 0.012 mg/L | 97.0 | 80.0 | 120 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | 0.05 mg/L | 96.4 | 80.0 | 120 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | 0.025 mg/L | 96.6 | 80.0 | 120 | ---- |
| Lithium, dissolved | 7439-93-2 | E421 | 0.001 | mg/L | 0.012 mg/L | 96.4 | 80.0 | 120 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | 2.5 mg/L | 106 | 80.0 | 120 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | 0.012 mg/L | 95.1 | 80.0 | 120 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E421 | 0.00005 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | 0.025 mg/L | 95.5 | 80.0 | 120 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E421 | 0.05 | mg/L | 0.5 mg/L | 109 | 80.0 | 120 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | 2.5 mg/L | 103 | 80.0 | 120 | ---- |
| Rubidium, dissolved | 7440-17-7 | E421 | 0.0002 | mg/L | 0.005 mg/L | 97.5 | 80.0 | 120 | ---- |
| Selenium, dissolved | 7782-49-2 | E421 | 0.00005 | mg/L | 0.05 mg/L | 95.1 | 80.0 | 120 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | 0.5 mg/L | 102 | 60.0 | 140 | ---- |
| Silver, dissolved | 7440-22-4 | E421 | 0.00001 | mg/L | 0.005 mg/L | 94.3 | 80.0 | 120 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | 2.5 mg/L | 102 | 80.0 | 120 | ---- |
| Strontium, dissolved | 7440-24-6 | E421 | 0.0002 | mg/L | 0.012 mg/L | 104 | 80.0 | 120 | ---- |
| Sulfur, dissolved | 7704-34-9 | E421 | 0.5 | mg/L | 2.5 mg/L | 90.9 | 80.0 | 120 | ---- |
| Tellurium, dissolved | 13494-80-9 | E421 | 0.0002 | mg/L | 0.005 mg/L | 92.9 | 80.0 | 120 | ---- |
| Thallium, dissolved | 7440-28-0 | E421 | 0.00001 | mg/L | 0.05 mg/L | 95.9 | 80.0 | 120 | ---- |
| Thorium, dissolved | 7440-29-1 | E421 | 0.0001 | mg/L | 0.005 mg/L | 87.8 | 80.0 | 120 | ---- |
| Tin, dissolved | 7440-31-5 | E421 | 0.0001 | mg/L | 0.025 mg/L | 96.8 | 80.0 | 120 | ---- |
| Titanium, dissolved | 7440-32-6 | E421 | 0.0003 | mg/L | 0.012 mg/L | 96.2 | 80.0 | 120 | ---- |
| Tungsten, dissolved | 7440-33-7 | E421 | 0.0001 | mg/L | 0.005 mg/L | 98.2 | 80.0 | 120 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | 0 mg/L | 94.8 | 80.0 | 120 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | 0.025 mg/L | 100 | 80.0 | 120 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | 0.025 mg/L | 96.8 | 80.0 | 120 | ---- |
| Zirconium, dissolved | 7440-67-7 | E421 | 0.0002 | mg/L | 0.005 mg/L | 98.2 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2055626)** | | | | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E423A | 0.003 | mg/L | 0.1 mg/L | 114 | 80.0 | 120 | ---- |
| Antimony, dissolved | 7440-36-0 | E423A | 0.0001 | mg/L | 0.05 mg/L | 110 | 80.0 | 120 | ---- |
| Arsenic, dissolved | 7440-38-2 | E423A | 0.0001 | mg/L | 0.05 mg/L | 114 | 80.0 | 120 | ---- |
| Barium, dissolved | 7440-39-3 | E423A | 0.0001 | mg/L | 0.012 mg/L | 110 | 80.0 | 120 | ---- |
| Beryllium, dissolved | 7440-41-7 | E423A | 0.00002 | mg/L | 0.005 mg/L | 106 | 80.0 | 120 | ---- |
| Bismuth, dissolved | 7440-69-9 | E423A | 0.00005 | mg/L | 0.05 mg/L | 109 | 80.0 | 120 | ---- |
| Boron, dissolved | 7440-42-8 | E423A | 0.01 | mg/L | 0.05 mg/L | 111 | 80.0 | 120 | ---- |
| Cadmium, dissolved | 7440-43-9 | E423A | 0.000005 | mg/L | 0.005 mg/L | 110 | 80.0 | 120 | ---- |
| Calcium, dissolved | 7440-70-2 | E423A | 0.05 | mg/L | 2.5 mg/L | 107 | 80.0 | 120 | ---- |
| Cesium, dissolved | 7440-46-2 | E423A | 0.00001 | mg/L | 0.002 mg/L | 104 | 80.0 | 120 | ---- |
| Chromium, dissolved | 7440-47-3 | E423A | 0.0001 | mg/L | 0.012 mg/L | 112 | 80.0 | 120 | ---- |
| Cobalt, dissolved | 7440-48-4 | E423A | 0.0001 | mg/L | 0.012 mg/L | 107 | 80.0 | 120 | ---- |
| Copper, dissolved | 7440-50-8 | E423A | 0.0005 | mg/L | 0.012 mg/L | 110 | 80.0 | 120 | ---- |
| Iron, dissolved | 7439-89-6 | E423A | 0.01 | mg/L | 0.05 mg/L | 110 | 80.0 | 120 | ---- |
| Lead, dissolved | 7439-92-1 | E423A | 0.00005 | mg/L | 0.025 mg/L | 110 | 80.0 | 120 | ---- |
| Lithium, dissolved | 7439-93-2 | E423A | 0.001 | mg/L | 0.012 mg/L | 110 | 80.0 | 120 | ---- |
| Magnesium, dissolved | 7439-95-4 | E423A | 0.005 | mg/L | 2.5 mg/L | # 122 | 80.0 | 120 | MES |
| Manganese, dissolved | 7439-96-5 | E423A | 0.0001 | mg/L | 0.012 mg/L | 110 | 80.0 | 120 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E423A | 0.00005 | mg/L | 0.012 mg/L | 107 | 80.0 | 120 | ---- |
| Nickel, dissolved | 7440-02-0 | E423A | 0.0005 | mg/L | 0.025 mg/L | 110 | 80.0 | 120 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E423A | 0.05 | mg/L | 0.5 mg/L | 119 | 80.0 | 120 | ---- |
| Potassium, dissolved | 7440-09-7 | E423A | 0.05 | mg/L | 2.5 mg/L | 113 | 80.0 | 120 | ---- |
| Rubidium, dissolved | 7440-17-7 | E423A | 0.0002 | mg/L | 0.005 mg/L | 113 | 80.0 | 120 | ---- |
| Selenium, dissolved | 7782-49-2 | E423A | 0.00005 | mg/L | 0.05 mg/L | 109 | 80.0 | 120 | ---- |
| Silicon, dissolved | 7440-21-3 | E423A | 0.1 | mg/L | 0.5 mg/L | 111 | 80.0 | 120 | ---- |
| Silver, dissolved | 7440-22-4 | E423A | 0.00001 | mg/L | 0.005 mg/L | 103 | 80.0 | 120 | ---- |
| Sodium, dissolved | 7440-23-5 | E423A | 0.05 | mg/L | 2.5 mg/L | 115 | 80.0 | 120 | ---- |
| Strontium, dissolved | 7440-24-6 | E423A | 0.0002 | mg/L | 0.012 mg/L | 109 | 80.0 | 120 | ---- |
| Sulfur, dissolved | 7704-34-9 | E423A | 0.5 | mg/L | 2.5 mg/L | 111 | 80.0 | 120 | ---- |
| Tellurium, dissolved | 13494-80-9 | E423A | 0.0002 | mg/L | 0.005 mg/L | 103 | 80.0 | 120 | ---- |
| Thallium, dissolved | 7440-28-0 | E423A | 0.00001 | mg/L | 0.05 mg/L | 110 | 80.0 | 120 | ---- |
| Thorium, dissolved | 7440-29-1 | E423A | 0.0001 | mg/L | 0.005 mg/L | 110 | 80.0 | 120 | ---- |
| Tin, dissolved | 7440-31-5 | E423A | 0.0001 | mg/L | 0.025 mg/L | 112 | 80.0 | 120 | ---- |
| Titanium, dissolved | 7440-32-6 | E423A | 0.0003 | mg/L | 0.012 mg/L | 107 | 80.0 | 120 | ---- |
| Tungsten, dissolved | 7440-33-7 | E423A | 0.0001 | mg/L | 0.005 mg/L | 106 | 80.0 | 120 | ---- |
| Uranium, dissolved | 7440-61-1 | E423A | 0.00001 | mg/L | 0 mg/L | 108 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report: Spike: Target Concentration | Recovery (%): LCS | Recovery Limits (%): Low | Recovery Limits (%): High | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 2055626) - continued** | | | | | | | | | |
| Vanadium, dissolved | 7440-62-2 | E423A | 0.0005 | mg/L | 0.025 mg/L | 112 | 80.0 | 120 | ---- |
| Zinc, dissolved | 7440-66-6 | E423A | 0.003 | mg/L | 0.025 mg/L | 108 | 80.0 | 120 | ---- |
| Zirconium, dissolved | 7440-67-7 | E423A | 0.0002 | mg/L | 0.005 mg/L | 104 | 80.0 | 120 | ---- |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | 0 mg/L | 103 | 80.0 | 120 | ---- |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | 0 mg/L | 102 | 80.0 | 120 | ---- |
| **Aggregate Organics (QCLot: 2052442)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 102 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 2056378)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 104 | 85.0 | 115 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| *MES* | *Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).* |

## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 2052441)** | | | | | | | | | | |
| HA2501779-004 | MW20-14S | Phosphorus, total | 7723-14-0 | E372-U | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 2052443)** | | | | | | | | | | |
| HA2501779-003 | MW20-14D | Ammonia, total (as N) | 7664-41-7 | E298 | 0.103 mg/L | 0.1 mg/L | 103 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2052444)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 28.3 mg/L | 25 mg/L | 113 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 2052456)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Nitrate (as N) | 14797-55-8 | E235.NO3 | 5.18 mg/L | 5 mg/L | 104 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2052457)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Nitrite (as N) | 14797-65-0 | E235.NO2 | 1.06 mg/L | 1 mg/L | 106 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2052458)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Chloride | 16887-00-6 | E235.Cl | 211 mg/L | 200 mg/L | 106 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2052459)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 196 mg/L | 200 mg/L | 98.1 | 75.0 | 125 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2052426)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Carbon, dissolved organic [DOC] | ---- | E358-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2053828)** | | | | | | | | | | |
| HA2501779-002 | MW1-D | Aluminum, dissolved | 7429-90-5 | E421 | 0.908 mg/L | 1 mg/L | 90.8 | 70.0 | 130 | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.462 mg/L | 0.5 mg/L | 92.4 | 70.0 | 130 | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.486 mg/L | 0.5 mg/L | 97.3 | 70.0 | 130 | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.109 mg/L | 0.125 mg/L | 87.5 | 70.0 | 130 | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E421 | 0.0427 mg/L | 0.05 mg/L | 85.4 | 70.0 | 130 | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E421 | 0.433 mg/L | 0.5 mg/L | 86.7 | 70.0 | 130 | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0436 mg/L | 0.05 mg/L | 87.1 | 70.0 | 130 | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cesium, dissolved | 7440-46-2 | E421 | 0.0229 mg/L | 0.025 mg/L | 91.5 | 70.0 | 130 | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.114 mg/L | 0.125 mg/L | 91.1 | 70.0 | 130 | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E421 | 0.109 mg/L | 0.125 mg/L | 87.4 | 70.0 | 130 | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.109 mg/L | 0.125 mg/L | 87.4 | 70.0 | 130 | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.217 mg/L | 0.25 mg/L | 86.8 | 70.0 | 130 | ---- |
| | | Lithium, dissolved | 7439-93-2 | E421 | 0.113 mg/L | 0.125 mg/L | 90.4 | 70.0 | 130 | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E421 | 0.117 mg/L | 0.125 mg/L | 94.0 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2053828) - continued** | | | | | | | | | | |
| HA2501779-002 | MW1-D | Nickel, dissolved | 7440-02-0 | E421 | 0.220 mg/L | 0.25 mg/L | 88.2 | 70.0 | 130 | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E421 | 5.00 mg/L | 5 mg/L | 100 | 70.0 | 130 | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 23.8 mg/L | 25 mg/L | 95.2 | 70.0 | 130 | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E421 | 0.0455 mg/L | 0.05 mg/L | 91.1 | 70.0 | 130 | ---- |
| | | Selenium, dissolved | 7782-49-2 | E421 | 0.460 mg/L | 0.5 mg/L | 92.1 | 70.0 | 130 | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | 4.60 mg/L | 5 mg/L | 92.0 | 70.0 | 130 | ---- |
| | | Silver, dissolved | 7440-22-4 | E421 | 0.0323 mg/L | 0.05 mg/L | 64.6 | 70.0 | 130 | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Strontium, dissolved | 7440-24-6 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E421 | 0.0448 mg/L | 0.05 mg/L | 89.5 | 70.0 | 130 | ---- |
| | | Thallium, dissolved | 7440-28-0 | E421 | 0.437 mg/L | 0.5 mg/L | 87.4 | 70.0 | 130 | ---- |
| | | Thorium, dissolved | 7440-29-1 | E421 | 0.0413 mg/L | 0.05 mg/L | 82.6 | 70.0 | 130 | ---- |
| | | Tin, dissolved | 7440-31-5 | E421 | 0.225 mg/L | 0.25 mg/L | 90.0 | 70.0 | 130 | ---- |
| | | Titanium, dissolved | 7440-32-6 | E421 | 0.114 mg/L | 0.125 mg/L | 91.2 | 70.0 | 130 | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E421 | 0.0453 mg/L | 0.05 mg/L | 90.6 | 70.0 | 130 | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.238 mg/L | 0.25 mg/L | 95.0 | 70.0 | 130 | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.217 mg/L | 0.25 mg/L | 86.7 | 70.0 | 130 | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E421 | 0.0458 mg/L | 0.05 mg/L | 91.5 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2055626)** | | | | | | | | | | |
| WT2515275-002 | Anonymous | Aluminum, dissolved | 7429-90-5 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Antimony, dissolved | 7440-36-0 | E423A | 0.0511 mg/L | 0.05 mg/L | 102 | 70.0 | 130 | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E423A | 0.0542 mg/L | 0.05 mg/L | 108 | 70.0 | 130 | ---- |
| | | Barium, dissolved | 7440-39-3 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E423A | 0.00478 mg/L | 0.005 mg/L | 95.7 | 70.0 | 130 | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E423A | 0.0467 mg/L | 0.05 mg/L | 93.4 | 70.0 | 130 | ---- |
| | | Boron, dissolved | 7440-42-8 | E423A | 0.050 mg/L | 0.05 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E423A | 0.00496 mg/L | 0.005 mg/L | 99.3 | 70.0 | 130 | ---- |
| | | Calcium, dissolved | 7440-70-2 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cesium, dissolved | 7440-46-2 | E423A | 0.00246 mg/L | 0.002 mg/L | 98.3 | 70.0 | 130 | ---- |
| | | Chromium, dissolved | 7440-47-3 | E423A | 0.0130 mg/L | 0.012 mg/L | 104 | 70.0 | 130 | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E423A | 0.0122 mg/L | 0.012 mg/L | 97.8 | 70.0 | 130 | ---- |
| | | Copper, dissolved | 7440-50-8 | E423A | 0.0119 mg/L | 0.012 mg/L | 95.3 | 70.0 | 130 | ---- |
| | | Iron, dissolved | 7439-89-6 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Lead, dissolved | 7439-92-1 | E423A | 0.0241 mg/L | 0.025 mg/L | 96.2 | 70.0 | 130 | ---- |
| | | Lithium, dissolved | 7439-93-2 | E423A | 0.0124 mg/L | 0.012 mg/L | 99.4 | 70.0 | 130 | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, dissolved | 7439-96-5 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E423A | 0.0128 mg/L | 0.012 mg/L | 102 | 70.0 | 130 | ---- |
| | | Nickel, dissolved | 7440-02-0 | E423A | 0.0244 mg/L | 0.025 mg/L | 97.7 | 70.0 | 130 | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E423A | 0.517 mg/L | 0.5 mg/L | 103 | 70.0 | 130 | ---- |
| | | Potassium, dissolved | 7440-09-7 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E423A | 0.00524 mg/L | 0.005 mg/L | 105 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2055626) - continued** | | | | | | | | | | |
| WT2515275-002 | Anonymous | Selenium, dissolved | 7782-49-2 | E423A | 0.0516 mg/L | 0.05 mg/L | 103 | 70.0 | 130 | ---- |
| | | Silicon, dissolved | 7440-21-3 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Silver, dissolved | 7440-22-4 | E423A | 0.00455 mg/L | 0.005 mg/L | 91.1 | 70.0 | 130 | ---- |
| | | Sodium, dissolved | 7440-23-5 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Strontium, dissolved | 7440-24-6 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E423A | 0.00453 mg/L | 0.005 mg/L | 90.6 | 70.0 | 130 | ---- |
| | | Thallium, dissolved | 7440-28-0 | E423A | 0.0483 mg/L | 0.05 mg/L | 96.7 | 70.0 | 130 | ---- |
| | | Thorium, dissolved | 7440-29-1 | E423A | 0.00246 mg/L | 0.005 mg/L | 49.2 | 70.0 | 130 | MS-Th |
| | | Tin, dissolved | 7440-31-5 | E423A | 0.0228 mg/L | 0.025 mg/L | 91.4 | 70.0 | 130 | ---- |
| | | Titanium, dissolved | 7440-32-6 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E423A | 0.00479 mg/L | 0.005 mg/L | 95.9 | 70.0 | 130 | ---- |
| | | Uranium, dissolved | 7440-61-1 | E423A | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E423A | 0.0272 mg/L | 0.025 mg/L | 109 | 70.0 | 130 | ---- |
| | | Zinc, dissolved | 7440-66-6 | E423A | 0.0228 mg/L | 0.025 mg/L | 91.2 | 70.0 | 130 | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E423A | 0.00209 mg/L | 0.005 mg/L | 41.8 | 70.0 | 130 | K |
| **Dissolved Metals (QCLot: 2055817)** | | | | | | | | | | |
| HA2501767-002 | Anonymous | Mercury, dissolved | 7439-97-6 | E509 | 0.0000967 mg/L | 0 mg/L | 96.7 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2055818)** | | | | | | | | | | |
| HA2501779-008 | MW19-11D | Mercury, dissolved | 7439-97-6 | E509 | 0.0000966 mg/L | 0 mg/L | 96.6 | 70.0 | 130 | ---- |
| **Aggregate Organics (QCLot: 2052442)** | | | | | | | | | | |
| HA2501779-002 | MW1-D | Phenols, total (4AAP) | ---- | E562 | 0.0231 mg/L | 0.02 mg/L | 115 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 2056378)** | | | | | | | | | | |
| HA2501779-001 | MW1-S | Chemical oxygen demand [COD] | ---- | E559-L | 101 mg/L | 100 mg/L | 101 | 75.0 | 125 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| *K* | *Matrix Spike recovery outside ALS DQO due to sample matrix effects.* |
| *MS-Th* | *Matrix Spike recovery for thorium was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Thorium was not detected. Reported result (< LOR) is reliable* |

# Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page 1 of 1

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Environmental Division Halifax

Work Order Reference HA2501779

Telephone : +1 902 707 4888

| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis St, SH400 |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| **Invoice To** | Same as Report To ☑ YES ☐ NO |
| | Copy of Invoice with Report ☑ YES ☐ NO |
| Company: | AECOM |
| Contact: | Janice Shea |

**Reports / Recipients**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Janice.Shea@aecom.com

Email 2:

Email 3:

**Invoice Recipients**

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Janice.Shea@aecom.com

Email 2:

**Turnaround Time (TAT) Requested**

☐ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minir

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mini

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mini

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mini

☐ Same day [E2] if received by 10am M-S - 200% rush surchar

Additional fees may apply to rush requests on weeken

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please

**Analysis R**

| Project Information | |
|---|---|
| ALS Account # / Quote #: | AECO100 / HA2024AECO1000002 |
| Job #: | 60718540 |
| PO / AFE: | |
| LSD: | |

**Oil and Gas Required Fields (client use)**

| | |
|---|---|
| AFE/Cost Center: | PO#: |
| Major/Minor Code: | Routing Code: |
| Requisitioner: | |
| Location: | |

ALS Lab Work Order # (ALS use only): HA2501779

ALS Contact: Emily Hansen

Sampler:

| ALS Sample # (ALS use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | NUMBER OF CONTAINERS | Schedule 1 - Column 1 - Groundwate | SAMPLES ON HOLD | EXTENDED STORAGE REQUIRE | SUSPECTED HAZARD (see note: |
|---|---|---|---|---|---|---|---|---|---|
| ✓ | MW1-S | June 11/25 | AM | Water | 5 | ✓ | | | |
| ✓ | MW1-D | | AM | Water | 5 | ✓ | | | |
| ✓ | ~~MW2-S~~ MW20-14d | | PM | Water | 5 | | | | |
| ✓ | ~~MW2-M~~ MW20-14S | | PM | Water | 5 | ✓ | | | |
| ✓ | ~~MW2-D~~ MW19-13S | | AM | Water | 5 | ✓ | | | |
| ✓ | ~~MW3~~ MW19-13d | | | Water | 5 | ✓ | | | |
| ✓ | ~~MW5-S~~ MW19-11m | | | Water | 5 | ✓ | | | |
| ✓ | ~~MW5-D~~ MW19-11d | | | Water | 5 | ✓ | | | |
| ✓ | MW6-S | | | Water | 5 | ✓ | | | |
| ✓ | MW6-D | | | Water | 5 | ✓ | | | |
| ✓ | MW7-S | | | Water | 5 | ✓ | | | |
| ✓ | MW7-D | | | Water | 5 | ✓ | | | |

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

**SAMPLE RECEIPT DETAILS (ALS use only)**

Cooling Method: ☐ NONE ☒ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

| INITIAL COOLER TEMPERATURES °C | | | | FINAL COOLER TEMPERATURES °C | | | |
|---|---|---|---|---|---|---|---|
| 5.7 | 6 | | | | | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (ALS use only) | | | FINAL SHIPMENT RECEPTION (ALS use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: | Date: | Time: | Received by: | Date: | Time: | Received by: | Date: | Time: |
| | June 11 | 1:50 | Shone | 11 June 2025 | 1:50 | | | |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FEB 2022 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

# Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page 2 of 2

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis St, SH400 |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| Invoice To | Same as Report To ☑ YES ☐ NO |
| | Copy of Invoice with Report ☑ YES ☐ NO |
| Company: | AECOM |
| Contact: | Janice Shea |

| Reports / Recipients | |
|---|---|
| Select Report Format: | ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL) |
| Merge QC/QCI Reports with COA | ☑ YES ☐ NO ☐ N/A |
| ☐ Compare Results to Criteria on Report - provide details below if box checked | |
| Select Distribution: | ☑ EMAIL ☐ MAIL ☐ FAX |
| Email 1 or Fax | Janice.Shea@aecom.com |
| Email 2 | |
| Email 3 | |

| Invoice Recipients | |
|---|---|
| Select Invoice Distribution: | ☑ EMAIL ☐ MAIL ☐ FAX |
| Email 1 or Fax | Janice.Shea@aecom.com |
| Email 2 | |

| Turnaround Time (TAT) Requested |
|---|
| ☐ Routine [R] if received by 3pm M-F - no surcharges apply |
| ☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum |
| ☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum |
| ☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum |
| ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum |
| ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. |

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

| Project Information | | Oil and Gas Required Fields (client use) | |
|---|---|---|---|
| ALS Account # / Quote #: | AECO100 / HA2024AECO1000002 | AFE/Cost Center: | PO# |
| Job #: | 60718540 | Major/Minor Code: | Routing Code: |
| PO / AFE: | | Requisitioner: | |
| LSD: | | Location: | |
| ALS Lab Work Order # (ALS use only): | | ALS Contact: Emily Hansen | Sampler: |

## Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

| ALS Sample # (ALS use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | NUMBER OF CONTAINERS | Schedule 1 - Column 1 - Groundwate | DOC | SAMPLES ON HOLD | EXTENDED STORAGE REQUIRED | SUSPECTED HAZARD (see notes) |
|---|---|---|---|---|---|---|---|---|---|---|
| | ~~MW20-15S~~ | | | Water | 5 | | | | | |
| | ~~MW20-15D~~ | | | Water | 5 | | | | | |
| | ~~MW20-16~~ | | | Water | 5 | | | | | |
| | ~~MW20-17S~~ | | | Water | 5 | | | | | |
| | ~~MW20-17D~~ | | | Water | 5 | | | | | |
| | DUP1 | June 11/25 | AM | Water | 5 | ✓ | | | | |
| | DUP2 | June 11/25 | AM | Water | 5 | ✓ | | | | |
| | ~~DUP3~~ | | | Water | 5 | | | | | |
| | | | | | | | | | | |
| | Doc Filter test 1 | June 11/25 | AM | GW | 1 | | ✓ | | | |
| | Doc Filter test 2 | " | AM | GW | 1 | | ✓ | | | |
| | | | | | | | | | | |

| Drinking Water (DW) Samples[1] (client use) | Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only) |
|---|---|
| Are samples taken from a Regulated DW System? ☐ YES ☐ NO | |
| Are samples for human consumption/ use? ☐ YES ☐ NO | |

**SAMPLE RECEIPT DETAILS (ALS use only)**

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

| INITIAL COOLER TEMPERATURES °C | | | | FINAL COOLER TEMPERATURES °C | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (ALS use only) | | | FINAL SHIPMENT RECEPTION (ALS use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: | Date: | Time: | Received by: | Date: | Time: | Received by: | Date: | Time: |
| [signature] | June 11 | 1:50 | | | | | | |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FEB 2022 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

# CERTIFICATE OF ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Work Order** | : | **HA2501804** | | |
| Client | : | **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : | Janice Shea | Account Manager | : Emily Hansen |
| Address | : | 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax Nova Scotia Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth NS Canada B3B 1L2 |
| Telephone | : | 902 428 2054 | E-mail | : emily.hansen@alsglobal.com |
| Project | : | 60718540 | Telephone | : +1 902 707 4888 |
| PO | : | ---- | Date Samples Received | : 12-Jun-2025 17:00 |
| C-O-C number | : | ---- | Date Analysis Commenced | : 13-Jun-2025 |
| Sampler | : | ---- | Issue Date | : 21-Jun-2025 00:17 |
| Site | : | ---- | | |
| Quote number | : | Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : | 22 | | |
| No. of samples analysed | : | 22 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Andrea Armstrong | | VOC, Waterloo, Ontario |
| Angela Fleming | | Inorganics, Waterloo, Ontario |
| Angela Fleming | | Metals, Waterloo, Ontario |
| Danielle Gravel | | Organics, Waterloo, Ontario |
| Jiaxi Wang | | Inorganics, Dartmouth, Nova Scotia |
| Jon Fisher | | Inorganics, Waterloo, Ontario |
| Jon Fisher | | Metals, Waterloo, Ontario |
| Nik Perkio | | Metals, Waterloo, Ontario |
| Nik Perkio | | Inorganics, Waterloo, Ontario |
| Nik Perkio | | Centralized Prep, Waterloo, Ontario |
| Walt Kippenhuck | | Inorganics, Waterloo, Ontario |
| Walt Kippenhuck | | Centralized Prep, Waterloo, Ontario |
| Walt Kippenhuck | | Inorganics, Dartmouth, Nova Scotia |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

| *Unit* | *Description* |
|---|---|
| - | no units |
| % | percent |
| mg/L | milligrams per litre |
| none | none |
| pH units | pH units |
| µg/L | micrograms per litre |
| µS/cm | microsiemens per centimetre |

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Sample Comments

| *Sample* | *Client Id* | *Comment* |
|---|---|---|
| HA2501804-013 | SW4 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2501804-014 | SW13 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2501804-015 | SW19-20 | N/A: Resemblance Not Applicable (mTPH < LOR) |
| HA2501804-016 | DUP1 | N/A: Resemblance Not Applicable (mTPH < LOR) |

## Qualifiers

| Qualifier | Description |
|---|---|
| DLDS | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity. |
| VPDW | Visible particulate observed in Dissolved fraction of field preserved water sample (may represent post-sampling precipitation or filtration issue). Analyzed as submitted |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW8-S | MW8-D | MW19-03D | MW3 | DUP3 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-001 | HA2501804-002 | HA2501804-003 | HA2501804-004 | HA2501804-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | field | field | field | field |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 1080 | 422 | 213 | 246 | 387 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 431 | 161 | 69.6 | 94.8 | 180 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 7.78 | 7.68 | 7.96 | 8.08 | 7.88 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 735 DLDS | 254 DLDS | 120 DLDS | 227 DLDS | 208 DLDS |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 270 | 125 | 90.0 | 243 | 172 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0087 | <0.0050 | 0.0084 | 0.0470 | <0.0050 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 49.3 DLDS | 25.4 | 7.78 | 9.11 | 4.07 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.158 | <0.050 | <0.050 | 8.62 | 0.317 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | <0.100 DLDS | <0.020 | <0.020 | <0.020 | 0.090 |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.050 DLDS | <0.010 | <0.010 | <0.010 | <0.010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.0441 | 0.0803 | 0.0916 | 13.0 | 0.188 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 232 DLDS | 44.8 | 4.40 | 12.8 | 21.2 |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 1.88 | 1.14 | 0.64 | 1.58 | 4.26 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0010 | 0.0014 | 0.0084 | 0.0018 | 0.0027 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | 0.00031 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00283 | 0.0103 | 0.00520 | 0.00224 | 0.00201 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW8-S | MW8-D | MW19-03D | MW3 | DUP3 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-001 | HA2501804-002 | HA2501804-003 | HA2501804-004 | HA2501804-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0262 | 0.00698 | 0.00979 | 0.0220 | 0.0360 |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | 0.000027 | <0.000020 | <0.000020 | <0.000020 | 0.000044 |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.134 | 0.039 | 0.026 | 0.010 | 0.071 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000264 | 0.0000250 | <0.0000050 | 0.0000085 | 0.0000713 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 140 | 50.4 | 21.9 | 29.1 | 58.8 |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | 0.0150 | 0.00782 | 0.00110 | <0.000010 | 0.00173 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00013 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00163 | 0.00035 | 0.00026 | 0.00037 | 0.00461 |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | <0.010 | 0.065 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | 0.0406 | 0.0264 | 0.0064 | 0.0101 | 0.0033 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 19.8 | 8.48 | 3.61 | 5.38 | 7.99 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.00914 | 0.00880 | 0.0221 | 0.0119 | 0.00276 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.00105 | 0.00859 | 0.00519 | 0.00142 | 0.00103 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00169 | <0.00050 | <0.00050 | <0.00050 | 0.00088 |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | <0.050 | 0.069 | 0.089 | <0.050 | <0.050 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 2.55 | 1.47 | 1.11 | 1.60 | 3.21 |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00291 | 0.00412 | 0.00120 | 0.00064 | 0.00196 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW8-S | MW8-D | MW19-03D | MW3 | DUP3 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-001 | HA2501804-002 | HA2501804-003 | HA2501804-004 | HA2501804-005 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | 0.000115 | 0.000086 | <0.000050 | 0.000058 | 0.000127 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 6.66 | 6.44 | 3.93 | 4.88 | 4.30 |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 51.0 | 20.6 | 16.7 | 11.4 | 6.80 |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.349 | 0.142 | 0.0796 | 0.111 | 0.191 |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 75.4 | 15.9 | 1.65 | 4.60 | 7.77 |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 | <0.00020 | <0.00020 |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | 0.000029 | 0.000036 | <0.000010 | <0.000010 | 0.000011 |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.0242 | 0.00371 | 0.00188 | 0.00076 | 0.00061 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.165 | 0.271 | 0.0225 | 0.0104 | 0.0118 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | 0.00052 | <0.00050 | 0.00103 | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0049 | 0.0016 | 0.0012 | 0.0011 | 0.0080 |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | <10 | <10 | <10 | 182 | 14 |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | 0.0068 | <0.0010 | 0.0027 | 0.0150 | 0.0019 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | PW19-01 | MW19-12S | MW19-12D | MW2-S | MW2-M |
|---|---|---|---|---|---|---|---|---|---|
| *Client sample ID* | | | | | | | | | |
| *Client sampling date / time* | | | | | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | HA2501804-006 | HA2501804-007 | HA2501804-008 | HA2501804-009 | HA2501804-010 |
| | | | | | Result | Result | Result | Result | Result |
| **Sample Preparation** | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | field | field | field | field | field |
| **Physical Tests** | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | 498 | 467 | 390 | 386 | 296 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | 234 | 229 | 181 | 177 | 112 |
| **pH** | ---- | E108/HA | 0.10 | pH units | 7.88 | 7.51 | 7.37 | 6.70 | 6.95 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | 300 DLDS | 304 DLDS | 234 DLDS | 297 DLDS | 248 DLDS |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | 233 | 210 | 174 | 206 | 94.0 |
| **Anions and Nutrients** | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | 0.0433 | 0.0260 | 0.0089 | 0.0483 | 0.0138 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | 6.78 | 1.33 | 3.65 | 0.99 | 8.82 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | 0.624 | 1.24 | 0.285 | 2.52 | 0.059 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | <0.020 | 0.023 | 0.084 | 0.052 | 0.132 |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | 0.740 | 0.523 | 0.0948 | 4.23 | 0.126 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | 18.7 | 32.0 | 20.0 | 3.81 | 37.5 |
| **Organic / Inorganic Carbon** | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | 1.95 | 5.89 | 4.34 | 4.16 | 0.74 |
| **Dissolved Metals** | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | 0.0014 | 0.0051 | 0.0026 | 0.0039 | 0.0037 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | 0.00013 | 0.00063 | 0.00032 | 0.00039 | <0.00010 |


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## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | PW19-01 | MW19-12S | MW19-12D | MW2-S | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-006 | HA2501804-007 | HA2501804-008 | HA2501804-009 | HA2501804-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00367 | 0.00106 | 0.00195 | 0.00040 | 0.00099 |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0654 | 0.0859 | 0.0366 | 0.0718 | 0.0163 |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | <0.000020 | <0.000020 | 0.000045 | <0.000020 | 0.000051 |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.031 | 0.083 | 0.072 | 0.041 | 0.043 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000126 | 0.0000682 | 0.0000723 | 0.000108 | 0.0000405 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 73.9 | 80.8 | 59.2 | 60.3 | 27.7 |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | <0.000010 | 0.000025 | 0.00173 | <0.000010 | 0.000345 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | 0.00063 |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00047 | <0.00010 | <0.00010 | 0.00112 | <0.00010 |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00092 | 0.00816 | 0.00458 | 0.00331 | 0.00036 |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.019 | <0.010 | 0.076 | 0.013 | <0.010 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | <0.000050 | 0.000085 | <0.000050 | <0.000050 | <0.000050 |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | 0.0204 | 0.0042 | 0.0033 | 0.0026 | 0.0047 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 11.9 | 6.73 | 7.99 | 6.35 | 10.4 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.721 | 0.00152 | 0.00314 | 0.308 | 0.00089 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.00119 | 0.00105 | 0.00103 | 0.000410 | 0.000161 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00339 | 0.00129 | 0.00095 | 0.00173 | <0.00050 |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.91 | 4.80 | 3.25 | 3.62 | 0.796 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | PW19-01 | MW19-12S | MW19-12D | MW2-S | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-006 | HA2501804-007 | HA2501804-008 | HA2501804-009 | HA2501804-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00096 | 0.00171 | 0.00189 | 0.00210 | 0.00050 |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | 0.000062 | 0.000122 | 0.000119 | 0.000067 | <0.000050 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 6.65 | 5.01 | 4.35 | 6.12 | 6.58 |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | <0.000010 | <0.000010 | 0.000023 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 11.9 | 4.51 | 6.77 | 9.59 | 11.6 |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.210 | 0.245 | 0.193 | 0.233 | 0.106 |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 6.97 | 12.0 | 7.89 | 1.50 | 12.6 |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 | <0.00020 | <0.00020 |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | 0.000011 | <0.000010 | <0.000010 |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.0381 | 0.00078 | 0.00063 | <0.00010 | 0.00048 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.00907 | 0.00242 | 0.0118 | 0.000479 | 0.00355 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0026 | 0.0416 | 0.0079 | 0.0101 | 0.0030 |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 36 | 83 | 12 | 115 | <10 |

## Analytical Results

| Sub-Matrix: Water (Matrix: Water) | | | | | Client sample ID | PW19-01 | MW19-12S | MW19-12D | MW2-S | MW2-M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| Analyte | CAS Number | Method/Lab | LOR | Unit | | HA2501804-006 | HA2501804-007 | HA2501804-008 | HA2501804-009 | HA2501804-010 |
| | | | | | | Result | Result | Result | Result | Result |
| **Aggregate Organics** | | | | | | | | | | |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | 0.0061 | 0.0233 | 0.0026 | 0.0034 | 0.0026 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

| Sub-Matrix: Water (Matrix: Water) | | | | | Client sample ID | MW2-D | MW20-16 | SW4 | SW13 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| Analyte | CAS Number | Method/Lab | LOR | Unit | | HA2501804-011 | HA2501804-012 | HA2501804-013 | HA2501804-014 | HA2501804-015 |
| | | | | | | Result | Result | Result | Result | Result |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | field | ---- | ---- | ---- |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 500 | 224 | 33.8 | 61.4 | 852 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 210 | 86.2 | ---- | ---- | ---- |
| **Hardness (as CaCO3), from total Ca/Mg** | ---- | EC100A/WT | 0.50 | mg/L | | ---- | ---- | 6.51 | 13.4 | 455 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 7.27 | 7.43 | 5.31 | 6.29 | 7.83 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 291 DLDS | 161 DLDS | 44 | 72 DLDS | 538 DLDS |
| **Solids, total suspended [TSS]** | ---- | E160/HA | 3.0 | mg/L | | ---- | ---- | 3.0 | <3.0 | 3.2 |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 185 | 86.7 | <2.0 | 5.9 | 275 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0101 | 0.0100 | 0.0103 | 0.0224 | 0.0222 |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 18.4 | 12.5 | 4.78 | 10.6 | 5.26 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.364 | 0.196 | 0.434 | 0.490 | 0.241 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | 0.049 | 0.033 | <0.020 | 0.136 | 0.128 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW2-D | MW20-16 | SW4 | SW13 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-011 | HA2501804-012 | HA2501804-013 | HA2501804-014 | HA2501804-015 |
| | | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | | |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 1.21 | 0.228 | 0.0117 | 0.0262 | 0.0124 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 44.2 | 5.49 | 1.86 | 2.29 | 176 |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 1.40 | 2.72 | ---- | ---- | ---- |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | | ---- | ---- | 21.4 | 21.4 | 5.90 |
| **Total Metals** | | | | | | | | | | |
| **Aluminum, total** | 7429-90-5 | E420/WT | 0.0030 | mg/L | | ---- | ---- | 0.620 | 0.641 | 0.0196 |
| **Antimony, total** | 7440-36-0 | E420/WT | 0.00010 | mg/L | | ---- | ---- | <0.00010 | <0.00010 | 0.00043 |
| **Arsenic, total** | 7440-38-2 | E420/WT | 0.00010 | mg/L | | ---- | ---- | 0.00070 | 0.00088 | 0.00121 |
| **Barium, total** | 7440-39-3 | E420/WT | 0.00010 | mg/L | | ---- | ---- | 0.00379 | 0.00674 | 0.0313 |
| **Boron, total** | 7440-42-8 | E420/WT | 0.010 | mg/L | | ---- | ---- | 0.010 | 0.010 | 0.340 |
| **Cadmium, total** | 7440-43-9 | E420/WT | 0.0000050 | mg/L | | ---- | ---- | 0.0000160 | 0.0000175 | 0.0000130 |
| **Calcium, total** | 7440-70-2 | E420/WT | 0.050 | mg/L | | ---- | ---- | 1.74 | 3.62 | 160 |
| **Chromium, total** | 7440-47-3 | E420/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | 0.00088 | <0.00050 |
| **Copper, total** | 7440-50-8 | E420/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | 0.00191 | 0.00128 |
| **Iron, total** | 7439-89-6 | E420/WT | 0.010 | mg/L | | ---- | ---- | 0.530 | 0.889 | 0.135 |
| **Lead, total** | 7439-92-1 | E420/WT | 0.000050 | mg/L | | ---- | ---- | 0.00101 | 0.000832 | <0.000050 |
| **Magnesium, total** | 7439-95-4 | E420/WT | 0.0050 | mg/L | | ---- | ---- | 0.526 | 1.06 | 13.4 |
| **Manganese, total** | 7439-96-5 | E420/WT | 0.00010 | mg/L | | ---- | ---- | 0.0157 | 0.0285 | 0.222 |
| **Mercury, total** | 7439-97-6 | E508/WT | 0.0000050 | mg/L | | ---- | ---- | 0.0000116 | 0.0000090 | <0.0000050 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW2-D | MW20-16 | SW4 | SW13 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-011 | HA2501804-012 | HA2501804-013 | HA2501804-014 | HA2501804-015 |
| | | | | | | Result | Result | Result | Result | Result |
| **Total Metals** | | | | | | | | | | |
| **Nickel, total** | 7440-02-0 | E420/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | 0.00107 | 0.00095 |
| **Potassium, total** | 7440-09-7 | E420/WT | 0.050 | mg/L | | ---- | ---- | 0.251 | 0.551 | 8.88 |
| **Sodium, total** | 7440-23-5 | E420/WT | 0.050 | mg/L | | ---- | ---- | 4.05 | 7.91 | 11.0 |
| **Uranium, total** | 7440-61-1 | E420/WT | 0.000010 | mg/L | | ---- | ---- | 0.000292 | 0.000664 | 0.0480 |
| **Vanadium, total** | 7440-62-2 | E420/WT | 0.00050 | mg/L | | ---- | ---- | 0.00125 | 0.00130 | <0.00050 |
| **Zinc, total** | 7440-66-6 | E420/WT | 0.0030 | mg/L | | ---- | ---- | <0.0030 | 0.0048 | <0.0030 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.419 | 0.0342 | ---- | ---- | ---- |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | ---- | ---- | ---- |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00287 | 0.00868 | ---- | ---- | ---- |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0307 | 0.00780 | ---- | ---- | ---- |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | 0.000351 | 0.000243 | ---- | ---- | ---- |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000050 | 0.000087 | ---- | ---- | ---- |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.046 | 0.017 | ---- | ---- | ---- |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000753 | 0.0000273 | ---- | ---- | ---- |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 56.4 | 25.8 | ---- | ---- | ---- |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | 0.00170 | 0.00513 | ---- | ---- | ---- |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | 0.00060 | <0.00050 | ---- | ---- | ---- |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00060 | <0.00010 | ---- | ---- | ---- |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00260 | 0.00247 | ---- | ---- | ---- |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | 0.461 | 0.011 | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW2-D | MW20-16 | SW4 | SW13 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-011 | HA2501804-012 | HA2501804-013 | HA2501804-014 | HA2501804-015 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | 0.00214 | <0.000050 | ---- | ---- | ---- |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | 0.0082 | 0.0068 | ---- | ---- | ---- |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 16.7 | 5.28 | ---- | ---- | ---- |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.0402 | 0.00416 | ---- | ---- | ---- |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | 0.0000074 VPDW | <0.0000050 | ---- | ---- | ---- |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.000290 | 0.00378 | ---- | ---- | ---- |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00078 | <0.00050 | ---- | ---- | ---- |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | 0.108 | <0.050 | ---- | ---- | ---- |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.20 | 0.995 | ---- | ---- | ---- |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00173 | 0.00181 | ---- | ---- | ---- |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | 0.000050 | 0.000112 | ---- | ---- | ---- |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 7.11 | 5.40 | ---- | ---- | ---- |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | 0.000321 | 0.000021 | ---- | ---- | ---- |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 21.2 | 10.0 | ---- | ---- | ---- |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.168 | 0.0751 | ---- | ---- | ---- |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 15.9 | 2.00 | ---- | ---- | ---- |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | ---- | ---- | ---- |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | 0.000029 | <0.000010 | ---- | ---- | ---- |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | 0.00091 | <0.00010 | ---- | ---- | ---- |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | ---- | ---- | ---- |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | 0.0105 | 0.00040 | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW2-D | MW20-16 | SW4 | SW13 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-011 | HA2501804-012 | HA2501804-013 | HA2501804-014 | HA2501804-015 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.00092 | 0.00105 | ---- | ---- | ---- |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.158 | 0.0148 | ---- | ---- | ---- |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | 0.00099 | <0.00050 | ---- | ---- | ---- |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0083 | 0.0018 | ---- | ---- | ---- |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | 0.00070 | <0.00030 | ---- | ---- | ---- |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | ---- | ---- | ---- |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | ---- | ---- | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Biochemical oxygen demand [BOD]** | ---- | E550/HA | 2.0 | mg/L | | ---- | ---- | <2.0 | <2.0 | <2.0 |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 21 | 15 | 60 | 52 | <10 |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | 0.0021 | <0.0010 | <0.0010 | <0.0010 | 0.0023 |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | ---- | ---- | <1 | <1 | <1 |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | ---- | ---- | <1 | <1 | <1 |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | ---- | ---- | <1 | <1 | <1 |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | ---- | ---- | <1 | <1 | <1 |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611A/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | <0.00050 | <0.00050 |
| **Toluene** | 108-88-3 | E611A/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | <0.00050 | <0.00050 |
| **Ethylbenzene** | 100-41-4 | E611A/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | <0.00050 | <0.00050 |
| **Xylenes, total** | 1330-20-7 | E611A/WT | 0.00050 | mg/L | | ---- | ---- | <0.00050 | <0.00050 | <0.00050 |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW2-D | MW20-16 | SW4 | SW13 | SW19-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-011 | HA2501804-012 | HA2501804-013 | HA2501804-014 | HA2501804-015 |
| | | | | | | Result | Result | Result | Result | Result |
| **Hydrocarbons** | | | | | | | | | | |
| **Xylene, o-** | 95-47-6 | E611A/WT | 0.00030 | mg/L | | ---- | ---- | <0.00030 | <0.00030 | <0.00030 |
| **Xylene, m+p-** | 179601-23-1 | E611A/WT | 0.00040 | mg/L | | ---- | ---- | <0.00040 | <0.00040 | <0.00040 |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | ---- | ---- | <0.025 | <0.025 | <0.025 |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | ---- | ---- | <0.025 | <0.025 | <0.025 |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | ---- | ---- | <0.050 | <0.050 | <0.050 |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | ---- | ---- | <0.050 | <0.050 | <0.050 |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | ---- | ---- | <0.050 | <0.050 | <0.050 |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | ---- | ---- | <0.10 | <0.10 | <0.10 |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | ---- | ---- | N/A | N/A | N/A |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | ---- | ---- | <0.090 | <0.090 | <0.090 |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | ---- | ---- | Yes | Yes | Yes |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | ---- | ---- | <0.100 | <0.100 | <0.100 |
| **Hydrocarbons Surrogates** | | | | | | | | | | |
| **dotriacontane, n- (EPH)** | n/a | E601F/WT | 1.0 | % | | ---- | ---- | 97.7 | 89.8 | 87.9 |
| **isobutylbenzene (EPH)** | 538-93-2 | E601F/WT | 1.0 | % | | ---- | ---- | 92.2 | 85.9 | 90.6 |
| **isobutylbenzene (VPH)** | 538-93-2 | E581.VPH/WT | 1.0 | % | | ---- | ---- | 103 | 102 | 99.0 |
| **Volatile Organic Compounds Surrogates** | | | | | | | | | | |
| **Bromofluorobenzene, 4-** | 460-00-4 | E611A/WT | 1.0 | % | | ---- | ---- | 85.0 | 85.6 | 84.2 |
| **Difluorobenzene, 1,4-** | 540-36-3 | E611A/WT | 1.0 | % | | ---- | ---- | 98.8 | 99.2 | 99.0 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID: DUP1 | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time: 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| | | | | | HA2501804-016 | ---- | ---- | ---- | ---- |
| | | | | | Result | ---- | ---- | ---- | ---- |
| **Physical Tests** | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | 64.7 | ---- | ---- | ---- | ---- |
| **Hardness (as CaCO3), from total Ca/Mg** | ---- | EC100A/WT | 0.50 | mg/L | 13.2 | ---- | ---- | ---- | ---- |
| **pH** | ---- | E108/HA | 0.10 | pH units | 6.28 | ---- | ---- | ---- | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | 69 DLDS | ---- | ---- | ---- | ---- |
| **Solids, total suspended [TSS]** | ---- | E160/HA | 3.0 | mg/L | <3.0 | ---- | ---- | ---- | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | 6.1 | ---- | ---- | ---- | ---- |
| **Anions and Nutrients** | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | 0.0237 | ---- | ---- | ---- | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | 11.2 | ---- | ---- | ---- | ---- |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | 0.486 | ---- | ---- | ---- | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | 0.127 | ---- | ---- | ---- | ---- |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | <0.010 | ---- | ---- | ---- | ---- |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | 0.0193 | ---- | ---- | ---- | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | 2.61 | ---- | ---- | ---- | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | |
| **Carbon, total organic [TOC]** | ---- | E355-L/WT | 0.50 | mg/L | 20.3 | ---- | ---- | ---- | ---- |
| **Total Metals** | | | | | | | | | |
| **Aluminum, total** | 7429-90-5 | E420/WT | 0.0030 | mg/L | 0.635 | ---- | ---- | ---- | ---- |
| **Antimony, total** | 7440-36-0 | E420/WT | 0.00010 | mg/L | <0.00010 | ---- | ---- | ---- | ---- |
| **Arsenic, total** | 7440-38-2 | E420/WT | 0.00010 | mg/L | 0.00086 | ---- | ---- | ---- | ---- |
| **Barium, total** | 7440-39-3 | E420/WT | 0.00010 | mg/L | 0.00674 | ---- | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | DUP1 | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| | | | | | HA2501804-016 | ---- | ---- | ---- | ---- | ---- |
| | | | | | Result | ---- | ---- | ---- | ---- | ---- |
| **Total Metals** | | | | | | | | | | |
| **Boron, total** | 7440-42-8 | E420/WT | 0.010 | mg/L | | 0.011 | ---- | ---- | ---- | ---- |
| **Cadmium, total** | 7440-43-9 | E420/WT | 0.0000050 | mg/L | | 0.0000202 | ---- | ---- | ---- | ---- |
| **Calcium, total** | 7440-70-2 | E420/WT | 0.050 | mg/L | | 3.57 | ---- | ---- | ---- | ---- |
| **Chromium, total** | 7440-47-3 | E420/WT | 0.00050 | mg/L | | 0.00080 | ---- | ---- | ---- | ---- |
| **Copper, total** | 7440-50-8 | E420/WT | 0.00050 | mg/L | | 0.00185 | ---- | ---- | ---- | ---- |
| **Iron, total** | 7439-89-6 | E420/WT | 0.010 | mg/L | | 0.880 | ---- | ---- | ---- | ---- |
| **Lead, total** | 7439-92-1 | E420/WT | 0.000050 | mg/L | | 0.000811 | ---- | ---- | ---- | ---- |
| **Magnesium, total** | 7439-95-4 | E420/WT | 0.0050 | mg/L | | 1.05 | ---- | ---- | ---- | ---- |
| **Manganese, total** | 7439-96-5 | E420/WT | 0.00010 | mg/L | | 0.0277 | ---- | ---- | ---- | ---- |
| **Mercury, total** | 7439-97-6 | E508/WT | 0.0000050 | mg/L | | 0.0000116 | ---- | ---- | ---- | ---- |
| **Nickel, total** | 7440-02-0 | E420/WT | 0.00050 | mg/L | | 0.00107 | ---- | ---- | ---- | ---- |
| **Potassium, total** | 7440-09-7 | E420/WT | 0.050 | mg/L | | 0.524 | ---- | ---- | ---- | ---- |
| **Sodium, total** | 7440-23-5 | E420/WT | 0.050 | mg/L | | 7.68 | ---- | ---- | ---- | ---- |
| **Uranium, total** | 7440-61-1 | E420/WT | 0.000010 | mg/L | | 0.000666 | ---- | ---- | ---- | ---- |
| **Vanadium, total** | 7440-62-2 | E420/WT | 0.00050 | mg/L | | 0.00131 | ---- | ---- | ---- | ---- |
| **Zinc, total** | 7440-66-6 | E420/WT | 0.0030 | mg/L | | 0.0047 | ---- | ---- | ---- | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Biochemical oxygen demand [BOD]** | ---- | E550/HA | 2.0 | mg/L | | <2.0 | ---- | ---- | ---- | ---- |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 55 | ---- | ---- | ---- | ---- |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | 0.0019 | ---- | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| | | | | | Client sample ID | DUP1 | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| Analyte | CAS Number | Method/Lab | LOR | Unit | | HA2501804-016 | ---- | ---- | ---- | ---- |
| | | | | | | Result | ---- | ---- | ---- | ---- |
| **Hydrocarbon Distribution of RBCA mTPH (Tier I) Fractions** | | | | | | | | | | |
| **C6-C10 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | ---- | ---- | ---- | ---- |
| **>C10-C16 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | ---- | ---- | ---- | ---- |
| **>C16-C21 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | ---- | ---- | ---- | ---- |
| **>C21-C32 fraction of mTPH** | n/a | EC581D/WT | 1 | % | | <1 | ---- | ---- | ---- | ---- |
| **Hydrocarbons** | | | | | | | | | | |
| **Benzene** | 71-43-2 | E611A/WT | 0.00050 | mg/L | | <0.00050 | ---- | ---- | ---- | ---- |
| **Toluene** | 108-88-3 | E611A/WT | 0.00050 | mg/L | | <0.00050 | ---- | ---- | ---- | ---- |
| **Ethylbenzene** | 100-41-4 | E611A/WT | 0.00050 | mg/L | | <0.00050 | ---- | ---- | ---- | ---- |
| **Xylenes, total** | 1330-20-7 | E611A/WT | 0.00050 | mg/L | | <0.00050 | ---- | ---- | ---- | ---- |
| **Xylene, o-** | 95-47-6 | E611A/WT | 0.00030 | mg/L | | <0.00030 | ---- | ---- | ---- | ---- |
| **Xylene, m+p-** | 179601-23-1 | E611A/WT | 0.00040 | mg/L | | <0.00040 | ---- | ---- | ---- | ---- |
| **VPH C6-C10** | n/a | E581.VPH/WT | 0.025 | mg/L | | <0.025 | ---- | ---- | ---- | ---- |
| **VPH C6-C10 (less BTEX)** | n/a | EC580C/WT | 0.025 | mg/L | | <0.025 | ---- | ---- | ---- | ---- |
| **EPH >C10-C16** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | ---- | ---- | ---- | ---- |
| **EPH >C16-C21** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | ---- | ---- | ---- | ---- |
| **EPH >C21-C32** | n/a | E601F/WT | 0.050 | mg/L | | <0.050 | ---- | ---- | ---- | ---- |
| **EPH >C34-C50** | n/a | E601F/WT | 0.10 | mg/L | | <0.10 | ---- | ---- | ---- | ---- |
| **hydrocarbon resemblance** | n/a | E601F/WT | - | none | | N/A | ---- | ---- | ---- | ---- |
| **mTPH (Tier I)** | n/a | EC581D/WT | 0.090 | mg/L | | <0.090 | ---- | ---- | ---- | ---- |
| **return to baseline at C32** | n/a | E601F/WT | - | - | | Yes | ---- | ---- | ---- | ---- |
| **TEH >C10-C32** | n/a | E601F/WT | 0.100 | mg/L | | <0.100 | ---- | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Water**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | DUP1 | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| | | | | | HA2501804-016 | ---- | ---- | ---- | ---- | ---- |
| | | | | | Result | ---- | ---- | ---- | ---- | ---- |
| **Hydrocarbons Surrogates** | | | | | | | | | | |
| **dotriacontane, n- (EPH)** | n/a | E601F/WT | 1.0 | % | | 91.7 | ---- | ---- | ---- | ---- |
| **isobutylbenzene (EPH)** | 538-93-2 | E601F/WT | 1.0 | % | | 82.7 | ---- | ---- | ---- | ---- |
| **isobutylbenzene (VPH)** | 538-93-2 | E581.VPH/WT | 1.0 | % | | 99.3 | ---- | ---- | ---- | ---- |
| **Volatile Organic Compounds Surrogates** | | | | | | | | | | |
| **Bromofluorobenzene, 4-** | 460-00-4 | E611A/WT | 1.0 | % | | 84.6 | ---- | ---- | ---- | ---- |
| **Difluorobenzene, 1,4-** | 540-36-3 | E611A/WT | 1.0 | % | | 99.3 | ---- | ---- | ---- | ---- |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

**Sub-Matrix: Groundwater**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20-15S | MW20-15D | MW5-S | MW5-D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-017 | HA2501804-018 | HA2501804-019 | HA2501804-020 | HA2501804-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | field | field | field | field |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 628 | 1150 | 202 | 225 | 201 |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | | 275 | 587 | 76.4 | 87.3 | 76.2 |
| **pH** | ---- | E108/HA | 0.10 | pH units | | 7.40 | 7.26 | 7.02 | 7.29 | 8.03 |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | | 463 DLDS | 783 DLDS | 142 DLDS | 139 DLDS | 210 DLDS |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | | 228 | 332 | 76.1 | 86.0 | 82.6 |
| **Anions and Nutrients** | | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | | 0.0186 | 0.0099 | 0.0221 | 0.0183 | 0.0235 |

## Analytical Results

**Sub-Matrix: Groundwater**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20-15S | MW20-15D | MW5-S | MW5-D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-017 | HA2501804-018 | HA2501804-019 | HA2501804-020 | HA2501804-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Anions and Nutrients** | | | | | | | | | | |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | | 5.48 | 18.1 DLDS | 11.8 | 13.1 | 8.23 |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | | 0.457 | 0.132 | 0.299 | 0.258 | 0.252 |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | | 0.172 | 0.139 DLDS | 0.020 | 0.083 | <0.020 |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | | <0.010 | <0.050 DLDS | <0.010 | <0.010 | <0.010 |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | | 0.355 | 0.0640 | 0.266 | 0.336 | 0.365 |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | | 90.1 | 283 DLDS | 6.14 | 5.66 | 6.26 |
| **Organic / Inorganic Carbon** | | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | | 2.18 | 2.33 | 1.11 | 0.98 | 0.73 |
| **Dissolved Metals** | | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | | 0.0034 | 0.0032 | 0.0318 | 0.0029 | 0.0028 |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | | 0.00058 | 0.00214 | 0.00626 | 0.0119 | 0.00249 |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | | 0.0382 | 0.0488 | 0.00807 | 0.00379 | 0.0148 |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | | <0.000020 | 0.000062 | 0.000197 | 0.000083 | <0.000020 |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | 0.166 | 0.055 | 0.016 | 0.016 | 0.014 |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000256 | 0.0000527 | 0.000221 | 0.0000551 | <0.0000050 |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 76.1 | 167 | 23.1 | 26.5 | 24.5 |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | 0.000011 | 0.00375 | 0.00311 | 0.00379 | 0.000017 |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00014 | <0.00010 | 0.00030 | <0.00010 | <0.00010 |

## Analytical Results

**Sub-Matrix: Groundwater**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20-15S | MW20-15D | MW5-S | MW5-D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-017 | HA2501804-018 | HA2501804-019 | HA2501804-020 | HA2501804-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.0116 | 0.00069 | 0.00061 | 0.00088 | <0.00020 |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | <0.010 | <0.010 | 0.018 | <0.010 | <0.010 |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | 0.0270 | 0.0423 | 0.0075 | 0.0104 | 0.0059 |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 20.6 | 41.3 | 4.56 | 5.13 | 3.66 |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.00648 | 0.00128 | 0.113 | 0.00090 | 0.0268 |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.000131 | 0.000360 | 0.00326 | 0.00521 | 0.00171 |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00445 | 0.00086 | <0.00050 | <0.00050 | <0.00050 |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | <0.050 | 0.051 | <0.050 | 0.061 | <0.050 |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.70 | 2.04 | 0.857 | 1.01 | 1.14 |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00050 | 0.00162 | 0.00219 | 0.00274 | 0.00052 |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | <0.000050 | 0.000058 | 0.000081 | 0.000072 | <0.000050 |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 11.0 | 13.3 | 5.90 | 5.84 | 4.24 |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | <0.000010 | <0.000010 | <0.000010 | 0.000013 | <0.000010 |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 36.2 | 43.6 | 9.37 | 10.4 | 10.9 |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.171 | 0.313 | 0.0676 | 0.0780 | 0.0813 |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 34.2 | 102 | 2.37 | 1.94 | 2.16 |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | <0.00020 | <0.00020 | <0.00020 | <0.00020 |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | <0.000010 | 0.000039 | 0.000016 | <0.000010 | <0.000010 |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |

## Analytical Results

**Sub-Matrix: Groundwater (Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20-15S | MW20-15D | MW5-S | MW5-D | MW20-17D |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 | 12-Jun-2025 00:00 |
| | | | | | | HA2501804-017 | HA2501804-018 | HA2501804-019 | HA2501804-020 | HA2501804-021 |
| | | | | | | Result | Result | Result | Result | Result |
| **Dissolved Metals** | | | | | | | | | | |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | 0.00051 | <0.00030 | <0.00030 |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.0344 | 0.00156 | 0.00033 | 0.00227 | 0.0295 |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.00300 | 0.258 | 0.0108 | 0.0252 | 0.0105 |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | <0.00050 | 0.00077 | <0.00050 | <0.00050 | 0.00112 |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0123 | 0.0080 | 0.0024 | 0.0021 | <0.0010 |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00030 | <0.00030 | <0.00030 | <0.00030 | <0.00030 |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | Field | Field | Field | Field |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | Field | Field | Field | Field |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | 24 | <10 | 18 | 15 | 18 |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | 0.0028 | 0.0040 | 0.0013 | 0.0024 | <0.0010 |

Please refer to the General Comments section for an explanation of any qualifiers detected.

## Analytical Results

**Sub-Matrix: Groundwater (Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20-17S | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| | | | | | | HA2501804-022 | ---- | ---- | ---- | ---- |
| | | | | | | Result | ---- | ---- | ---- | ---- |
| **Sample Preparation** | | | | | | | | | | |
| **Dissolved carbon filtration location** | ---- | EP358/WT | - | - | | field | ---- | ---- | ---- | ---- |
| **Physical Tests** | | | | | | | | | | |
| **Conductivity** | ---- | E100/WT | 2.0 | µS/cm | | 196 | ---- | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Groundwater**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID: MW20-17S | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time: 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| | | | | | HA2501804-022 | ---- | ---- | ---- | ---- |
| | | | | | Result | ---- | ---- | ---- | ---- |
| **Physical Tests** | | | | | | | | | |
| **Hardness (as CaCO3), dissolved** | ---- | EC100/WT | 0.50 | mg/L | 77.1 | ---- | ---- | ---- | ---- |
| **pH** | ---- | E108/HA | 0.10 | pH units | 8.00 | ---- | ---- | ---- | ---- |
| **Solids, total dissolved [TDS]** | ---- | E162/HA | 10 | mg/L | 147 DLDS | ---- | ---- | ---- | ---- |
| **Alkalinity, total (as CaCO3)** | ---- | E290/WT | 2.0 | mg/L | 81.4 | ---- | ---- | ---- | ---- |
| **Anions and Nutrients** | | | | | | | | | |
| **Ammonia, total (as N)** | 7664-41-7 | E298/WT | 0.0050 | mg/L | 0.0257 | ---- | ---- | ---- | ---- |
| **Chloride** | 16887-00-6 | E235.Cl/WT | 0.50 | mg/L | 9.71 | ---- | ---- | ---- | ---- |
| **Kjeldahl nitrogen, total [TKN]** | ---- | E318/WT | 0.050 | mg/L | 0.099 | ---- | ---- | ---- | ---- |
| **Nitrate (as N)** | 14797-55-8 | E235.NO3/WT | 0.020 | mg/L | 0.036 | ---- | ---- | ---- | ---- |
| **Nitrite (as N)** | 14797-65-0 | E235.NO2/WT | 0.010 | mg/L | <0.010 | ---- | ---- | ---- | ---- |
| **Phosphorus, total** | 7723-14-0 | E372-U/WT | 0.0020 | mg/L | 0.876 | ---- | ---- | ---- | ---- |
| **Sulfate (as SO4)** | 14808-79-8 | E235.SO4/WT | 0.30 | mg/L | 7.21 | ---- | ---- | ---- | ---- |
| **Organic / Inorganic Carbon** | | | | | | | | | |
| **Carbon, dissolved organic [DOC]** | ---- | E358-L/WT | 0.50 | mg/L | 0.51 | ---- | ---- | ---- | ---- |
| **Dissolved Metals** | | | | | | | | | |
| **Aluminum, dissolved** | 7429-90-5 | E421/WT | 0.0010 | mg/L | 0.0018 | ---- | ---- | ---- | ---- |
| **Antimony, dissolved** | 7440-36-0 | E421/WT | 0.00010 | mg/L | 0.00010 | ---- | ---- | ---- | ---- |
| **Arsenic, dissolved** | 7440-38-2 | E421/WT | 0.00010 | mg/L | 0.00155 | ---- | ---- | ---- | ---- |
| **Barium, dissolved** | 7440-39-3 | E421/WT | 0.00010 | mg/L | 0.0147 | ---- | ---- | ---- | ---- |
| **Beryllium, dissolved** | 7440-41-7 | E421/WT | 0.000020 | mg/L | <0.000020 | ---- | ---- | ---- | ---- |
| **Bismuth, dissolved** | 7440-69-9 | E421/WT | 0.000050 | mg/L | <0.000050 | ---- | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Groundwater**
**(Matrix: Water)**

| Analyte | CAS Number | Method/Lab | LOR | Unit | Client sample ID | MW20-17S | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| | | | | | | HA2501804-022 | ---- | ---- | ---- | ---- |
| | | | | | | Result | ---- | ---- | ---- | ---- |
| **Dissolved Metals** | | | | | | | | | | |
| **Boron, dissolved** | 7440-42-8 | E421/WT | 0.010 | mg/L | | <0.010 | ---- | ---- | ---- | ---- |
| **Cadmium, dissolved** | 7440-43-9 | E421/WT | 0.0000050 | mg/L | | 0.0000114 | ---- | ---- | ---- | ---- |
| **Calcium, dissolved** | 7440-70-2 | E421/WT | 0.050 | mg/L | | 24.9 | ---- | ---- | ---- | ---- |
| **Cesium, dissolved** | 7440-46-2 | E421/WT | 0.000010 | mg/L | | <0.000010 | ---- | ---- | ---- | ---- |
| **Chromium, dissolved** | 7440-47-3 | E421/WT | 0.00050 | mg/L | | <0.00050 | ---- | ---- | ---- | ---- |
| **Cobalt, dissolved** | 7440-48-4 | E421/WT | 0.00010 | mg/L | | 0.00040 | ---- | ---- | ---- | ---- |
| **Copper, dissolved** | 7440-50-8 | E421/WT | 0.00020 | mg/L | | 0.00163 | ---- | ---- | ---- | ---- |
| **Iron, dissolved** | 7439-89-6 | E421/WT | 0.010 | mg/L | | <0.010 | ---- | ---- | ---- | ---- |
| **Lead, dissolved** | 7439-92-1 | E421/WT | 0.000050 | mg/L | | <0.000050 | ---- | ---- | ---- | ---- |
| **Lithium, dissolved** | 7439-93-2 | E421/WT | 0.0010 | mg/L | | 0.0086 | ---- | ---- | ---- | ---- |
| **Magnesium, dissolved** | 7439-95-4 | E421/WT | 0.0050 | mg/L | | 3.63 | ---- | ---- | ---- | ---- |
| **Manganese, dissolved** | 7439-96-5 | E421/WT | 0.00010 | mg/L | | 0.0448 | ---- | ---- | ---- | ---- |
| **Mercury, dissolved** | 7439-97-6 | E509/WT | 0.0000050 | mg/L | | <0.0000050 | ---- | ---- | ---- | ---- |
| **Molybdenum, dissolved** | 7439-98-7 | E421/WT | 0.000050 | mg/L | | 0.00231 | ---- | ---- | ---- | ---- |
| **Nickel, dissolved** | 7440-02-0 | E421/WT | 0.00050 | mg/L | | 0.00580 | ---- | ---- | ---- | ---- |
| **Phosphorus, dissolved** | 7723-14-0 | E421/WT | 0.050 | mg/L | | <0.050 | ---- | ---- | ---- | ---- |
| **Potassium, dissolved** | 7440-09-7 | E421/WT | 0.050 | mg/L | | 1.19 | ---- | ---- | ---- | ---- |
| **Rubidium, dissolved** | 7440-17-7 | E421/WT | 0.00020 | mg/L | | 0.00062 | ---- | ---- | ---- | ---- |
| **Selenium, dissolved** | 7782-49-2 | E421/WT | 0.000050 | mg/L | | 0.000420 | ---- | ---- | ---- | ---- |
| **Silicon, dissolved** | 7440-21-3 | E421/WT | 0.050 | mg/L | | 4.65 | ---- | ---- | ---- | ---- |
| **Silver, dissolved** | 7440-22-4 | E421/WT | 0.000010 | mg/L | | <0.000010 | ---- | ---- | ---- | ---- |

## Analytical Results

**Sub-Matrix: Groundwater**
**(Matrix: Water)**

| | | | | | Client sample ID | MW20-17S | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Client sampling date / time | 12-Jun-2025 00:00 | ---- | ---- | ---- | ---- |
| Analyte | CAS Number | Method/Lab | LOR | Unit | | HA2501804-022 | ---- | ---- | ---- | ---- |
| | | | | | | Result | ---- | ---- | ---- | ---- |
| **Dissolved Metals** | | | | | | | | | | |
| **Sodium, dissolved** | 7440-23-5 | E421/WT | 0.050 | mg/L | | 8.36 | ---- | ---- | ---- | ---- |
| **Strontium, dissolved** | 7440-24-6 | E421/WT | 0.00020 | mg/L | | 0.0646 | ---- | ---- | ---- | ---- |
| **Sulfur, dissolved** | 7704-34-9 | E421/WT | 0.50 | mg/L | | 2.42 | ---- | ---- | ---- | ---- |
| **Tellurium, dissolved** | 13494-80-9 | E421/WT | 0.00020 | mg/L | | <0.00020 | ---- | ---- | ---- | ---- |
| **Thallium, dissolved** | 7440-28-0 | E421/WT | 0.000010 | mg/L | | <0.000010 | ---- | ---- | ---- | ---- |
| **Thorium, dissolved** | 7440-29-1 | E421/WT | 0.00010 | mg/L | | <0.00010 | ---- | ---- | ---- | ---- |
| **Tin, dissolved** | 7440-31-5 | E421/WT | 0.00010 | mg/L | | <0.00010 | ---- | ---- | ---- | ---- |
| **Titanium, dissolved** | 7440-32-6 | E421/WT | 0.00030 | mg/L | | <0.00030 | ---- | ---- | ---- | ---- |
| **Tungsten, dissolved** | 7440-33-7 | E421/WT | 0.00010 | mg/L | | 0.494 | ---- | ---- | ---- | ---- |
| **Uranium, dissolved** | 7440-61-1 | E421/WT | 0.000010 | mg/L | | 0.00183 | ---- | ---- | ---- | ---- |
| **Vanadium, dissolved** | 7440-62-2 | E421/WT | 0.00050 | mg/L | | 0.00060 | ---- | ---- | ---- | ---- |
| **Zinc, dissolved** | 7440-66-6 | E421/WT | 0.0010 | mg/L | | 0.0086 | ---- | ---- | ---- | ---- |
| **Zirconium, dissolved** | 7440-67-7 | E421/WT | 0.00030 | mg/L | | <0.00030 | ---- | ---- | ---- | ---- |
| **Dissolved mercury filtration location** | ---- | EP509/WT | - | - | | Field | ---- | ---- | ---- | ---- |
| **Dissolved metals filtration location** | ---- | EP421/WT | - | - | | Field | ---- | ---- | ---- | ---- |
| **Aggregate Organics** | | | | | | | | | | |
| **Chemical oxygen demand [COD]** | ---- | E559-L/WT | 10 | mg/L | | <10 | ---- | ---- | ---- | ---- |
| **Phenols, total (4AAP)** | ---- | E562/WT | 0.0010 | mg/L | | <0.0010 | ---- | ---- | ---- | ---- |

Please refer to the General Comments section for an explanation of any qualifiers detected.

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right partner.

# QUALITY CONTROL INTERPRETIVE REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2501804** | Page | : 1 of 53 |
| Client | : **AECOM Canada ULC** | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 12-Jun-2025 17:00 |
| PO | : ---- | Issue Date | : 21-Jun-2025 00:16 |
| C-O-C number | : ---- | | |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 22 | | |
| No. of samples analysed | : 22 | | |

**This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.**

**Key**

**Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.**
**CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.**
**DQO: Data Quality Objective.**
**LOR: Limit of Reporting (detection limit).**
**RPD: Relative Percent Difference.**

## *Workorder Comments*

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Method Blank value outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

### *Outliers: Reference Material (RM) Samples*

- No Reference Material (RM) Sample outliers occur.

## Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

## Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

## Outliers : Quality Control Samples

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

| Analyte Group | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Method | Result | Limits | Comment |
|---|---|---|---|---|---|---|---|---|
| **Method Blank (MB) Values** | | | | | | | | |
| Anions and Nutrients | QC-2058369-001 | ---- | Phosphorus, total | 7723-14-0 | E372-U | 0.0021 mg/L B | 0.002 mg/L | Blank result exceeds permitted value |

### Result Qualifiers

| Qualifier | Description |
|---|---|
| *B* | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

| Matrix Spike (MS) Recoveries | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dissolved Metals | Anonymous | Anonymous | Silver, dissolved | 7440-22-4 | E421 | 69.8 % MES | 70.0-130% | Recovery less than lower data quality objective |

### Result Qualifiers

| Qualifier | Description |
|---|---|
| *MES* | *Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).* |

# Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE [BOD HT-48h]** | | | | | | | | | | |
| DUP1 | E550 | 12-Jun-2025 | ---- | ---- | ---- | | 13-Jun-2025 | 48 hrs | 36 hrs | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE [BOD HT-48h]** | | | | | | | | | | |
| SW13 | E550 | 12-Jun-2025 | ---- | ---- | ---- | | 13-Jun-2025 | 48 hrs | 36 hrs | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE [BOD HT-48h]** | | | | | | | | | | |
| SW19-20 | E550 | 12-Jun-2025 | ---- | ---- | ---- | | 13-Jun-2025 | 48 hrs | 36 hrs | ✓ |
| **Aggregate Organics : Biochemical Oxygen Demand - 5 day** | | | | | | | | | | |
| **HDPE [BOD HT-48h]** | | | | | | | | | | |
| SW4 | E550 | 12-Jun-2025 | ---- | ---- | ---- | | 13-Jun-2025 | 48 hrs | 36 hrs | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP3 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-03D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12S | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15S | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-16 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-17D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-17S | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-M | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-S | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW3 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-S | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-D | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-S | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| PW19-01 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E559-L | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP3 | E562 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-03D | E562 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW3 | E562 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-D | E562 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-S | E562 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12D | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12S | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15D | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15S | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-16 | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-17D | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-17S | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-D | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-M | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-S | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-D | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-S | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| PW19-01 | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Aggregate Organics : Phenols (4AAP) in Water by Colorimetry** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E562 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP3 | E298 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-03D | E298 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW3 | E298 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-D | E298 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-S | E298 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 17-Jun-2025 | 28 days | 6 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12D | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12S | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15D | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15S | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-16 | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-17D | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-17S | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-D | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-M | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-S | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-D | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-S | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| PW19-01 | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Ammonia by Fluorescence** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E298 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** DUP3 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-03D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-12D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-12S | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-15D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-15S | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-16 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-17D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 18-Jun-2025 | 28 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-17S | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 18-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2-D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2-M | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW2-S | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW5-D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW5-S | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW8-D | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** MW8-S | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| PW19-01 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW13 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW19-20 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Chloride in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E235.Cl | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP1 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP3 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-03D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-12D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-12S | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-15D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-15S | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-16 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-17D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 18-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-17S | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 18-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2-D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2-M | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW2-S | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW3 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5-D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5-S | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW8-D | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** MW8-S | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** PW19-01 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO3 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| DUP3 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-03D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-12D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW19-12S | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-15D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-15S | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-16 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-17D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 18-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-17S | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 18-Jun-2025 | 3 days | 5 days | × EHT |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2-D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2-M | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2-S | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW3 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW5-D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW5-S | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW8-D | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW8-S | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| PW19-01 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | × EHT | 19-Jun-2025 | 3 days | 5 days | × EHT |

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | ✗ EHT | 19-Jun-2025 | 3 days | 5 days | ✗ EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | ✗ EHT | 19-Jun-2025 | 3 days | 5 days | ✗ EHT |
| **Anions and Nutrients : Nitrite in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.NO2 | 12-Jun-2025 | 17-Jun-2025 | 3 days | 5 days | ✗ EHT | 19-Jun-2025 | 3 days | 5 days | ✗ EHT |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP1 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** DUP3 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-03D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-12D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW19-12S | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW20-15D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-15S | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-16 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-17D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 18-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW20-17S | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 18-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2-D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2-M | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW2-S | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW3 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| MW5-D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW5-S | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW8-D | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** MW8-S | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** PW19-01 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW13 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW19-20 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Sulfate in Water by IC** | | | | | | | | | | |
| **HDPE** SW4 | E235.SO4 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 19-Jun-2025 | 28 days | 5 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP1 | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** DUP3 | E318 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-03D | E318 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-12D | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW19-12S | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-15D | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-15S | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-16 | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-17D | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-17S | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2-D | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-M | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW2-S | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW3 | E318 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-D | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW5-S | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-D | E318 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-S | E318 | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 18-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| PW19-01 | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E318 | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP3 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-03D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW19-12S | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW20-15S | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-16 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-17D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW20-17S | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2-D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2-M | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW2-S | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW3 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5-D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** MW5-S | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-D | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| MW8-S | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| PW19-01 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E372-U | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| DUP3 | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19-03D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19-12D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW19-12S | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW20-15D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW20-15S | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW20-16 | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW20-17D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW20-17S | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW2-D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW2-M | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** | | | | | | | | | | |
| MW2-S | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW3 | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW5-D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW5-S | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW8-D | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** MW8-S | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial dissolved (hydrochloric acid)** PW19-01 | E509 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** DUP3 | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW19-03D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** MW19-12D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW19-12S | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-15D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-15S | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-16 | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-17D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW20-17S | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW2-D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW2-M | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW2-S | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW3 | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW5-D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW5-S | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 17-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW8-D | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| MW8-S | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Dissolved Metals : Dissolved Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE dissolved (nitric acid)** | | | | | | | | | | |
| PW19-01 | E421 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 6 days | ✓ | 18-Jun-2025 | 180 days | 6 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| DUP1 | E601F | 12-Jun-2025 | 18-Jun-2025 | 14 days | 6 days | ✓ | 20-Jun-2025 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| SW13 | E601F | 12-Jun-2025 | 18-Jun-2025 | 14 days | 6 days | ✓ | 20-Jun-2025 | 40 days | 2 days | ✓ |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| SW19-20 | E601F | 12-Jun-2025 | 18-Jun-2025 | 14 days | 6 days | ✓ | 20-Jun-2025 | 40 days | 2 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Hydrocarbons : EPH in Water by GC-FID (RBCA)** | | | | | | | | | | |
| **Amber glass/Teflon lined cap (sodium bisulfate)** | | | | | | | | | | |
| SW4 | E601F | 12-Jun-2025 | 18-Jun-2025 | 14 days | 6 days | ✓ | 20-Jun-2025 | 40 days | 2 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| DUP1 | E581.VPH | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| SW13 | E581.VPH | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| SW19-20 | E581.VPH | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Hydrocarbons : VPH by Headspace GC-FID (RBCA)** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** | | | | | | | | | | |
| SW4 | E581.VPH | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW19-03D | E358-L | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW8-D | E358-L | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW8-S | E358-L | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| DUP3 | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW19-12D | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW19-12S | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-15D | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-15S | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-16 | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-17D | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW20-17S | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW2-D | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW2-M | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW2-S | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW3 | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW5-D | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| MW5-S | E358-L | 12-Jun-2025 | 19-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass - dissolved (field filtered/sulfuric acid)** | | | | | | | | | | |
| PW19-01 | E358-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| DUP1 | E355-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW13 | E355-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW19-20 | E355-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |
| **Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)** | | | | | | | | | | |
| **Amber glass total (sulfuric acid)** | | | | | | | | | | |
| SW4 | E355-L | 12-Jun-2025 | 18-Jun-2025 | 28 days | 7 days | ✓ | 19-Jun-2025 | 28 days | 7 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP1 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** DUP3 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-03D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-12D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW19-12S | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-15D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-15S | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-16 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-17D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW20-17S | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW2-D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW2-M | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW2-S | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW3 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW5-D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW5-S | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW8-D | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** MW8-S | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** PW19-01 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW13 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW19-20 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Alkalinity Species by Titration** | | | | | | | | | | |
| **HDPE** SW4 | E290 | 12-Jun-2025 | 17-Jun-2025 | 14 days | 5 days | ✓ | 17-Jun-2025 | 14 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP1 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** DUP3 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-03D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-12D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW19-12S | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-15D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-15S | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-16 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-17D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW20-17S | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW2-D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW2-M | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW2-S | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW3 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW5-D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW5-S | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW8-D | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** MW8-S | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** PW19-01 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW13 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW19-20 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : Conductivity in Water** | | | | | | | | | | |
| **HDPE** SW4 | E100 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 5 days | ✓ | 17-Jun-2025 | 28 days | 5 days | ✓ |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP1 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** DUP3 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-03D | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-12D | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW19-12S | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-15D | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-15S | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-16 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW2-D | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW2-M | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW2-S | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW3 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW5-D | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW5-S | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW8-D | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW8-S | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** PW19-01 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW13 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW19-20 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** SW4 | E108 | 12-Jun-2025 | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM | 18-Jun-2025 | 0.25 hrs | 153 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-17D | E108 | 12-Jun-2025 | 19-Jun-2025 | 0.25 hrs | 177 hrs | × EHTR-FM | 19-Jun-2025 | 0.25 hrs | 177 hrs | × EHTR-FM |
| **Physical Tests : pH by Meter** | | | | | | | | | | |
| **HDPE** MW20-17S | E108 | 12-Jun-2025 | 19-Jun-2025 | 0.25 hrs | 177 hrs | × EHTR-FM | 19-Jun-2025 | 0.25 hrs | 177 hrs | × EHTR-FM |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP3 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-03D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-12D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW19-12S | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-15D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-15S | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-16 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-17D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW20-17S | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW2-D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW2-M | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW2-S | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW3 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW5-D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times Rec | Holding Times Actual | Eval | Analysis Date | Holding Times Rec | Holding Times Actual | Eval |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW5-S | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW8-D | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** MW8-S | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** PW19-01 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW13 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW19-20 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TDS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW4 | E162 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** DUP1 | E160 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** SW13 | E160 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method / Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation | | | | Analysis | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preparation Date | Holding Times | | Eval | Analysis Date | Holding Times | | Eval |
| | | | | Rec | Actual | | | Rec | Actual | |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW19-20 | E160 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Physical Tests : TSS by Gravimetry** | | | | | | | | | | |
| **HDPE** | | | | | | | | | | |
| SW4 | E160 | 12-Jun-2025 | ---- | ---- | ---- | | 19-Jun-2025 | 7 days | 8 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| DUP1 | E508 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW13 | E508 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW19-20 | E508 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Total Metals : Total Mercury in Water by CVAAS** | | | | | | | | | | |
| **Glass vial total (hydrochloric acid)** | | | | | | | | | | |
| SW4 | E508 | 12-Jun-2025 | 17-Jun-2025 | 28 days | 6 days | ✓ | 18-Jun-2025 | 28 days | 6 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| DUP1 | E420 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 5 days | ✓ | 17-Jun-2025 | 180 days | 5 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| SW13 | E420 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 5 days | ✓ | 17-Jun-2025 | 180 days | 5 days | ✓ |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** | | | | | | | | | | |
| SW19-20 | E420 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 5 days | ✓ | 17-Jun-2025 | 180 days | 5 days | ✓ |

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

| *Analyte Group : Analytical Method* / Container / Client Sample ID(s) | *Method* | *Sampling Date* | *Extraction / Preparation* | | | | *Analysis* | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Preparation Date* | *Holding Times* | | *Eval* | *Analysis Date* | *Holding Times* | | *Eval* |
| | | | | *Rec* | *Actual* | | | *Rec* | *Actual* | |
| **Total Metals : Total Metals in Water by CRC ICPMS** | | | | | | | | | | |
| **HDPE total (nitric acid)** SW4 | E420 | 12-Jun-2025 | 17-Jun-2025 | 180 days | 5 days | ✓ | 17-Jun-2025 | 180 days | 5 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** DUP1 | E611A | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW13 | E611A | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW19-20 | E611A | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |
| **Volatile Organic Compounds : BTEX by Headspace GC-MS** | | | | | | | | | | |
| **Glass vial (sodium bisulfate)** SW4 | E611A | 12-Jun-2025 | 16-Jun-2025 | 14 days | 5 days | ✓ | 16-Jun-2025 | 14 days | 5 days | ✓ |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

# Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Conductivity in Water | E100 | 2055896 | 2 | 32 | 6.2 | 5.0 | ✓ |
| pH by Meter | E108 | 2058398 | 2 | 40 | 5.0 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 2061457 | 1 | 19 | 5.2 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 2061460 | 2 | 38 | 5.2 | 5.2 | ✓ |
| Chloride in Water by IC | E235.Cl | 2055899 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2055898 | 2 | 22 | 9.0 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2055897 | 2 | 23 | 8.7 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2055900 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 2055895 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2056285 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2056283 | 3 | 39 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 2058372 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2058043 | 3 | 49 | 6.1 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2056284 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 2055513 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2056221 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 2056068 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055951 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 2050588 | 1 | 19 | 5.2 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2061447 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2056286 | 2 | 37 | 5.4 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 2054877 | 1 | 20 | 5.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 2054878 | 1 | 20 | 5.0 | 5.0 | ✓ |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Conductivity in Water | E100 | 2055896 | 2 | 32 | 6.2 | 5.0 | ✓ |
| pH by Meter | E108 | 2058398 | 2 | 40 | 5.0 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 2061457 | 1 | 19 | 5.2 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 2061460 | 2 | 38 | 5.2 | 5.2 | ✓ |
| Chloride in Water by IC | E235.Cl | 2055899 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2055898 | 2 | 22 | 9.0 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2055897 | 2 | 23 | 8.7 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2055900 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 2055895 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2056285 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2056283 | 3 | 39 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 2058372 | 1 | 20 | 5.0 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| **Laboratory Control Samples (LCS) - Continued** | | | | | | | |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2058043 | 3 | 49 | 6.1 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2056284 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 2055513 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2056221 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 2056068 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055951 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 2050588 | 1 | 19 | 5.2 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2061447 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2056286 | 2 | 37 | 5.4 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 2054877 | 1 | 20 | 5.0 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 2058123 | 1 | 20 | 5.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 2054878 | 1 | 20 | 5.0 | 5.0 | ✓ |
| **Method Blanks (MB)** | | | | | | | |
| Conductivity in Water | E100 | 2055896 | 2 | 32 | 6.2 | 5.0 | ✓ |
| TSS by Gravimetry | E160 | 2061457 | 1 | 19 | 5.2 | 5.0 | ✓ |
| TDS by Gravimetry | E162 | 2061460 | 2 | 38 | 5.2 | 5.2 | ✓ |
| Chloride in Water by IC | E235.Cl | 2055899 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2055898 | 2 | 22 | 9.0 | 5.0 | ✓ |
| Nitrate in Water by IC | E235.NO3 | 2055897 | 2 | 23 | 8.7 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2055900 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Alkalinity Species by Titration | E290 | 2055895 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2056285 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2056283 | 3 | 39 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 2058372 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2058043 | 3 | 49 | 6.1 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2056284 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 2055513 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2056221 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 2056068 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055951 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Biochemical Oxygen Demand - 5 day | E550 | 2050588 | 1 | 19 | 5.2 | 5.2 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2061447 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2056286 | 2 | 37 | 5.4 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 2054877 | 1 | 20 | 5.0 | 5.0 | ✓ |
| EPH in Water by GC-FID (RBCA) | E601F | 2058123 | 1 | 20 | 5.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 2054878 | 1 | 20 | 5.0 | 5.0 | ✓ |
| **Matrix Spikes (MS)** | | | | | | | |
| Chloride in Water by IC | E235.Cl | 2055899 | 2 | 33 | 6.0 | 5.0 | ✓ |
| Nitrite in Water by IC | E235.NO2 | 2055898 | 2 | 22 | 9.0 | 5.0 | ✓ |

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

| Quality Control Sample Type | | | Count | | Frequency (%) | | |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC Lot #* | *QC* | *Regular* | *Actual* | *Expected* | *Evaluation* |
| Matrix Spikes (MS) - Continued | | | | | | | |
| Nitrate in Water by IC | E235.NO3 | 2055897 | 2 | 23 | 8.7 | 5.0 | ✓ |
| Sulfate in Water by IC | E235.SO4 | 2055900 | 2 | 36 | 5.5 | 5.0 | ✓ |
| Ammonia by Fluorescence | E298 | 2056285 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318 | 2056283 | 3 | 39 | 7.6 | 5.0 | ✓ |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L | 2058372 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L | 2058043 | 3 | 49 | 6.1 | 5.0 | ✓ |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U | 2056284 | 2 | 37 | 5.4 | 5.0 | ✓ |
| Total Metals in Water by CRC ICPMS | E420 | 2055513 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Metals in Water by CRC ICPMS | E421 | 2056221 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Total Mercury in Water by CVAAS | E508 | 2056068 | 1 | 20 | 5.0 | 5.0 | ✓ |
| Dissolved Mercury in Water by CVAAS | E509 | 2055951 | 2 | 40 | 5.0 | 5.0 | ✓ |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L | 2061447 | 2 | 34 | 5.8 | 5.0 | ✓ |
| Phenols (4AAP) in Water by Colorimetry | E562 | 2056286 | 2 | 37 | 5.4 | 5.0 | ✓ |
| VPH by Headspace GC-FID (RBCA) | E581.VPH | 2054877 | 1 | 20 | 5.0 | 5.0 | ✓ |
| BTEX by Headspace GC-MS | E611A | 2054878 | 1 | 20 | 5.0 | 5.0 | ✓ |

## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Conductivity in Water | E100<br>ALS Environmental - Waterloo | Water | APHA 2510 (mod) | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C. |
| pH by Meter | E108<br>ALS Environmental - Halifax | Water | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time. |
| TSS by Gravimetry | E160<br>ALS Environmental - Halifax | Water | APHA 2540 D (mod) | Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples. |
| TDS by Gravimetry | E162<br>ALS Environmental - Halifax | Water | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue. |
| Chloride in Water by IC | E235.Cl<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrite in Water by IC | E235.NO2<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Nitrate in Water by IC | E235.NO3<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Sulfate in Water by IC | E235.SO4<br>ALS Environmental - Waterloo | Water | EPA 300.1 (mod) | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. |
| Alkalinity Species by Titration | E290<br>ALS Environmental - Waterloo | Water | APHA 2320 B (mod) | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Ammonia by Fluorescence | E298<br><br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021) |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level) | E318<br><br>ALS Environmental - Waterloo | Water | Method Fialab 100, 2018 | TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021). |
| Total Organic Carbon (Non-Purgeable) by Combustion (Low Level) | E355-L<br><br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove carbonate-based Inorganic Carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. Forms of carbon associated with inorganic or organic molecules (e.g. SCN and CN) are included in NPOC if they are not removed by purging under acidic conditions. Notably, NPOC excludes most volatile organic compounds and free cyanide. For samples where the majority of Total Carbon is inorganic, this method provides greater accuracy and reliability versus the TOC by subtraction method (TC minus TIC). |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L<br><br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC). |
| Total Phosphorus by Colourimetry (0.002 mg/L) | E372-U<br><br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample. |
| Total Metals in Water by CRC ICPMS | E420<br><br>ALS Environmental - Waterloo | Water | EPA 200.2/6020B (mod) | Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |
| Dissolved Metals in Water by CRC ICPMS | E421<br><br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 6020B (mod) | Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. |
| Total Mercury in Water by CVAAS | E508<br><br>ALS Environmental - Waterloo | Water | EPA 1631E (mod) | Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Dissolved Mercury in Water by CVAAS | E509<br>ALS Environmental - Waterloo | Water | APHA 3030B/EPA 1631E (mod) | Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS. |
| Biochemical Oxygen Demand - 5 day | E550<br>ALS Environmental - Halifax | Water | APHA 5210 B (mod) | Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter.<br><br>Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples. |
| Chemical Oxygen Demand by Colourimetry (Low Level) | E559-L<br>ALS Environmental - Waterloo | Water | APHA 5220 D (mod) | Samples are analyzed using the closed reflux colourimetric method. |
| Phenols (4AAP) in Water by Colorimetry | E562<br>ALS Environmental - Waterloo | Water | EPA 9066 | This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically. |
| VPH by Headspace GC-FID (RBCA) | E581.VPH<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH (Volatile Petroleum Hydrocarbons) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| EPH in Water by GC-FID (RBCA) | E601F<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Sample Extracts are analyzed by GC-FID for RBCA Tier I hydrocarbon fractions C10-C16, C16-C21, C21-C32. |
| BTEX by Headspace GC-MS | E611A<br>ALS Environmental - Waterloo | Water | EPA 8260D (mod) | Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. |
| Dissolved Hardness (Calculated) | EC100<br>ALS Environmental - Waterloo | Water | APHA 2340B | "Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. |
| Hardness (Calculated) from Total Ca/Mg | EC100A<br>ALS Environmental - Waterloo | Water | APHA 2340B | "Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present. |

| Analytical Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| VPH C6-C10 (less BTEX) [RBCA] | EC580C<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | VPH C6-C10 (less BTEX) is calculated as follows: VPH (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). |
| Modified TPH (RBCA) Tier I | EC581D<br>ALS Environmental - Waterloo | Water | Atlantic RBCA Version 3.1 | Modified TPH (PIRI), Tier I is the sum of PIRI Fraction (C6 - C10 - BTEX) + (>C10 - C16) + (>C16 – C21) + (>C21 - C32). |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| Preparation for Ammonia | EP298<br>ALS Environmental - Waterloo | Water | | Sample preparation for Preserved Nutrients Water Quality Analysis. |
| Digestion for TKN in water | EP318<br>ALS Environmental - Waterloo | Water | APHA 4500-Norg D (mod) | Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low. |
| Preparation for Total Organic Carbon by Combustion | EP355<br>ALS Environmental - Waterloo | Water | | Preparation for Total Organic Carbon by Combustion |
| Preparation for Dissolved Organic Carbon for Combustion | EP358<br>ALS Environmental - Waterloo | Water | APHA 5310 B (mod) | Preparation for Dissolved Organic Carbon |
| Digestion for Total Phosphorus in water | EP372<br>ALS Environmental - Waterloo | Water | APHA 4500-P E (mod). | Samples are heated with a persulfate digestion reagent. |
| Dissolved Metals Water Filtration | EP421<br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um), and preserved with HNO3. |
| Dissolved Mercury Water Filtration | EP509<br>ALS Environmental - Waterloo | Water | APHA 3030B | Water samples are filtered (0.45 um), and preserved with HCl. |
| VOCs Preparation for Headspace Analysis | EP581<br>ALS Environmental - Waterloo | Water | EPA 5021A (mod) | Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID. |

| Preparation Methods | Method / Lab | Matrix | Method Reference | Method Descriptions |
|---|---|---|---|---|
| PHCs Hexane Extraction (RBCA) | EP601F<br><br>ALS Environmental - Waterloo | Water | EPA 3511 (mod) | Petroleum Hydrocarbons (PHCs) are extracted using a hexane liquid-liquid extraction. |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **HA2501804** | Page | : 1 of 25 |
| Client | : AECOM Canada ULC | Laboratory | : ALS Environmental - Halifax |
| Contact | : Janice Shea | Account Manager | : Emily Hansen |
| Address | : 1701 Hollis St. SH400 PO Box 576 CRO<br>Halifax NS Canada B3J 3M8 | Address | : 13-100 Wright Ave<br>Dartmouth, Nova Scotia Canada B3B 1L2 |
| Telephone | : 902 428 2054 | Telephone | : +1 902 707 4888 |
| Project | : 60718540 | Date Samples Received | : 12-Jun-2025 17:00 |
| PO | : ---- | Date Analysis Commenced | : 13-Jun-2025 |
| C-O-C number | : ---- | Issue Date | : 21-Jun-2025 00:15 |
| Sampler | : ---- | | |
| Site | : ---- | | |
| Quote number | : Harrietsfield Ground/Surface Water 2025 Testing | | |
| No. of samples received | : 22 | | |
| No. of samples analysed | : 22 | | |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

## *Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| *Signatories* | *Position* | *Laboratory Department* |
|---|---|---|
| Andrea Armstrong | Department Manager - Air Quality and Volatiles | Waterloo VOC, Waterloo, Ontario |
| Angela Fleming | Supervisor - Inorganic | Waterloo Inorganics, Waterloo, Ontario |
| Angela Fleming | Supervisor - Inorganic | Waterloo Metals, Waterloo, Ontario |
| Danielle Gravel | Supervisor - Semi-Volatile Instrumentation | Waterloo Organics, Waterloo, Ontario |
| Jiaxi Wang | Supervisor - Water Chemistry | Halifax Inorganics, Dartmouth, Nova Scotia |
| Jon Fisher | Production Manager, Environmental | Waterloo Inorganics, Waterloo, Ontario |
| Jon Fisher | Production Manager, Environmental | Waterloo Metals, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Centralized Prep, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Inorganics, Waterloo, Ontario |
| Nik Perkio | Senior Analyst | Waterloo Metals, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Centralized Prep, Waterloo, Ontario |
| Walt Kippenhuck | Supervisor - Inorganic | Halifax Inorganics, Dartmouth, Nova Scotia |
| Walt Kippenhuck | Supervisor - Inorganic | Waterloo Inorganics, Waterloo, Ontario |

## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

## Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | LOR | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| **Physical Tests (QC Lot: 2055895)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Alkalinity, total (as CaCO3) | ---- | E290 | 2.0 | mg/L | 270 | 272 | 0.744% | 20% | ---- |
| **Physical Tests (QC Lot: 2055896)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Conductivity | ---- | E100 | 2.0 | µS/cm | 1080 | 1070 | 0.746% | 10% | ---- |
| **Physical Tests (QC Lot: 2055907)** | | | | | | | | | | | |
| WT2515075-001 | Anonymous | Conductivity | ---- | E100 | 1.0 | µS/cm | 1.12 mS/cm | 1120 | 0.00% | 10% | ---- |
| **Physical Tests (QC Lot: 2055908)** | | | | | | | | | | | |
| WT2515075-001 | Anonymous | Alkalinity, total (as CaCO3) | ---- | E290 | 2.0 | mg/L | 204 | 202 | 1.22% | 20% | ---- |
| **Physical Tests (QC Lot: 2058398)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | pH | ---- | E108 | 0.10 | pH units | 7.78 | 7.64 | 1.79% | 4% | ---- |
| **Physical Tests (QC Lot: 2061154)** | | | | | | | | | | | |
| HA2501804-021 | MW20-17D | pH | ---- | E108 | 0.10 | pH units | 8.03 | 8.01 | 0.187% | 4% | ---- |
| **Physical Tests (QC Lot: 2061457)** | | | | | | | | | | | |
| HA2501804-013 | SW4 | Solids, total suspended [TSS] | ---- | E160 | 3.0 | mg/L | 3.0 | <3.0 | 0 | Diff <2x LOR | ---- |
| **Physical Tests (QC Lot: 2061460)** | | | | | | | | | | | |
| HA2501804-013 | SW4 | Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 44 | 46 | 2 | Diff <2x LOR | ---- |
| **Physical Tests (QC Lot: 2062240)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Solids, total dissolved [TDS] | ---- | E162 | 20 | mg/L | 735 | 702 | 4.52% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2055897)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.100 | mg/L | <0.100 | <0.100 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2055898)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.050 | mg/L | <0.050 | <0.050 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2055899)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Chloride | 16887-00-6 | E235.Cl | 2.50 | mg/L | 49.3 | 48.8 | 1.09% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2055900)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 1.50 | mg/L | 232 | 232 | 0.232% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2055902)** | | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.30 | mg/L | 6.26 | 6.21 | 0.706% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2055903)** | | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.020 | mg/L | <0.020 | <0.020 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2055904)** | | | | | | | | | | | |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Anions and Nutrients (QC Lot: 2055904) - continued** | | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.010 | mg/L | <0.010 | <0.010 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2055905)** | | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Chloride | 16887-00-6 | E235.Cl | 0.50 | mg/L | 8.23 | 8.17 | 0.713% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2056283)** | | | | | | | | | | | |
| HA2501797-002 | Anonymous | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.500 | mg/L | 20.5 | 23.9 | 15.2% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2056284)** | | | | | | | | | | | |
| HA2501798-002 | Anonymous | Phosphorus, total | 7723-14-0 | E372-U | 0.0020 | mg/L | 0.382 | 0.381 | 0.288% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2056285)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | 0.0087 | 0.0094 | 0.0007 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2058368)** | | | | | | | | | | | |
| HA2501804-006 | PW19-01 | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.050 | mg/L | 0.624 | 0.563 | 10.3% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2058369)** | | | | | | | | | | | |
| HA2501804-007 | MW19-12S | Phosphorus, total | 7723-14-0 | E372-U | 0.0200 | mg/L | 0.523 | 0.526 | 0.439% | 20% | ---- |
| **Anions and Nutrients (QC Lot: 2058370)** | | | | | | | | | | | |
| HA2501804-008 | MW19-12D | Ammonia, total (as N) | 7664-41-7 | E298 | 0.0050 | mg/L | 0.0089 | 0.0089 | 0 | Diff <2x LOR | ---- |
| **Anions and Nutrients (QC Lot: 2062922)** | | | | | | | | | | | |
| HA2501804-004 | MW3 | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.500 | mg/L | 8.62 | 7.95 | 8.06% | 20% | ---- |
| **Organic / Inorganic Carbon (QC Lot: 2058043)** | | | | | | | | | | | |
| HA2501803-001 | Anonymous | Carbon, dissolved organic [DOC] | ---- | E358-L | 0.50 | mg/L | 2.08 | 1.91 | 0.18 | Diff <2x LOR | ---- |
| **Organic / Inorganic Carbon (QC Lot: 2058372)** | | | | | | | | | | | |
| HA2501804-013 | SW4 | Carbon, total organic [TOC] | ---- | E355-L | 0.50 | mg/L | 21.4 | 22.2 | 3.30% | 20% | ---- |
| **Organic / Inorganic Carbon (QC Lot: 2059897)** | | | | | | | | | | | |
| HA2501802-001 | Anonymous | Carbon, dissolved organic [DOC] | ---- | E358-L | 0.50 | mg/L | 0.65 | <0.50 | 0.15 | Diff <2x LOR | ---- |
| **Organic / Inorganic Carbon (QC Lot: 2061083)** | | | | | | | | | | | |
| HA2501804-012 | MW20-16 | Carbon, dissolved organic [DOC] | ---- | E358-L | 0.50 | mg/L | 2.72 | 2.79 | 0.07 | Diff <2x LOR | ---- |
| **Total Metals (QC Lot: 2055513)** | | | | | | | | | | | |
| HA2501788-001 | Anonymous | Aluminum, total | 7429-90-5 | E420 | 0.0030 | mg/L | <0.0030 | <0.0030 | 0 | Diff <2x LOR | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Arsenic, total | 7440-38-2 | E420 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Barium, total | 7440-39-3 | E420 | 0.00010 | mg/L | 0.311 | 0.310 | 0.393% | 20% | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.010 | mg/L | <0.010 | <0.010 | 0 | Diff <2x LOR | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.0000050 | mg/L | 0.0000888 | 0.0000930 | 4.62% | 20% | ---- |
| | | Calcium, total | 7440-70-2 | E420 | 0.050 | mg/L | 20.8 | 20.8 | 0.218% | 20% | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Total Metals (QC Lot: 2055513) - continued** | | | | | | | | | | | |
| HA2501788-001 | Anonymous | Chromium, total | 7440-47-3 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Copper, total | 7440-50-8 | E420 | 0.00050 | mg/L | 0.0596 | 0.0591 | 0.883% | 20% | ---- |
| | | Iron, total | 7439-89-6 | E420 | 0.010 | mg/L | 0.021 | 0.021 | 0.0004 | Diff <2x LOR | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.000050 | mg/L | 0.000545 | 0.000549 | 0.786% | 20% | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | 0.0050 | mg/L | 2.27 | 2.26 | 0.173% | 20% | ---- |
| | | Manganese, total | 7439-96-5 | E420 | 0.00010 | mg/L | 0.00072 | 0.00076 | 0.00003 | Diff <2x LOR | ---- |
| | | Nickel, total | 7440-02-0 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 0.050 | mg/L | 1.03 | 1.02 | 1.06% | 20% | ---- |
| | | Sodium, total | 7440-23-5 | E420 | 0.050 | mg/L | 11.3 | 11.3 | 0.0243% | 20% | ---- |
| | | Uranium, total | 7440-61-1 | E420 | 0.000010 | mg/L | 0.000220 | 0.000220 | 0.364% | 20% | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Zinc, total | 7440-66-6 | E420 | 0.0030 | mg/L | 0.0387 | 0.0393 | 1.52% | 20% | ---- |
| **Total Metals (QC Lot: 2056068)** | | | | | | | | | | | |
| HA2501804-013 | SW4 | Mercury, total | 7439-97-6 | E508 | 0.0000050 | mg/L | 0.0000116 | 0.0000118 | 0.0000002 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 2055951)** | | | | | | | | | | | |
| HA2501802-001 | Anonymous | Mercury, dissolved | 7439-97-6 | E509 | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 2056221)** | | | | | | | | | | | |
| HA2501791-002 | Anonymous | Aluminum, dissolved | 7429-90-5 | E421 | 0.0010 | mg/L | 0.0033 | 0.0033 | 0.00002 | Diff <2x LOR | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.00010 | mg/L | 0.00098 | 0.00098 | 0.000001 | Diff <2x LOR | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.00010 | mg/L | 0.00079 | 0.00080 | 0.000005 | Diff <2x LOR | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.00010 | mg/L | 0.0933 | 0.0941 | 0.939% | 20% | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E421 | 0.000020 | mg/L | <0.000020 | <0.000020 | 0 | Diff <2x LOR | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E421 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | 0.010 | mg/L | 0.020 | 0.020 | 0.0002 | Diff <2x LOR | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0000050 | mg/L | 0.0000132 | 0.0000156 | 0.0000024 | Diff <2x LOR | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | 0.050 | mg/L | 106 | 105 | 0.256% | 20% | ---- |
| | | Cesium, dissolved | 7440-46-2 | E421 | 0.000010 | mg/L | 0.000042 | 0.000042 | 0.0000009 | Diff <2x LOR | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.00050 | mg/L | 0.00331 | 0.00329 | 0.00002 | Diff <2x LOR | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.00020 | mg/L | 0.00127 | 0.00127 | 0.000002 | Diff <2x LOR | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.010 | mg/L | 0.013 | 0.013 | 0.0002 | Diff <2x LOR | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Lithium, dissolved | 7439-93-2 | E421 | 0.0010 | mg/L | 0.0012 | 0.0011 | 0.0001 | Diff <2x LOR | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | 0.0050 | mg/L | 5.63 | 5.57 | 1.05% | 20% | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Dissolved Metals (QC Lot: 2056221) - continued** | | | | | | | | | | | |
| HA2501791-002 | Anonymous | Manganese, dissolved | 7439-96-5 | E421 | 0.00010 | mg/L | 0.0775 | 0.0776 | 0.137% | 20% | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E421 | 0.000050 | mg/L | 0.0193 | 0.0193 | 0.164% | 20% | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.00050 | mg/L | 0.00117 | 0.00115 | 0.00002 | Diff <2x LOR | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E421 | 0.050 | mg/L | <0.050 | <0.050 | 0 | Diff <2x LOR | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 0.050 | mg/L | 2.36 | 2.35 | 0.488% | 20% | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E421 | 0.00020 | mg/L | 0.00178 | 0.00176 | 0.00002 | Diff <2x LOR | ---- |
| | | Selenium, dissolved | 7782-49-2 | E421 | 0.000050 | mg/L | 0.000062 | 0.000063 | 0.000001 | Diff <2x LOR | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | 0.050 | mg/L | 4.28 | 4.26 | 0.345% | 20% | ---- |
| | | Silver, dissolved | 7440-22-4 | E421 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | 0.050 | mg/L | 56.1 | 55.8 | 0.650% | 20% | ---- |
| | | Strontium, dissolved | 7440-24-6 | E421 | 0.00020 | mg/L | 0.250 | 0.250 | 0.310% | 20% | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E421 | 0.50 | mg/L | 56.6 | 56.7 | 0.206% | 20% | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E421 | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| | | Thallium, dissolved | 7440-28-0 | E421 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Thorium, dissolved | 7440-29-1 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Tin, dissolved | 7440-31-5 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Titanium, dissolved | 7440-32-6 | E421 | 0.00030 | mg/L | <0.00030 | <0.00030 | 0 | Diff <2x LOR | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | 0.000010 | mg/L | 0.000451 | 0.000441 | 2.31% | 20% | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0010 | mg/L | 0.0059 | 0.0058 | 0.00008 | Diff <2x LOR | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E421 | 0.00030 | mg/L | <0.00030 | <0.00030 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 2056345)** | | | | | | | | | | | |
| HA2501804-017 | MW20-15S | Aluminum, dissolved | 7429-90-5 | E421 | 0.0010 | mg/L | 0.0034 | 0.0035 | 0.0001 | Diff <2x LOR | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.00010 | mg/L | 0.00058 | 0.00058 | 0.000003 | Diff <2x LOR | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.00010 | mg/L | 0.0382 | 0.0382 | 0.0406% | 20% | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E421 | 0.000020 | mg/L | <0.000020 | <0.000020 | 0 | Diff <2x LOR | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E421 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | 0.010 | mg/L | 0.166 | 0.164 | 1.14% | 20% | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.0000050 | mg/L | 0.0000256 | 0.0000271 | 0.0000015 | Diff <2x LOR | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | 0.050 | mg/L | 76.1 | 75.9 | 0.276% | 20% | ---- |
| | | Cesium, dissolved | 7440-46-2 | E421 | 0.000010 | mg/L | 0.000011 | 0.000011 | 0.0000002 | Diff <2x LOR | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Dissolved Metals (QC Lot: 2056345) - continued** | | | | | | | | | | | |
| HA2501804-017 | MW20-15S | Cobalt, dissolved | 7440-48-4 | E421 | 0.00010 | mg/L | 0.00014 | 0.00013 | 0.000003 | Diff <2x LOR | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.00020 | mg/L | 0.0116 | 0.0117 | 1.06% | 20% | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.010 | mg/L | <0.010 | <0.010 | 0 | Diff <2x LOR | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Lithium, dissolved | 7439-93-2 | E421 | 0.0010 | mg/L | 0.0270 | 0.0263 | 2.78% | 20% | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | 0.0050 | mg/L | 20.6 | 20.6 | 0.150% | 20% | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | 0.00010 | mg/L | 0.00648 | 0.00655 | 1.08% | 20% | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E421 | 0.000050 | mg/L | 0.000131 | 0.000130 | 0.0000007 | Diff <2x LOR | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.00050 | mg/L | 0.00445 | 0.00446 | 0.000008 | Diff <2x LOR | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E421 | 0.050 | mg/L | <0.050 | <0.050 | 0 | Diff <2x LOR | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 0.050 | mg/L | 1.70 | 1.70 | 0.112% | 20% | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E421 | 0.00020 | mg/L | 0.00050 | 0.00057 | 0.00007 | Diff <2x LOR | ---- |
| | | Selenium, dissolved | 7782-49-2 | E421 | 0.000050 | mg/L | <0.000050 | <0.000050 | 0 | Diff <2x LOR | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | 0.050 | mg/L | 11.0 | 10.9 | 0.951% | 20% | ---- |
| | | Silver, dissolved | 7440-22-4 | E421 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | 0.050 | mg/L | 36.2 | 36.2 | 0.0136% | 20% | ---- |
| | | Strontium, dissolved | 7440-24-6 | E421 | 0.00020 | mg/L | 0.171 | 0.171 | 0.135% | 20% | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E421 | 0.50 | mg/L | 34.2 | 34.1 | 0.433% | 20% | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E421 | 0.00020 | mg/L | <0.00020 | <0.00020 | 0 | Diff <2x LOR | ---- |
| | | Thallium, dissolved | 7440-28-0 | E421 | 0.000010 | mg/L | <0.000010 | <0.000010 | 0 | Diff <2x LOR | ---- |
| | | Thorium, dissolved | 7440-29-1 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Tin, dissolved | 7440-31-5 | E421 | 0.00010 | mg/L | <0.00010 | <0.00010 | 0 | Diff <2x LOR | ---- |
| | | Titanium, dissolved | 7440-32-6 | E421 | 0.00030 | mg/L | <0.00030 | <0.00030 | 0 | Diff <2x LOR | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E421 | 0.00010 | mg/L | 0.0344 | 0.0348 | 1.10% | 20% | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | 0.000010 | mg/L | 0.00300 | 0.00303 | 0.982% | 20% | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.00050 | mg/L | <0.00050 | <0.00050 | 0 | Diff <2x LOR | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0010 | mg/L | 0.0123 | 0.0120 | 2.65% | 20% | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E421 | 0.00030 | mg/L | <0.00030 | <0.00030 | 0 | Diff <2x LOR | ---- |
| **Dissolved Metals (QC Lot: 2056446)** | | | | | | | | | | | |
| HA2501804-004 | MW3 | Mercury, dissolved | 7439-97-6 | E509 | 0.0000050 | mg/L | <0.0000050 | <0.0000050 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 2050588)** | | | | | | | | | | | |
| HA2501544-001 | Anonymous | Biochemical oxygen demand [BOD] | ---- | E550 | 2.0 | mg/L | <2.0 | <2.0 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 2056286)** | | | | | | | | | | | |
| HA2501804-002 | MW8-D | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | <0.0010 | <0.0010 | 0 | Diff <2x LOR | ---- |

Sub-Matrix: **Water**

| | | | | | Laboratory Duplicate (DUP) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Client sample ID* | *Analyte* | *CAS Number* | *Method* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD(%) or Difference* | *Duplicate Limits* | *Qualifier* |
| **Aggregate Organics (QC Lot: 2058371)** | | | | | | | | | | | |
| HA2501804-009 | MW2-S | Phenols, total (4AAP) | ---- | E562 | 0.0010 | mg/L | 0.0034 | 0.0031 | 0.0003 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 2061447)** | | | | | | | | | | | |
| HA2501804-001 | MW8-S | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | <10 | 0 | Diff <2x LOR | ---- |
| **Aggregate Organics (QC Lot: 2061450)** | | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 18 | 16 | 2 | Diff <2x LOR | ---- |
| **Volatile Organic Compounds (QC Lot: 2054878)** | | | | | | | | | | | |
| HA2501797-002 | Anonymous | Benzene | 71-43-2 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Ethylbenzene | 100-41-4 | E611A | 0.50 | µg/L | <0.00050 mg/L | <0.50 | 0 | Diff <2x LOR | ---- |
| | | Toluene | 108-88-3 | E611A | 0.50 | µg/L | 0.00053 mg/L | <0.50 | 0.03 | Diff <2x LOR | ---- |
| | | Xylene, m+p- | 179601-23-1 | E611A | 0.40 | µg/L | <0.00040 mg/L | <0.40 | 0 | Diff <2x LOR | ---- |
| | | Xylene, o- | 95-47-6 | E611A | 0.30 | µg/L | <0.00030 mg/L | <0.30 | 0 | Diff <2x LOR | ---- |
| **Hydrocarbons (QC Lot: 2054877)** | | | | | | | | | | | |
| HA2501797-002 | Anonymous | VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <0.025 mg/L | <25 | 0 | Diff <2x LOR | ---- |

## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Physical Tests (QCLot: 2055895)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 2055896)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1.2 | ---- |
| **Physical Tests (QCLot: 2055907)** | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1.1 | ---- |
| **Physical Tests (QCLot: 2055908)** | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | <1.0 | ---- |
| **Physical Tests (QCLot: 2061457)** | | | | | | |
| Solids, total suspended [TSS] | ---- | E160 | 3 | mg/L | <3.0 | ---- |
| **Physical Tests (QCLot: 2061460)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Physical Tests (QCLot: 2062240)** | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | <10 | ---- |
| **Anions and Nutrients (QCLot: 2055897)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 2055898)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 2055899)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 2055900)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 2055902)** | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | <0.30 | ---- |
| **Anions and Nutrients (QCLot: 2055903)** | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | <0.020 | ---- |
| **Anions and Nutrients (QCLot: 2055904)** | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | <0.010 | ---- |
| **Anions and Nutrients (QCLot: 2055905)** | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | <0.50 | ---- |
| **Anions and Nutrients (QCLot: 2056283)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Anions and Nutrients (QCLot: 2056284)** | | | | | | |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Anions and Nutrients (QCLot: 2056284) - continued** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | <0.0020 | ---- |
| **Anions and Nutrients (QCLot: 2056285)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Anions and Nutrients (QCLot: 2058368)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Anions and Nutrients (QCLot: 2058369)** | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | # 0.0021 | B |
| **Anions and Nutrients (QCLot: 2058370)** | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | <0.0050 | ---- |
| **Anions and Nutrients (QCLot: 2062922)** | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | <0.050 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2058043)** | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | <0.50 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2058372)** | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | <0.50 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2059897)** | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | <0.50 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2061083)** | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | <0.50 | ---- |
| **Total Metals (QCLot: 2055513)** | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | <0.010 | ---- |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | <0.000050 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | <0.00010 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | <0.050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Total Metals (QCLot: 2055513) - continued** | | | | | | |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | <0.050 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | <0.0030 | ---- |
| **Total Metals (QCLot: 2056068)** | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Dissolved Metals (QCLot: 2055951)** | | | | | | |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Dissolved Metals (QCLot: 2056221)** | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Beryllium, dissolved | 7440-41-7 | E421 | 0.00002 | mg/L | <0.000020 | ---- |
| Bismuth, dissolved | 7440-69-9 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Cesium, dissolved | 7440-46-2 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Cobalt, dissolved | 7440-48-4 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Lithium, dissolved | 7439-93-2 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Rubidium, dissolved | 7440-17-7 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Selenium, dissolved | 7782-49-2 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Silver, dissolved | 7440-22-4 | E421 | 0.00001 | mg/L | <0.000010 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 2056221) - continued** | | | | | | |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Strontium, dissolved | 7440-24-6 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Sulfur, dissolved | 7704-34-9 | E421 | 0.5 | mg/L | <0.50 | ---- |
| Tellurium, dissolved | 13494-80-9 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Thallium, dissolved | 7440-28-0 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Thorium, dissolved | 7440-29-1 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Tin, dissolved | 7440-31-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Titanium, dissolved | 7440-32-6 | E421 | 0.0003 | mg/L | <0.00030 | ---- |
| Tungsten, dissolved | 7440-33-7 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Zirconium, dissolved | 7440-67-7 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| **Dissolved Metals (QCLot: 2056345)** | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Beryllium, dissolved | 7440-41-7 | E421 | 0.00002 | mg/L | <0.000020 | ---- |
| Bismuth, dissolved | 7440-69-9 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | <0.0000050 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Cesium, dissolved | 7440-46-2 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Cobalt, dissolved | 7440-48-4 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | <0.010 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Lithium, dissolved | 7439-93-2 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | <0.0050 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E421 | 0.05 | mg/L | <0.050 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Dissolved Metals (QCLot: 2056345) - continued** | | | | | | |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Rubidium, dissolved | 7440-17-7 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Selenium, dissolved | 7782-49-2 | E421 | 0.00005 | mg/L | <0.000050 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Silver, dissolved | 7440-22-4 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | <0.050 | ---- |
| Strontium, dissolved | 7440-24-6 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Sulfur, dissolved | 7704-34-9 | E421 | 0.5 | mg/L | <0.50 | ---- |
| Tellurium, dissolved | 13494-80-9 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| Thallium, dissolved | 7440-28-0 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Thorium, dissolved | 7440-29-1 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Tin, dissolved | 7440-31-5 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Titanium, dissolved | 7440-32-6 | E421 | 0.0003 | mg/L | <0.00030 | ---- |
| Tungsten, dissolved | 7440-33-7 | E421 | 0.0001 | mg/L | <0.00010 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | <0.000010 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | <0.00050 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | <0.0010 | ---- |
| Zirconium, dissolved | 7440-67-7 | E421 | 0.0002 | mg/L | <0.00020 | ---- |
| **Dissolved Metals (QCLot: 2056446)** | | | | | | |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | <0.0000050 | ---- |
| **Aggregate Organics (QCLot: 2050588)** | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | <2.0 | ---- |
| **Aggregate Organics (QCLot: 2056286)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Aggregate Organics (QCLot: 2058371)** | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | <0.0010 | ---- |
| **Aggregate Organics (QCLot: 2061447)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |
| **Aggregate Organics (QCLot: 2061450)** | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | <10 | ---- |
| **Volatile Organic Compounds (QCLot: 2054878)** | | | | | | |
| Benzene | 71-43-2 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Ethylbenzene | 100-41-4 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Toluene | 108-88-3 | E611A | 0.5 | µg/L | <0.50 | ---- |
| Xylene, m+p- | 179601-23-1 | E611A | 0.4 | µg/L | <0.40 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Result | Qualifier |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds (QCLot: 2054878) - continued** | | | | | | |
| Xylene, o- | 95-47-6 | E611A | 0.3 | µg/L | <0.30 | ---- |
| **Hydrocarbons (QCLot: 2054877)** | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | <25 | ---- |
| **Hydrocarbons (QCLot: 2058123)** | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | <50 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | <100 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| B | *Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.* |

## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

| | | | | | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| Analyte | CAS Number | Method | LOR | Unit | Target Concentration | LCS | Low | High | Qualifier |
| **Physical Tests (QCLot: 2055895)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 107 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 2055896)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 100 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 2055907)** | | | | | | | | | |
| Conductivity | ---- | E100 | 1 | µS/cm | 1410 µS/cm | 98.5 | 90.0 | 110 | ---- |
| **Physical Tests (QCLot: 2055908)** | | | | | | | | | |
| Alkalinity, total (as CaCO3) | ---- | E290 | 1 | mg/L | 150 mg/L | 98.8 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 2058398)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 100 | 98.0 | 102 | ---- |
| **Physical Tests (QCLot: 2061154)** | | | | | | | | | |
| pH | ---- | E108 | ---- | pH units | 7 pH units | 101 | 98.0 | 102 | ---- |
| **Physical Tests (QCLot: 2061457)** | | | | | | | | | |
| Solids, total suspended [TSS] | ---- | E160 | 3 | mg/L | 150 mg/L | 101 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 2061460)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 94.7 | 85.0 | 115 | ---- |
| **Physical Tests (QCLot: 2062240)** | | | | | | | | | |
| Solids, total dissolved [TDS] | ---- | E162 | 10 | mg/L | 1000 mg/L | 96.6 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 2055897)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 100 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2055898)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 99.2 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2055899)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 99.5 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2055900)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 95.6 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2055902)** | | | | | | | | | |
| Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 0.3 | mg/L | 100 mg/L | 99.4 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2055903)** | | | | | | | | | |
| Nitrate (as N) | 14797-55-8 | E235.NO3 | 0.02 | mg/L | 2.5 mg/L | 99.2 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2055904)** | | | | | | | | | |
| Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.01 | mg/L | 0.5 mg/L | 100 | 90.0 | 110 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 2055905)** | | | | | | | | | |
| Chloride | 16887-00-6 | E235.Cl | 0.5 | mg/L | 100 mg/L | 100 | 90.0 | 110 | ---- |
| **Anions and Nutrients (QCLot: 2056283)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 109 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2056284)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 101 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 2056285)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 104 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 2058368)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 109 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2058369)** | | | | | | | | | |
| Phosphorus, total | 7723-14-0 | E372-U | 0.002 | mg/L | 0.333 mg/L | 101 | 80.0 | 120 | ---- |
| **Anions and Nutrients (QCLot: 2058370)** | | | | | | | | | |
| Ammonia, total (as N) | 7664-41-7 | E298 | 0.005 | mg/L | 0.2 mg/L | 106 | 85.0 | 115 | ---- |
| **Anions and Nutrients (QCLot: 2062922)** | | | | | | | | | |
| Kjeldahl nitrogen, total [TKN] | ---- | E318 | 0.05 | mg/L | 4 mg/L | 111 | 75.0 | 125 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2058043)** | | | | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | 8.57 mg/L | 98.5 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2058372)** | | | | | | | | | |
| Carbon, total organic [TOC] | ---- | E355-L | 0.5 | mg/L | 8.57 mg/L | 103 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2059897)** | | | | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | 8.57 mg/L | 94.6 | 80.0 | 120 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2061083)** | | | | | | | | | |
| Carbon, dissolved organic [DOC] | ---- | E358-L | 0.5 | mg/L | 8.57 mg/L | 93.5 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 2055513)** | | | | | | | | | |
| Aluminum, total | 7429-90-5 | E420 | 0.003 | mg/L | 0.1 mg/L | 101 | 80.0 | 120 | ---- |
| Antimony, total | 7440-36-0 | E420 | 0.0001 | mg/L | 0.05 mg/L | 103 | 80.0 | 120 | ---- |
| Arsenic, total | 7440-38-2 | E420 | 0.0001 | mg/L | 0.05 mg/L | 105 | 80.0 | 120 | ---- |
| Barium, total | 7440-39-3 | E420 | 0.0001 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Boron, total | 7440-42-8 | E420 | 0.01 | mg/L | 0.05 mg/L | 99.0 | 80.0 | 120 | ---- |
| Cadmium, total | 7440-43-9 | E420 | 0.000005 | mg/L | 0.005 mg/L | 99.9 | 80.0 | 120 | ---- |
| Calcium, total | 7440-70-2 | E420 | 0.05 | mg/L | 2.5 mg/L | 98.7 | 80.0 | 120 | ---- |
| Chromium, total | 7440-47-3 | E420 | 0.0005 | mg/L | 0.012 mg/L | 103 | 80.0 | 120 | ---- |
| Copper, total | 7440-50-8 | E420 | 0.0005 | mg/L | 0.012 mg/L | 100 | 80.0 | 120 | ---- |
| Iron, total | 7439-89-6 | E420 | 0.01 | mg/L | 0.05 mg/L | 102 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Total Metals (QCLot: 2055513) - continued** | | | | | | | | | |
| Lead, total | 7439-92-1 | E420 | 0.00005 | mg/L | 0.025 mg/L | 103 | 80.0 | 120 | ---- |
| Magnesium, total | 7439-95-4 | E420 | 0.005 | mg/L | 2.5 mg/L | 110 | 80.0 | 120 | ---- |
| Manganese, total | 7439-96-5 | E420 | 0.0001 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Nickel, total | 7440-02-0 | E420 | 0.0005 | mg/L | 0.025 mg/L | 100 | 80.0 | 120 | ---- |
| Potassium, total | 7440-09-7 | E420 | 0.05 | mg/L | 2.5 mg/L | 98.5 | 80.0 | 120 | ---- |
| Sodium, total | 7440-23-5 | E420 | 0.05 | mg/L | 2.5 mg/L | 104 | 80.0 | 120 | ---- |
| Uranium, total | 7440-61-1 | E420 | 0.00001 | mg/L | 0 mg/L | 99.8 | 80.0 | 120 | ---- |
| Vanadium, total | 7440-62-2 | E420 | 0.0005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Zinc, total | 7440-66-6 | E420 | 0.003 | mg/L | 0.025 mg/L | 98.6 | 80.0 | 120 | ---- |
| **Total Metals (QCLot: 2056068)** | | | | | | | | | |
| Mercury, total | 7439-97-6 | E508 | 0.000005 | mg/L | 0 mg/L | 100 | 80.0 | 120 | ---- |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | 0 mg/L | 97.3 | 80.0 | 120 | ---- |
| **Dissolved Metals (QCLot: 2056221)** | | | | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | 0.1 mg/L | 110 | 80.0 | 120 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | 0.05 mg/L | 105 | 80.0 | 120 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | 0.05 mg/L | 110 | 80.0 | 120 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | 0.012 mg/L | 105 | 80.0 | 120 | ---- |
| Beryllium, dissolved | 7440-41-7 | E421 | 0.00002 | mg/L | 0.005 mg/L | 99.6 | 80.0 | 120 | ---- |
| Bismuth, dissolved | 7440-69-9 | E421 | 0.00005 | mg/L | 0.05 mg/L | 106 | 80.0 | 120 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | 0.05 mg/L | 98.9 | 80.0 | 120 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | 0.005 mg/L | 99.8 | 80.0 | 120 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | 2.5 mg/L | 96.6 | 80.0 | 120 | ---- |
| Cesium, dissolved | 7440-46-2 | E421 | 0.00001 | mg/L | 0.002 mg/L | 101 | 80.0 | 120 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | 0.012 mg/L | 105 | 80.0 | 120 | ---- |
| Cobalt, dissolved | 7440-48-4 | E421 | 0.0001 | mg/L | 0.012 mg/L | 100 | 80.0 | 120 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | 0.05 mg/L | 103 | 80.0 | 120 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | 0.025 mg/L | 107 | 80.0 | 120 | ---- |
| Lithium, dissolved | 7439-93-2 | E421 | 0.001 | mg/L | 0.012 mg/L | 108 | 80.0 | 120 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | 2.5 mg/L | 116 | 80.0 | 120 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | 0.012 mg/L | 105 | 80.0 | 120 | ---- |
| Molybdenum, dissolved | 7439-98-7 | E421 | 0.00005 | mg/L | 0.012 mg/L | 101 | 80.0 | 120 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E421 | 0.05 | mg/L | 0.5 mg/L | 110 | 80.0 | 120 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | 2.5 mg/L | 106 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2056221) - continued** | | | | | | | | | |
| Rubidium, dissolved | 7440-17-7 | E421 | 0.0002 | mg/L | 0.005 mg/L | 112 | 80.0 | 120 | ---- |
| Selenium, dissolved | 7782-49-2 | E421 | 0.00005 | mg/L | 0.05 mg/L | 101 | 80.0 | 120 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | 0.5 mg/L | 108 | 60.0 | 140 | ---- |
| Silver, dissolved | 7440-22-4 | E421 | 0.00001 | mg/L | 0.005 mg/L | 95.8 | 80.0 | 120 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | 2.5 mg/L | 108 | 80.0 | 120 | ---- |
| Strontium, dissolved | 7440-24-6 | E421 | 0.0002 | mg/L | 0.012 mg/L | 107 | 80.0 | 120 | ---- |
| Sulfur, dissolved | 7704-34-9 | E421 | 0.5 | mg/L | 2.5 mg/L | 105 | 80.0 | 120 | ---- |
| Tellurium, dissolved | 13494-80-9 | E421 | 0.0002 | mg/L | 0.005 mg/L | 98.2 | 80.0 | 120 | ---- |
| Thallium, dissolved | 7440-28-0 | E421 | 0.00001 | mg/L | 0.05 mg/L | 106 | 80.0 | 120 | ---- |
| Thorium, dissolved | 7440-29-1 | E421 | 0.0001 | mg/L | 0.005 mg/L | 106 | 80.0 | 120 | ---- |
| Tin, dissolved | 7440-31-5 | E421 | 0.0001 | mg/L | 0.025 mg/L | 102 | 80.0 | 120 | ---- |
| Titanium, dissolved | 7440-32-6 | E421 | 0.0003 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Tungsten, dissolved | 7440-33-7 | E421 | 0.0001 | mg/L | 0.005 mg/L | 100 | 80.0 | 120 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | 0 mg/L | 104 | 80.0 | 120 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | 0.025 mg/L | 106 | 80.0 | 120 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | 0.025 mg/L | 104 | 80.0 | 120 | ---- |
| Zirconium, dissolved | 7440-67-7 | E421 | 0.0002 | mg/L | 0.005 mg/L | 97.9 | 80.0 | 120 | ---- |
| **Dissolved Metals (QCLot: 2056345)** | | | | | | | | | |
| Aluminum, dissolved | 7429-90-5 | E421 | 0.001 | mg/L | 0.1 mg/L | 107 | 80.0 | 120 | ---- |
| Antimony, dissolved | 7440-36-0 | E421 | 0.0001 | mg/L | 0.05 mg/L | 104 | 80.0 | 120 | ---- |
| Arsenic, dissolved | 7440-38-2 | E421 | 0.0001 | mg/L | 0.05 mg/L | 108 | 80.0 | 120 | ---- |
| Barium, dissolved | 7440-39-3 | E421 | 0.0001 | mg/L | 0.012 mg/L | 107 | 80.0 | 120 | ---- |
| Beryllium, dissolved | 7440-41-7 | E421 | 0.00002 | mg/L | 0.005 mg/L | 97.3 | 80.0 | 120 | ---- |
| Bismuth, dissolved | 7440-69-9 | E421 | 0.00005 | mg/L | 0.05 mg/L | 106 | 80.0 | 120 | ---- |
| Boron, dissolved | 7440-42-8 | E421 | 0.01 | mg/L | 0.05 mg/L | 99.1 | 80.0 | 120 | ---- |
| Cadmium, dissolved | 7440-43-9 | E421 | 0.000005 | mg/L | 0.005 mg/L | 107 | 80.0 | 120 | ---- |
| Calcium, dissolved | 7440-70-2 | E421 | 0.05 | mg/L | 2.5 mg/L | 103 | 80.0 | 120 | ---- |
| Cesium, dissolved | 7440-46-2 | E421 | 0.00001 | mg/L | 0.002 mg/L | 103 | 80.0 | 120 | ---- |
| Chromium, dissolved | 7440-47-3 | E421 | 0.0005 | mg/L | 0.012 mg/L | 106 | 80.0 | 120 | ---- |
| Cobalt, dissolved | 7440-48-4 | E421 | 0.0001 | mg/L | 0.012 mg/L | 104 | 80.0 | 120 | ---- |
| Copper, dissolved | 7440-50-8 | E421 | 0.0002 | mg/L | 0.012 mg/L | 104 | 80.0 | 120 | ---- |
| Iron, dissolved | 7439-89-6 | E421 | 0.01 | mg/L | 0.05 mg/L | 105 | 80.0 | 120 | ---- |
| Lead, dissolved | 7439-92-1 | E421 | 0.00005 | mg/L | 0.025 mg/L | 107 | 80.0 | 120 | ---- |
| Lithium, dissolved | 7439-93-2 | E421 | 0.001 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Magnesium, dissolved | 7439-95-4 | E421 | 0.005 | mg/L | 2.5 mg/L | 112 | 80.0 | 120 | ---- |
| Manganese, dissolved | 7439-96-5 | E421 | 0.0001 | mg/L | 0.012 mg/L | 108 | 80.0 | 120 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2056345) - continued** | | | | | | | | | |
| Molybdenum, dissolved | 7439-98-7 | E421 | 0.00005 | mg/L | 0.012 mg/L | 102 | 80.0 | 120 | ---- |
| Nickel, dissolved | 7440-02-0 | E421 | 0.0005 | mg/L | 0.025 mg/L | 104 | 80.0 | 120 | ---- |
| Phosphorus, dissolved | 7723-14-0 | E421 | 0.05 | mg/L | 0.5 mg/L | 110 | 80.0 | 120 | ---- |
| Potassium, dissolved | 7440-09-7 | E421 | 0.05 | mg/L | 2.5 mg/L | 102 | 80.0 | 120 | ---- |
| Rubidium, dissolved | 7440-17-7 | E421 | 0.0002 | mg/L | 0.005 mg/L | 104 | 80.0 | 120 | ---- |
| Selenium, dissolved | 7782-49-2 | E421 | 0.00005 | mg/L | 0.05 mg/L | 104 | 80.0 | 120 | ---- |
| Silicon, dissolved | 7440-21-3 | E421 | 0.05 | mg/L | 0.5 mg/L | 107 | 60.0 | 140 | ---- |
| Silver, dissolved | 7440-22-4 | E421 | 0.00001 | mg/L | 0.005 mg/L | 96.9 | 80.0 | 120 | ---- |
| Sodium, dissolved | 7440-23-5 | E421 | 0.05 | mg/L | 2.5 mg/L | 105 | 80.0 | 120 | ---- |
| Strontium, dissolved | 7440-24-6 | E421 | 0.0002 | mg/L | 0.012 mg/L | 105 | 80.0 | 120 | ---- |
| Sulfur, dissolved | 7704-34-9 | E421 | 0.5 | mg/L | 2.5 mg/L | 104 | 80.0 | 120 | ---- |
| Tellurium, dissolved | 13494-80-9 | E421 | 0.0002 | mg/L | 0.005 mg/L | 104 | 80.0 | 120 | ---- |
| Thallium, dissolved | 7440-28-0 | E421 | 0.00001 | mg/L | 0.05 mg/L | 106 | 80.0 | 120 | ---- |
| Thorium, dissolved | 7440-29-1 | E421 | 0.0001 | mg/L | 0.005 mg/L | 105 | 80.0 | 120 | ---- |
| Tin, dissolved | 7440-31-5 | E421 | 0.0001 | mg/L | 0.025 mg/L | 107 | 80.0 | 120 | ---- |
| Titanium, dissolved | 7440-32-6 | E421 | 0.0003 | mg/L | 0.012 mg/L | 100 | 80.0 | 120 | ---- |
| Tungsten, dissolved | 7440-33-7 | E421 | 0.0001 | mg/L | 0.005 mg/L | 102 | 80.0 | 120 | ---- |
| Uranium, dissolved | 7440-61-1 | E421 | 0.00001 | mg/L | 0 mg/L | 104 | 80.0 | 120 | ---- |
| Vanadium, dissolved | 7440-62-2 | E421 | 0.0005 | mg/L | 0.025 mg/L | 105 | 80.0 | 120 | ---- |
| Zinc, dissolved | 7440-66-6 | E421 | 0.001 | mg/L | 0.025 mg/L | 103 | 80.0 | 120 | ---- |
| Zirconium, dissolved | 7440-67-7 | E421 | 0.0002 | mg/L | 0.005 mg/L | 99.2 | 80.0 | 120 | ---- |
| Mercury, dissolved | 7439-97-6 | E509 | 0.000005 | mg/L | 0 mg/L | 95.8 | 80.0 | 120 | ---- |
| **Aggregate Organics (QCLot: 2050588)** | | | | | | | | | |
| Biochemical oxygen demand [BOD] | ---- | E550 | 2 | mg/L | 198 mg/L | 101 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 2056286)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 103 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 2058371)** | | | | | | | | | |
| Phenols, total (4AAP) | ---- | E562 | 0.001 | mg/L | 0.02 mg/L | 100 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 2061447)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 98.6 | 85.0 | 115 | ---- |
| **Aggregate Organics (QCLot: 2061450)** | | | | | | | | | |
| Chemical oxygen demand [COD] | ---- | E559-L | 10 | mg/L | 100 mg/L | 97.8 | 85.0 | 115 | ---- |
| **Volatile Organic Compounds (QCLot: 2054878)** | | | | | | | | | |
| Benzene | 71-43-2 | E611A | 0.5 | µg/L | 100 µg/L | 97.0 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| Analyte | CAS Number | Method | LOR | Unit | Laboratory Control Sample (LCS) Report | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Recovery (%) | Recovery Limits (%) | | |
| | | | | | Target Concentration | LCS | Low | High | Qualifier |
| **Volatile Organic Compounds (QCLot: 2054878) - continued** | | | | | | | | | |
| Ethylbenzene | 100-41-4 | E611A | 0.5 | µg/L | 100 µg/L | 91.8 | 70.0 | 130 | ---- |
| Toluene | 108-88-3 | E611A | 0.5 | µg/L | 100 µg/L | 97.3 | 70.0 | 130 | ---- |
| Xylene, m+p- | 179601-23-1 | E611A | 0.4 | µg/L | 200 µg/L | 89.6 | 70.0 | 130 | ---- |
| Xylene, o- | 95-47-6 | E611A | 0.3 | µg/L | 100 µg/L | 85.9 | 70.0 | 130 | ---- |
| **Hydrocarbons (QCLot: 2054877)** | | | | | | | | | |
| VPH C6-C10 | n/a | E581.VPH | 25 | µg/L | 2000 µg/L | 80.6 | 80.0 | 120 | ---- |
| **Hydrocarbons (QCLot: 2058123)** | | | | | | | | | |
| EPH >C10-C16 | n/a | E601F | 50 | µg/L | 3870 µg/L | 85.0 | 70.0 | 130 | ---- |
| EPH >C16-C21 | n/a | E601F | 50 | µg/L | 3540 µg/L | 83.0 | 70.0 | 130 | ---- |
| EPH >C21-C32 | n/a | E601F | 50 | µg/L | 3330 µg/L | 77.1 | 70.0 | 130 | ---- |
| EPH >C34-C50 | n/a | E601F | 100 | µg/L | 3420 µg/L | 95.1 | 70.0 | 130 | ---- |

## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Anions and Nutrients (QCLot: 2055897)** | | | | | | | | | | |
| HA2501804-001 | MW8-S | Nitrate (as N) | 14797-55-8 | E235.NO3 | 12.1 mg/L | 12.5 mg/L | 96.6 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055898)** | | | | | | | | | | |
| HA2501804-001 | MW8-S | Nitrite (as N) | 14797-65-0 | E235.NO2 | 2.44 mg/L | 2.5 mg/L | 97.4 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055899)** | | | | | | | | | | |
| HA2501804-001 | MW8-S | Chloride | 16887-00-6 | E235.Cl | 488 mg/L | 500 mg/L | 97.6 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055900)** | | | | | | | | | | |
| HA2501804-001 | MW8-S | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 480 mg/L | 500 mg/L | 96.1 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055902)** | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Sulfate (as SO4) | 14808-79-8 | E235.SO4 | 98.7 mg/L | 100 mg/L | 98.7 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055903)** | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Nitrate (as N) | 14797-55-8 | E235.NO3 | 2.44 mg/L | 2.5 mg/L | 97.7 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055904)** | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Nitrite (as N) | 14797-65-0 | E235.NO2 | 0.502 mg/L | 0.5 mg/L | 100 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2055905)** | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Chloride | 16887-00-6 | E235.Cl | 99.5 mg/L | 100 mg/L | 99.5 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2056283)** | | | | | | | | | | |
| HA2501797-002 | Anonymous | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 27.2 mg/L | 25 mg/L | 109 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 2056284)** | | | | | | | | | | |
| HA2501798-002 | Anonymous | Phosphorus, total | 7723-14-0 | E372-U | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 2056285)** | | | | | | | | | | |
| HA2501804-001 | MW8-S | Ammonia, total (as N) | 7664-41-7 | E298 | 0.106 mg/L | 0.1 mg/L | 106 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2058368)** | | | | | | | | | | |
| HA2501804-006 | PW19-01 | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 2.82 mg/L | 2.5 mg/L | 113 | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 2058369)** | | | | | | | | | | |
| HA2501804-007 | MW19-12S | Phosphorus, total | 7723-14-0 | E372-U | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Anions and Nutrients (QCLot: 2058370)** | | | | | | | | | | |
| HA2501804-008 | MW19-12D | Ammonia, total (as N) | 7664-41-7 | E298 | 0.108 mg/L | 0.1 mg/L | 108 | 75.0 | 125 | ---- |
| **Anions and Nutrients (QCLot: 2062922)** | | | | | | | | | | |
| HA2501804-004 | MW3 | Kjeldahl nitrogen, total [TKN] | ---- | E318 | 29.8 mg/L | 25 mg/L | 119 | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2058043)** | | | | | | | | | | |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Organic / Inorganic Carbon (QCLot: 2058043) - continued** | | | | | | | | | | |
| HA2501803-001 | Anonymous | Carbon, dissolved organic [DOC] | ---- | E358-L | 4.49 mg/L | 5 mg/L | 89.9 | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2058372)** | | | | | | | | | | |
| HA2501804-013 | SW4 | Carbon, total organic [TOC] | ---- | E355-L | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2059897)** | | | | | | | | | | |
| HA2501802-001 | Anonymous | Carbon, dissolved organic [DOC] | ---- | E358-L | 4.60 mg/L | 5 mg/L | 91.9 | 70.0 | 130 | ---- |
| **Organic / Inorganic Carbon (QCLot: 2061083)** | | | | | | | | | | |
| HA2501804-012 | MW20-16 | Carbon, dissolved organic [DOC] | ---- | E358-L | 4.84 mg/L | 5 mg/L | 96.7 | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 2055513)** | | | | | | | | | | |
| HA2501788-002 | Anonymous | Aluminum, total | 7429-90-5 | E420 | 0.0996 mg/L | 0.1 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Antimony, total | 7440-36-0 | E420 | 0.0527 mg/L | 0.05 mg/L | 105 | 70.0 | 130 | ---- |
| | | Arsenic, total | 7440-38-2 | E420 | 0.0530 mg/L | 0.05 mg/L | 106 | 70.0 | 130 | ---- |
| | | Barium, total | 7440-39-3 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Boron, total | 7440-42-8 | E420 | 0.052 mg/L | 0.05 mg/L | 103 | 70.0 | 130 | ---- |
| | | Cadmium, total | 7440-43-9 | E420 | 0.00516 mg/L | 0.005 mg/L | 103 | 70.0 | 130 | ---- |
| | | Calcium, total | 7440-70-2 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Chromium, total | 7440-47-3 | E420 | 0.0129 mg/L | 0.012 mg/L | 104 | 70.0 | 130 | ---- |
| | | Copper, total | 7440-50-8 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Iron, total | 7439-89-6 | E420 | 0.052 mg/L | 0.05 mg/L | 103 | 70.0 | 130 | ---- |
| | | Lead, total | 7439-92-1 | E420 | 0.0257 mg/L | 0.025 mg/L | 103 | 70.0 | 130 | ---- |
| | | Magnesium, total | 7439-95-4 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, total | 7439-96-5 | E420 | 0.0125 mg/L | 0.012 mg/L | 100 | 70.0 | 130 | ---- |
| | | Nickel, total | 7440-02-0 | E420 | 0.0252 mg/L | 0.025 mg/L | 101 | 70.0 | 130 | ---- |
| | | Potassium, total | 7440-09-7 | E420 | 2.50 mg/L | 2.5 mg/L | 99.8 | 70.0 | 130 | ---- |
| | | Sodium, total | 7440-23-5 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Uranium, total | 7440-61-1 | E420 | 0.000257 mg/L | 0 mg/L | 103 | 70.0 | 130 | ---- |
| | | Vanadium, total | 7440-62-2 | E420 | 0.0259 mg/L | 0.025 mg/L | 104 | 70.0 | 130 | ---- |
| | | Zinc, total | 7440-66-6 | E420 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| **Total Metals (QCLot: 2056068)** | | | | | | | | | | |
| HA2501804-014 | SW13 | Mercury, total | 7439-97-6 | E508 | 0.000100 mg/L | 0 mg/L | 100 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2055951)** | | | | | | | | | | |
| HA2501802-002 | Anonymous | Mercury, dissolved | 7439-97-6 | E509 | 0.0000942 mg/L | 0 mg/L | 94.2 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2056221)** | | | | | | | | | | |
| HA2501792-012 | Anonymous | Aluminum, dissolved | 7429-90-5 | E421 | 0.101 mg/L | 0.1 mg/L | 101 | 70.0 | 130 | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.0500 mg/L | 0.05 mg/L | 99.9 | 70.0 | 130 | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.0542 mg/L | 0.05 mg/L | 108 | 70.0 | 130 | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | 0.0126 mg/L | 0.012 mg/L | 101 | 70.0 | 130 | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E421 | 0.00464 mg/L | 0.005 mg/L | 92.8 | 70.0 | 130 | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E421 | 0.0389 mg/L | 0.05 mg/L | 77.8 | 70.0 | 130 | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | 0.047 mg/L | 0.05 mg/L | 94.4 | 70.0 | 130 | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.00481 mg/L | 0.005 mg/L | 96.1 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2056221) - continued** | | | | | | | | | | |
| HA2501792-012 | Anonymous | Calcium, dissolved | 7440-70-2 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cesium, dissolved | 7440-46-2 | E421 | 0.00242 mg/L | 0.002 mg/L | 96.8 | 70.0 | 130 | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.0121 mg/L | 0.012 mg/L | 96.7 | 70.0 | 130 | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E421 | 0.0116 mg/L | 0.012 mg/L | 92.9 | 70.0 | 130 | ---- |
| | | Copper, dissolved | 7440-50-8 | E421 | 0.0107 mg/L | 0.012 mg/L | 86.0 | 70.0 | 130 | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.047 mg/L | 0.05 mg/L | 94.5 | 70.0 | 130 | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.0238 mg/L | 0.025 mg/L | 95.1 | 70.0 | 130 | ---- |
| | | Lithium, dissolved | 7439-93-2 | E421 | 0.0120 mg/L | 0.012 mg/L | 95.7 | 70.0 | 130 | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | 0.0119 mg/L | 0.012 mg/L | 95.2 | 70.0 | 130 | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E421 | 0.0120 mg/L | 0.012 mg/L | 96.3 | 70.0 | 130 | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.0230 mg/L | 0.025 mg/L | 92.0 | 70.0 | 130 | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E421 | 0.546 mg/L | 0.5 mg/L | 109 | 70.0 | 130 | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 2.45 mg/L | 2.5 mg/L | 98.0 | 70.0 | 130 | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E421 | 0.00498 mg/L | 0.005 mg/L | 99.6 | 70.0 | 130 | ---- |
| | | Selenium, dissolved | 7782-49-2 | E421 | 0.0366 mg/L | 0.05 mg/L | 73.3 | 70.0 | 130 | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Silver, dissolved | 7440-22-4 | E421 | 0.00349 mg/L | 0.005 mg/L | 69.8 | 70.0 | 130 | MES |
| | | Sodium, dissolved | 7440-23-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Strontium, dissolved | 7440-24-6 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E421 | 0.00468 mg/L | 0.005 mg/L | 93.7 | 70.0 | 130 | ---- |
| | | Thallium, dissolved | 7440-28-0 | E421 | 0.0469 mg/L | 0.05 mg/L | 93.9 | 70.0 | 130 | ---- |
| | | Thorium, dissolved | 7440-29-1 | E421 | 0.00478 mg/L | 0.005 mg/L | 95.6 | 70.0 | 130 | ---- |
| | | Tin, dissolved | 7440-31-5 | E421 | 0.0246 mg/L | 0.025 mg/L | 98.6 | 70.0 | 130 | ---- |
| | | Titanium, dissolved | 7440-32-6 | E421 | 0.0122 mg/L | 0.012 mg/L | 97.3 | 70.0 | 130 | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E421 | 0.00479 mg/L | 0.005 mg/L | 95.8 | 70.0 | 130 | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | 0.000236 mg/L | 0 mg/L | 94.4 | 70.0 | 130 | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.0253 mg/L | 0.025 mg/L | 101 | 70.0 | 130 | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0244 mg/L | 0.025 mg/L | 97.6 | 70.0 | 130 | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E421 | 0.00474 mg/L | 0.005 mg/L | 94.8 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2056345)** | | | | | | | | | | |
| HA2501804-022 | MW20-17S | Aluminum, dissolved | 7429-90-5 | E421 | 0.0977 mg/L | 0.1 mg/L | 97.7 | 70.0 | 130 | ---- |
| | | Antimony, dissolved | 7440-36-0 | E421 | 0.0503 mg/L | 0.05 mg/L | 101 | 70.0 | 130 | ---- |
| | | Arsenic, dissolved | 7440-38-2 | E421 | 0.0538 mg/L | 0.05 mg/L | 108 | 70.0 | 130 | ---- |
| | | Barium, dissolved | 7440-39-3 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Beryllium, dissolved | 7440-41-7 | E421 | 0.00471 mg/L | 0.005 mg/L | 94.3 | 70.0 | 130 | ---- |
| | | Bismuth, dissolved | 7440-69-9 | E421 | 0.0483 mg/L | 0.05 mg/L | 96.6 | 70.0 | 130 | ---- |
| | | Boron, dissolved | 7440-42-8 | E421 | 0.045 mg/L | 0.05 mg/L | 90.8 | 70.0 | 130 | ---- |
| | | Cadmium, dissolved | 7440-43-9 | E421 | 0.00512 mg/L | 0.005 mg/L | 102 | 70.0 | 130 | ---- |
| | | Calcium, dissolved | 7440-70-2 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Cesium, dissolved | 7440-46-2 | E421 | 0.00247 mg/L | 0.002 mg/L | 98.8 | 70.0 | 130 | ---- |
| | | Chromium, dissolved | 7440-47-3 | E421 | 0.0122 mg/L | 0.012 mg/L | 97.9 | 70.0 | 130 | ---- |
| | | Cobalt, dissolved | 7440-48-4 | E421 | 0.0120 mg/L | 0.012 mg/L | 96.1 | 70.0 | 130 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Dissolved Metals (QCLot: 2056345) - continued** | | | | | | | | | | |
| HA2501804-022 | MW20-17S | Copper, dissolved | 7440-50-8 | E421 | 0.0118 mg/L | 0.012 mg/L | 94.7 | 70.0 | 130 | ---- |
| | | Iron, dissolved | 7439-89-6 | E421 | 0.048 mg/L | 0.05 mg/L | 95.5 | 70.0 | 130 | ---- |
| | | Lead, dissolved | 7439-92-1 | E421 | 0.0250 mg/L | 0.025 mg/L | 99.9 | 70.0 | 130 | ---- |
| | | Lithium, dissolved | 7439-93-2 | E421 | 0.0114 mg/L | 0.012 mg/L | 90.9 | 70.0 | 130 | ---- |
| | | Magnesium, dissolved | 7439-95-4 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Manganese, dissolved | 7439-96-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Molybdenum, dissolved | 7439-98-7 | E421 | 0.0120 mg/L | 0.012 mg/L | 95.8 | 70.0 | 130 | ---- |
| | | Nickel, dissolved | 7440-02-0 | E421 | 0.0231 mg/L | 0.025 mg/L | 92.3 | 70.0 | 130 | ---- |
| | | Phosphorus, dissolved | 7723-14-0 | E421 | 0.495 mg/L | 0.5 mg/L | 99.0 | 70.0 | 130 | ---- |
| | | Potassium, dissolved | 7440-09-7 | E421 | 2.36 mg/L | 2.5 mg/L | 94.5 | 70.0 | 130 | ---- |
| | | Rubidium, dissolved | 7440-17-7 | E421 | 0.00488 mg/L | 0.005 mg/L | 97.5 | 70.0 | 130 | ---- |
| | | Selenium, dissolved | 7782-49-2 | E421 | 0.0562 mg/L | 0.05 mg/L | 112 | 70.0 | 130 | ---- |
| | | Silicon, dissolved | 7440-21-3 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Silver, dissolved | 7440-22-4 | E421 | 0.00453 mg/L | 0.005 mg/L | 90.6 | 70.0 | 130 | ---- |
| | | Sodium, dissolved | 7440-23-5 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Strontium, dissolved | 7440-24-6 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Sulfur, dissolved | 7704-34-9 | E421 | 2.23 mg/L | 2.5 mg/L | 89.3 | 70.0 | 130 | ---- |
| | | Tellurium, dissolved | 13494-80-9 | E421 | 0.00546 mg/L | 0.005 mg/L | 109 | 70.0 | 130 | ---- |
| | | Thallium, dissolved | 7440-28-0 | E421 | 0.0500 mg/L | 0.05 mg/L | 100.0 | 70.0 | 130 | ---- |
| | | Thorium, dissolved | 7440-29-1 | E421 | 0.00482 mg/L | 0.005 mg/L | 96.3 | 70.0 | 130 | ---- |
| | | Tin, dissolved | 7440-31-5 | E421 | 0.0250 mg/L | 0.025 mg/L | 99.8 | 70.0 | 130 | ---- |
| | | Titanium, dissolved | 7440-32-6 | E421 | 0.0116 mg/L | 0.012 mg/L | 92.6 | 70.0 | 130 | ---- |
| | | Tungsten, dissolved | 7440-33-7 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Uranium, dissolved | 7440-61-1 | E421 | ND mg/L | ---- | ND | 70.0 | 130 | ---- |
| | | Vanadium, dissolved | 7440-62-2 | E421 | 0.0247 mg/L | 0.025 mg/L | 98.8 | 70.0 | 130 | ---- |
| | | Zinc, dissolved | 7440-66-6 | E421 | 0.0245 mg/L | 0.025 mg/L | 98.2 | 70.0 | 130 | ---- |
| | | Zirconium, dissolved | 7440-67-7 | E421 | 0.00475 mg/L | 0.005 mg/L | 95.0 | 70.0 | 130 | ---- |
| **Dissolved Metals (QCLot: 2056446)** | | | | | | | | | | |
| HA2501804-005 | DUP3 | Mercury, dissolved | 7439-97-6 | E509 | 0.000102 mg/L | 0 mg/L | 102 | 70.0 | 130 | ---- |
| **Aggregate Organics (QCLot: 2056286)** | | | | | | | | | | |
| HA2501804-002 | MW8-D | Phenols, total (4AAP) | ---- | E562 | 0.0208 mg/L | 0.02 mg/L | 104 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 2058371)** | | | | | | | | | | |
| HA2501804-009 | MW2-S | Phenols, total (4AAP) | ---- | E562 | 0.0218 mg/L | 0.02 mg/L | 109 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 2061447)** | | | | | | | | | | |
| HA2501804-001 | MW8-S | Chemical oxygen demand [COD] | ---- | E559-L | 104 mg/L | 100 mg/L | 104 | 75.0 | 125 | ---- |
| **Aggregate Organics (QCLot: 2061450)** | | | | | | | | | | |
| HA2501804-021 | MW20-17D | Chemical oxygen demand [COD] | ---- | E559-L | 108 mg/L | 100 mg/L | 108 | 75.0 | 125 | ---- |
| **Volatile Organic Compounds (QCLot: 2054878)** | | | | | | | | | | |
| HA2501797-002 | Anonymous | Benzene | 71-43-2 | E611A | 92.3 µg/L | 100 µg/L | 92.3 | 60.0 | 140 | ---- |
| | | Ethylbenzene | 100-41-4 | E611A | 87.9 µg/L | 100 µg/L | 87.9 | 60.0 | 140 | ---- |
| | | Toluene | 108-88-3 | E611A | 93.6 µg/L | 100 µg/L | 93.6 | 60.0 | 140 | ---- |

Sub-Matrix: **Water**

| | | | | | Matrix Spike (MS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | | Recovery (%) | Recovery Limits (%) | | |
| Laboratory sample ID | Client sample ID | Analyte | CAS Number | Method | Concentration | Target | MS | Low | High | Qualifier |
| **Volatile Organic Compounds (QCLot: 2054878) - continued** | | | | | | | | | | |
| HA2501797-002 | Anonymous | Xylene, m+p- | 179601-23-1 | E611A | 172 µg/L | 200 µg/L | 85.8 | 60.0 | 140 | ---- |
| | | Xylene, o- | 95-47-6 | E611A | 82.3 µg/L | 100 µg/L | 82.3 | 60.0 | 140 | ---- |
| **Hydrocarbons (QCLot: 2054877)** | | | | | | | | | | |
| HA2501797-002 | Anonymous | VPH C6-C10 | n/a | E581.VPH | 1750 µg/L | 2000 µg/L | 87.6 | 60.0 | 140 | ---- |

## Qualifiers

| Qualifier | Description |
|---|---|
| MES | *Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).* |

# Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page of

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division Halifax

Work Order Reference HA2501804

Telephone : +1 902 707 4888

| Report To | Contact and company name below will appear on the final report | Reports / Recipients | Turnaround Time (TAT) Requested |
|---|---|---|---|
| Company: | AECOM | Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL) | ☑ Routine [R] if received by 3pm M-F - no surcharges apply |
| Contact: | Janice Shea | Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A | ☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum |
| Phone: | 902-428-2054 | ☐ Compare Results to Criteria on Report - provide details below if box checked | ☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum |
| | Company address below will appear on the final report | Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX | ☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum |
| Street: | 1701 Hollis St, SH400 | Email 1 or Fax Janice.Shea@aecom.com | ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum |
| City/Province: | Halifax, NS | Email 2 | ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. |
| Postal Code: | B3J 3M8 | Email 3 | Additional fees may apply to rush requests on weekends, st |
| Invoice To | Same as Report To ☑ YES ☐ NO | Invoice Recipients | Date and Time Required for all E&P TATs: |
| | Copy of Invoice with Report ☑ YES ☐ NO | Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX | For all tests with rush TATs requested, please conta |
| Company: | AECOM | Email 1 or Fax Janice.Shea@aecom.com | Analysis Reque |
| Contact: | Janice Shea | Email 2 | |

| Project Information | | Oil and Gas Required Fields (client use) | |
|---|---|---|---|
| ALS Account # / Quote #: | AECO100 / HA2024AECO1000002 | AFE/Cost Center: | PO# |
| Job #: | 60718540 | Major/Minor Code: | Routing Code: |
| PO / AFE: | | Requisitioner: | |
| LSD: | | Location: | |
| ALS Lab Work Order # (ALS use only): HA2501804 | | ALS Contact: Emily Hansen | Sampler: |

| ALS Sample # (ALS use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | NUMBER OF CONTAINERS | Schedule 1 - Column 1 - Groundwater | SAMPLES ON HOLD | EXTENDED STORAGE REQUIRED | SUSPECTED HAZARD (see notes) |
|---|---|---|---|---|---|---|---|---|---|
| | MW8-S | June 12/25 | | Water | 5 | ✓ | | | |
| | MW8-D | | | Water | 5 | ✓ | | | |
| | MW19-03D | | | Water | 5 | ✓ | | | |
| | ~~MW19-11M~~ MW3 | | | Water | 5 | ✓ | | | |
| | ~~MW19-11D~~ DUP3 | | | Water | 5 | ✓ | | | |
| | PW19-01 | | | Water | 5 | ✓ | | | |
| | MW19-12S | | | Water | 5 | ✓ | | | |
| | MW19-12D | | | Water | 5 | ✓ | | | |
| | ~~MW19-13S~~ MW2-S | | | Water | 5 | ✓ | | | |
| | ~~MW19-13D~~ MW2-M | | | Water | 5 | ✓ | | | |
| | ~~MW20-14S~~ MW2-D | | | Water | 5 | ✓ | | | |
| | ~~MW20-14D~~ MW20-16 | | | Water | 5 | ✓ | | | |

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

| Drinking Water (DW) Samples[1] (client use) | Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only) |
|---|---|
| Are samples taken from a Regulated DW System? ☐ YES ☐ NO | |
| Are samples for human consumption/ use? ☐ YES ☐ NO | |

**SAMPLE RECEIPT DETAILS (ALS use only)**

Cooling Method: ☐ NONE ☑ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

| INITIAL COOLER TEMPERATURES °C | | | FINAL COOLER TEMPERATURES °C | | | |
|---|---|---|---|---|---|---|
| 6.6 | 8.8 | 12.3 | | | | |

| SHIPMENT RELEASE (client use) | | | INITIAL SHIPMENT RECEPTION (ALS use only) | | | FINAL SHIPMENT RECEPTION (ALS use only) | | |
|---|---|---|---|---|---|---|---|---|
| Released by: | Date: June 12 | Time: 4:50 | Received by: Jason Wang | Date: June 12/25 | Time: 5:20 | Received by: | Date: | Time: |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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FEB 2022 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

# Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page of

Canada Toll Free: 1 800 668 9878

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| Report To | Contact and company name below will appear on the final report |
|---|---|
| Company: | AECOM |
| Contact: | Janice Shea |
| Phone: | 902-428-2054 |
| | Company address below will appear on the final report |
| Street: | 1701 Hollis Street, SH400 |
| City/Province: | Halifax, NS |
| Postal Code: | B3J 3M8 |
| Invoice To | Same as Report To ☐ YES ☐ NO |
| | Copy of Invoice with Report ☐ YES ☐ NO |
| Company: | AECOM |
| Contact: | Janice Shea |

**Reports / Recipients**

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Janice.Shea@aecom.com

Email 2:

Email 3:

**Invoice Recipients**

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Janice.Shea@aecom.com

Email 2:

**Turnaround Time (TAT) Requested**

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&P TATs: dd-mmm-yy hh mm am/pm

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

**Project Information**

| | |
|---|---|
| ALS Account # / Quote #: | AECO100 / HA2024AECO1000002 |
| Job #: | 60718540 |
| PO / AFE: | |
| LSD: | |

**Oil and Gas Required Fields (client use)**

| | |
|---|---|
| AFE/Cost Center: | PO# |
| Major/Minor Code: | Routing Code: |
| Requisitioner: | |
| Location: | |

ALS Lab Work Order # (ALS use only):

ALS Contact: Emily Hansen

Sampler:

**Analysis Request**

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

| ALS Sample # (ALS use only) | Sample Identification and/or Coordinates (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | NUMBER OF CONTAINERS | Schedule 1 - Column 2 - Surface Wat | BTEX/TPH (RBCA Tier 1) | Schedule 1 Column 1 GW | SAMPLES ON HOLD | EXTENDED STORAGE REQUIRED | SUSPECTED HAZARD (see notes) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | SW4 | | | Water | 9 | ✓ | ✓ | | | | |
| | SW13 | | | Water | 9 | ✓ | ✓ | | | | |
| | SW19-20 | | | Water | 9 | ✓ | ✓ | | | | |
| | DUP1 | | | Water | 9 | ✓ | ✓ | | | | |
| | MW20-15s | | | GW | 5 | | | ✓ | | | |
| | MW20-15d | | | GW | 5 | | | ✓ | | | |
| | MW5-S | | | GW | 5 | | | ✓ | | | |
| | MW5-d | | | GW | 5 | | | ✓ | | | |
| | MW20-17d | | | GW | 5 | | | ✓ | | | |
| | MW20-17S | | | GW | 5 | | | ✓ | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Please report cobalt with the metals

**SAMPLE RECEIPT DETAILS (ALS use only)**

Cooling Method: ☐ NONE ☑ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

| INITIAL COOLER TEMPERATURES °C | | | | FINAL COOLER TEMPERATURES °C | | | |
|---|---|---|---|---|---|---|---|
| 6.6 | 8.8 | 12.3 | | | | | |

**SHIPMENT RELEASE (client use)**

| Released by: | Date: | Time: |
|---|---|---|
| [signature] | June 12 | 4:30 |

**INITIAL SHIPMENT RECEPTION (ALS use only)**

| Received by: | Date: | Time: |
|---|---|---|
| Jasin Wang | June 12/25 | 5:00 |

**FINAL SHIPMENT RECEPTION (ALS use only)**

| Received by: | Date: | Time: |
|---|---|---|
| | | |

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

# Appendix E. Outlier Summary

**Outlier Selection:**

Data was plotted on time-series graphs to assess the temporal variability of the data and to visually screen for potential outliers. Any suspected outliers identified were reviewed before removal from the dataset. If the suspected outliers were from the historical dataset, the original data was reviewed to ensure no transcription errors. If outliers were identified in the current data, the analytical report, lab narrative, and/or field notes were reviewed to see if any anomalies.

Below outlines the on-site groundwater locations that contained outliers, what the total count was and how many of these outliers were from the current data.

| Sample Location | # Total Outliers | # Current Outliers |
|---|---|---|
| MW1-D | 94 | 0 |
| MW1-S | 85 | 0 |
| MW2-D | 25 | 0 |
| MW2-M | 30 | 0 |
| MW2-S | 29 | 0 |
| MW3 | 54 | 0 |
| MW5-D | 56 | 0 |
| MW5-S | 48 | 0 |
| MW6-D | 133 | 7 |
| MW6-S | 147 | 0 |
| MW7-D | 152 | 0 |
| MW7-S | 111 | 0 |
| MW8-D | 21 | 0 |
| MW8-S | 16 | 0 |
| MW19-03D | 8 | 0 |
| MW19-09S | 6 | 0 |
| MW19-10S | 2 | 0 |
| MW19-11D | 0 | 0 |
| MW19-11M | 0 | 0 |
| MW19-12S | 1 | 0 |
| MW19-12D | 0 | 0 |
| MW19-13S | 0 | 0 |
| MW20-14S | 2 | 0 |
| MW20-14D | 0 | 0 |
| MW20-15S | 1 | 0 |
| MW20-15D | 0 | 0 |
| MW20-16 | 2 | 0 |
| MW20-17S | 0 | 0 |
| MW20-17D | 1 | 0 |
| PW19-01D | 0 | 0 |
| **TOTAL** | **1024** | **0** |

No transcription errors were found in the historic data outliers. No anomalies were seen with the current data outliers. MW19-09S and MW19-10S were not sampled in this event. It is important to note that confounding event occurred with a change in laboratory in 2024. There are potential outliers in the data, but enough data points need to be generated from the current lab to allow accurate analysis to be done.

**Outlier Selection:**

Data was plotted on time-series graphs to assess the temporal variability of the data and to visually screen for potential outliers. Any suspected outliers identified were reviewed before removal from the dataset, the analytical report, lab narrative, and/or field notes were reviewed to see if any anomalies.

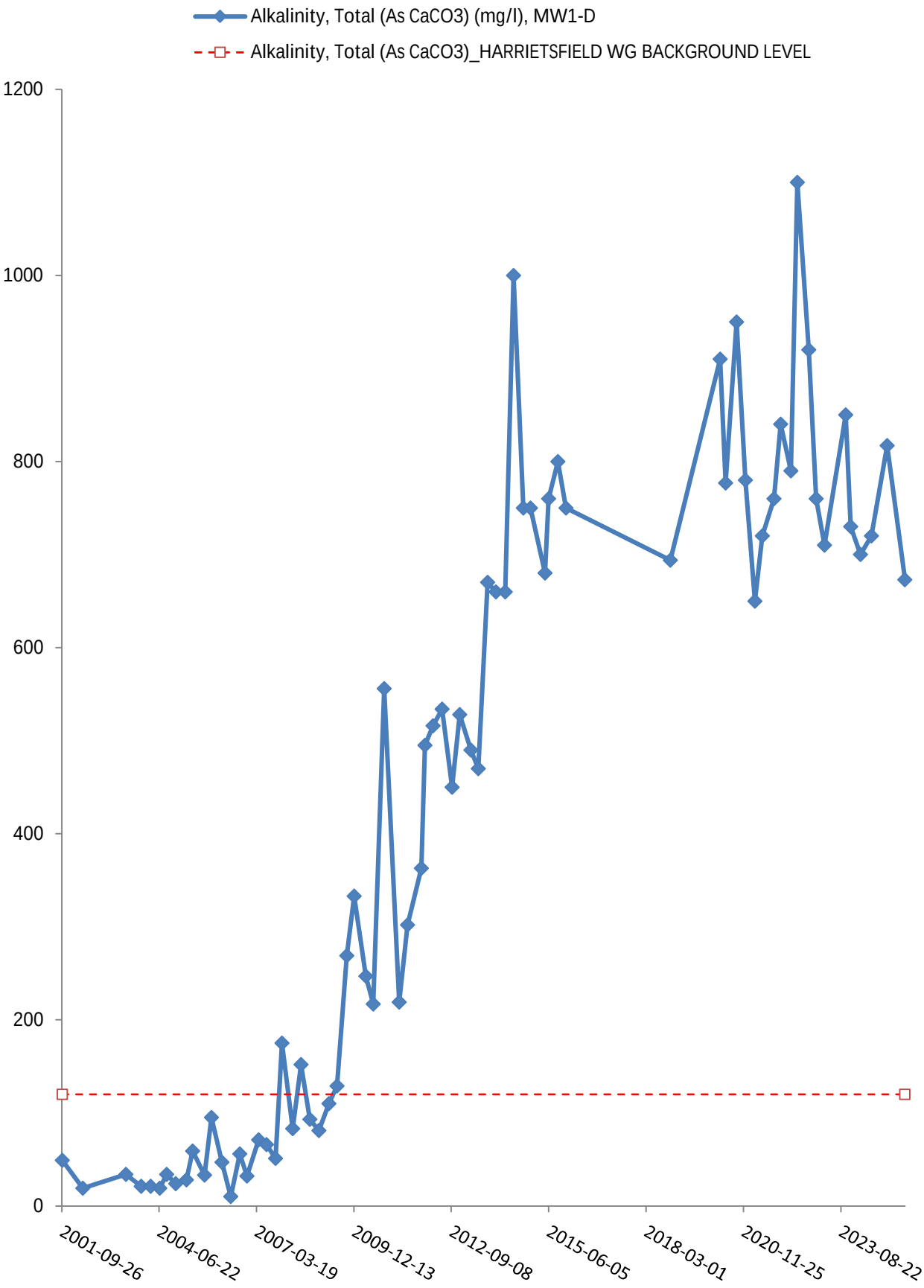
Below outlines the on-site surface water locations that contained outliers and the number of outliers identified. As LDO contains only 3 timepoints at present, there were too few data points to identify outliers.

| Sample Location | # Total Outliers | # Current Outliers |
|---|---|---|
| DIFFUSER | 23 | 0 |
| LDO | 0 | 0 |
| SW01 | 35 | 0 |
| SW02 | 47 | 0 |
| SW03 | 34 | 0 |
| SW04 | 69 | 0 |
| SW13 | 22 | 0 |
| SW19-20 | 10 | 0 |
| SW-14 | 0 | 0 |
| **TOTAL** | **240** | **0** |

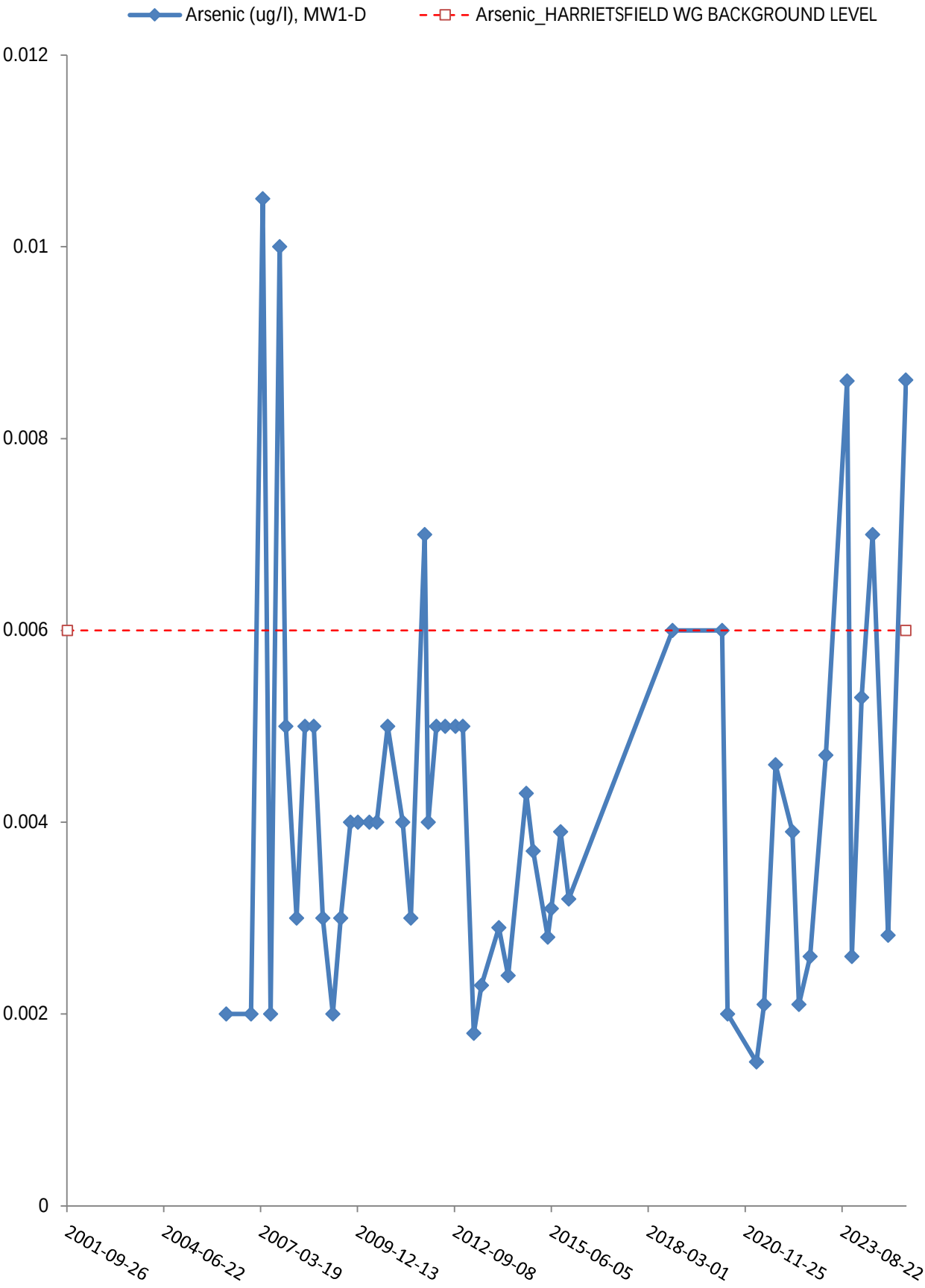
No transcription errors were found in the historic data outliers. No anomalies were seen with the current data outliers. The following locations were not sampled in 2025, LDO, SW01, SW02, SW03, and SW14. It is important to note that confounding event occurred with a change in laboratory in 2024. There are potential outliers in the data, but enough data points need to be generated from the current lab to allow an accurate analysis to be done.

# Appendix F. Time Series Plots

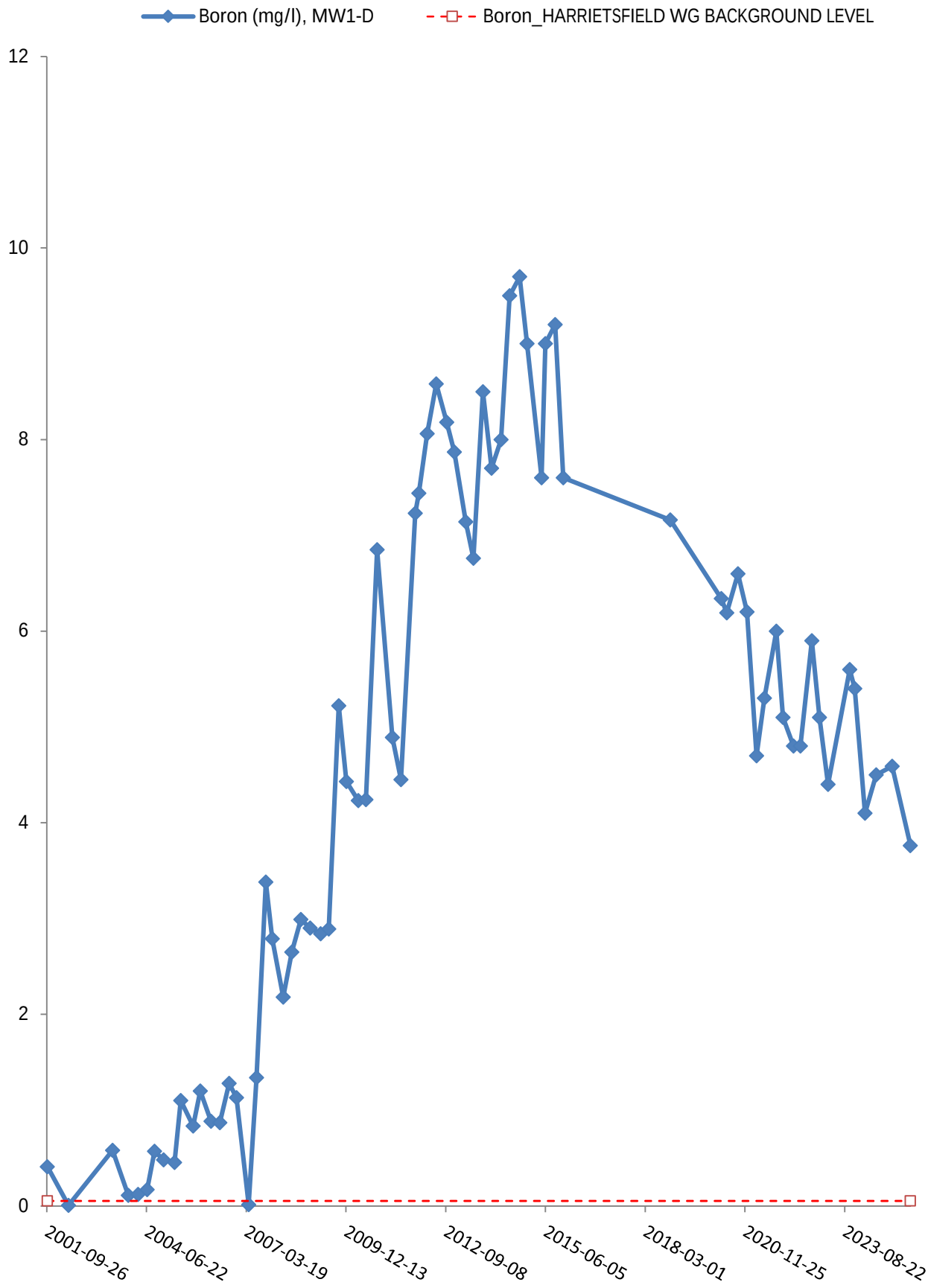
# MW-1D
# Alkalinity, Total



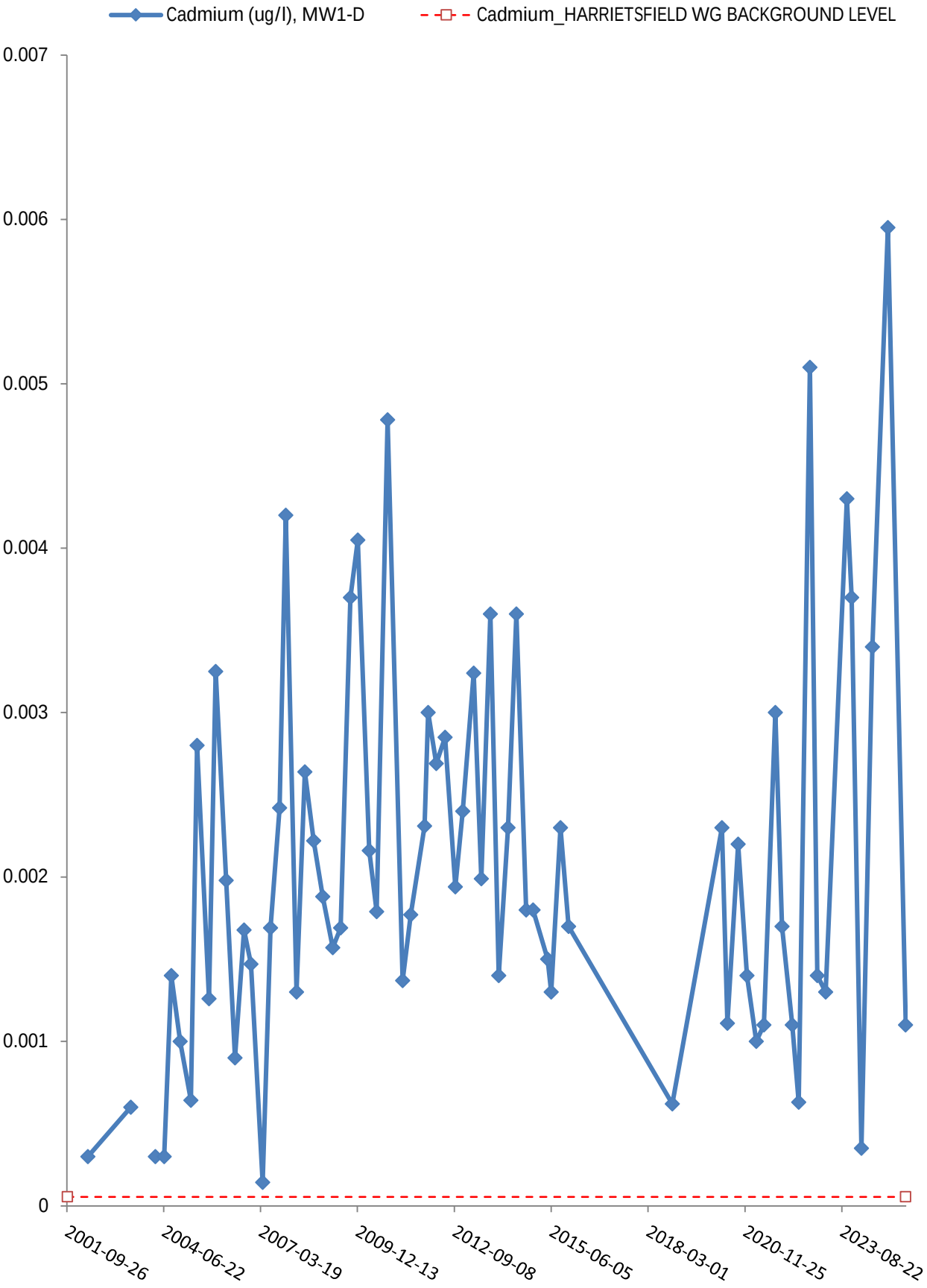
# MW-1D
# Arsenic



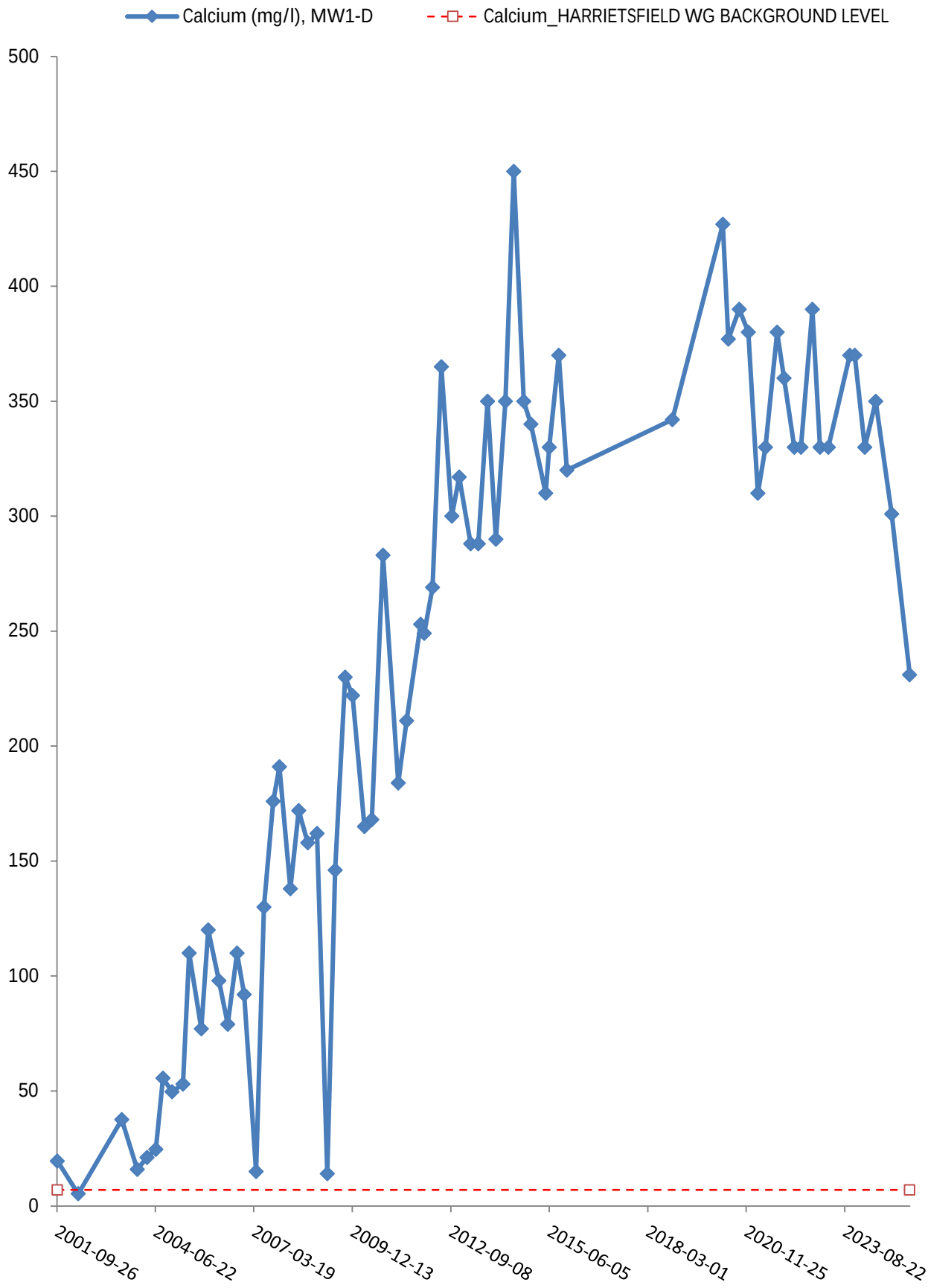
# MW-1D
# Boron


Boron (mg/l), MW1-D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
12
10
8
6
4
2
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# MW-1D
# Cadmium

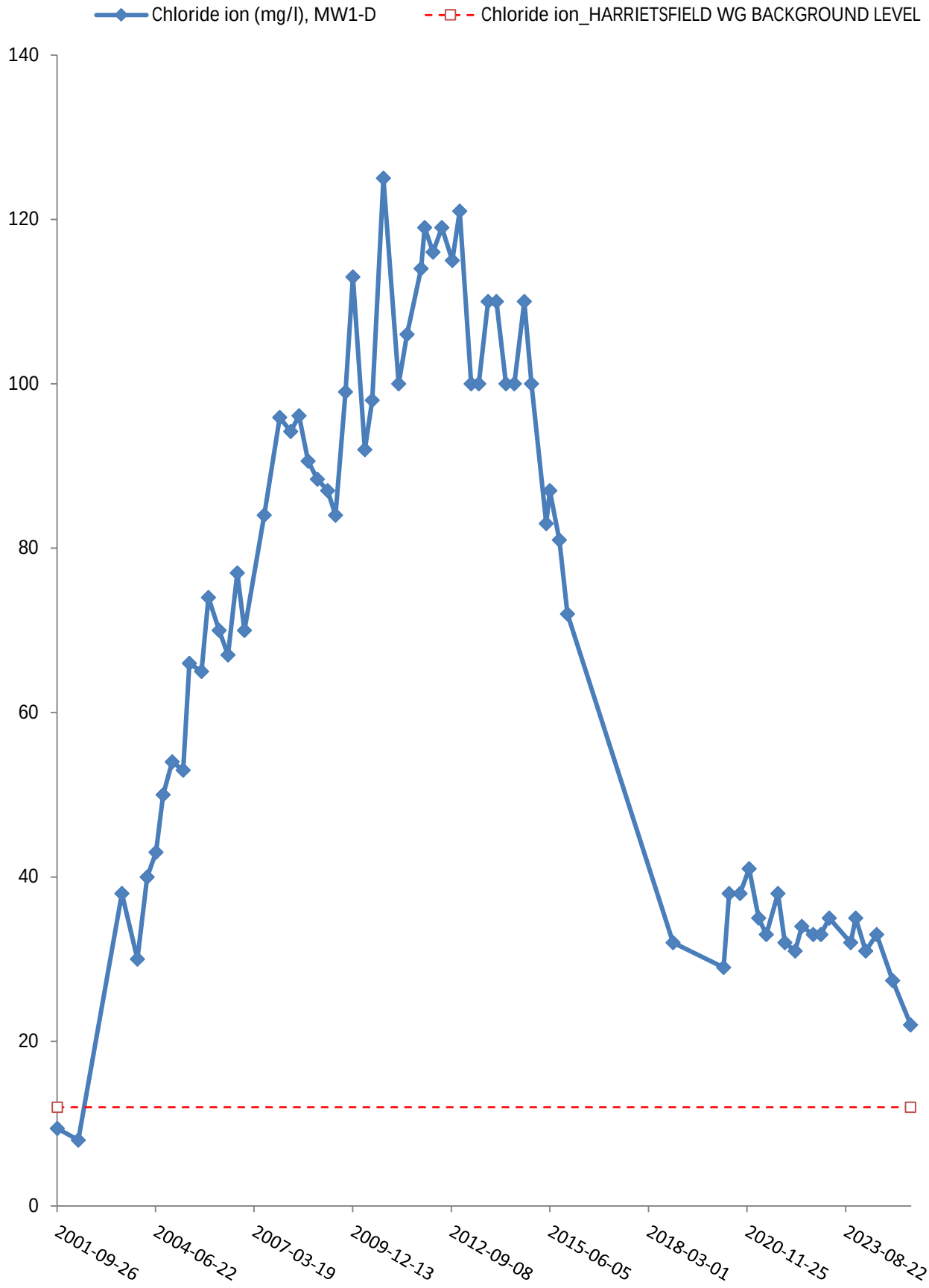


# MW-1D
# Calcium

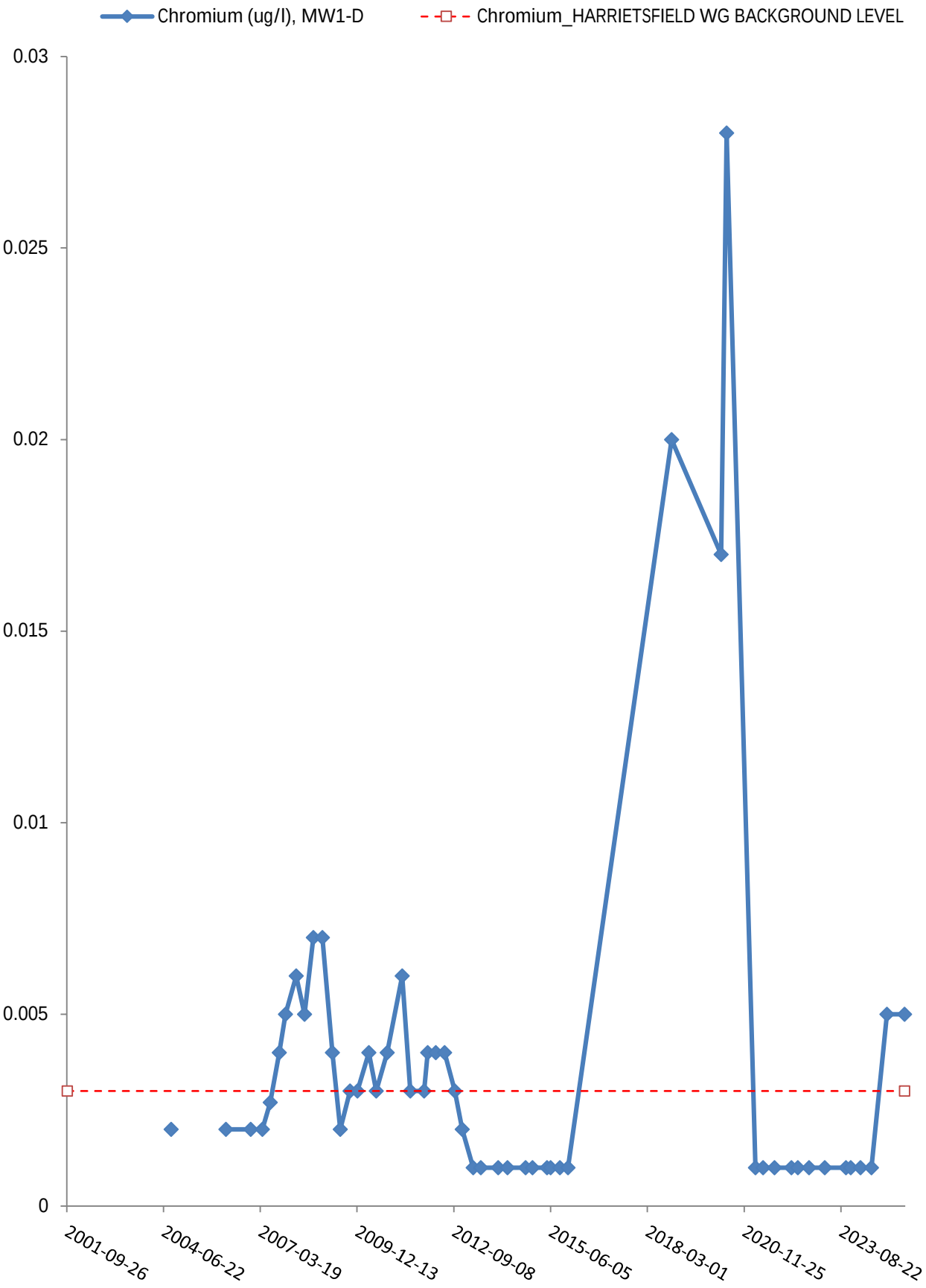


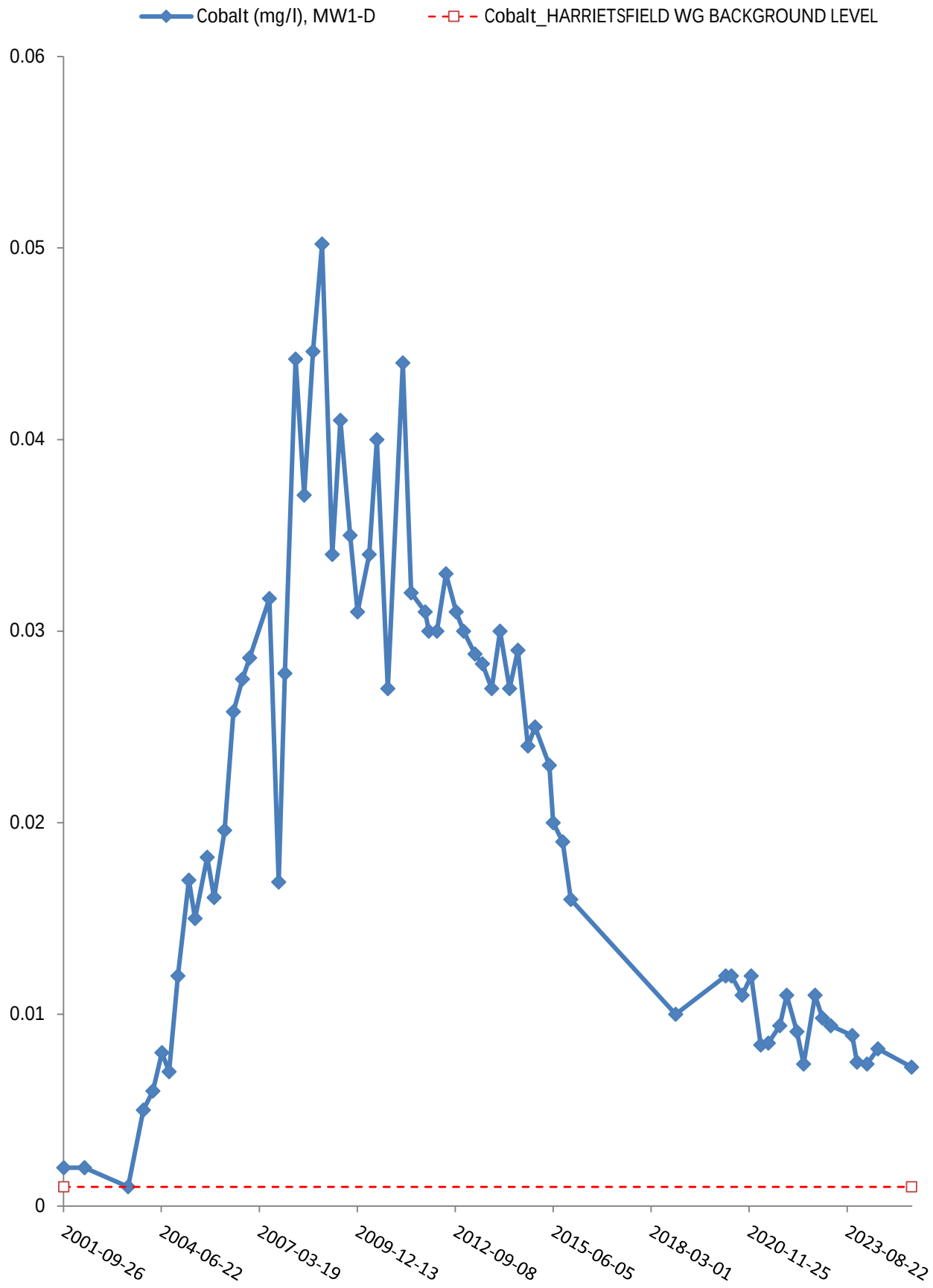
# MW-1D
# Chloride ion



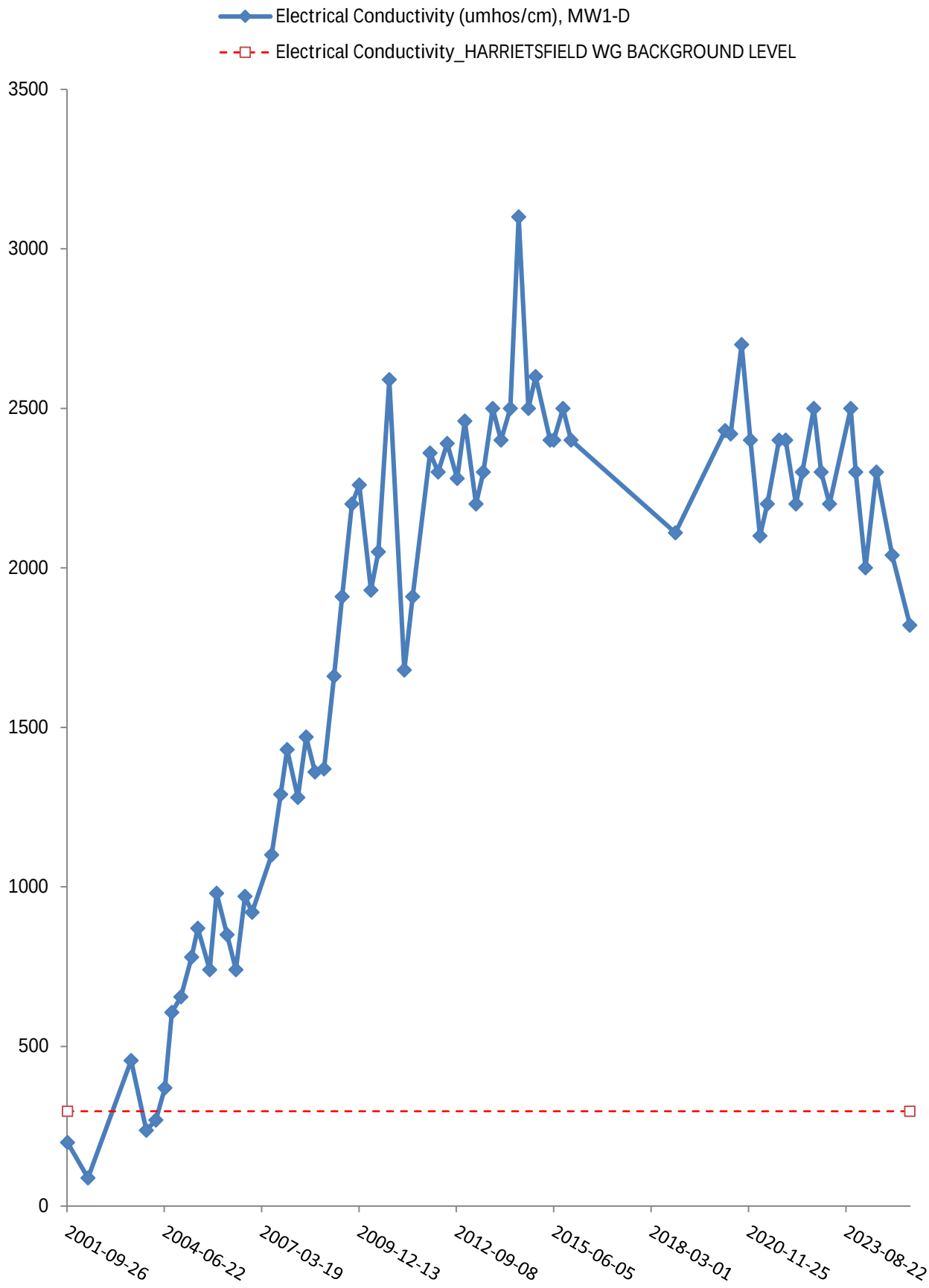


# MW-1D
# Chromium



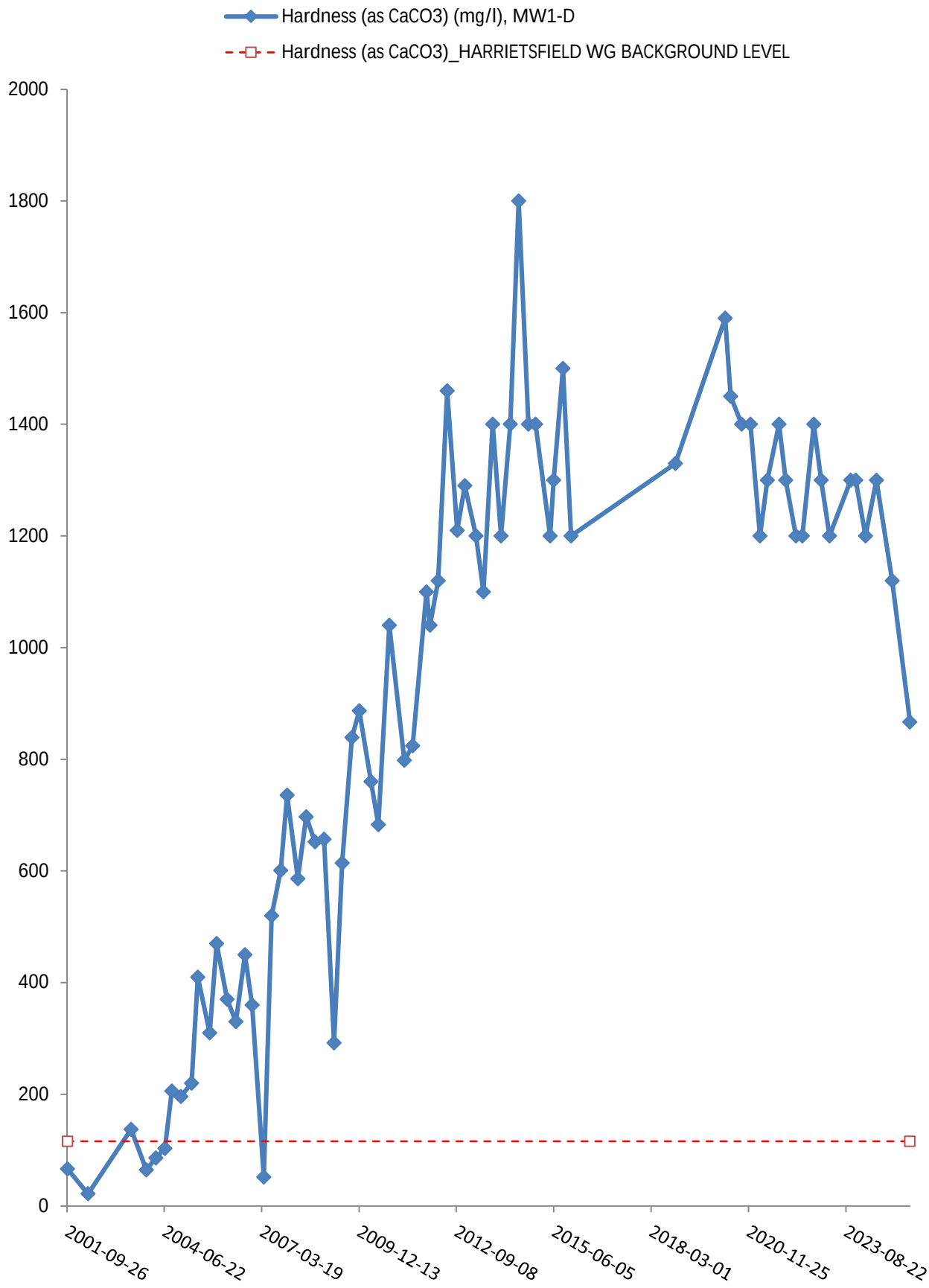

Cobalt (mg/l), MW1-D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# MW-1D
# Electrical Conductivity



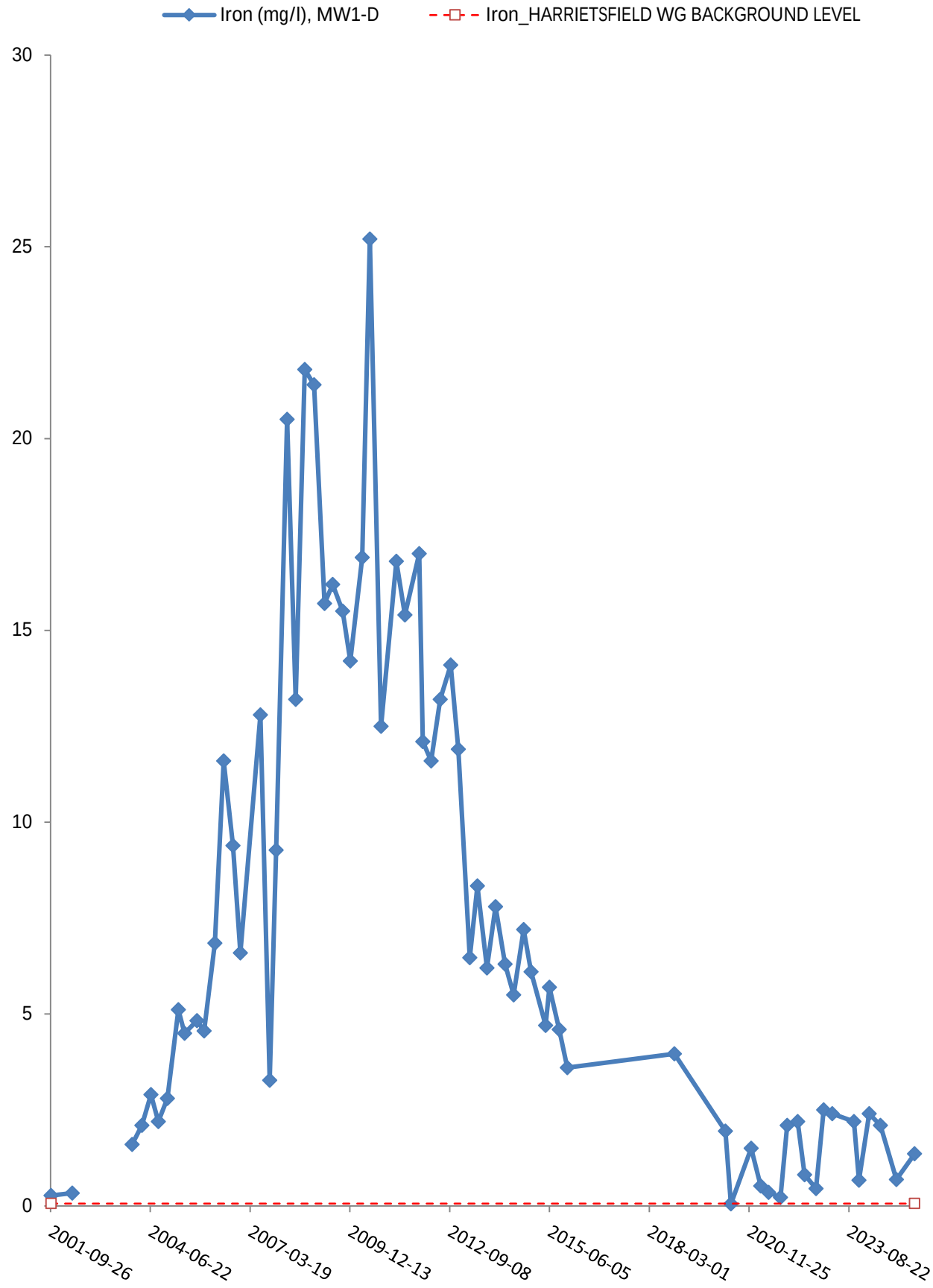
# MW-1D
# Hardness (as CaCO3)



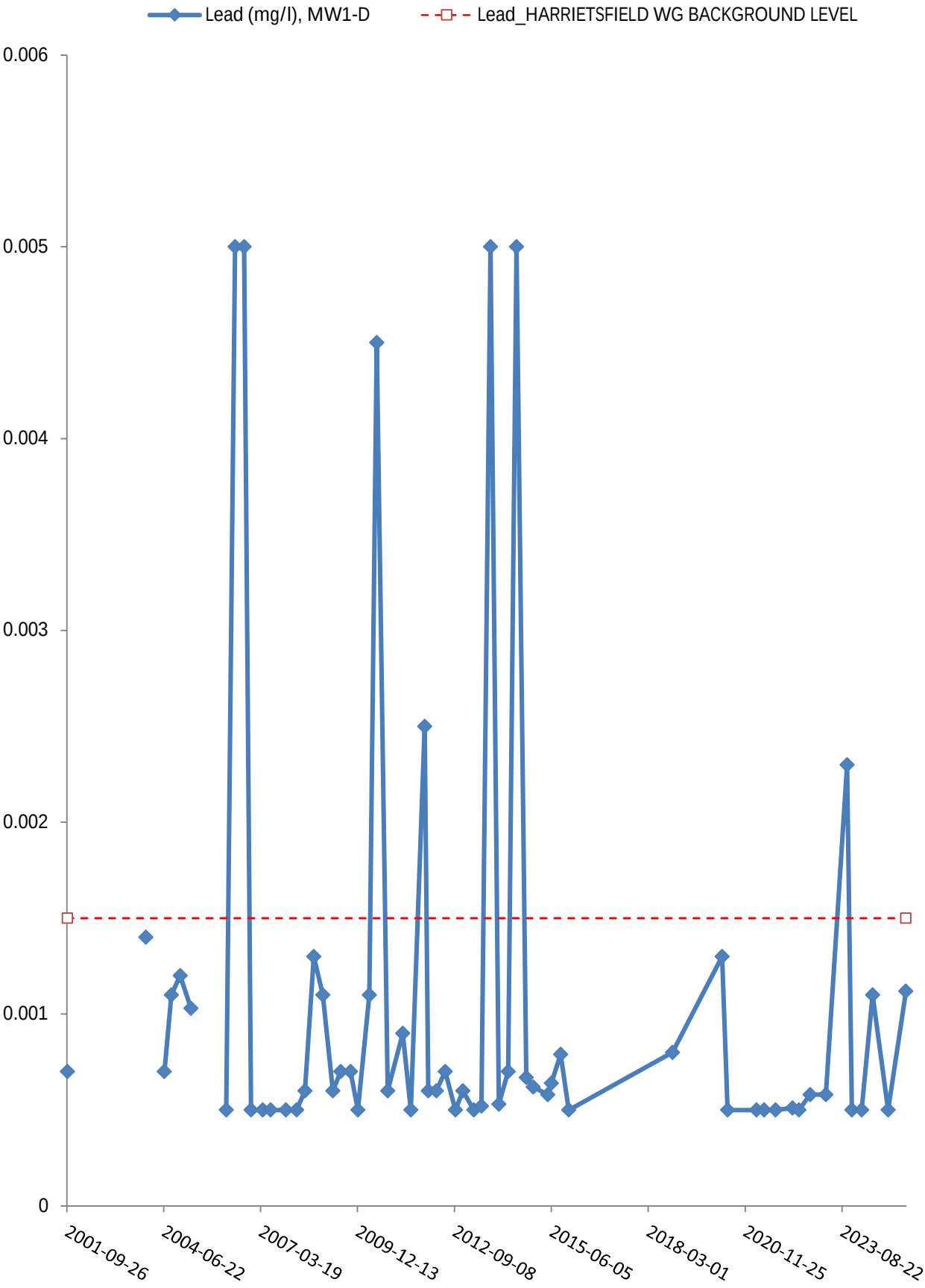


# MW-1D
# Iron

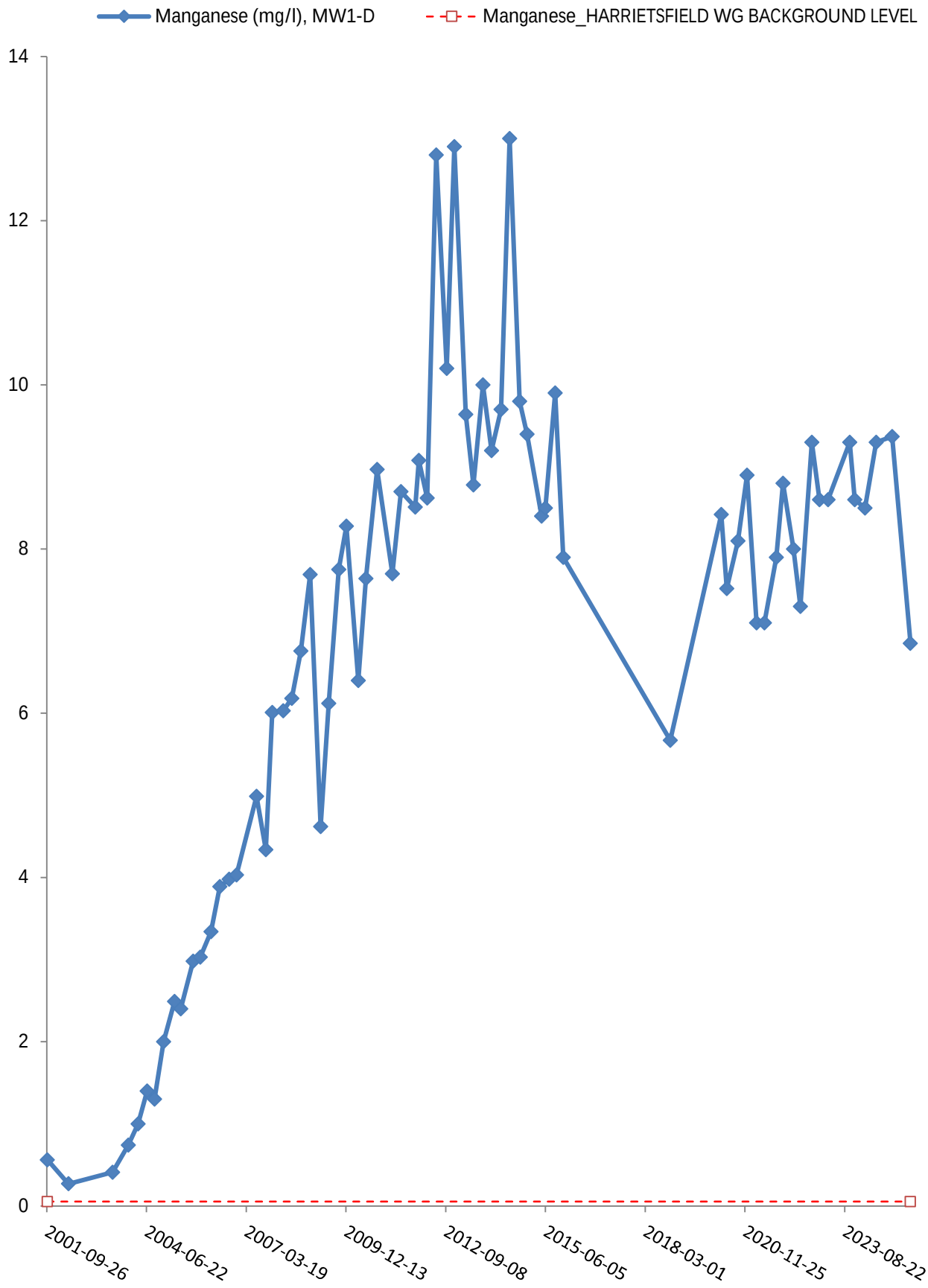



Iron (mg/l), MW1-D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

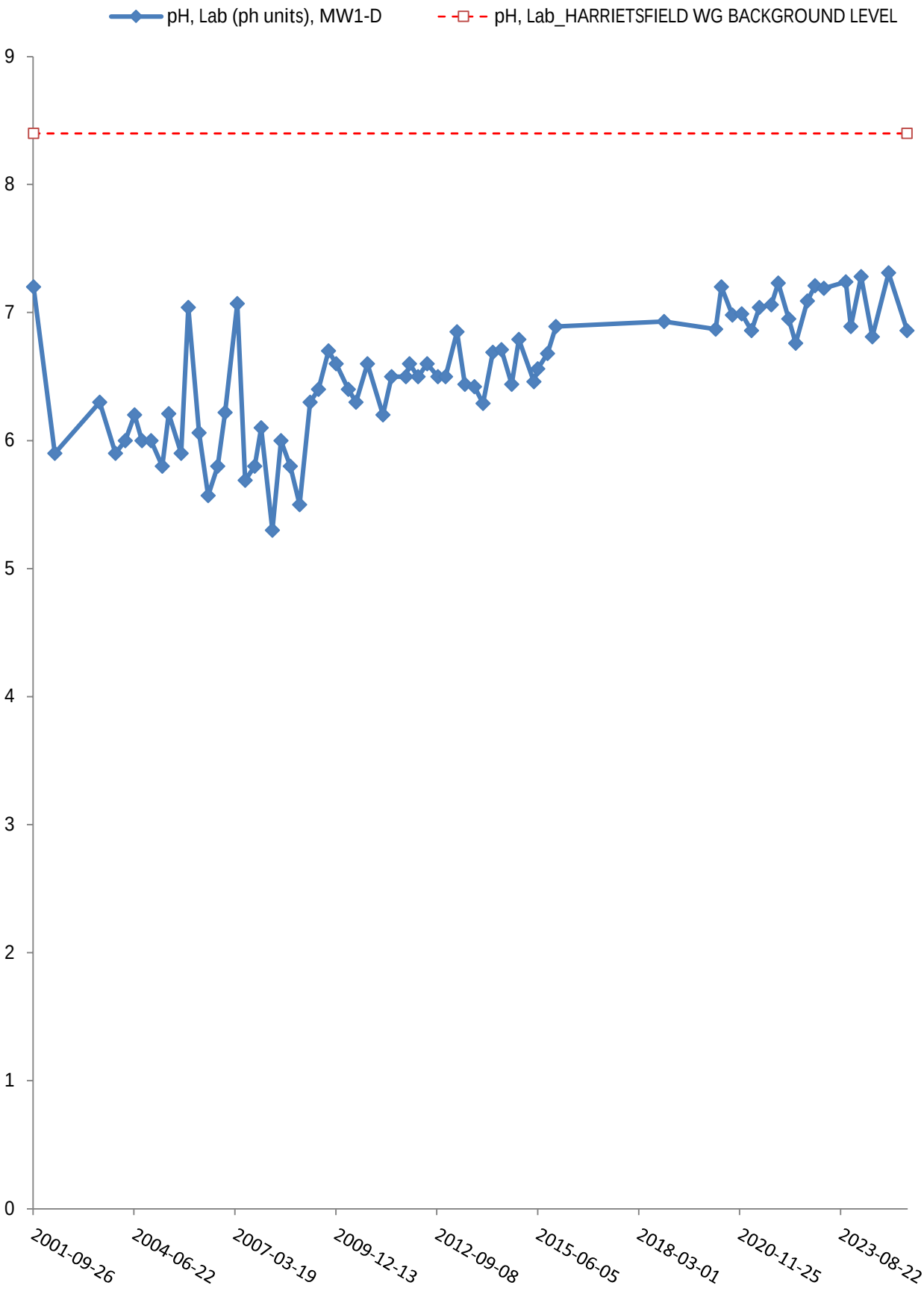
# MW-1D
# Lead


Lead (mg/l), MW1-D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

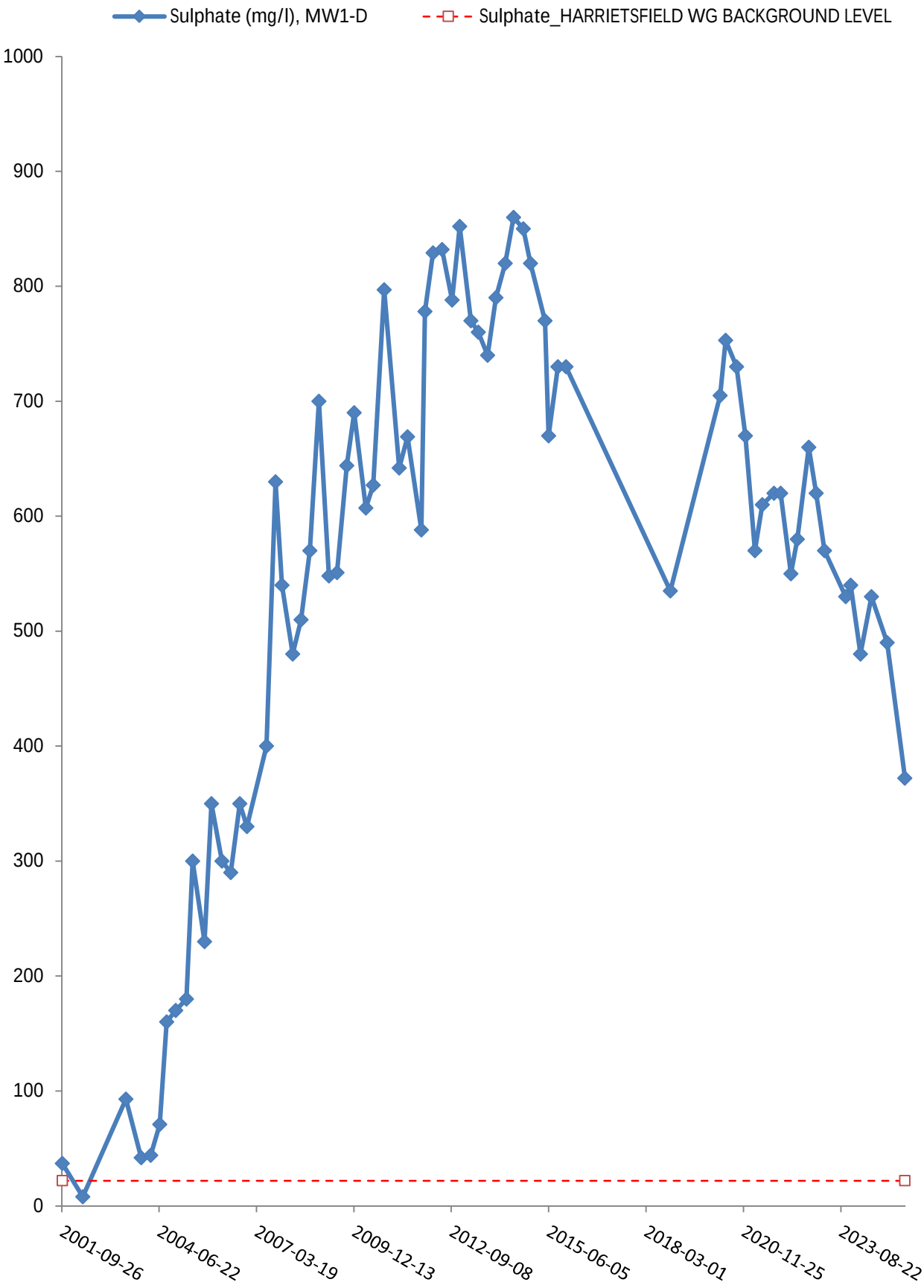
# MW-1D
# Manganese



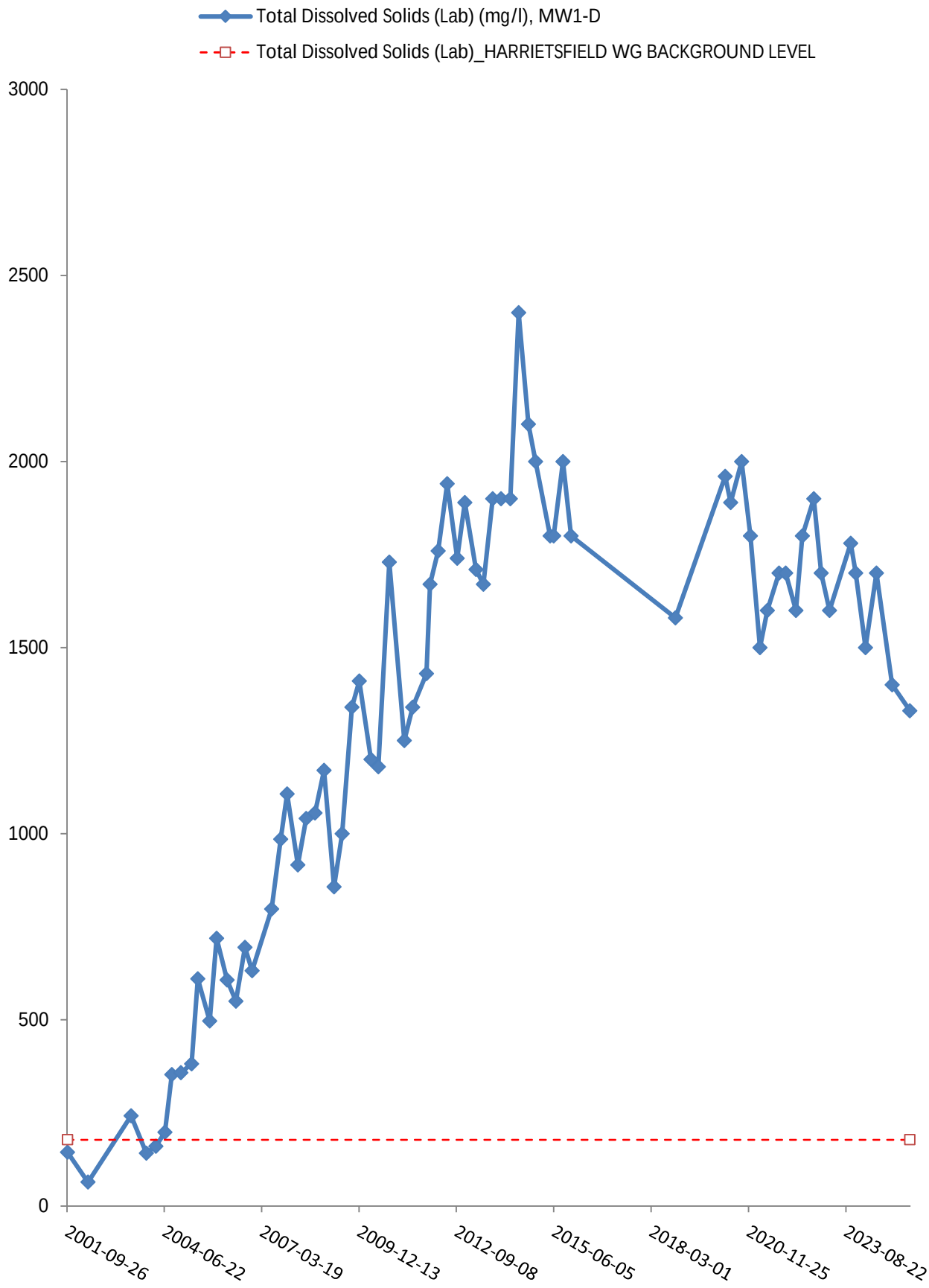
# MW-1D
# pH, Lab

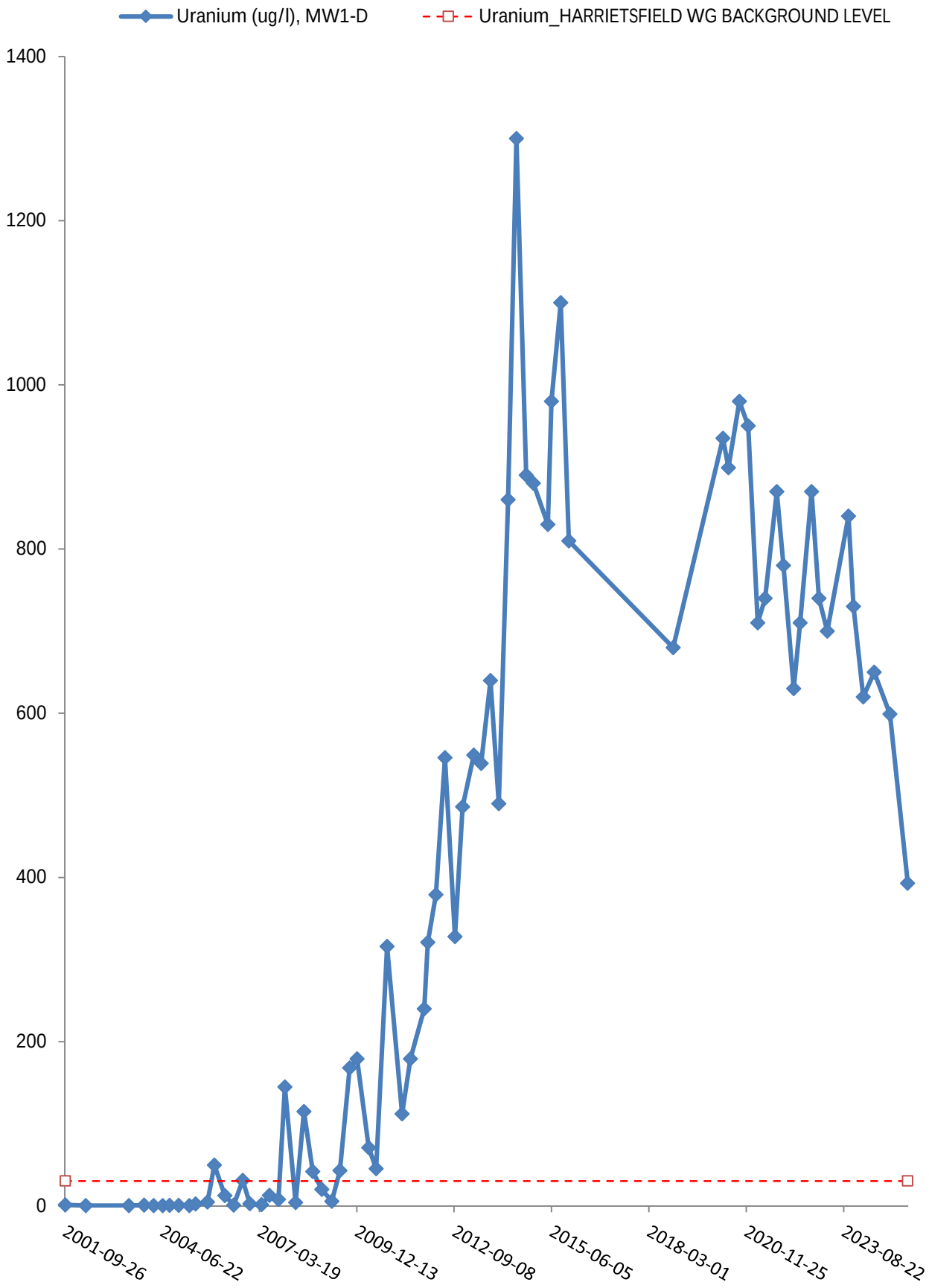

pH, Lab (ph units), MW1-D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# MW-1D
# Sulphate

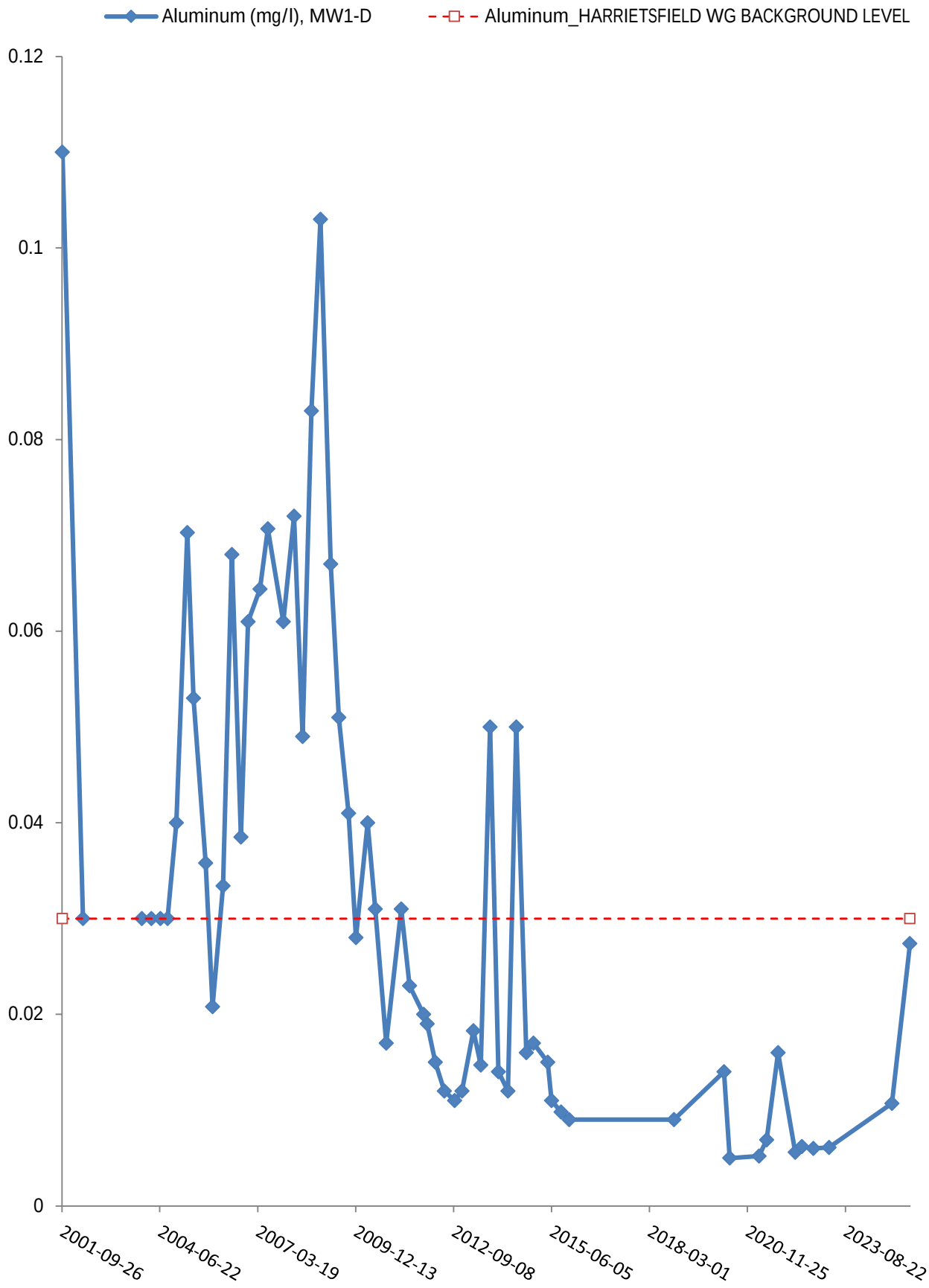


# MW-1D
# Total Dissolved Solids (5

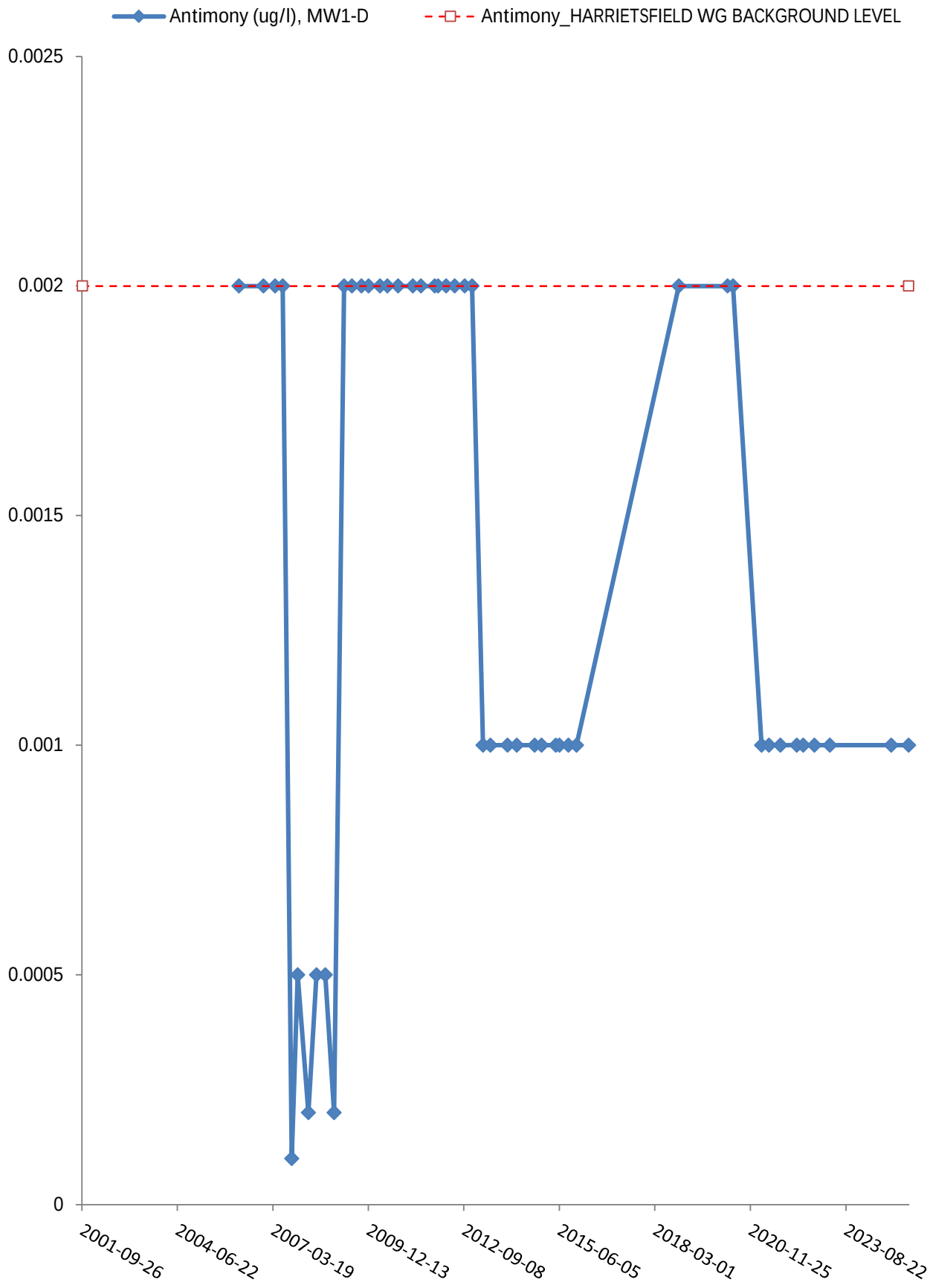



Uranium (ug/l), MW1-D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
1400
1200
1000
800
600
400
200
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

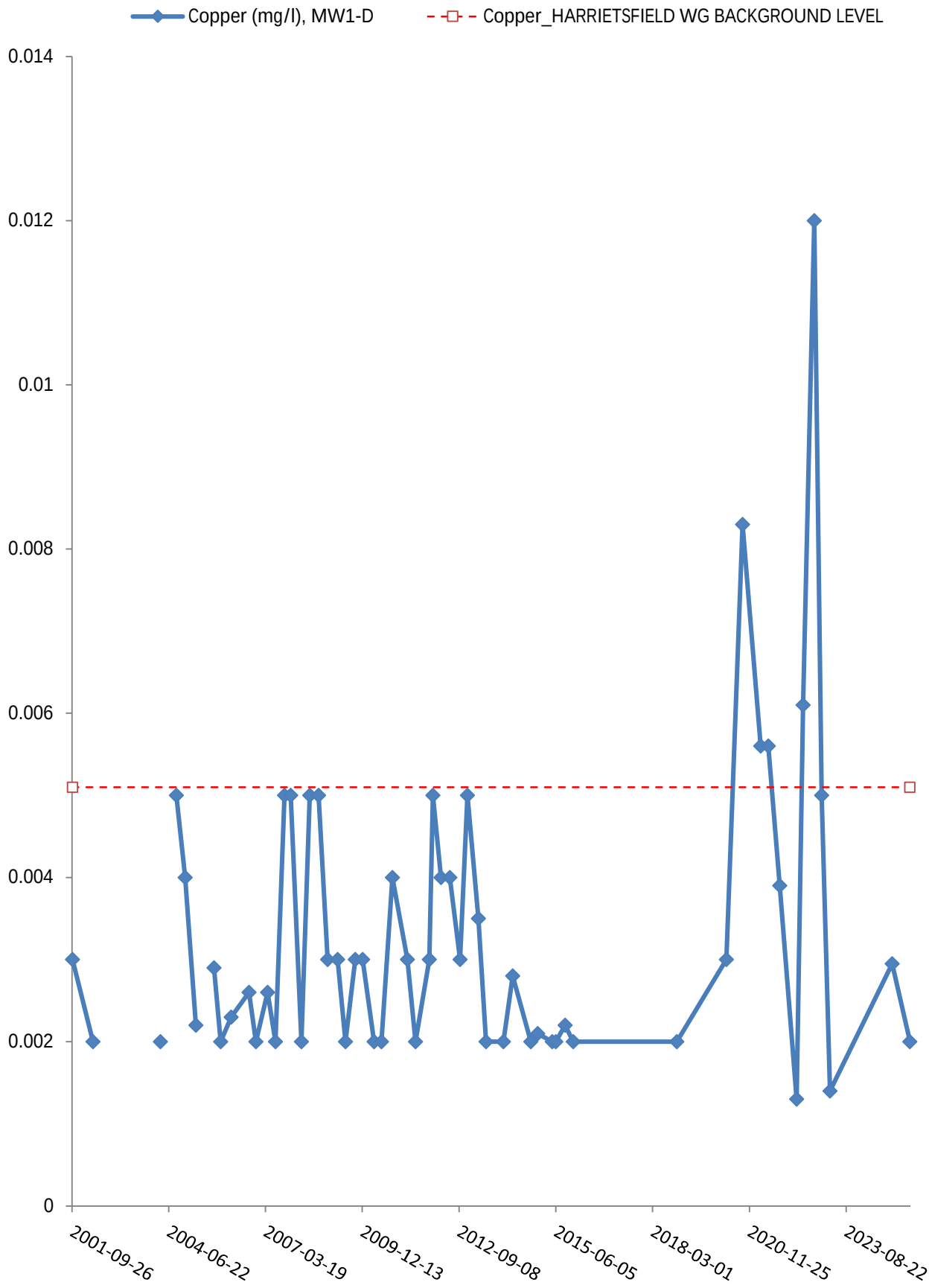
# Aluminum


Aluminum (mg/l), MW1-D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.12
0.1
0.08
0.06
0.04
0.02
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

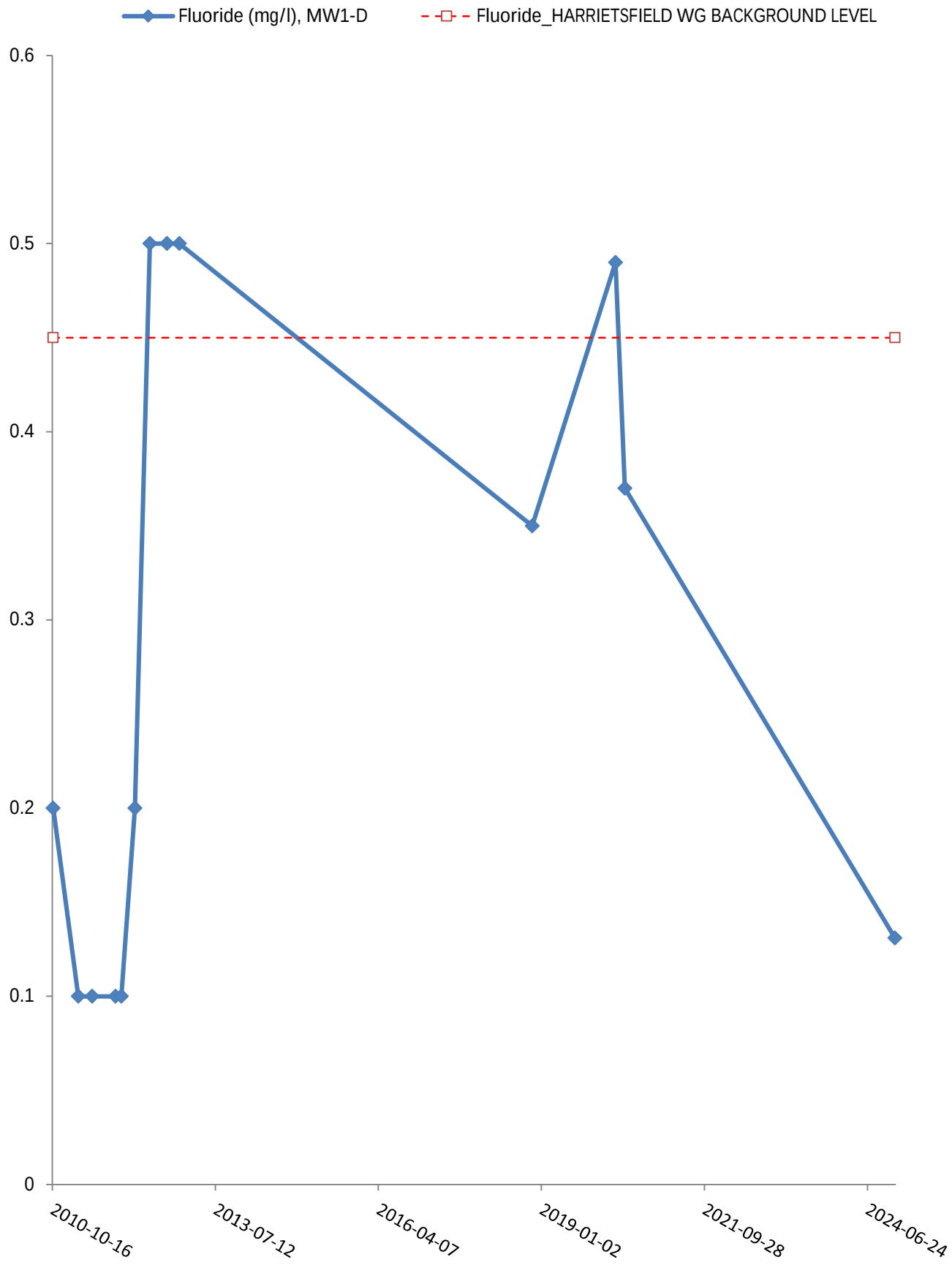
# Antimony


Antimony (ug/l), MW1-D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Copper

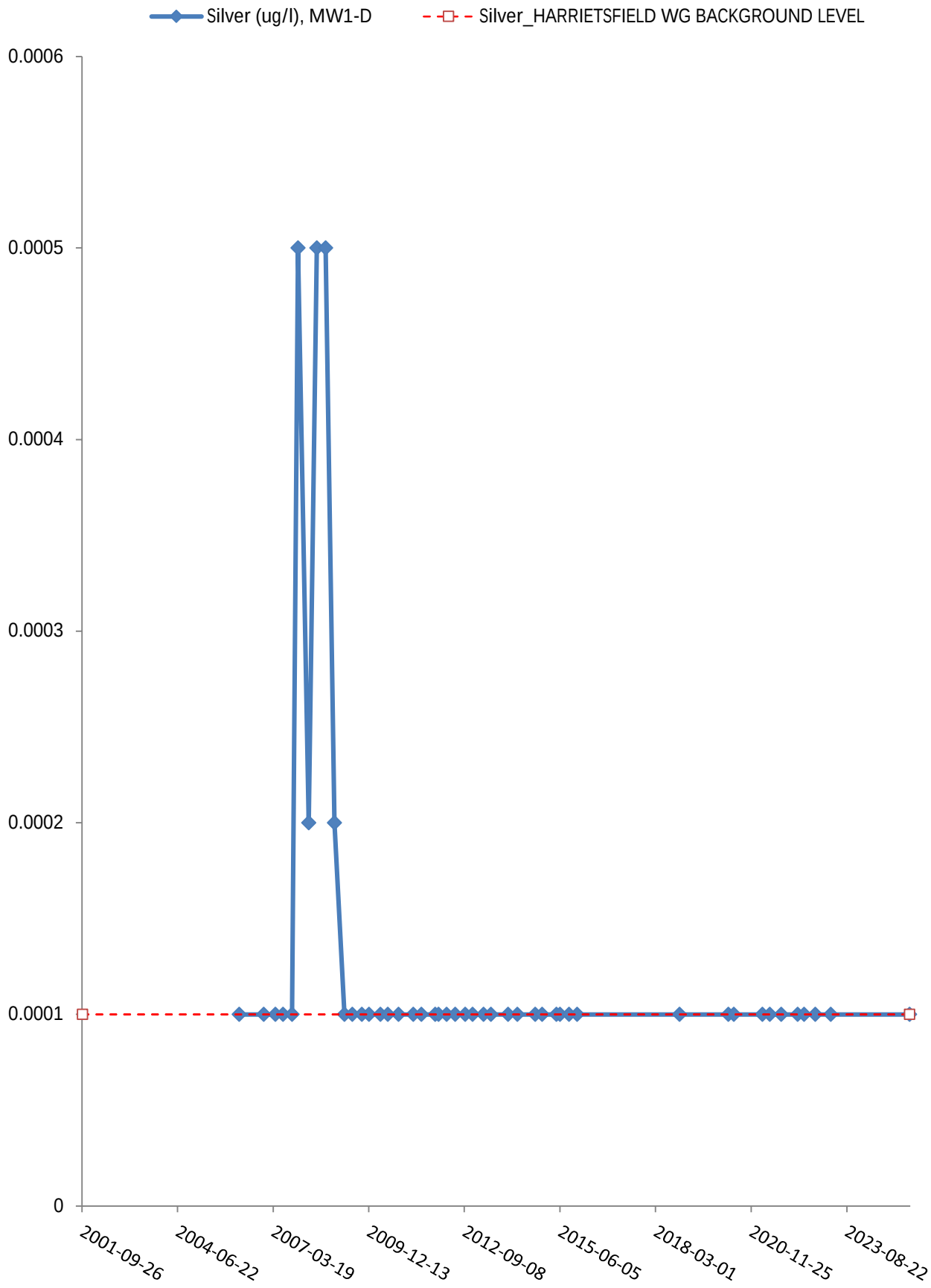

Copper (mg/l), MW1-D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Fluoride

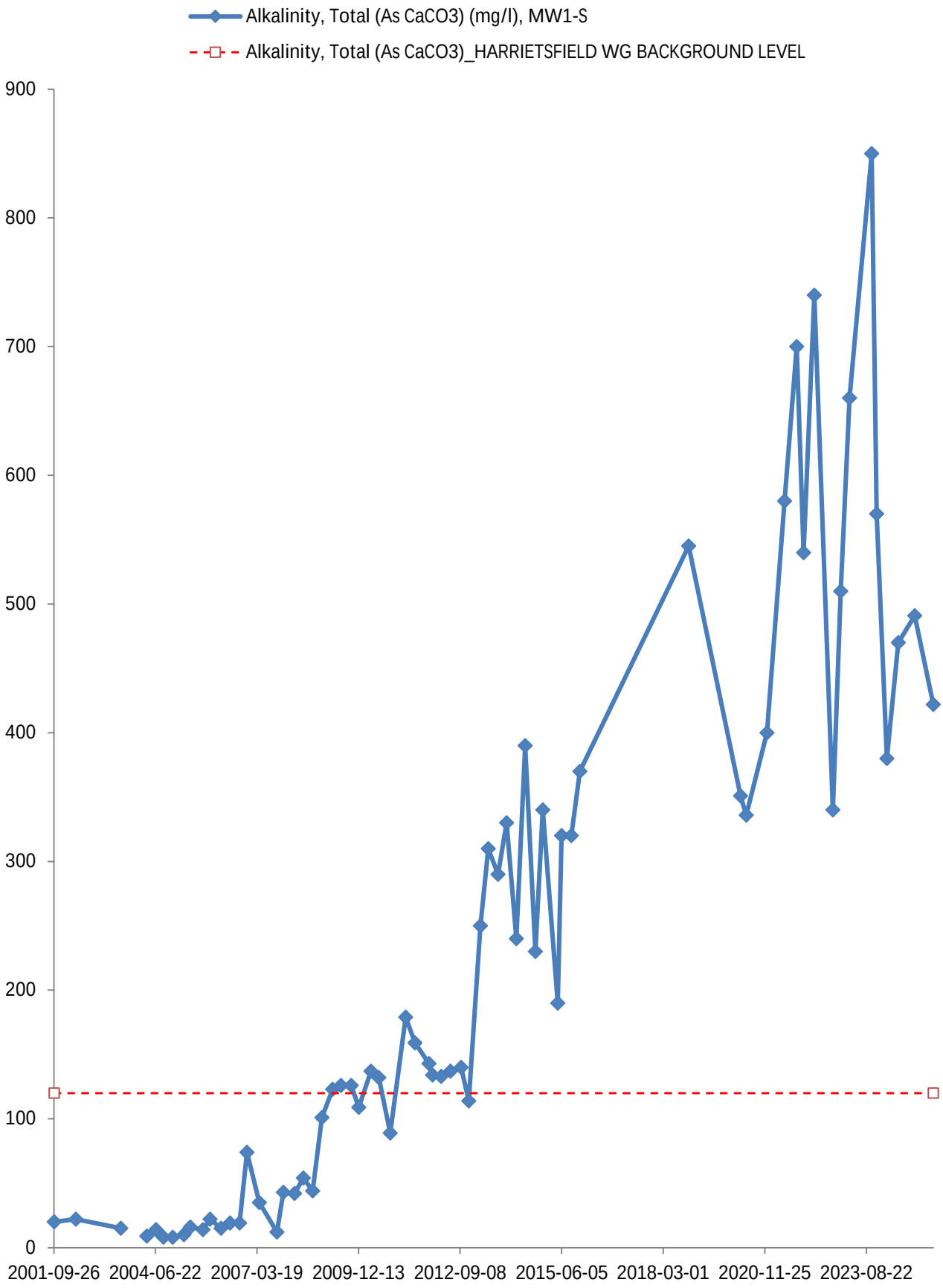

Fluoride (mg/l), MW1-D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.6
0.5
0.4
0.3
0.2
0.1
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver



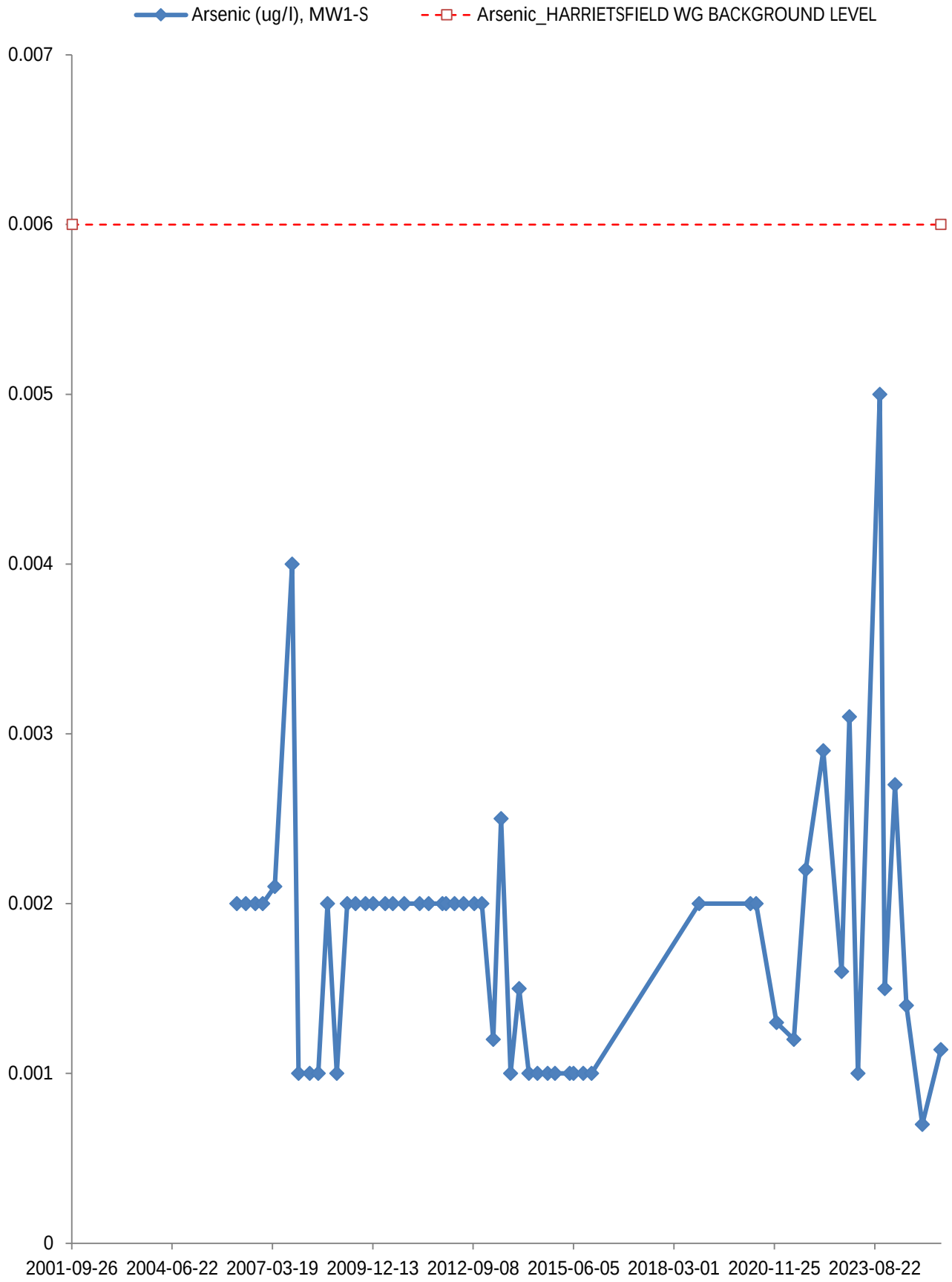

Silver (ug/l), MW1-D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Alkalinity, Total



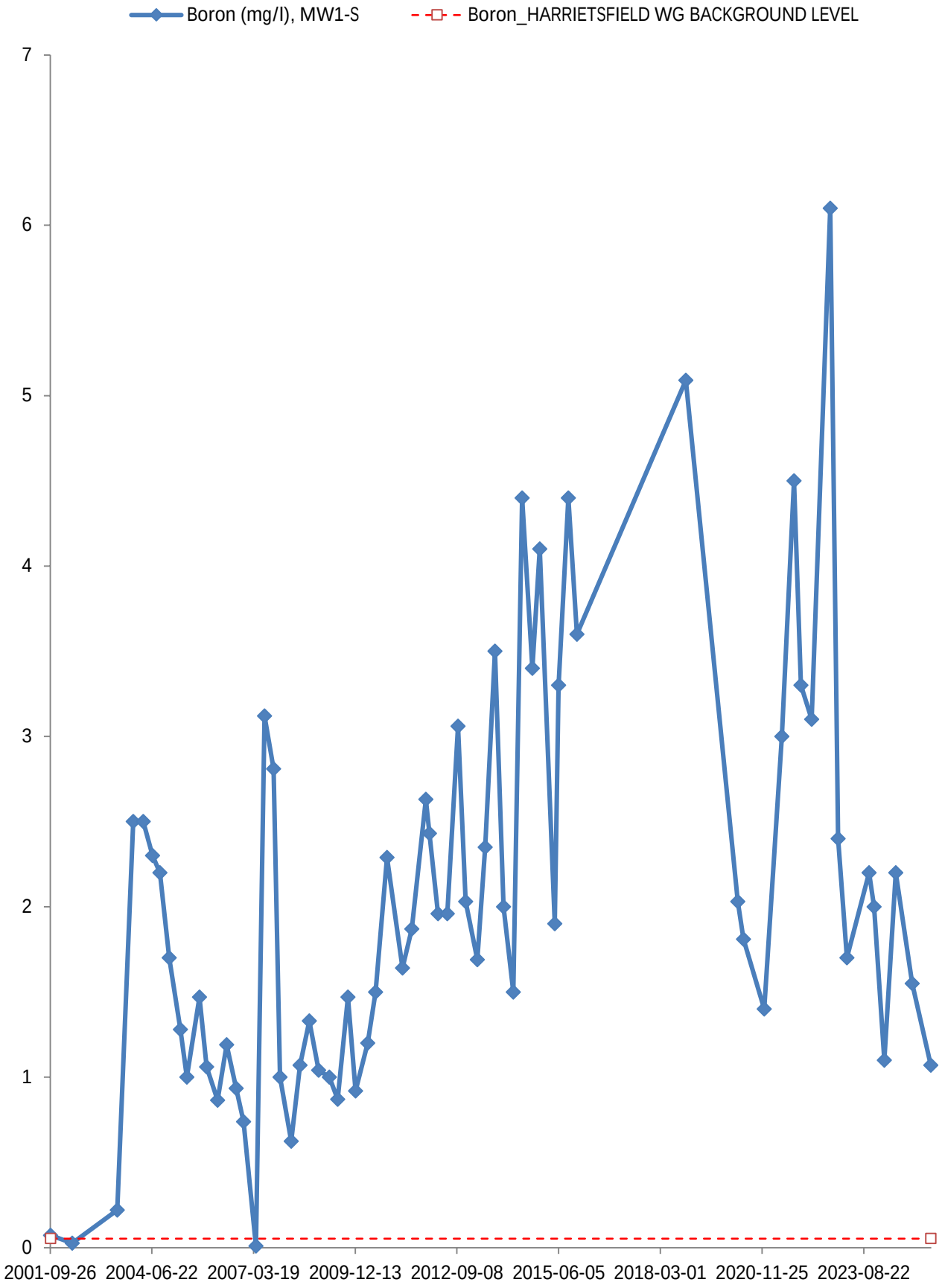
# Arsenic



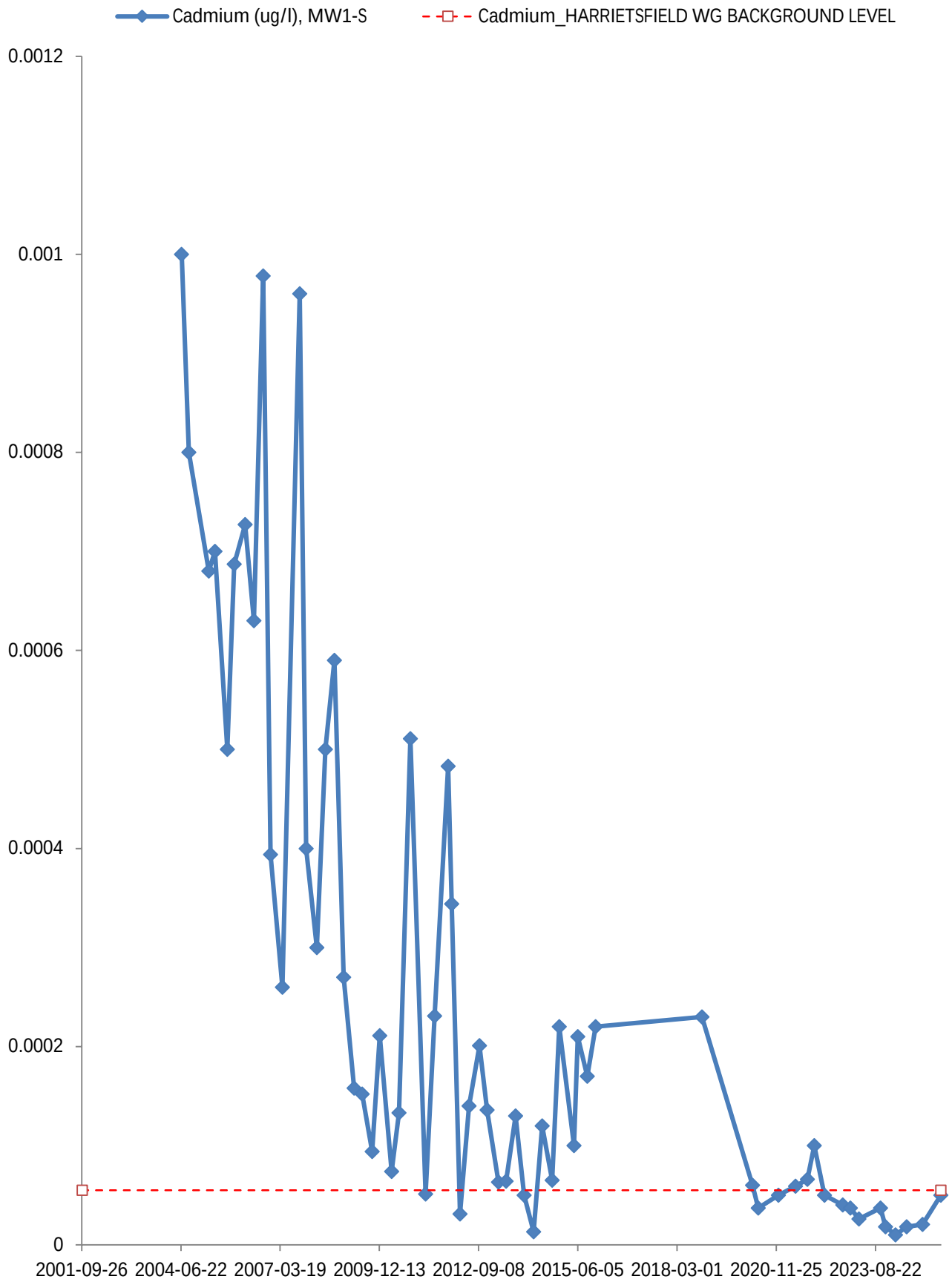

Arsenic (ug/l), MW1-S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Boron

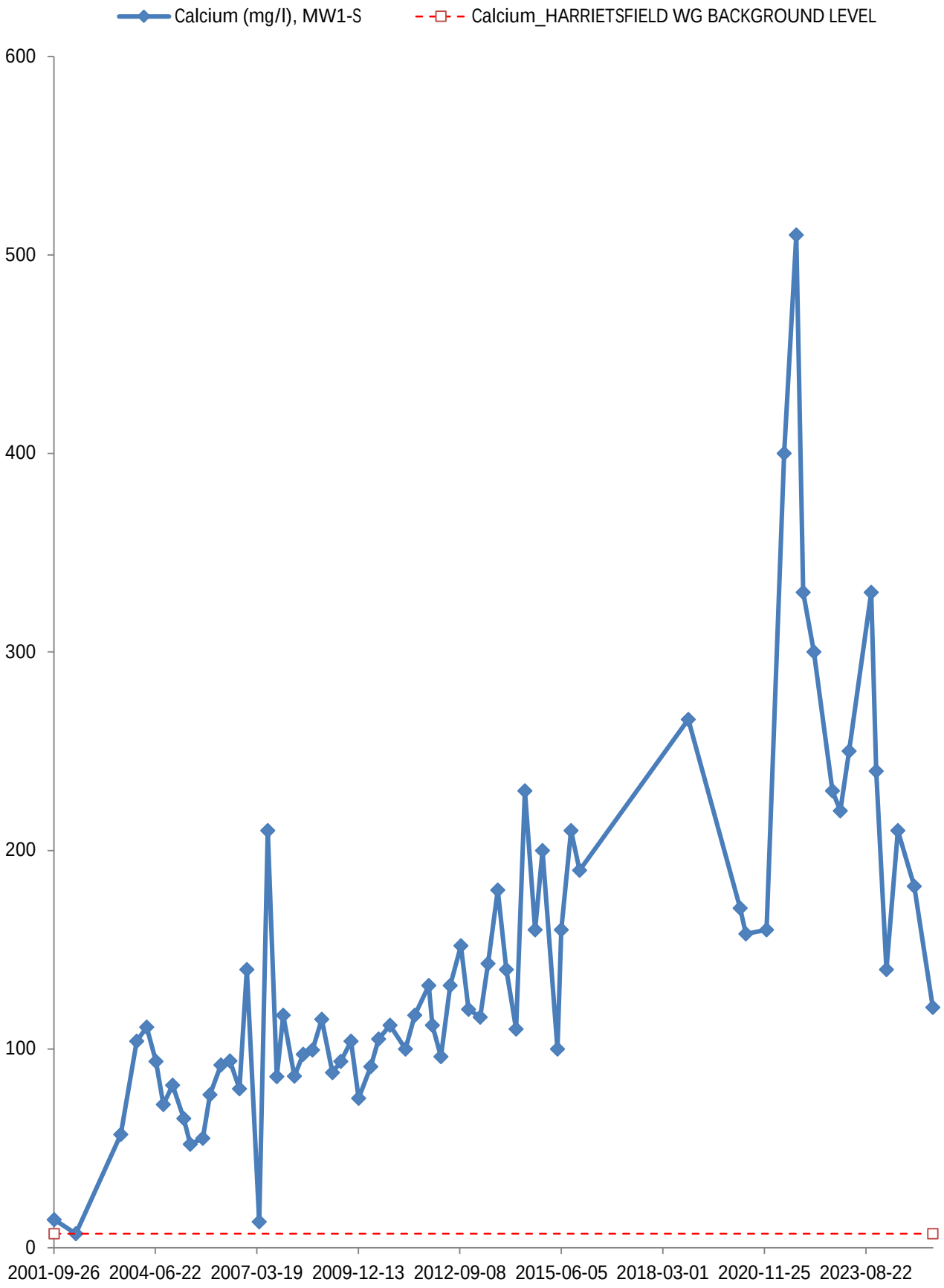



Boron (mg/l), MW1-S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
7
6
5
4
3
2
1
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

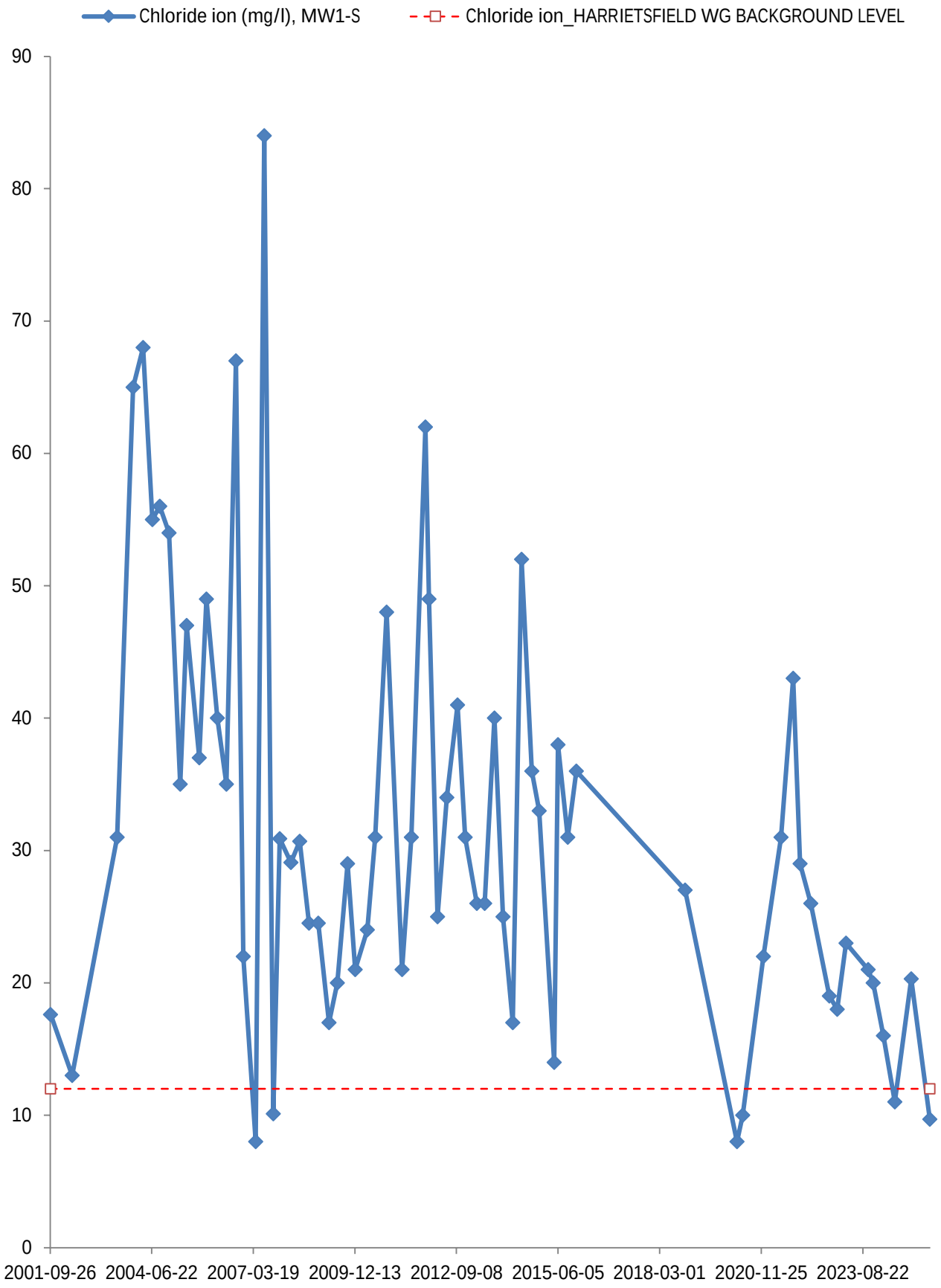
# Cadmium


Cadmium (ug/l), MW1-S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

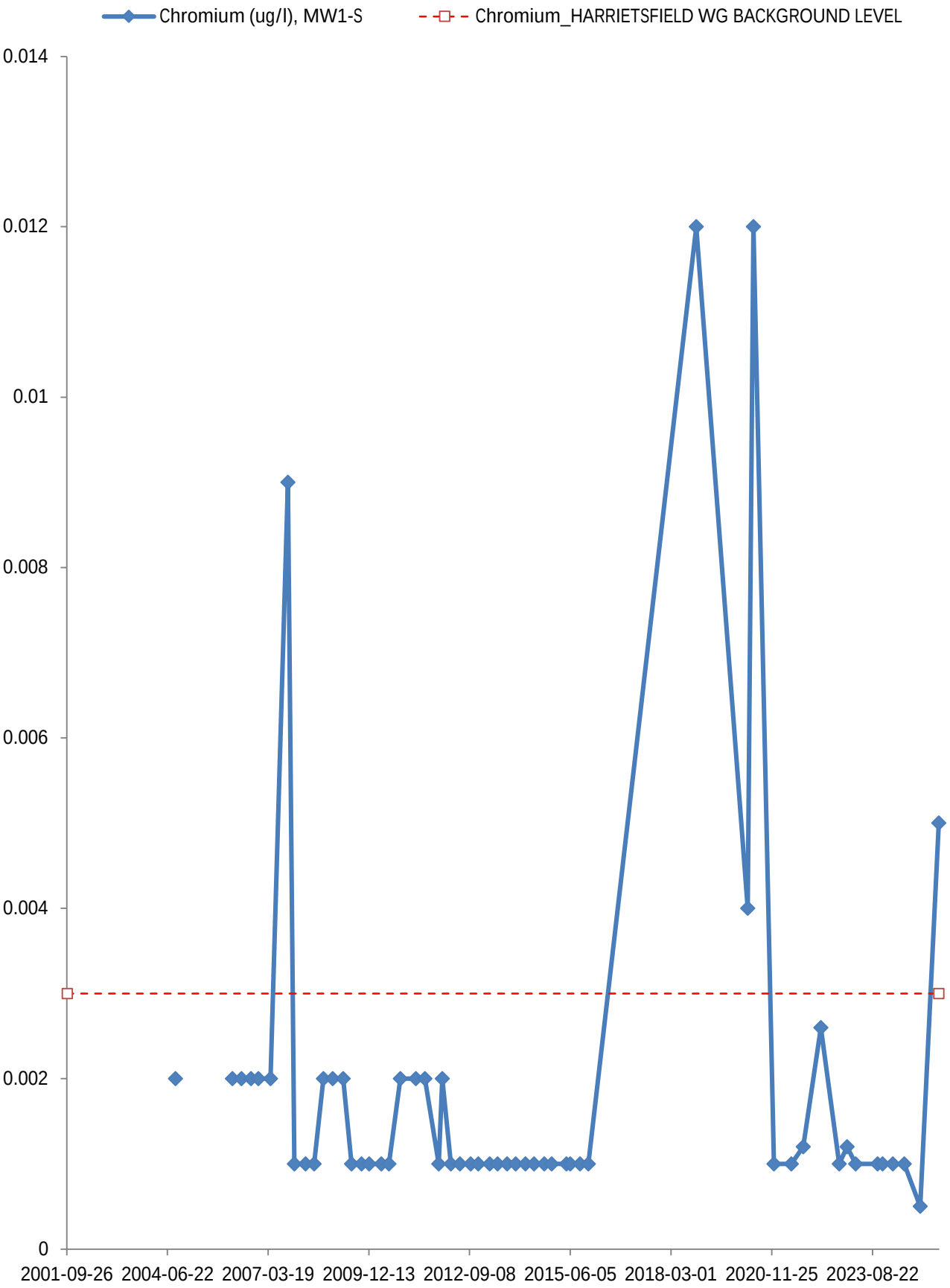
# Calcium


Calcium (mg/l), MW1-S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Chloride ion

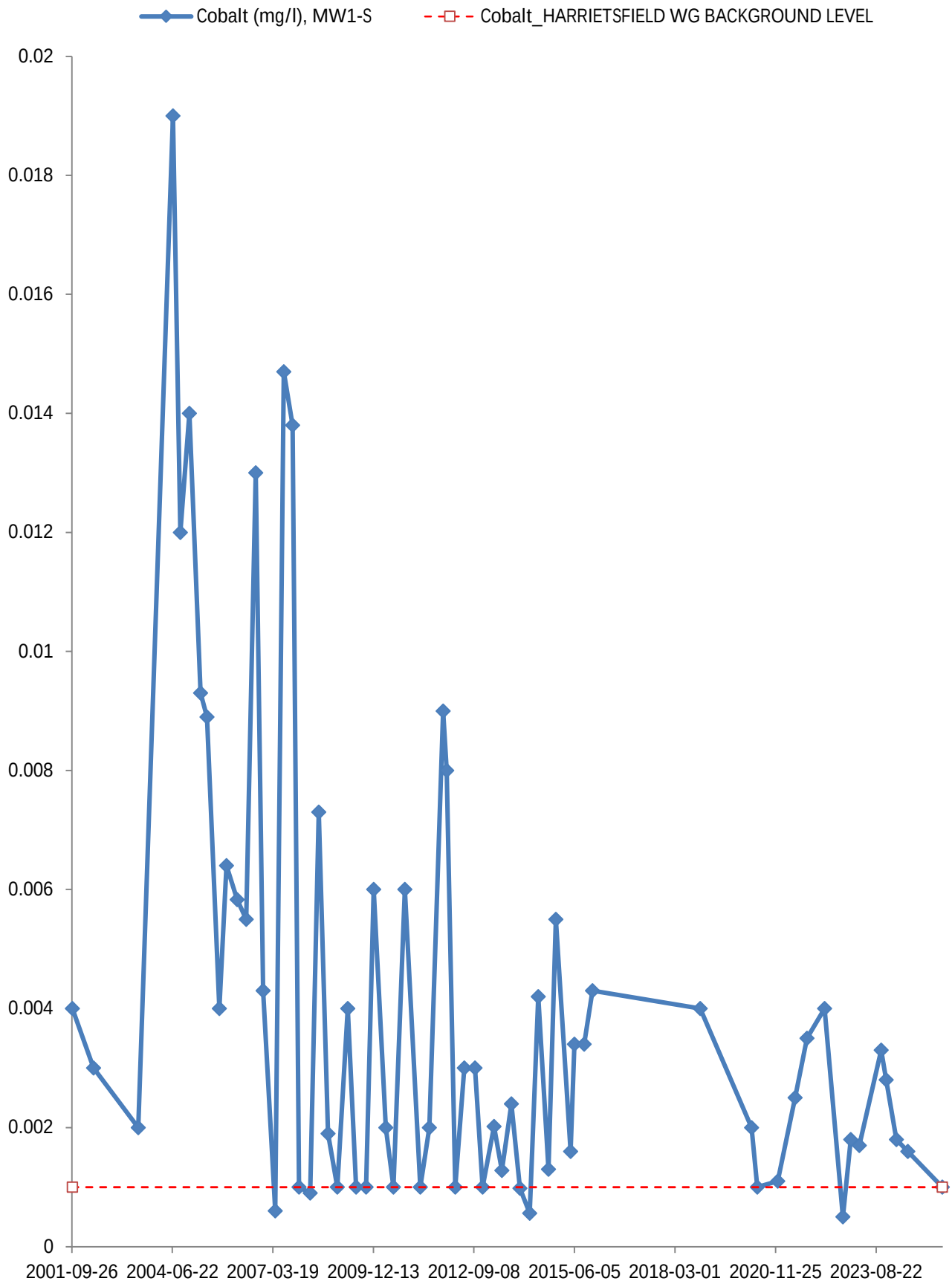


# Chromium


Chromium (ug/l), MW1-S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

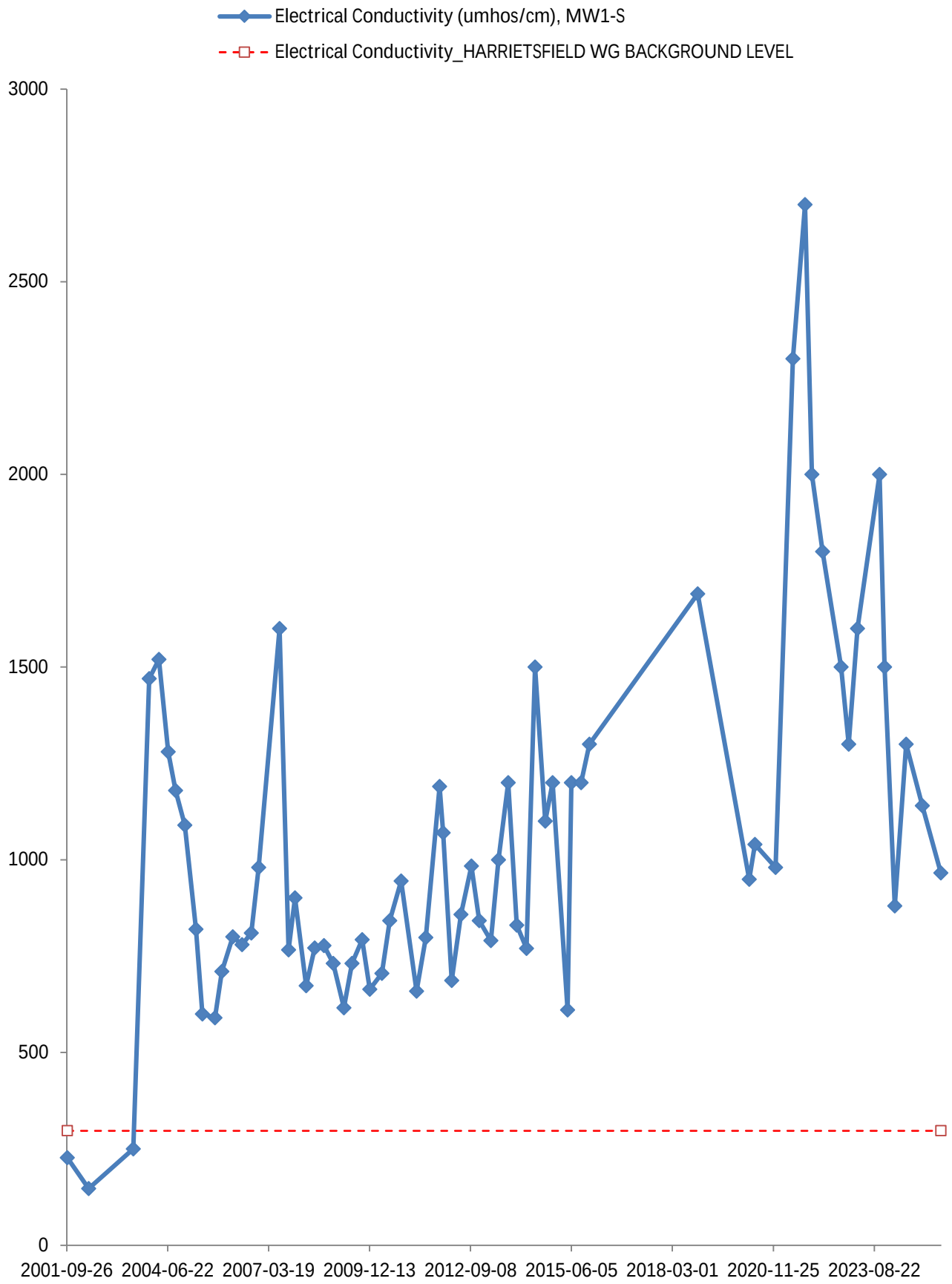
# Cobalt




Cobalt (mg/l), MW1-S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

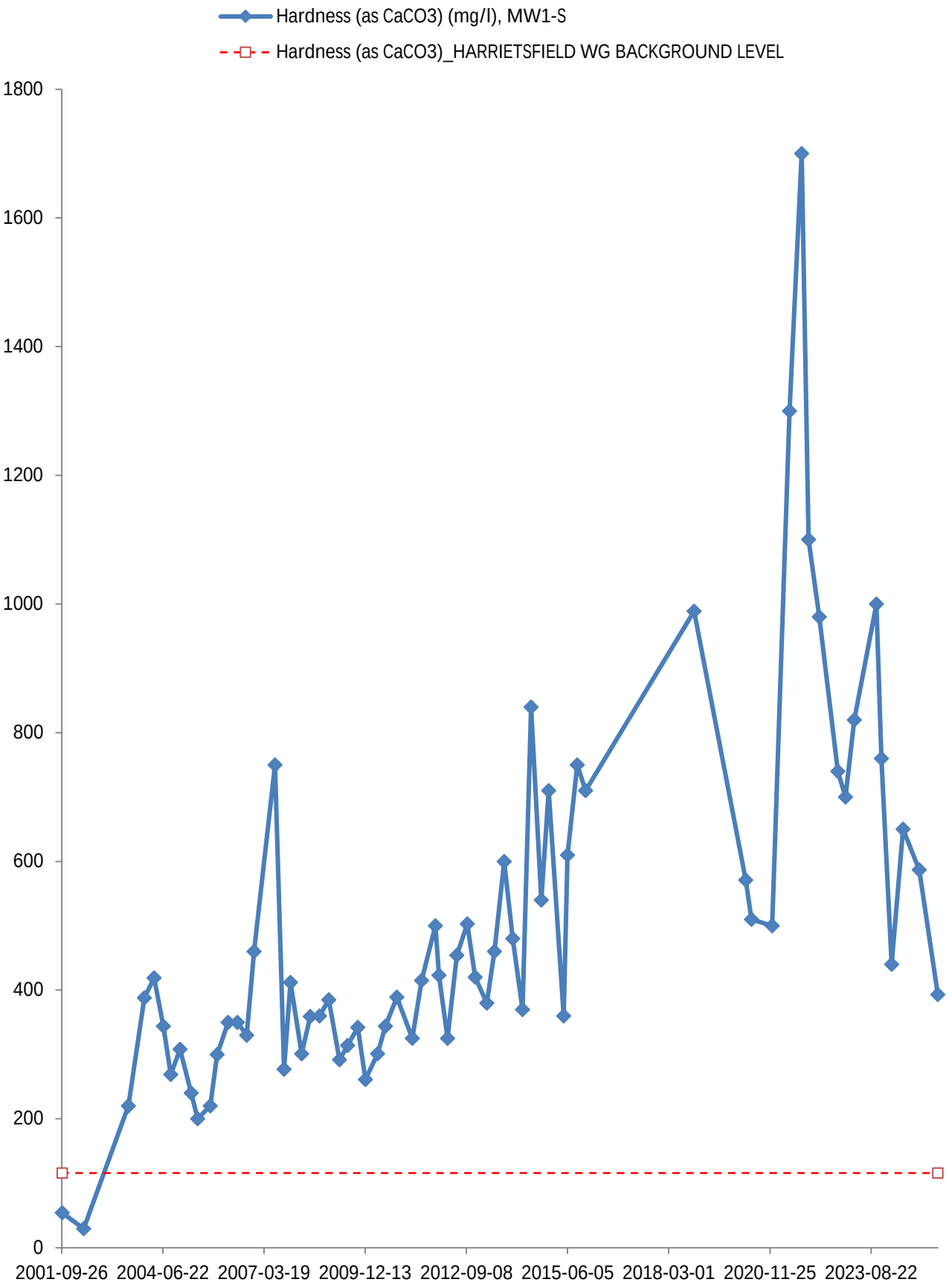
# Electrical Conductivity





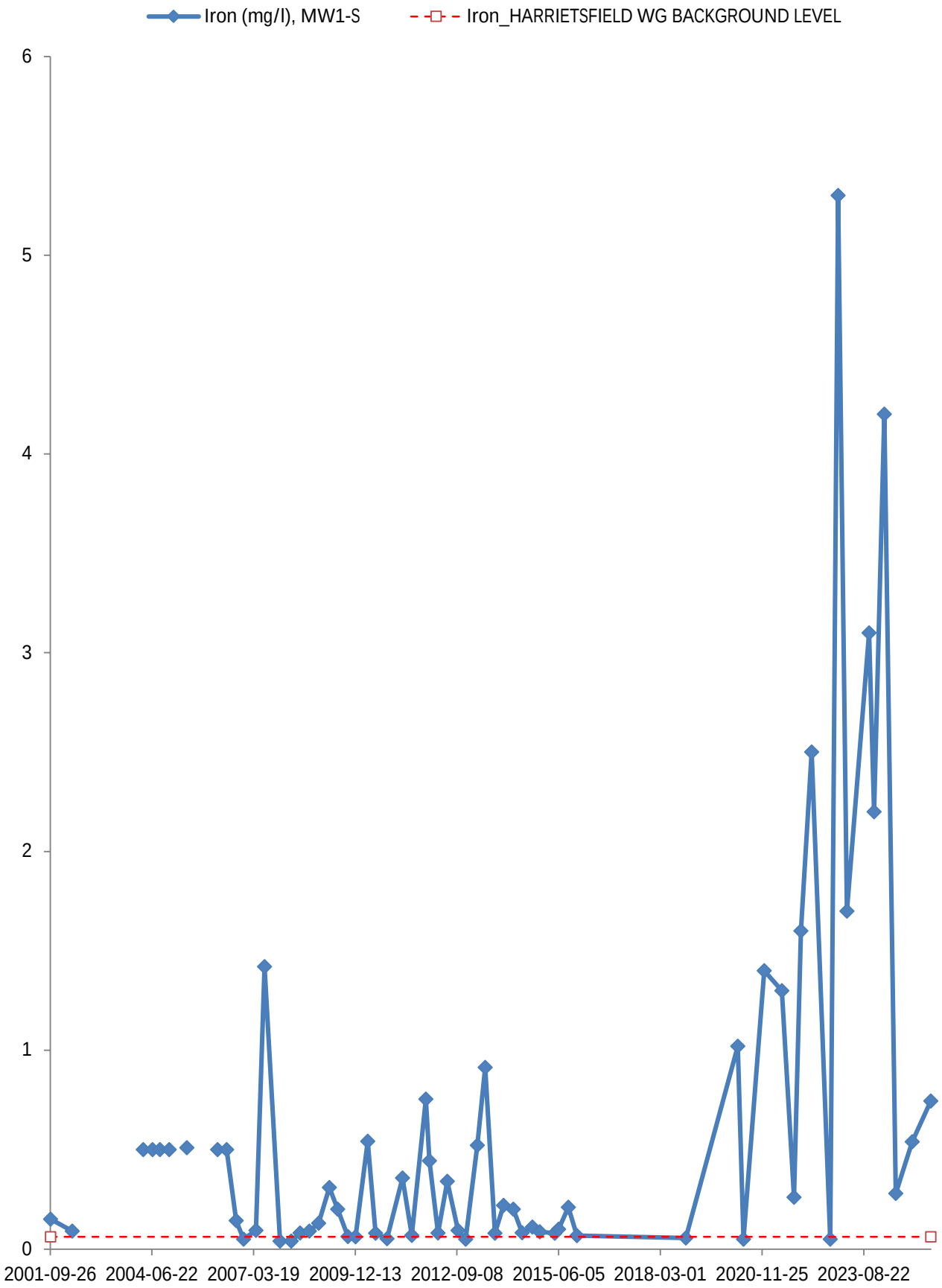
# Hardness (as CaCO3)





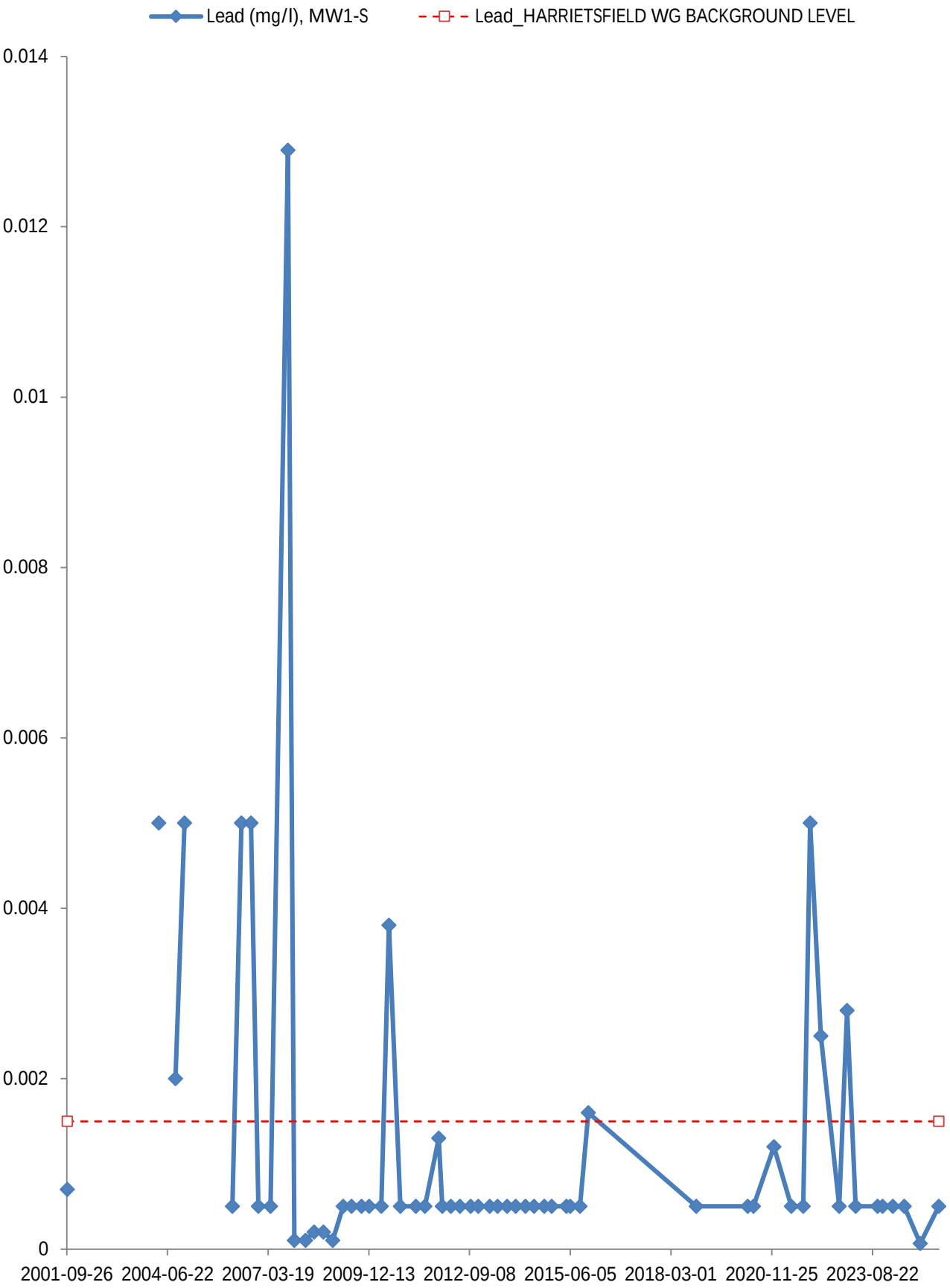
# Iron



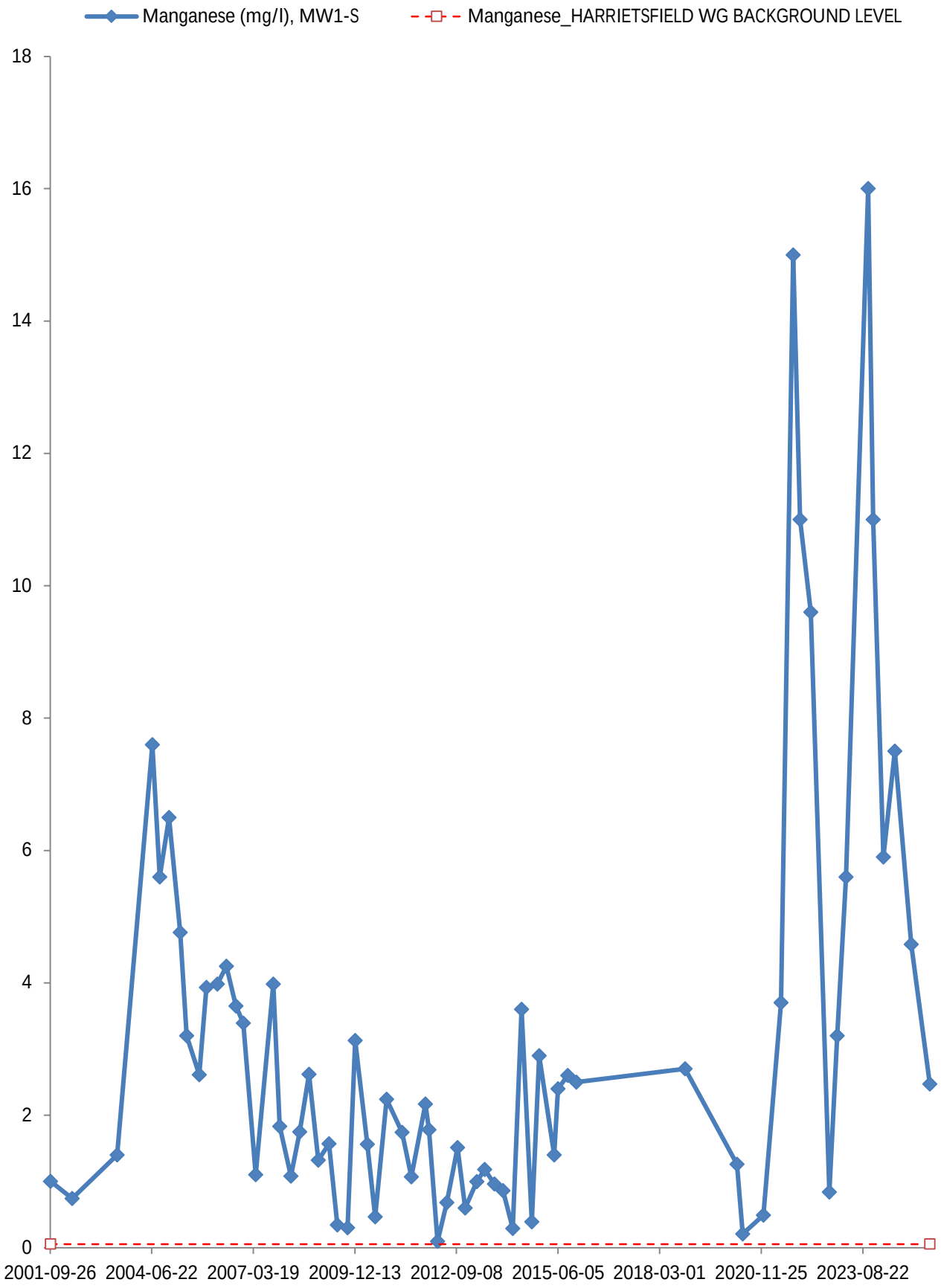

Iron (mg/l), MW1-S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
6
5
4
3
2
1
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Lead



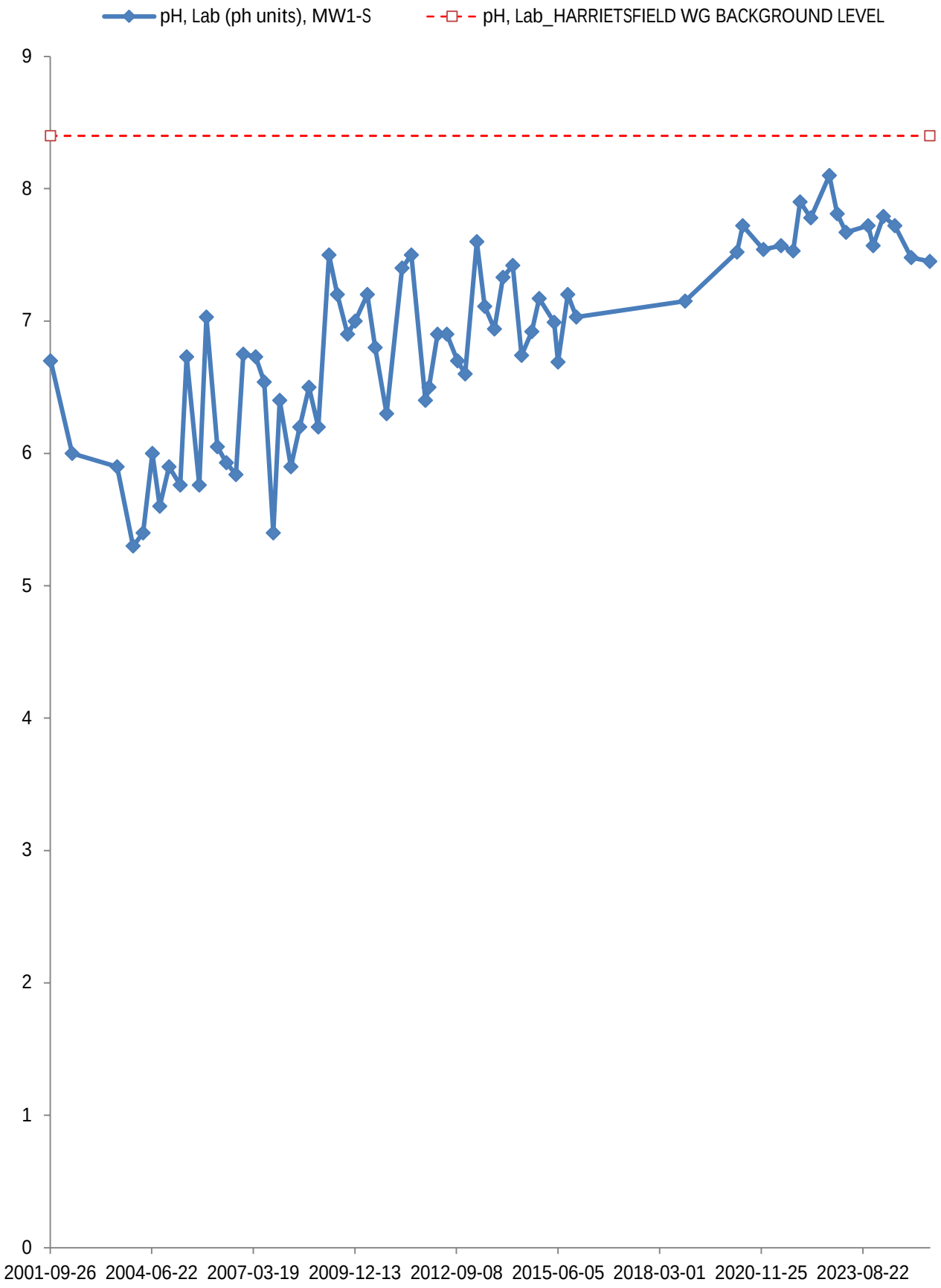

Lead (mg/l), MW1-S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Manganese

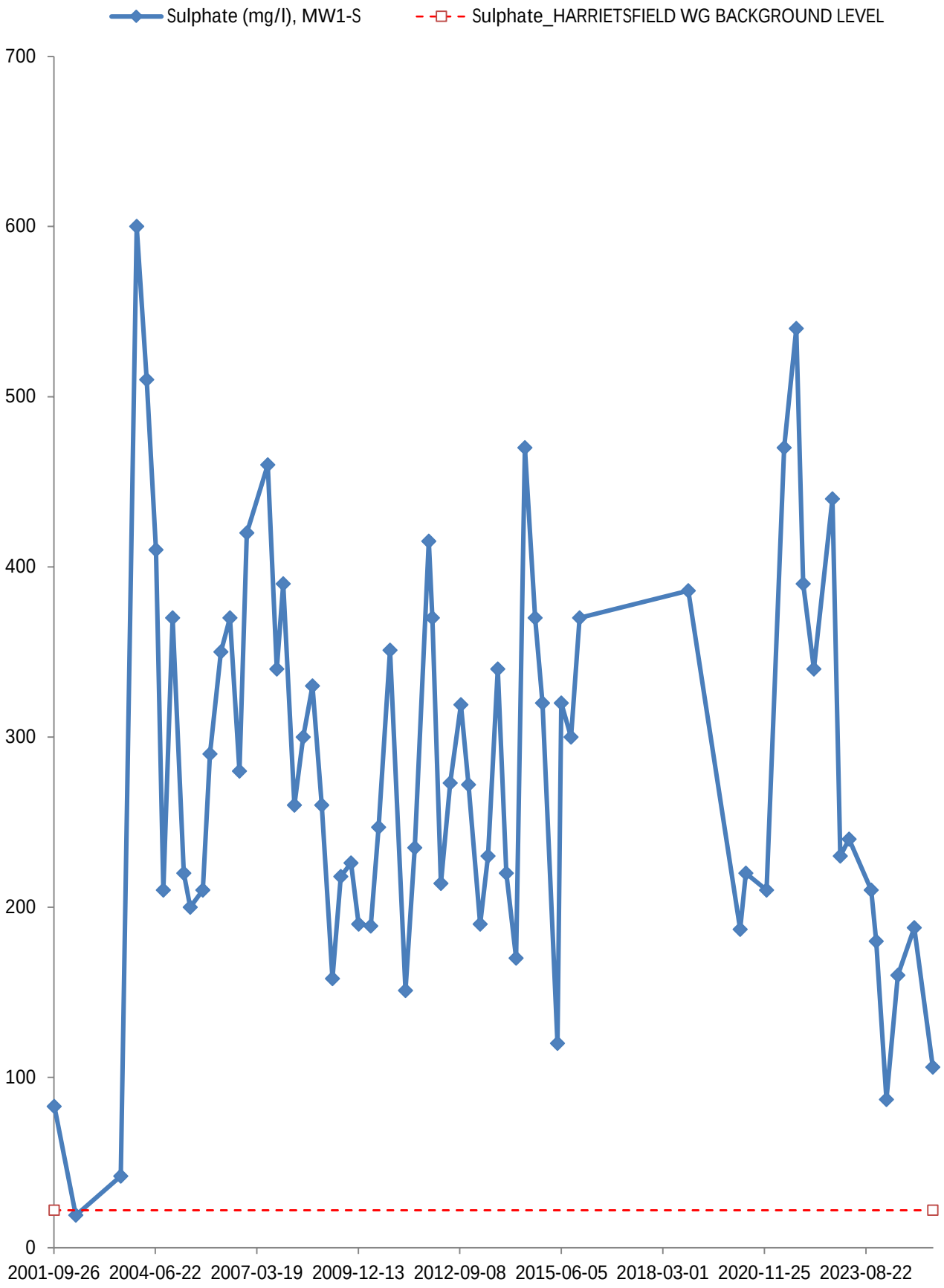

Manganese (mg/l), MW1-S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
18
16
14
12
10
8
6
4
2
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# pH, Lab

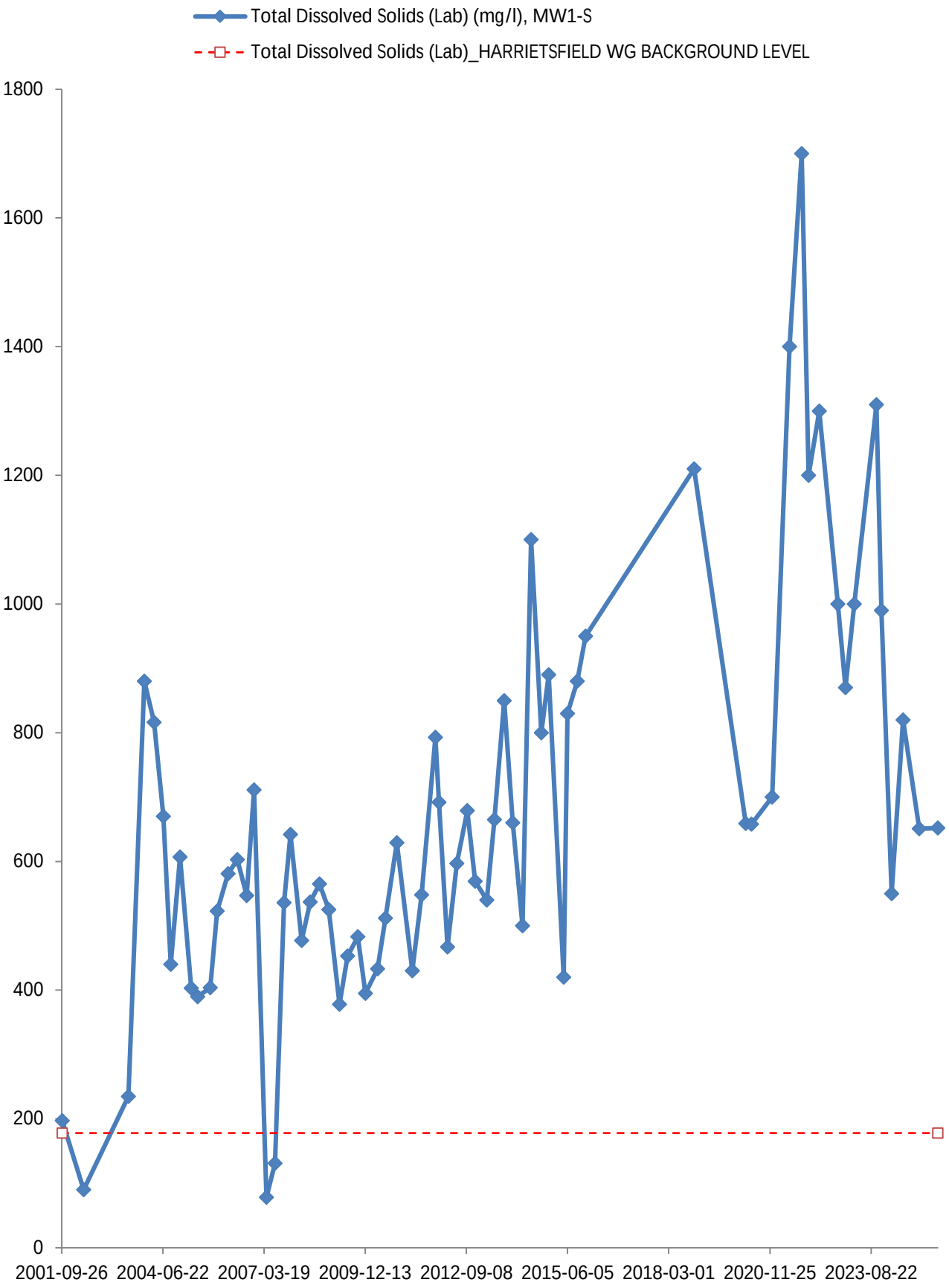



pH, Lab (ph units), MW1-S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

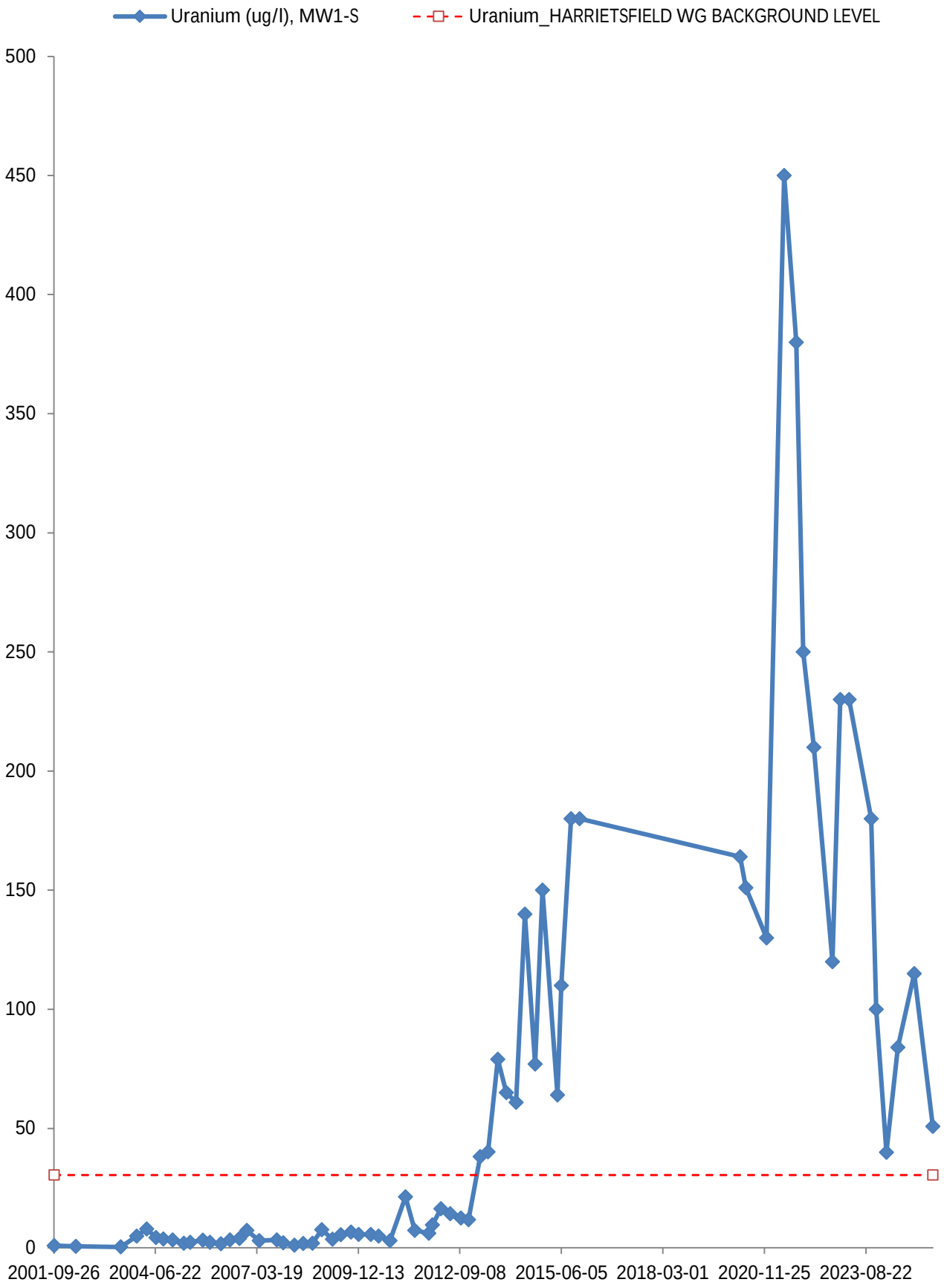
# Sulphate


Sulphate (mg/l), MW1-S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
700
600
500
400
300
200
100
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Total Dissolved Solids (5

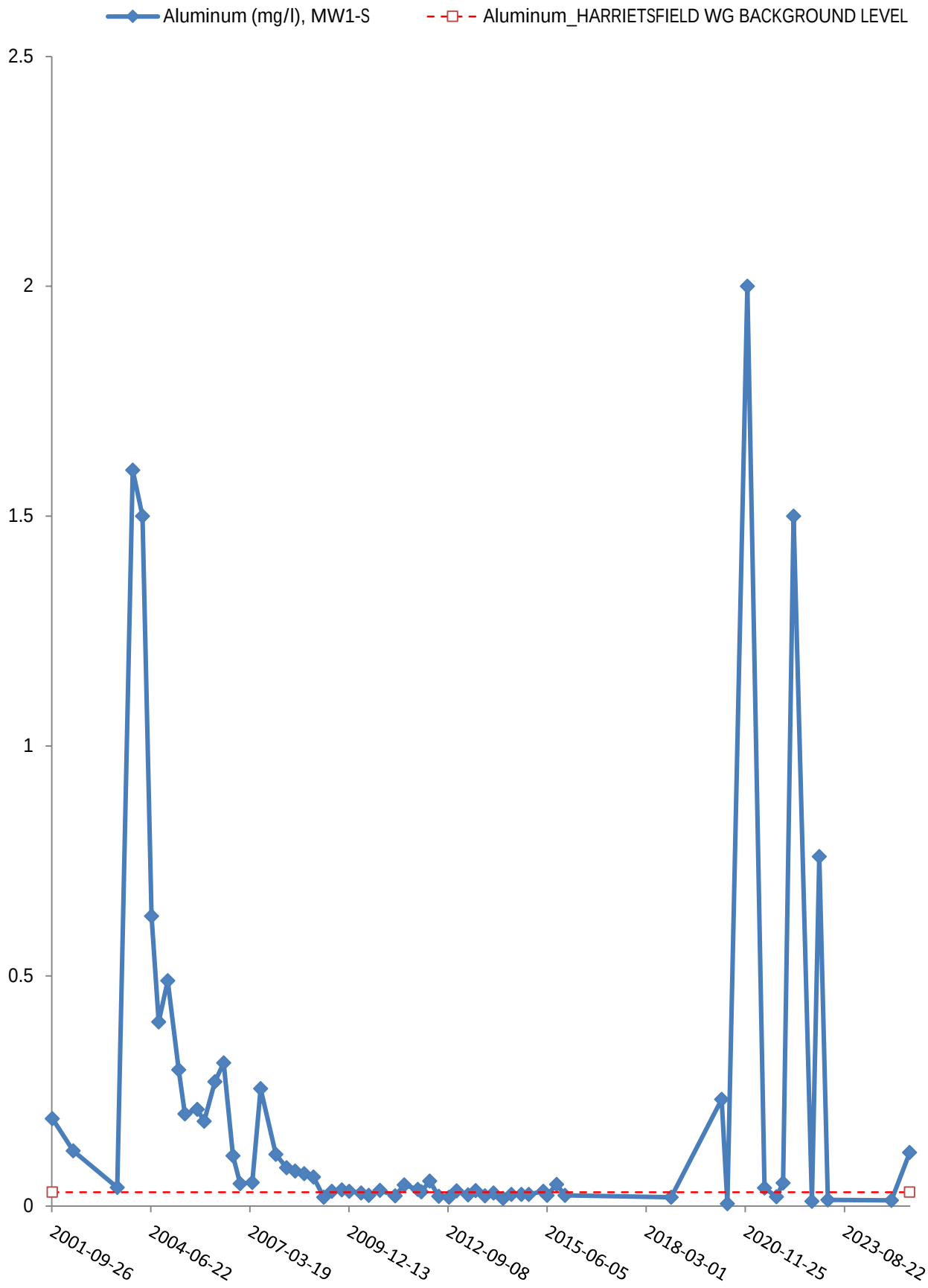


# Uranium


Uranium (ug/l), MW1-S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
500
450
400
350
300
250
200
150
100
50
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

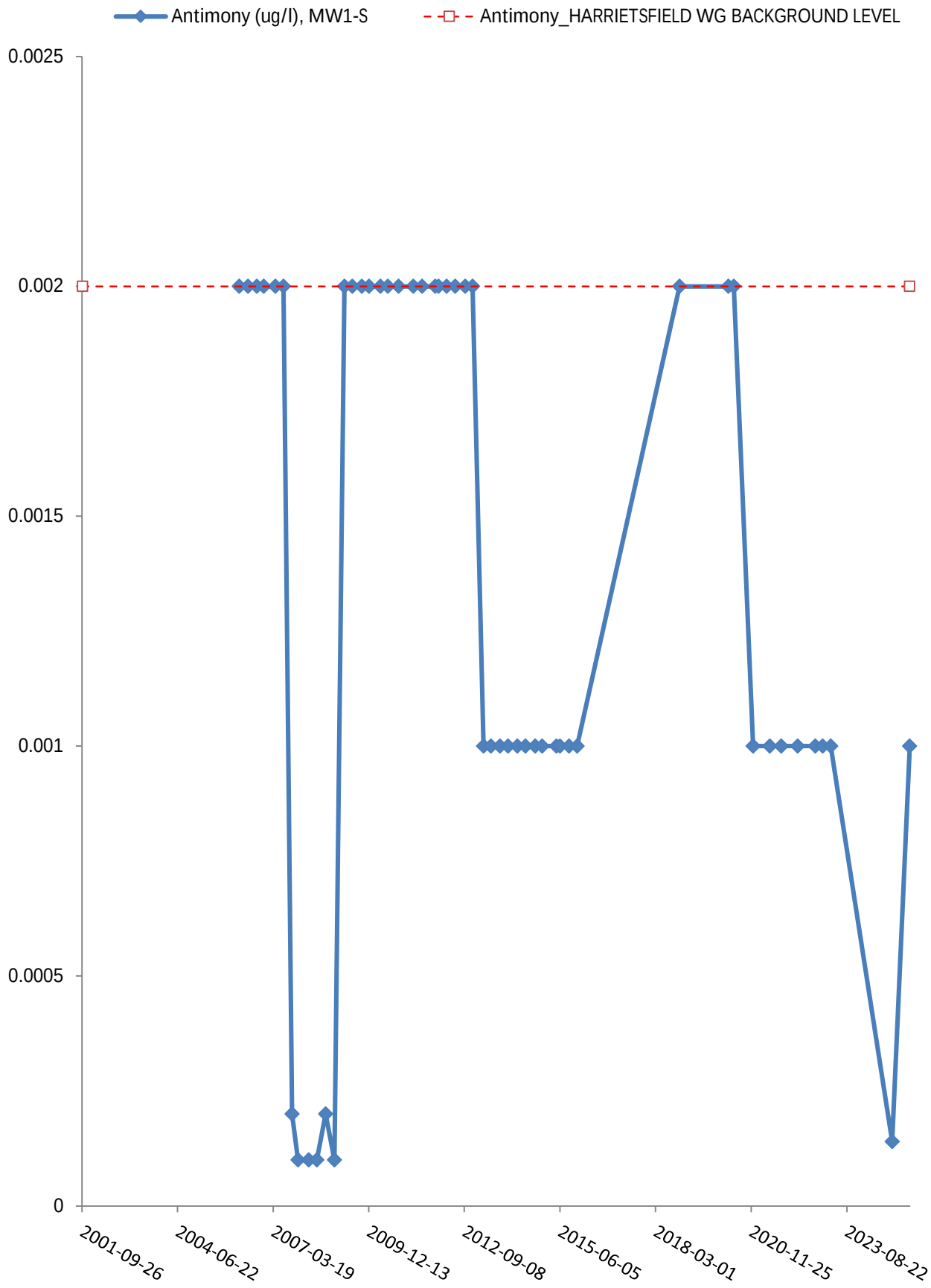
# Aluminum




Aluminum (mg/l), MW1-S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
2.5
2
1.5
1
0.5
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

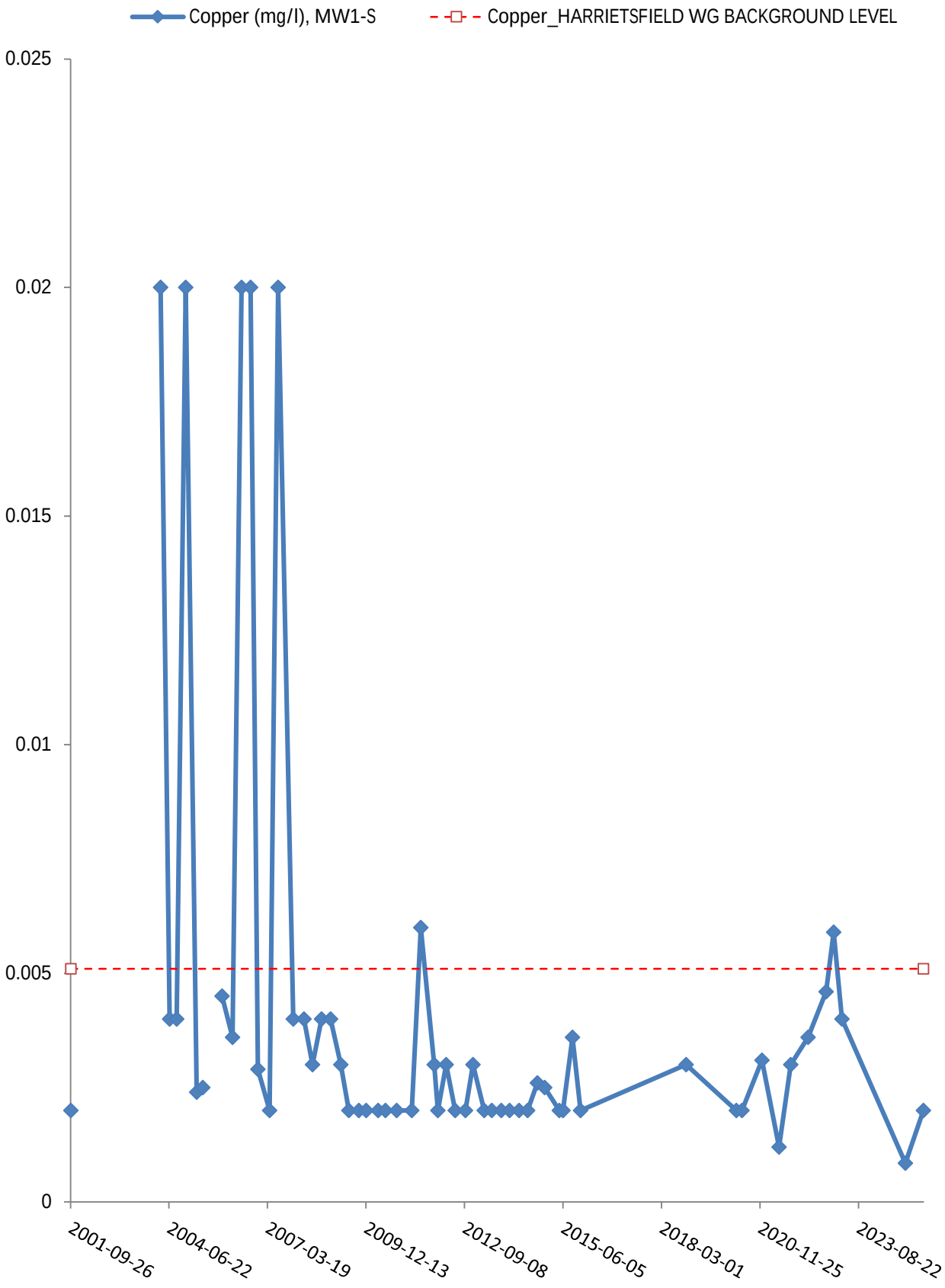
# Antimony




Antimony (ug/l), MW1-S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

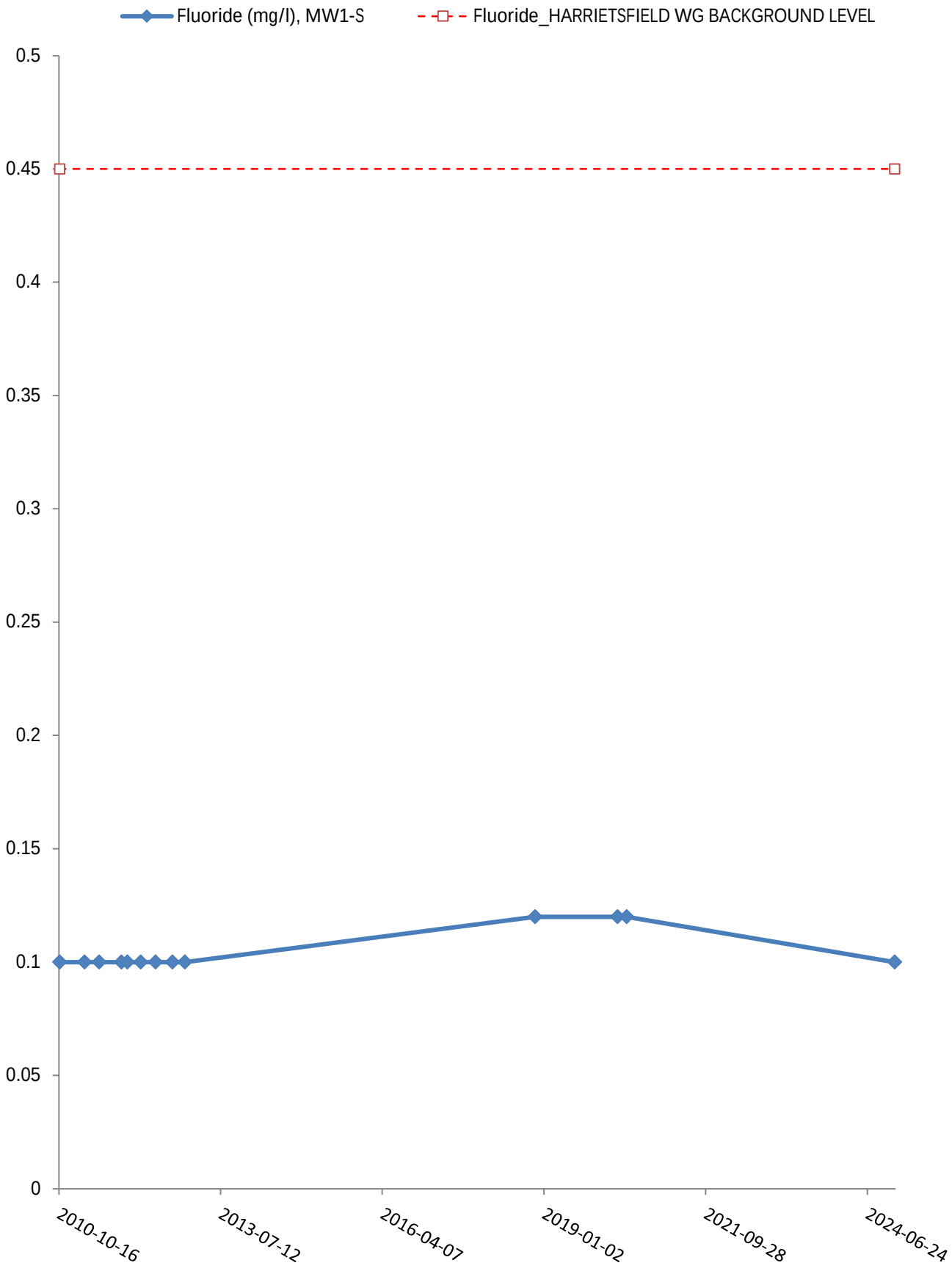
# Copper




Copper (mg/l), MW1-S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

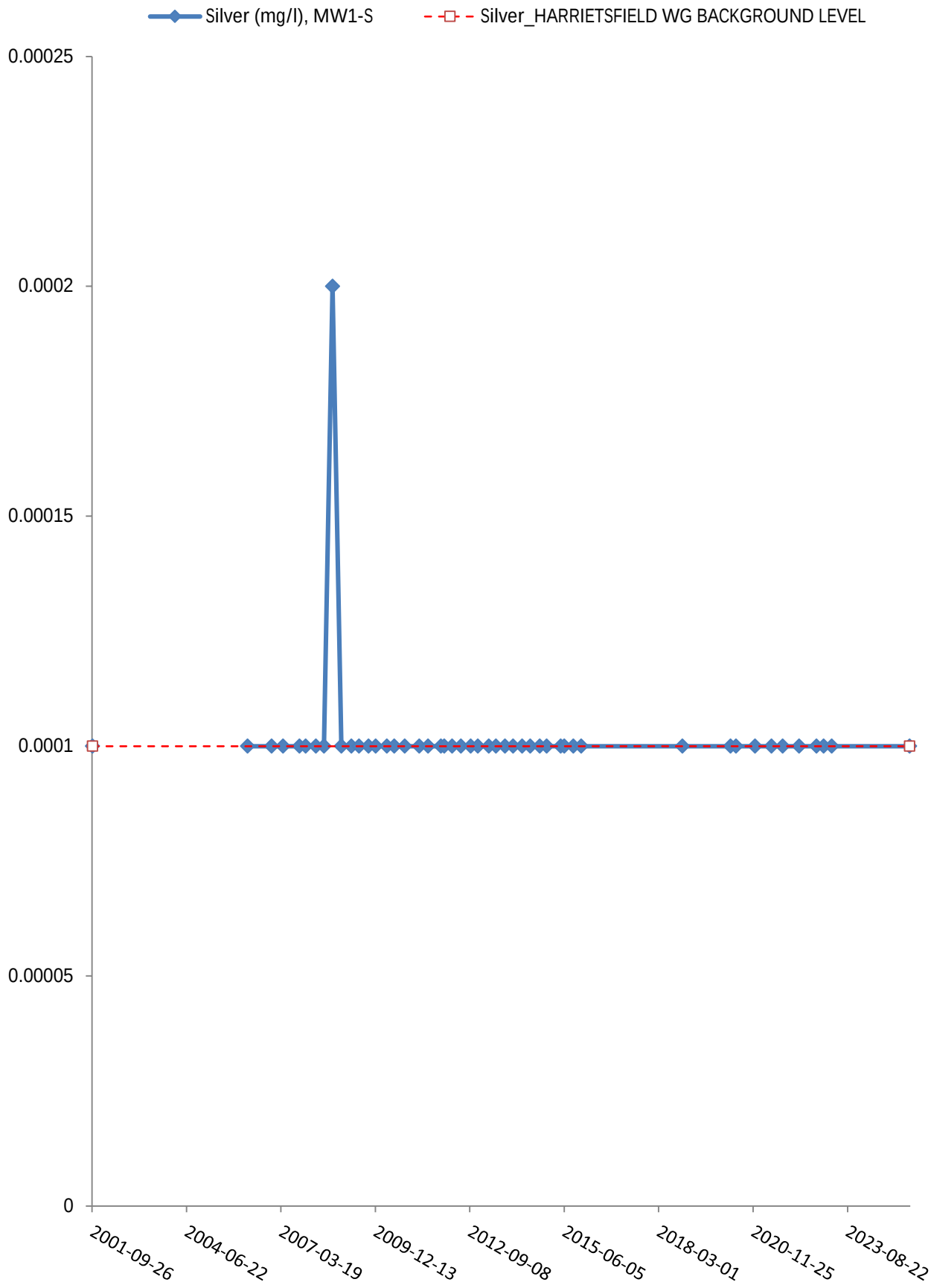
# Fluoride



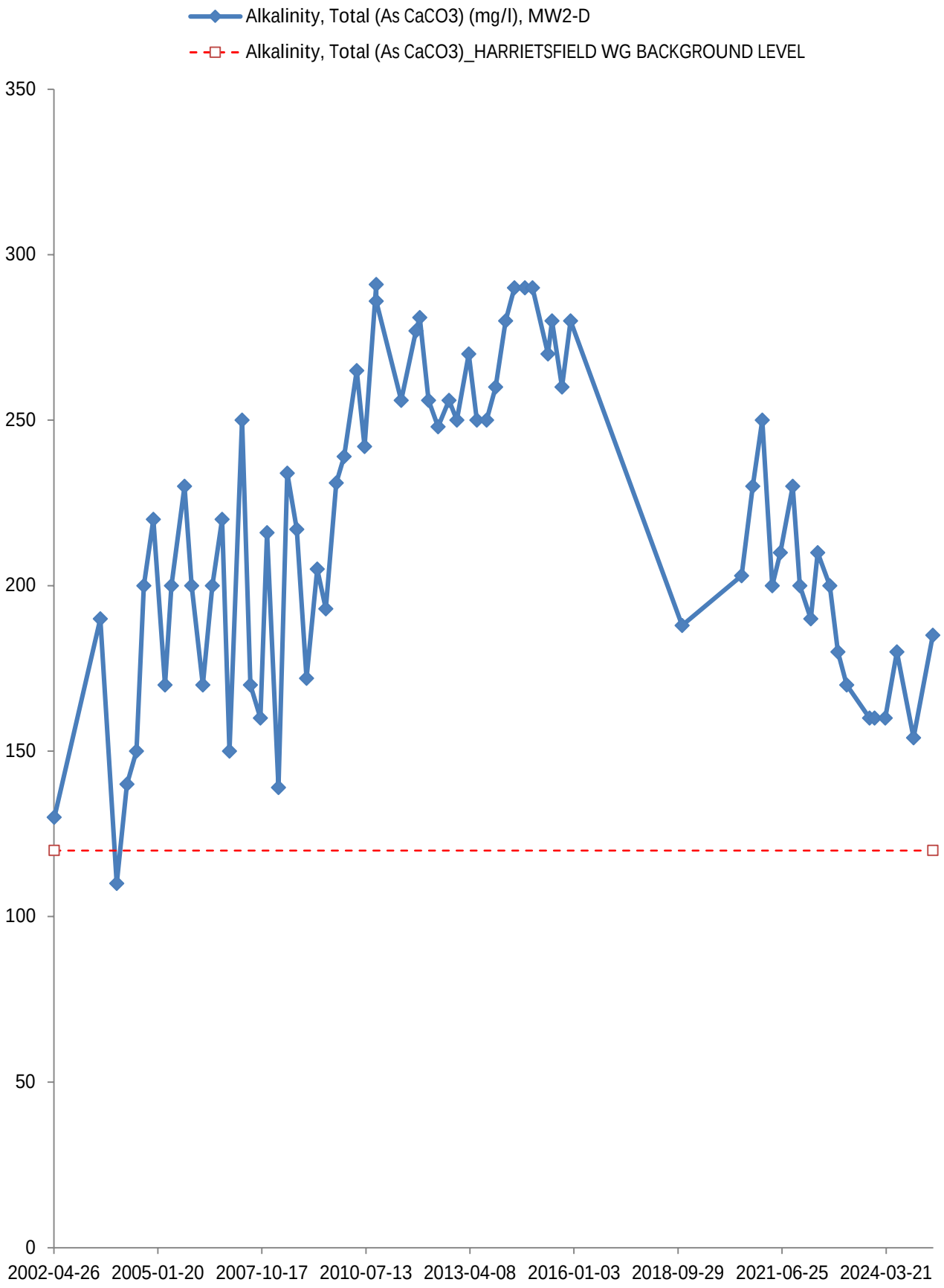

Fluoride (mg/l), MW1-S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver



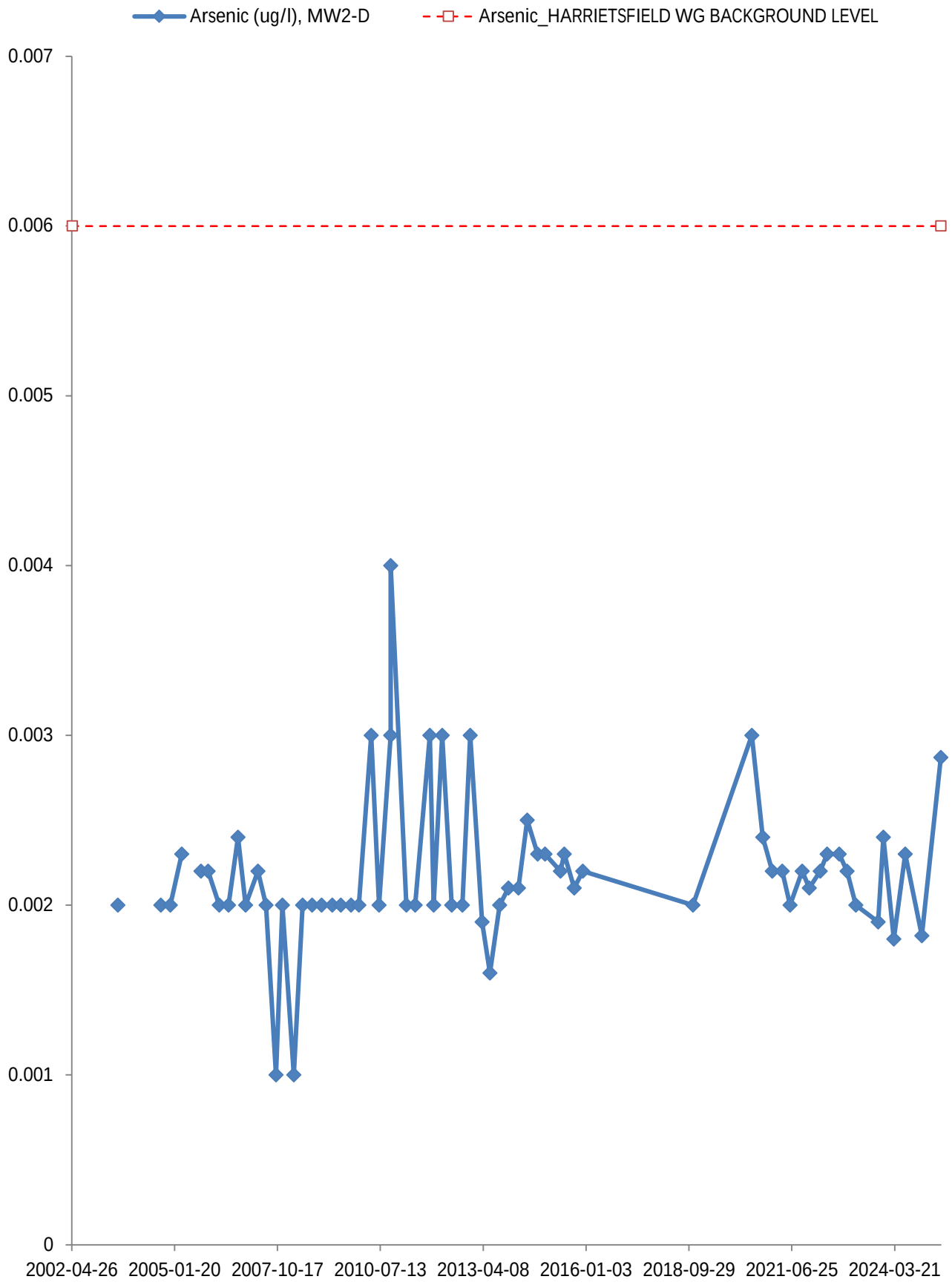

Silver (mg/l), MW1-S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00025
0.0002
0.00015
0.0001
0.00005
0
2001-09-26
2004-06-22
2007-03-19
2009-12-13
2012-09-08
2015-06-05
2018-03-01
2020-11-25
2023-08-22

# Alkalinity, Total

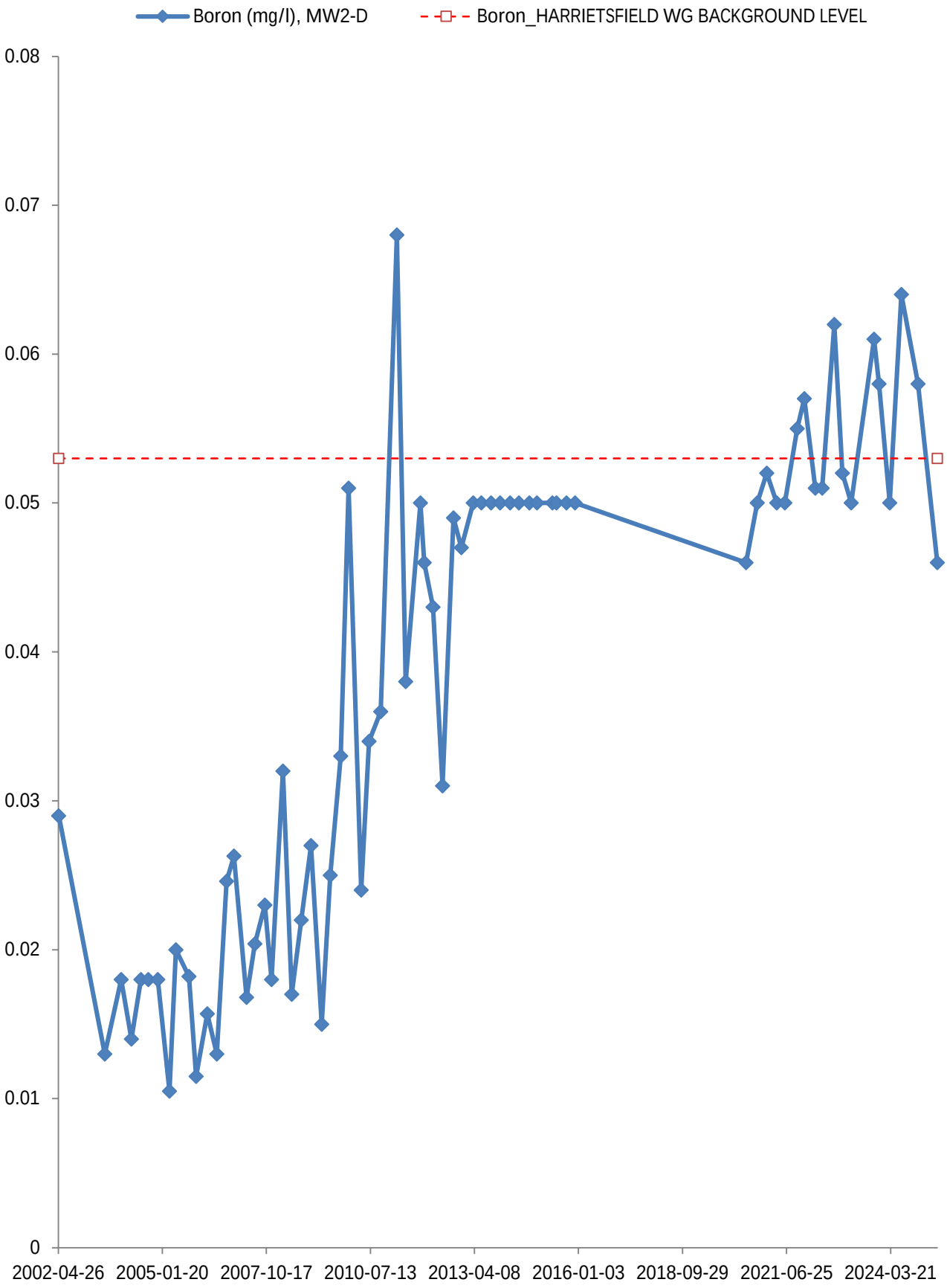


# Arsenic



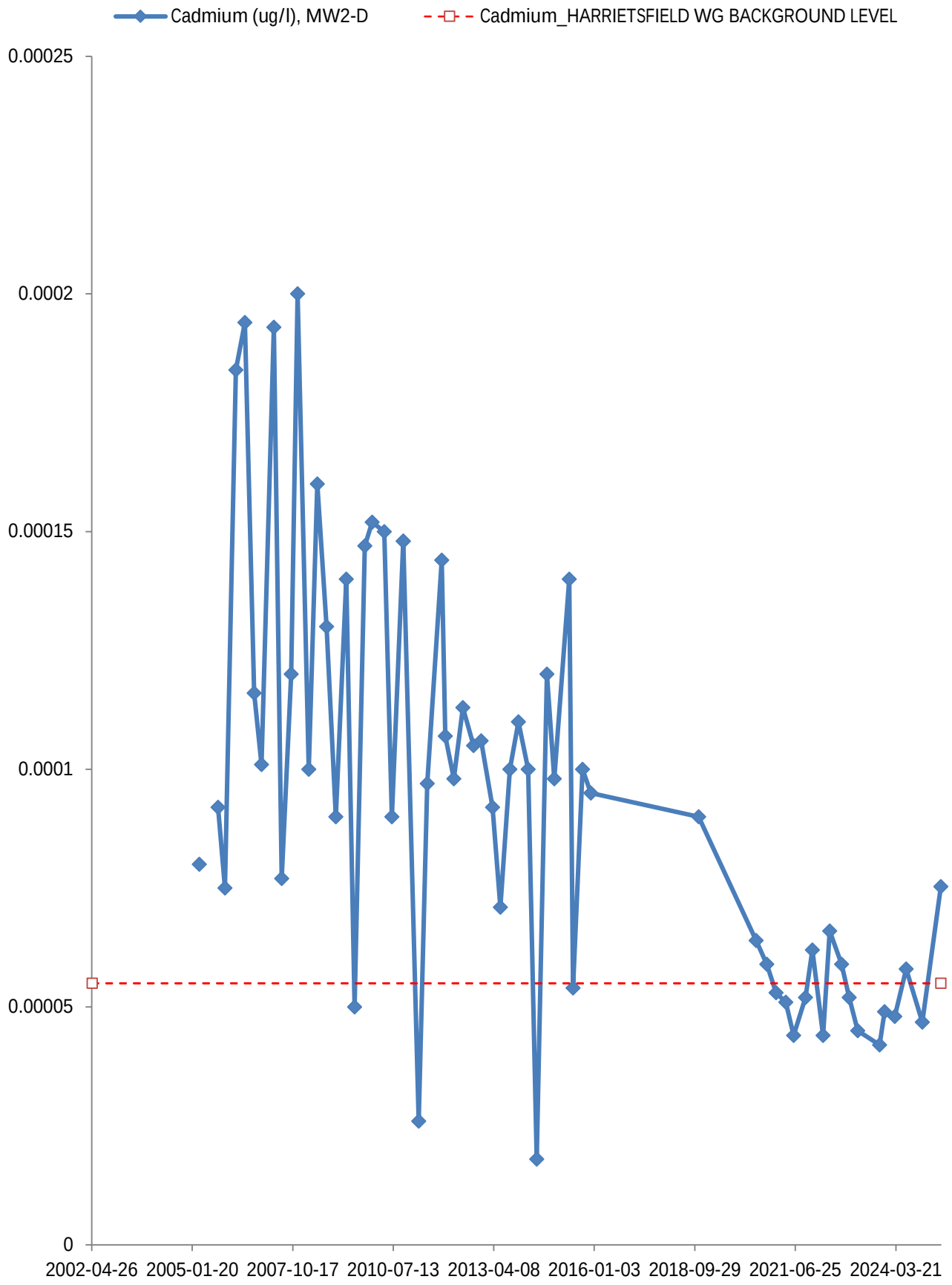

Arsenic (ug/l), MW2-D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Boron

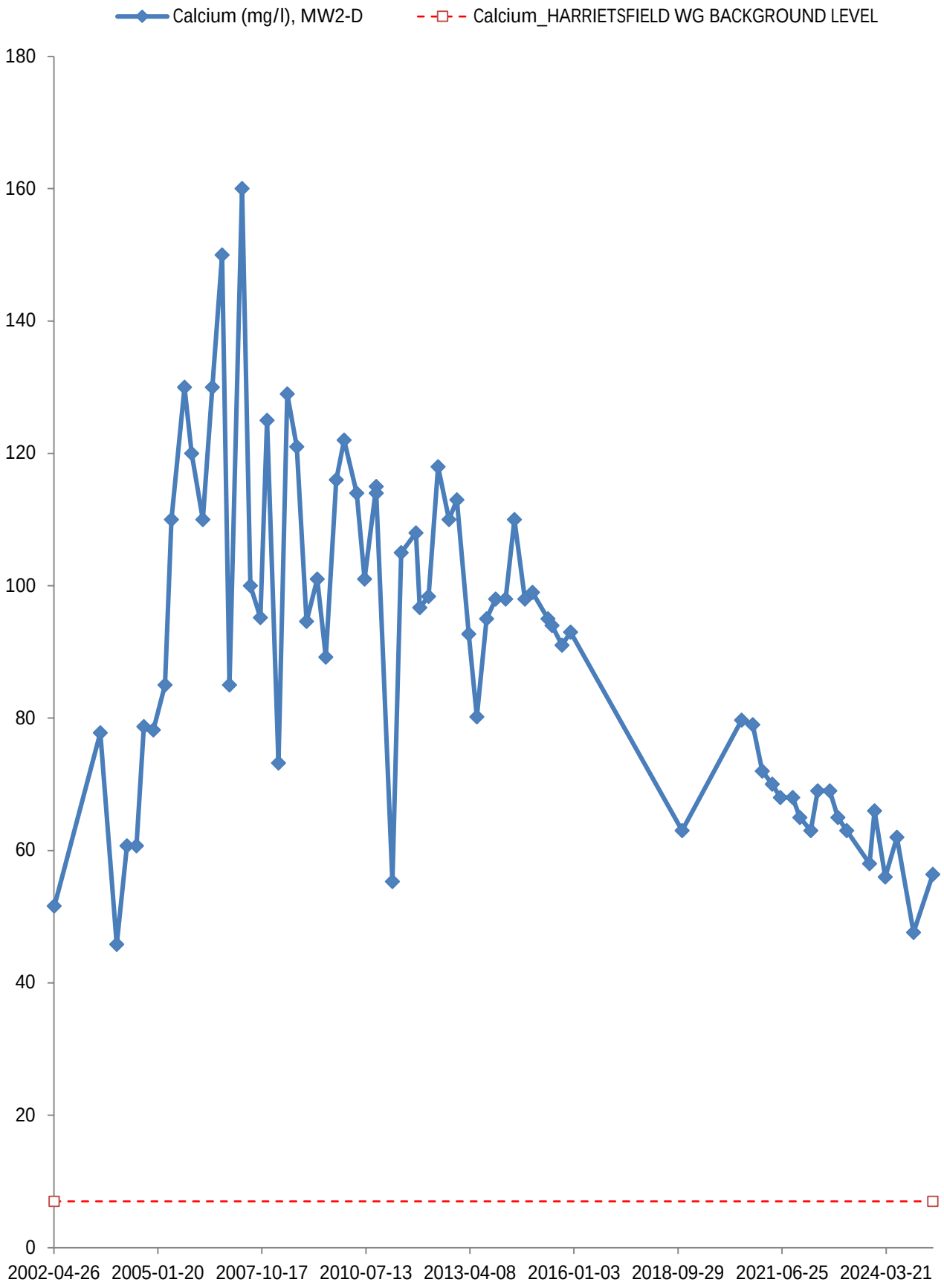

Boron (mg/l), MW2-D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cadmium

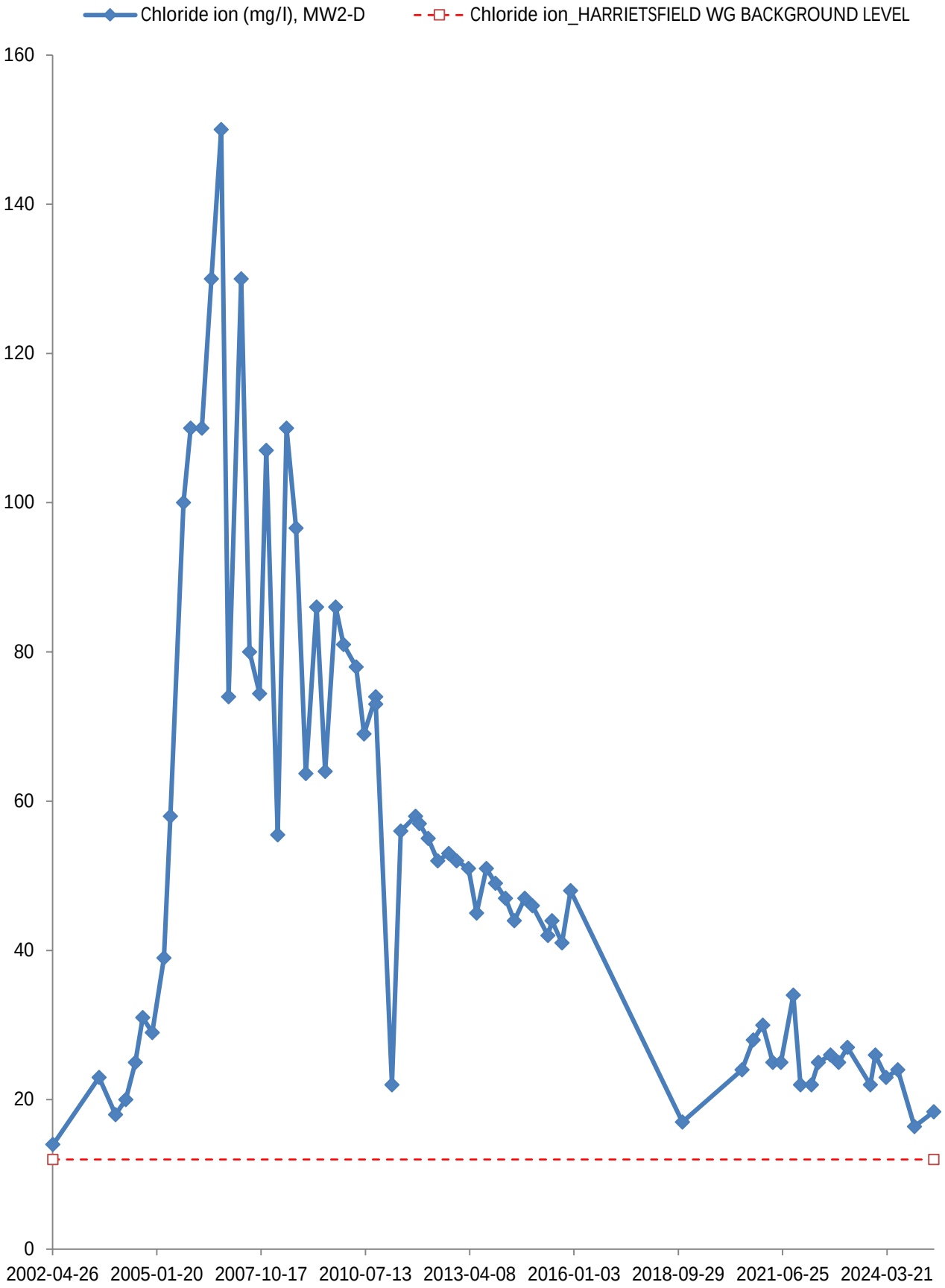



Cadmium (ug/l), MW2-D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00025
0.0002
0.00015
0.0001
0.00005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Calcium

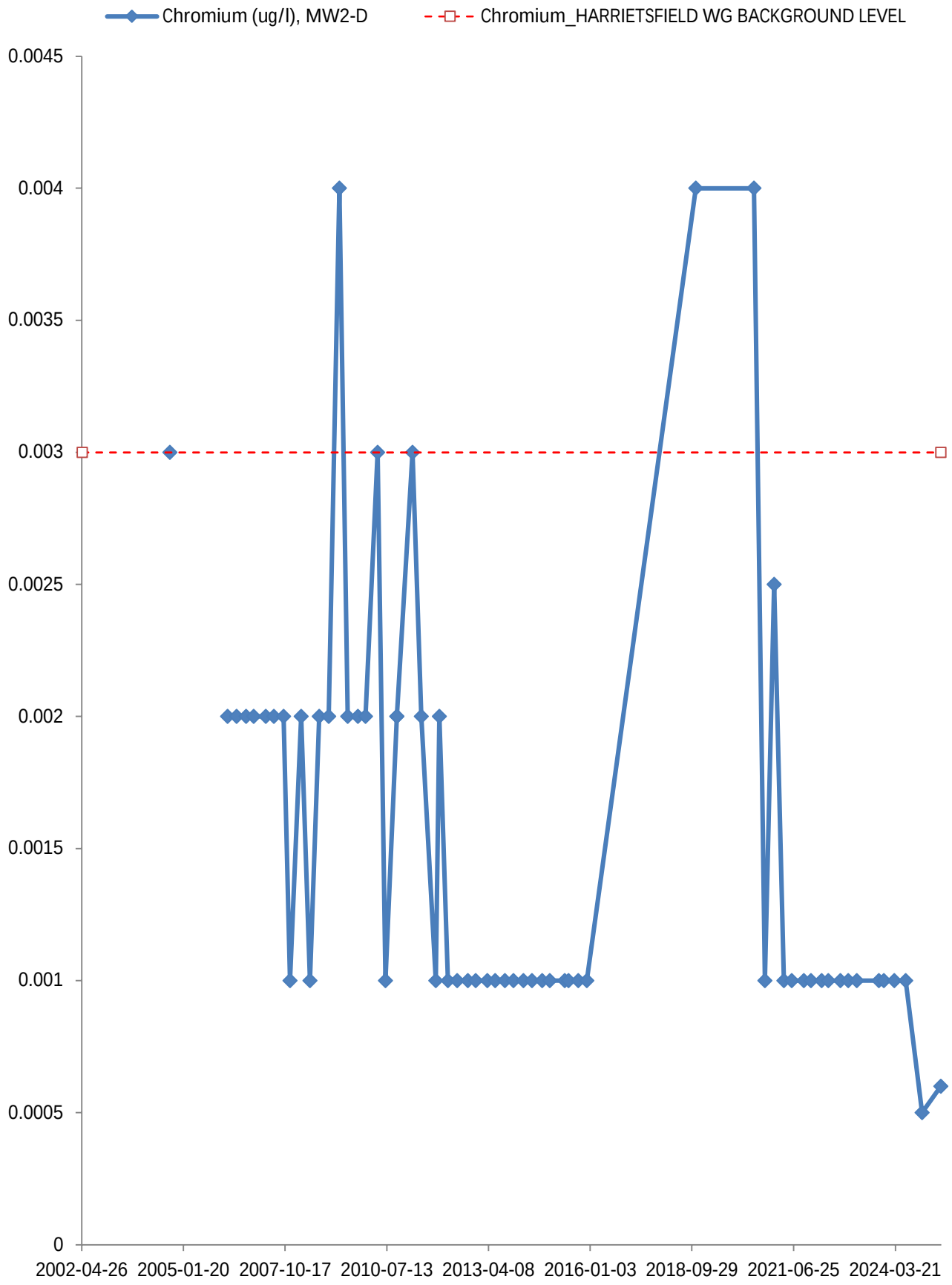

Calcium (mg/l), MW2-D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
180
160
140
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Chloride ion

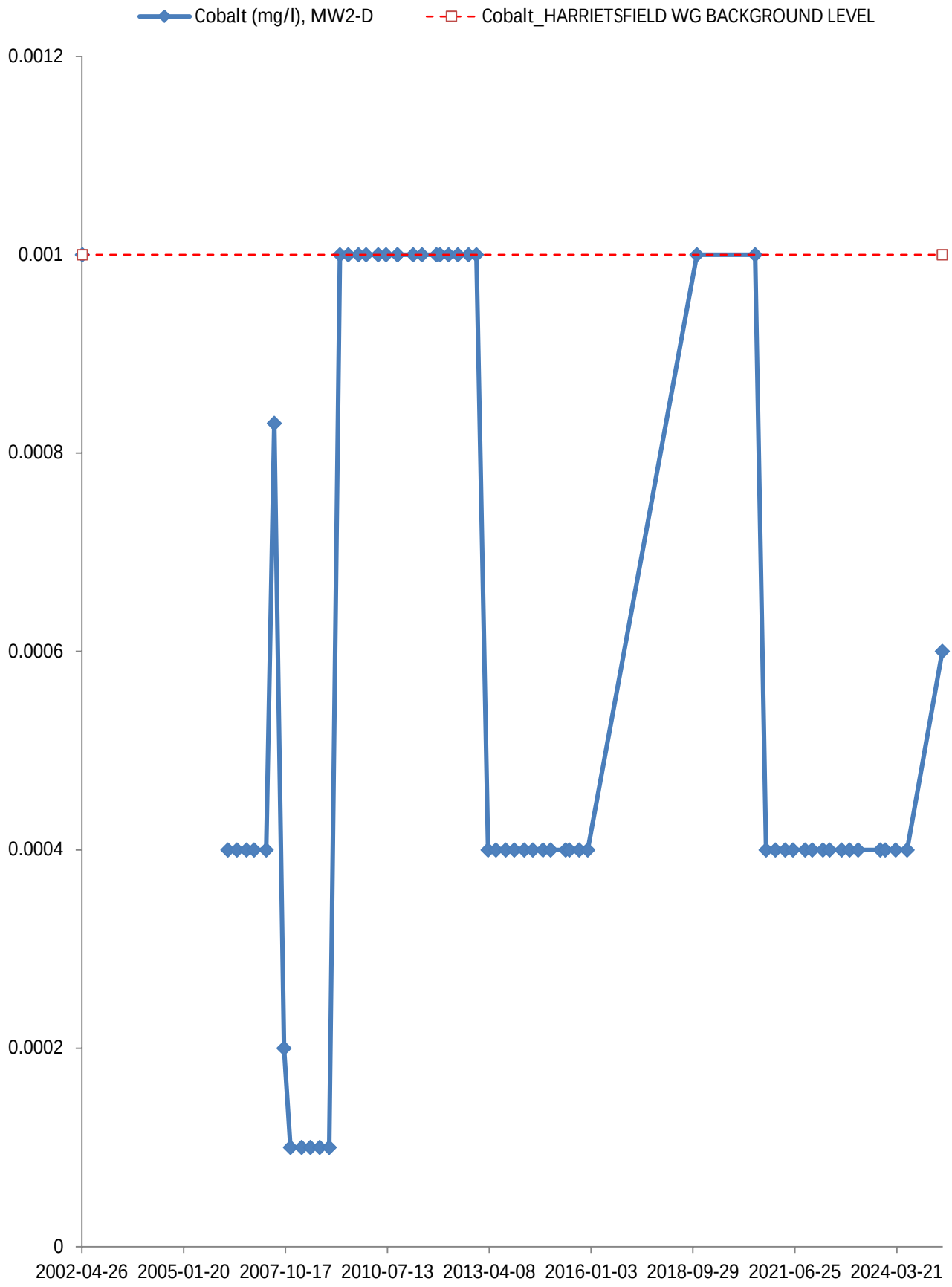


# Chromium



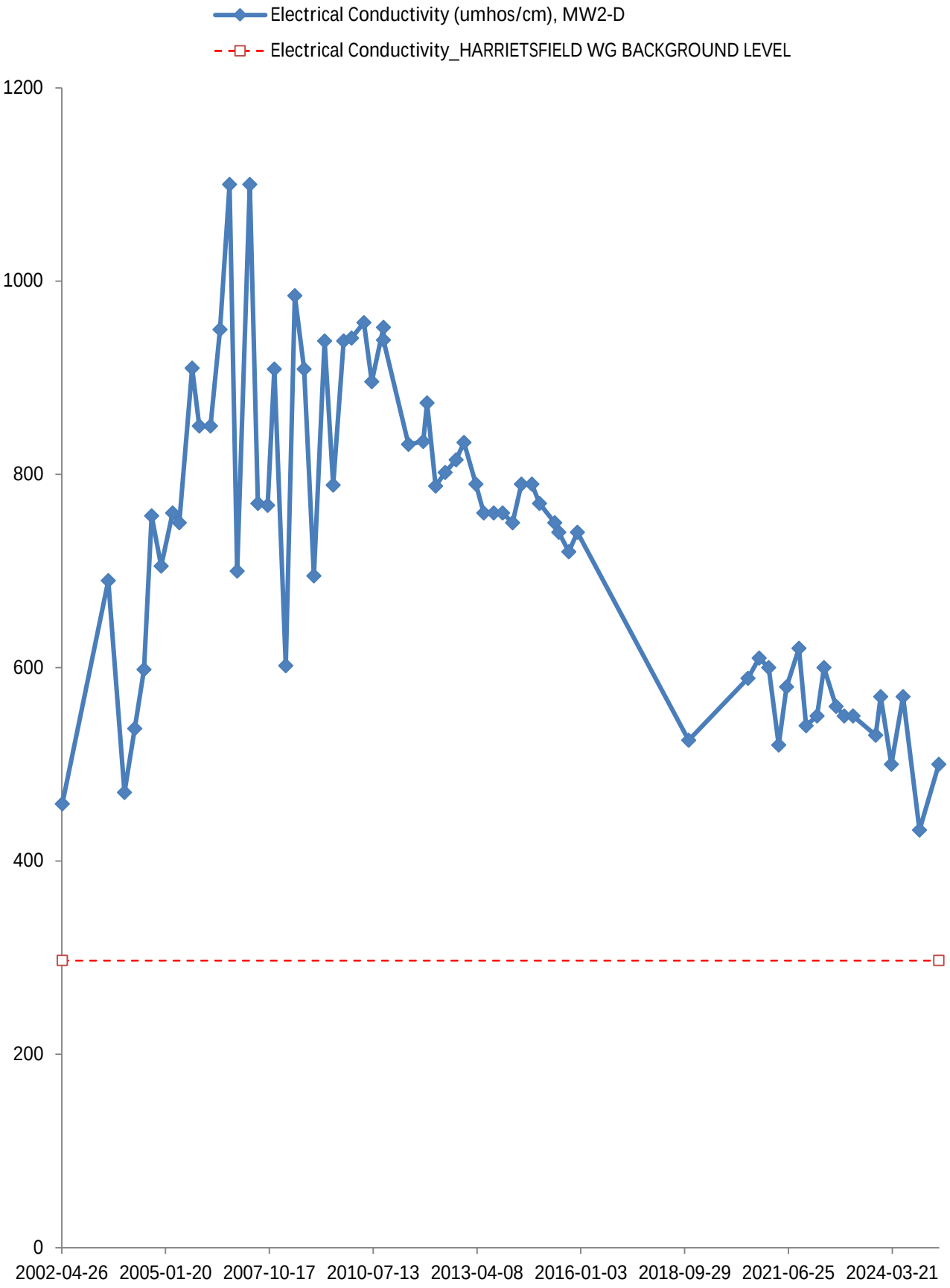

Chromium (ug/l), MW2-D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cobalt

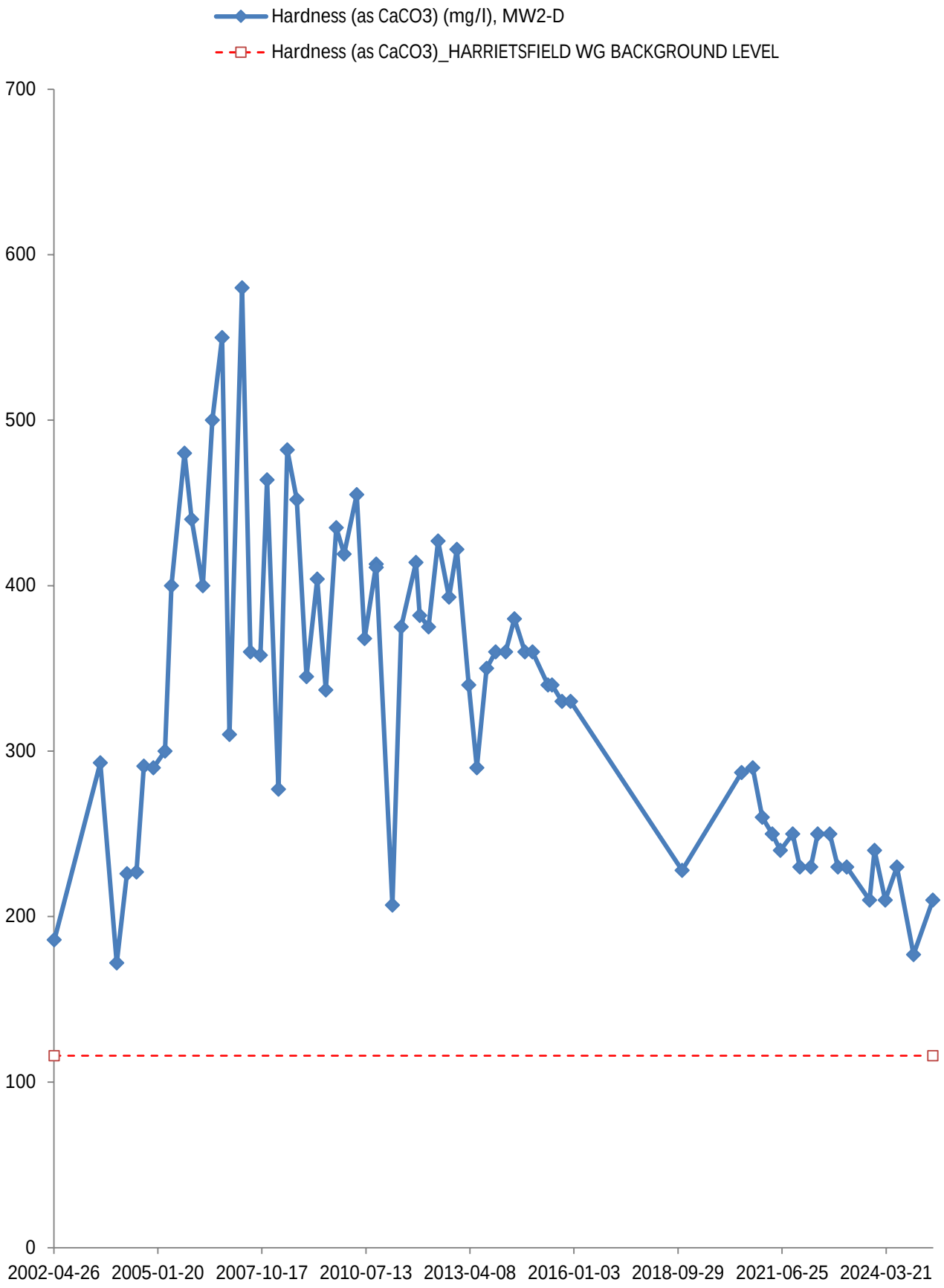

Cobalt (mg/l), MW2-D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Electrical Conductivity



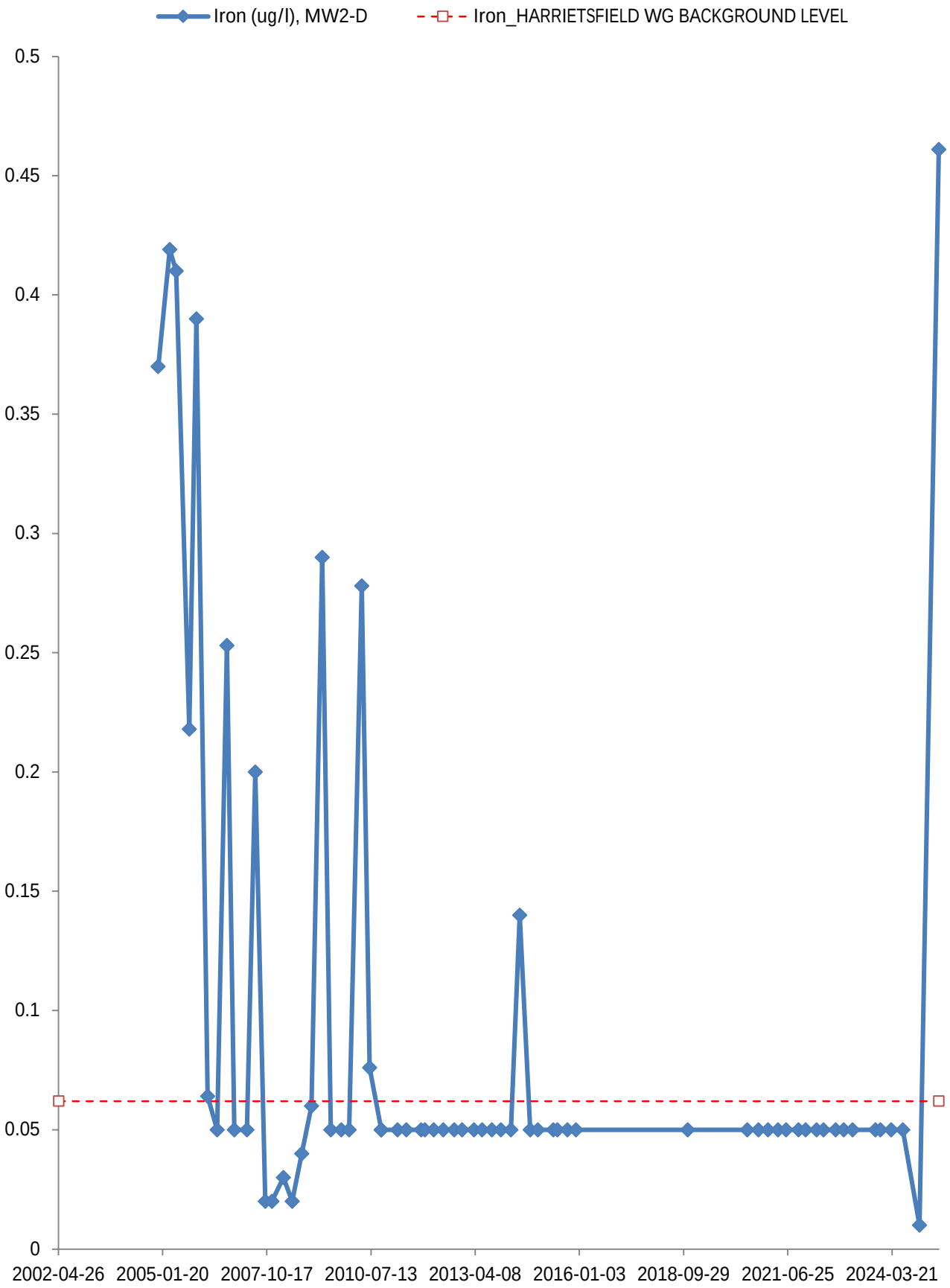


# Hardness (as CaCO3)

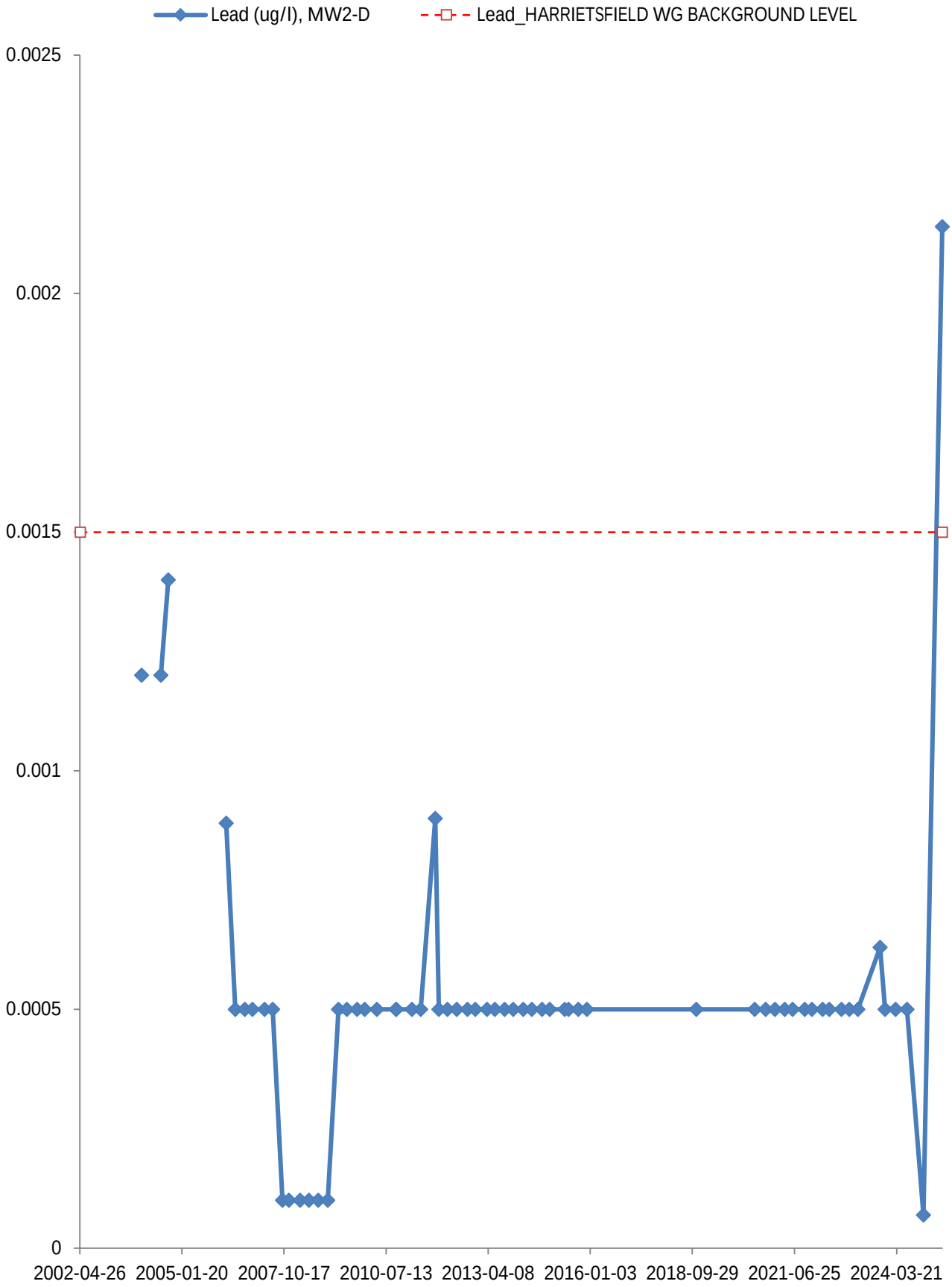


# Iron

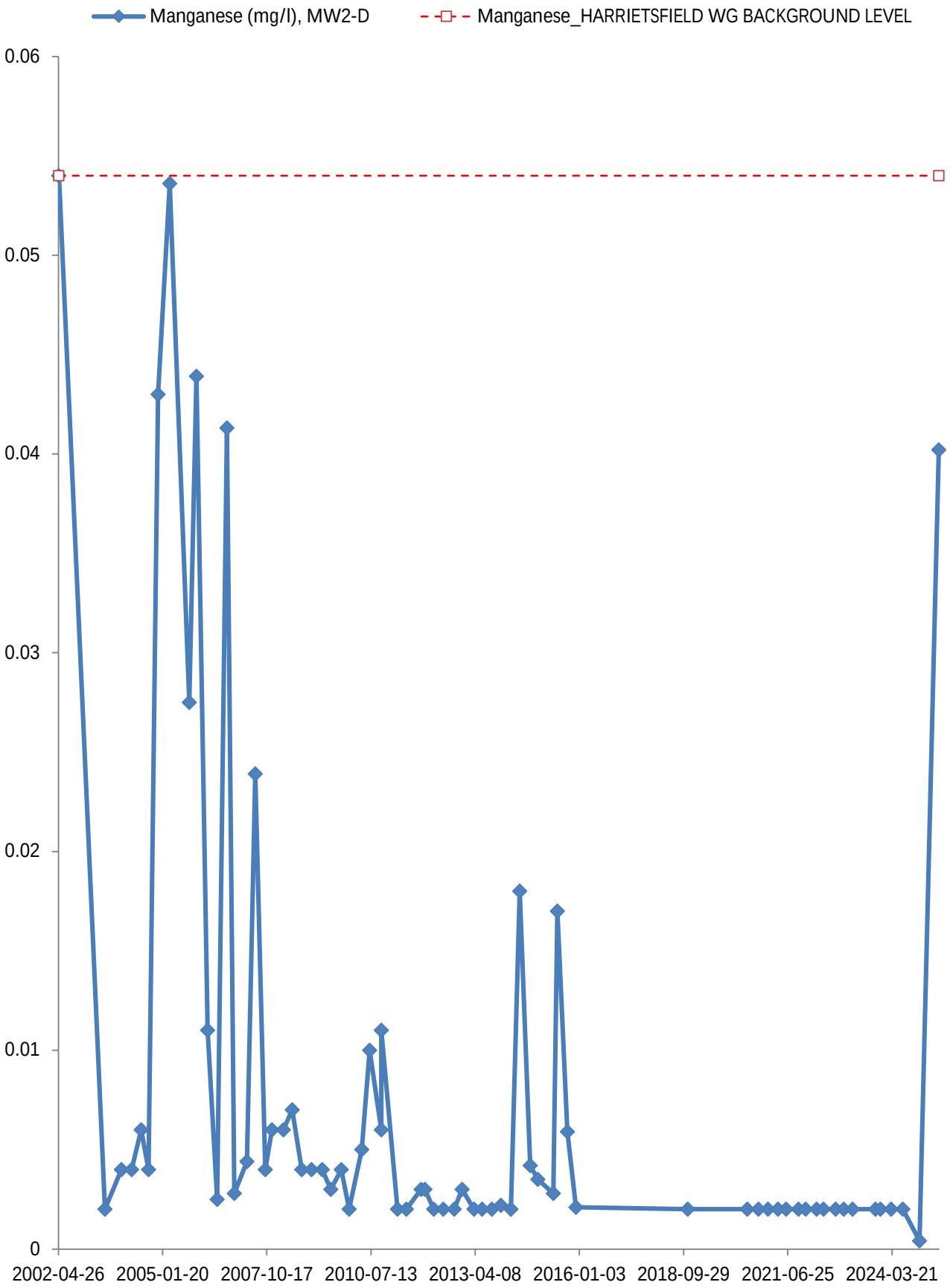



Iron (ug/l), MW2-D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

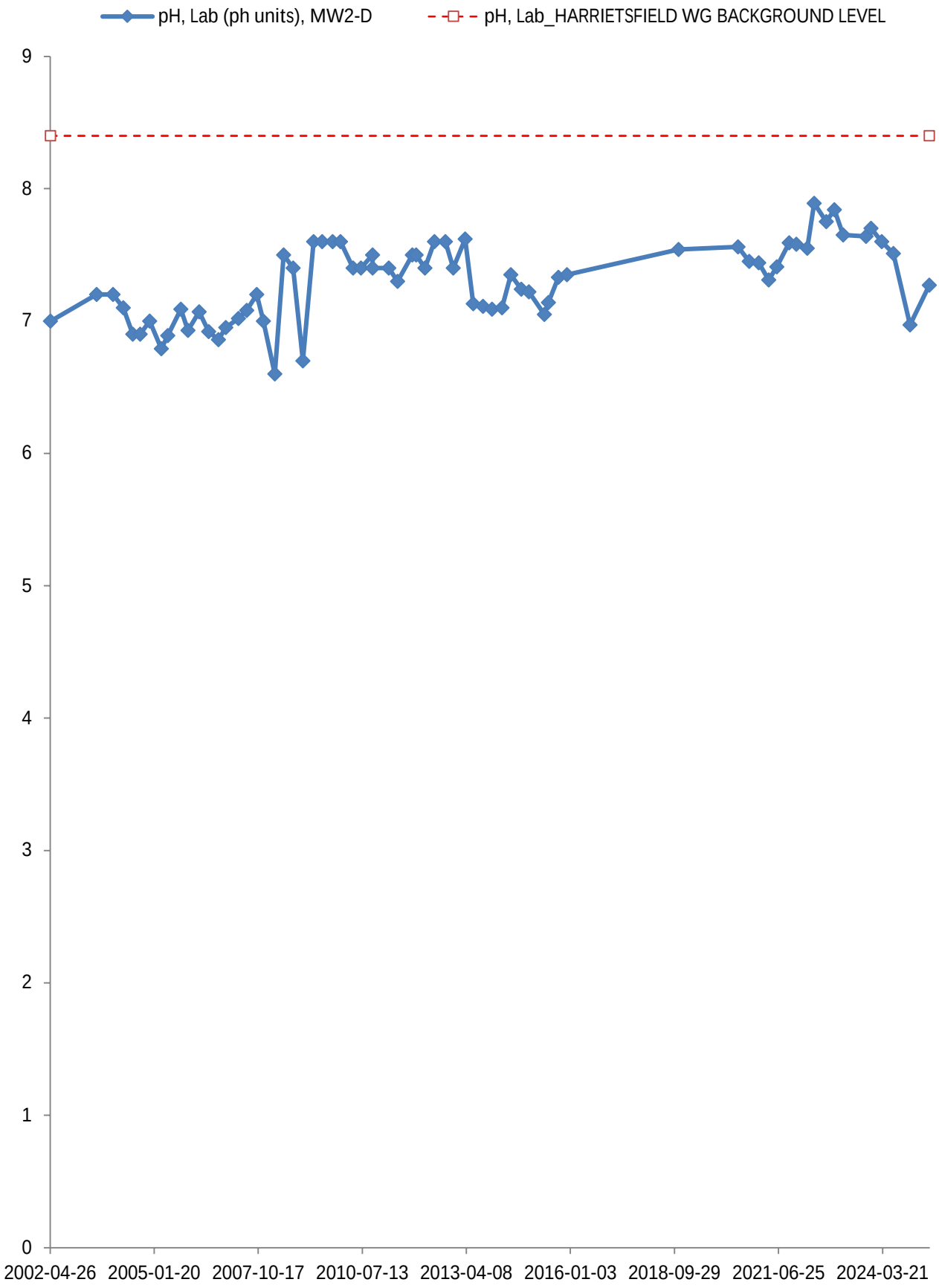
# Lead


Lead (ug/l), MW2-D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

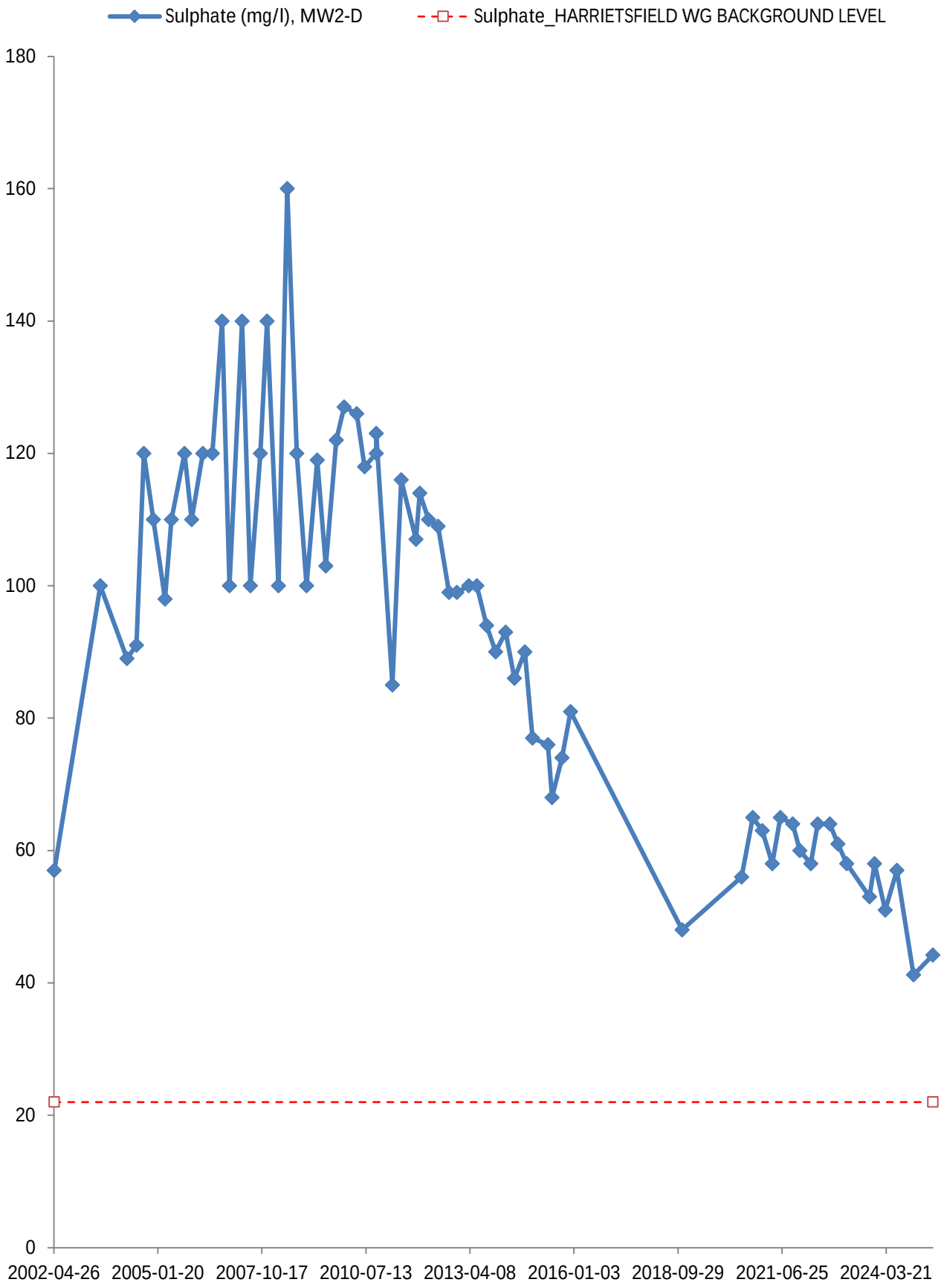
# Manganese


Manganese (mg/l), MW2-D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# pH, Lab

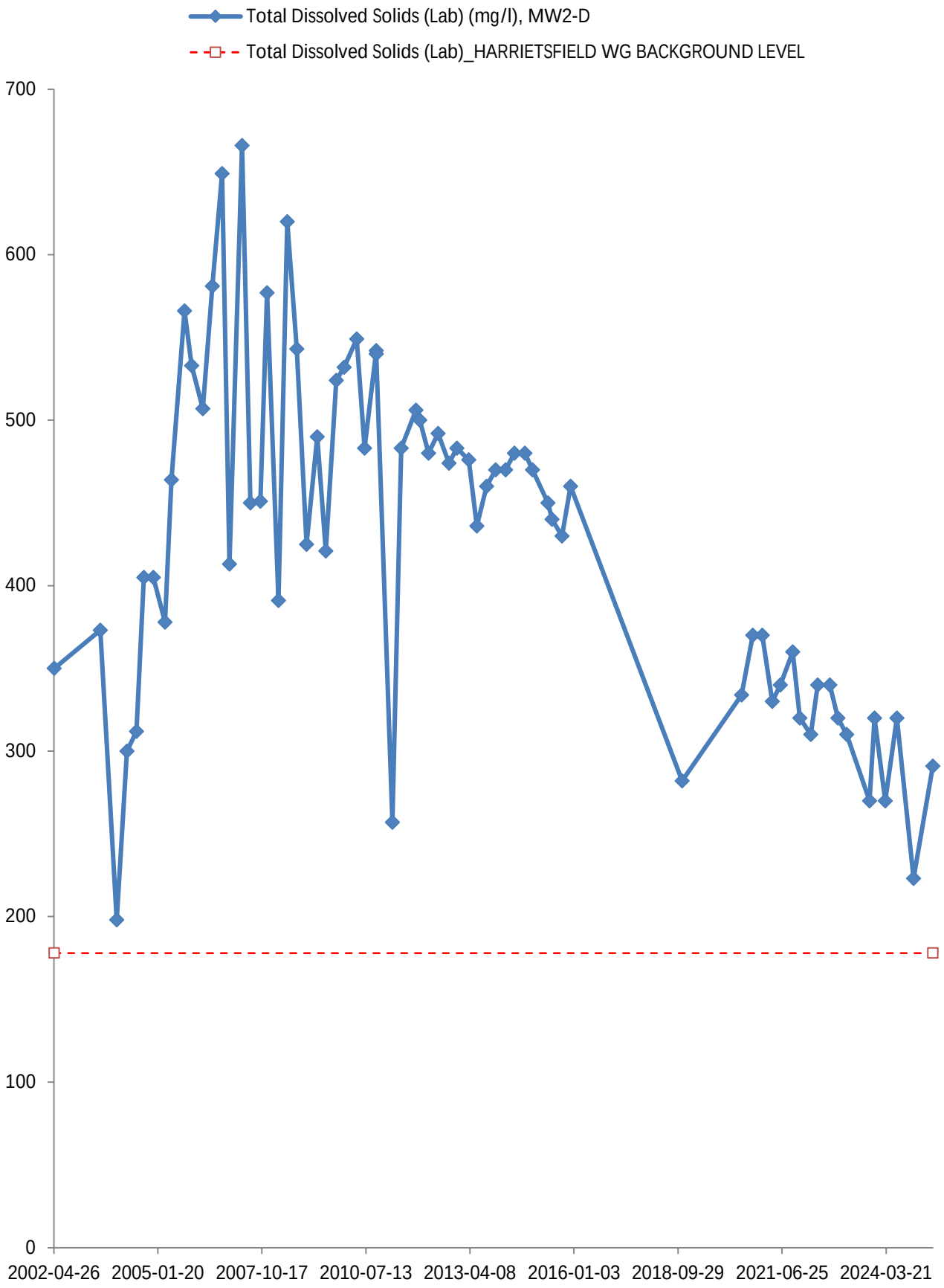

pH, Lab (ph units), MW2-D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Sulphate

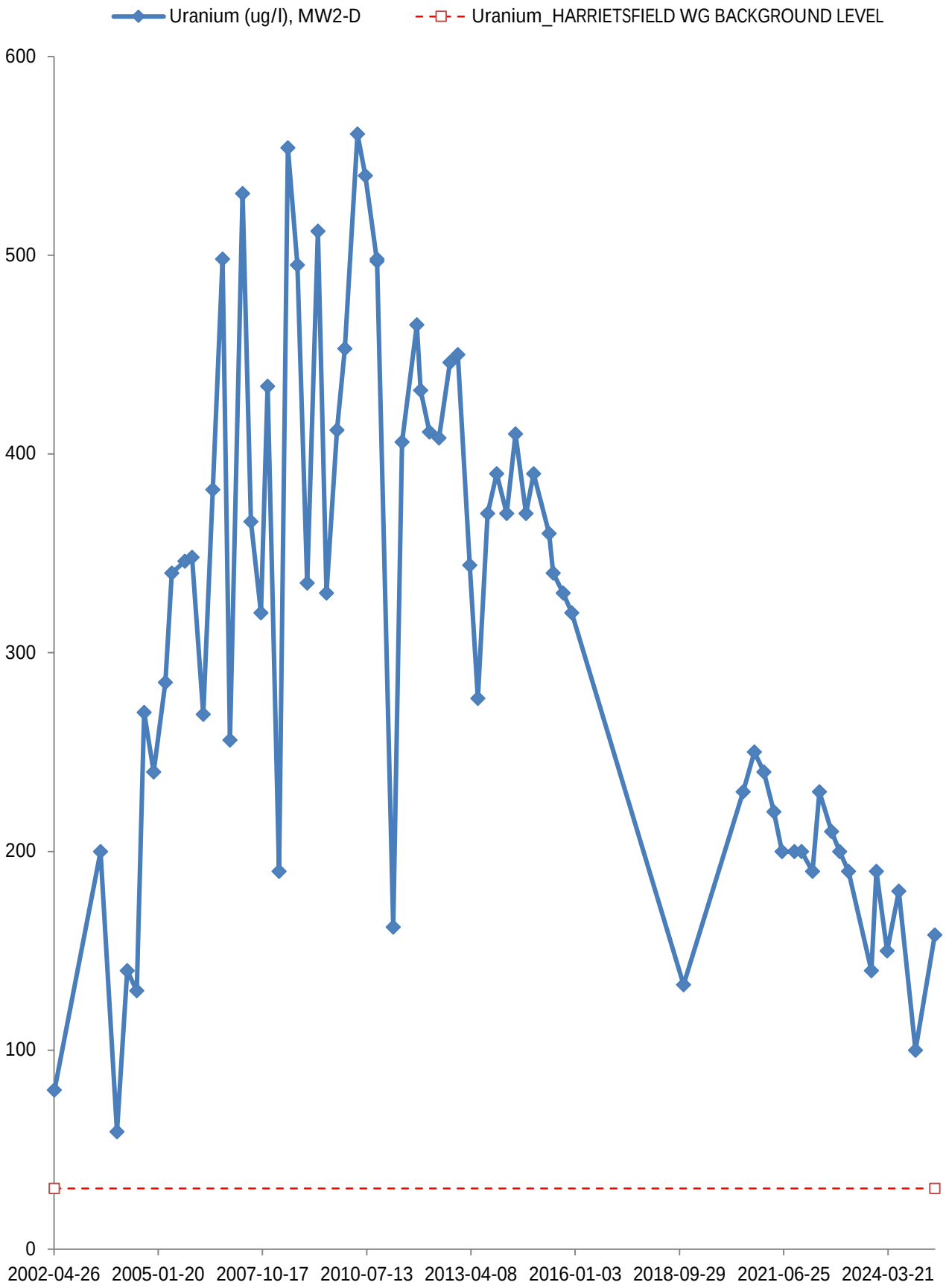

Sulphate (mg/l), MW2-D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
180
160
140
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Total Dissolved Solids (5



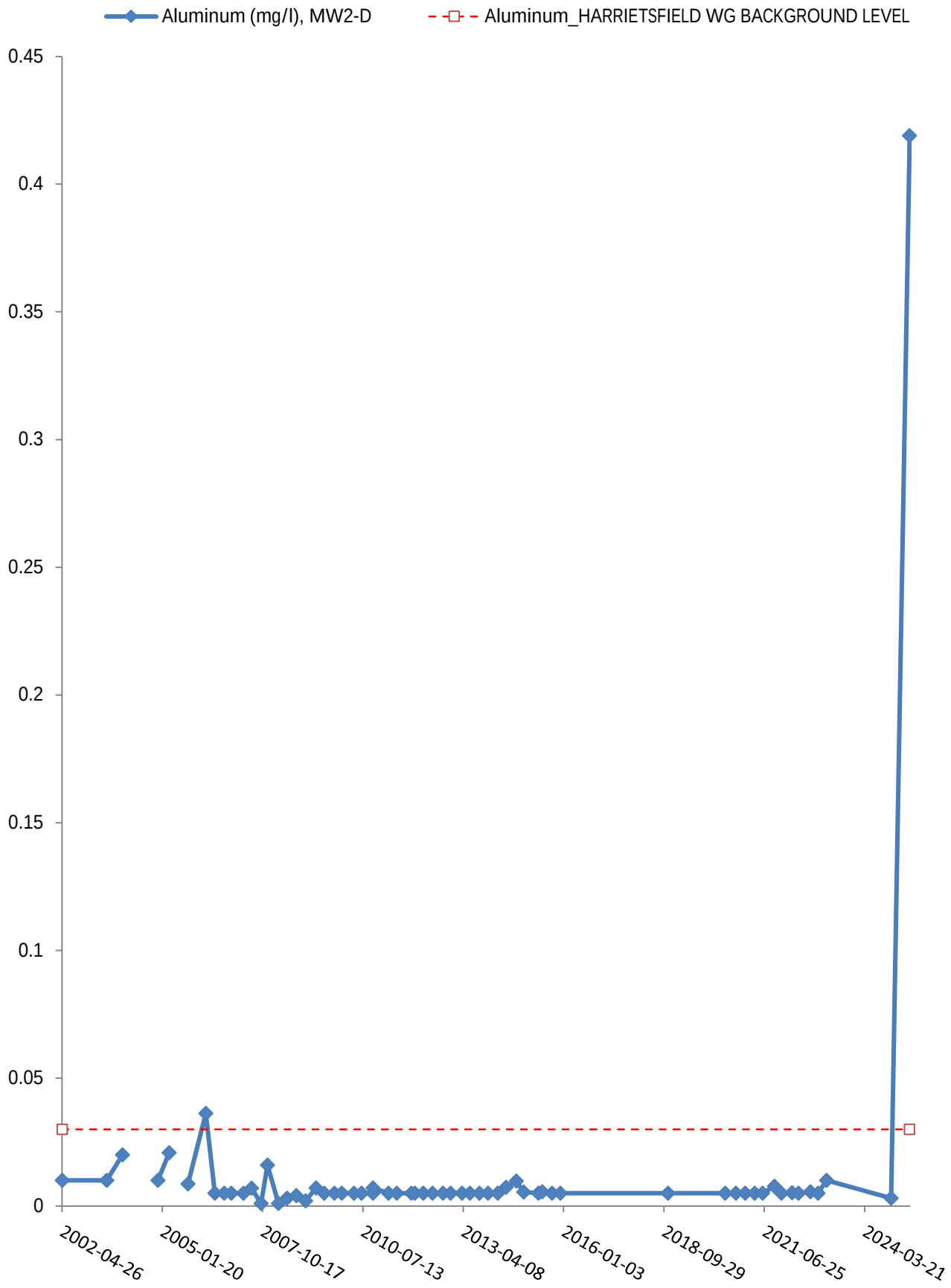


# Uranium


Uranium (ug/l), MW2-D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

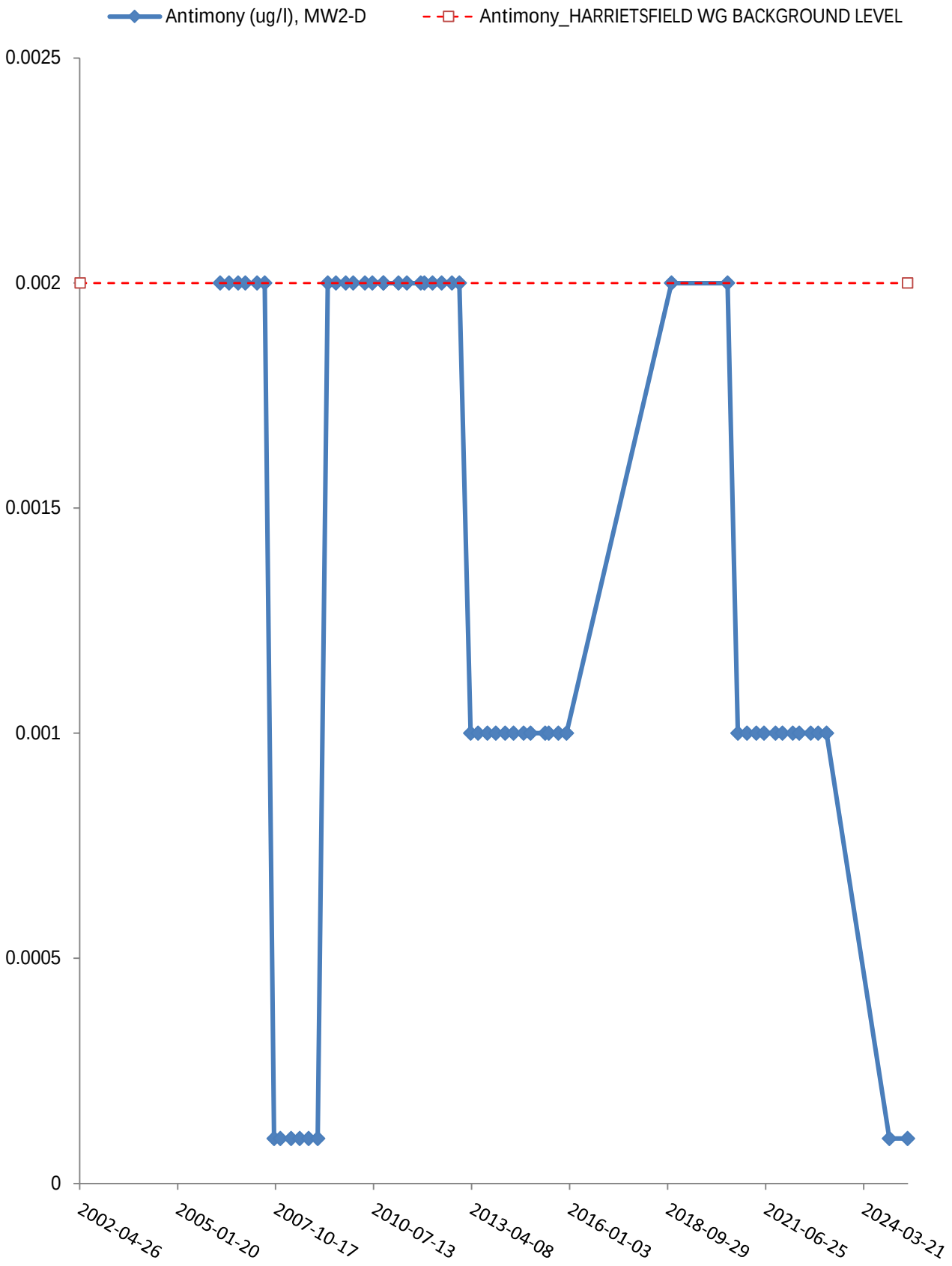
# Aluminum



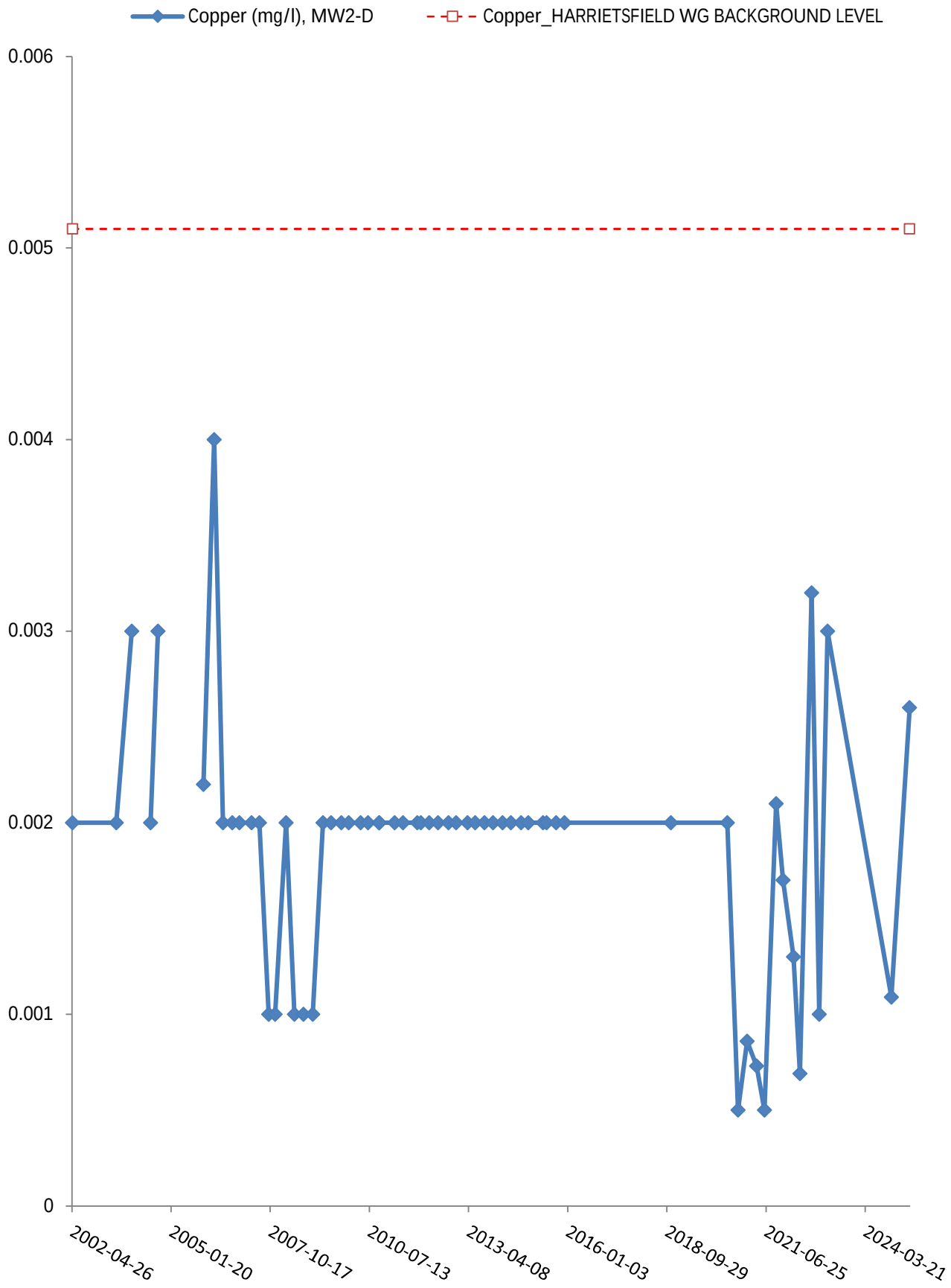

Aluminum (mg/l), MW2-D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Antimony



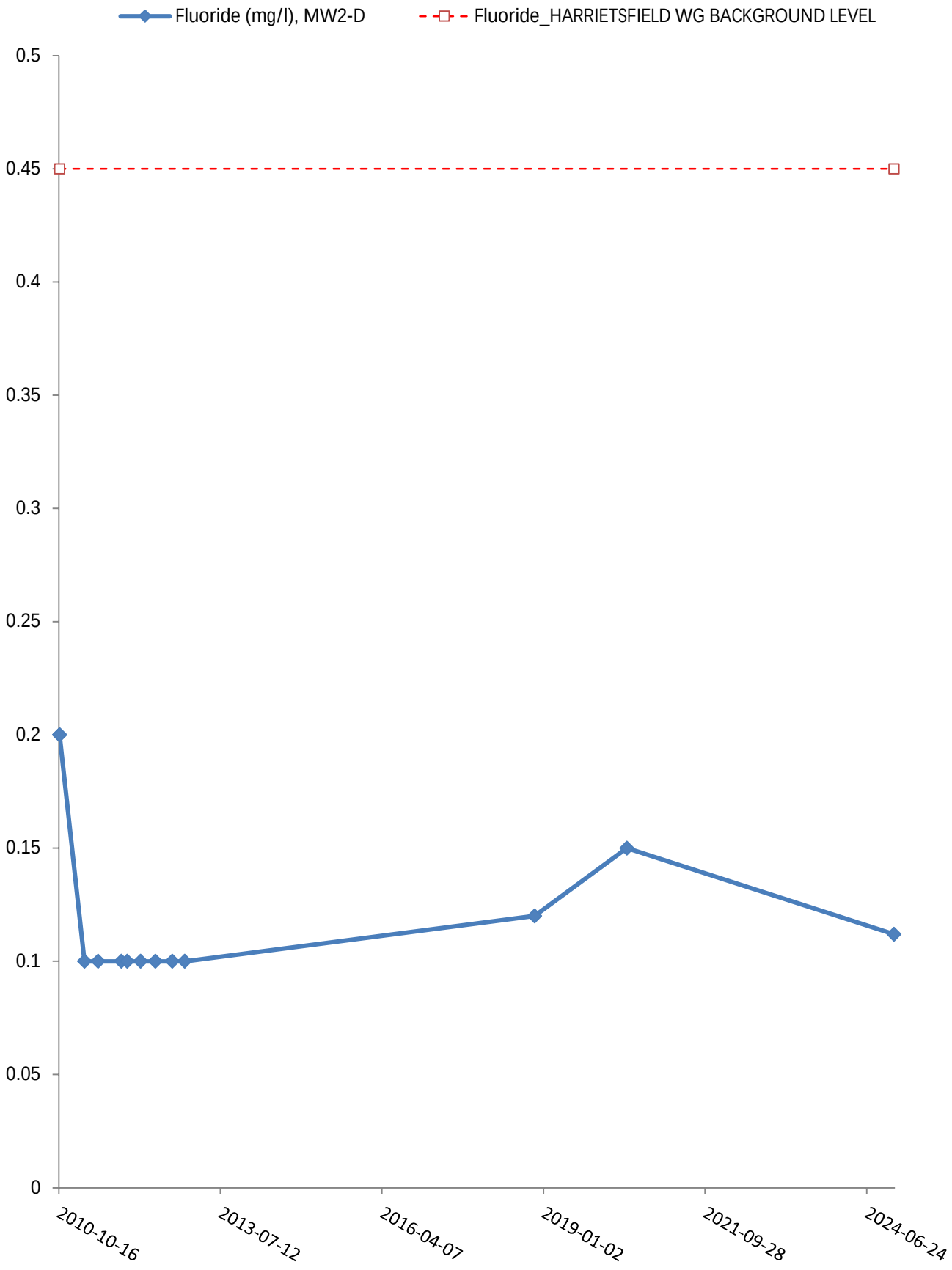

Antimony (ug/l), MW2-D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Copper


Copper (mg/l), MW2-D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

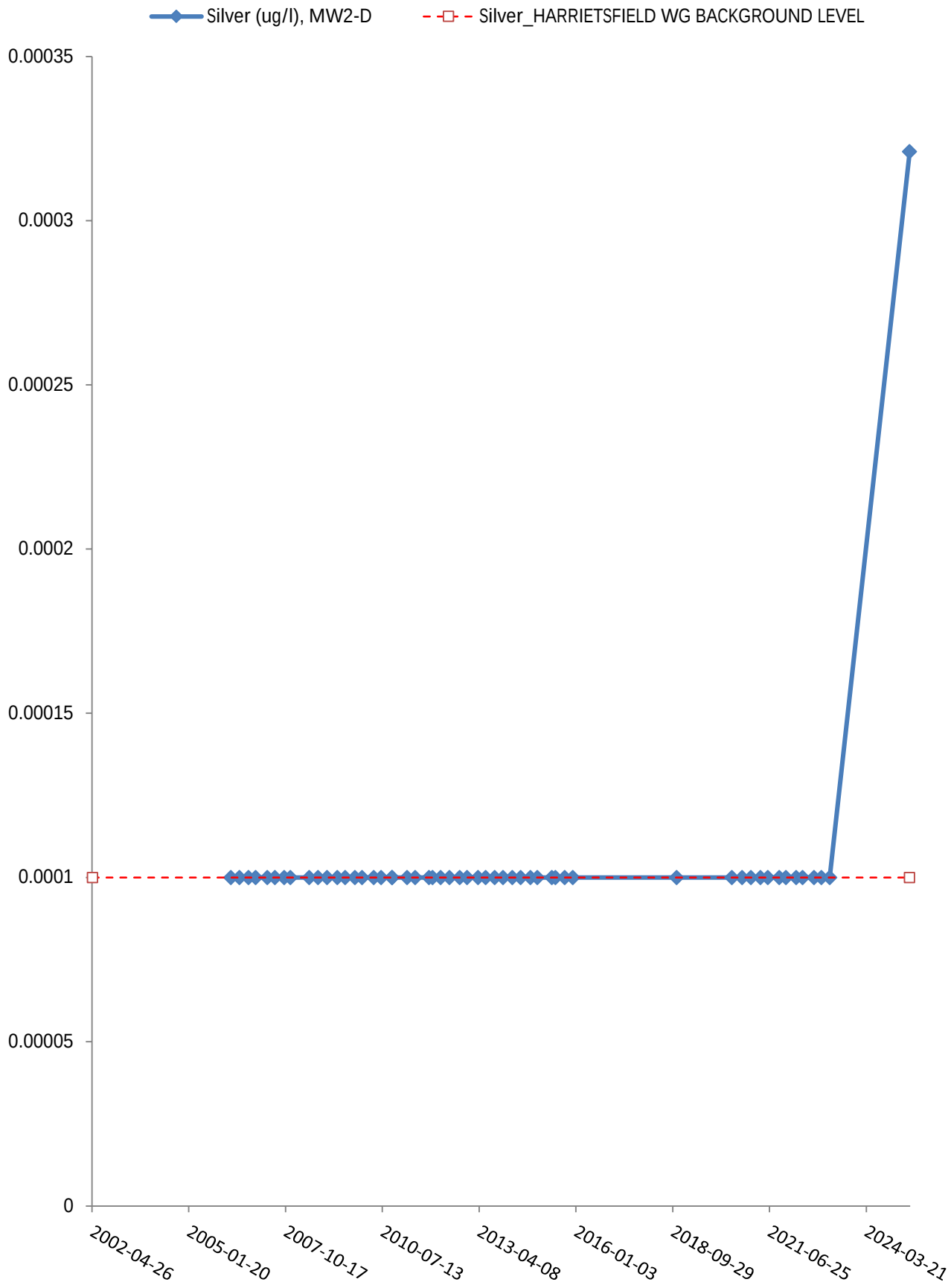
# Fluoride



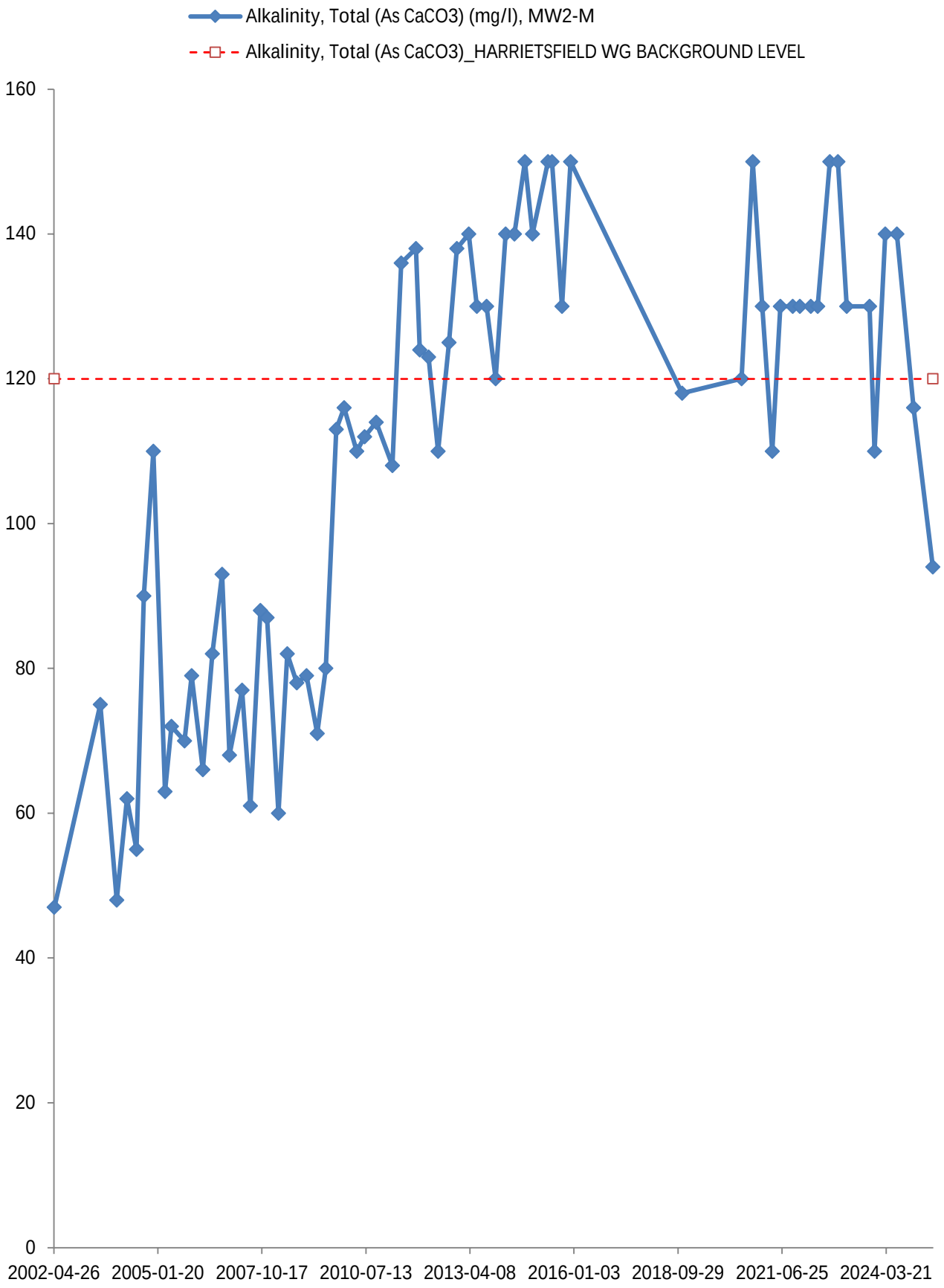

Fluoride (mg/l), MW2-D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver



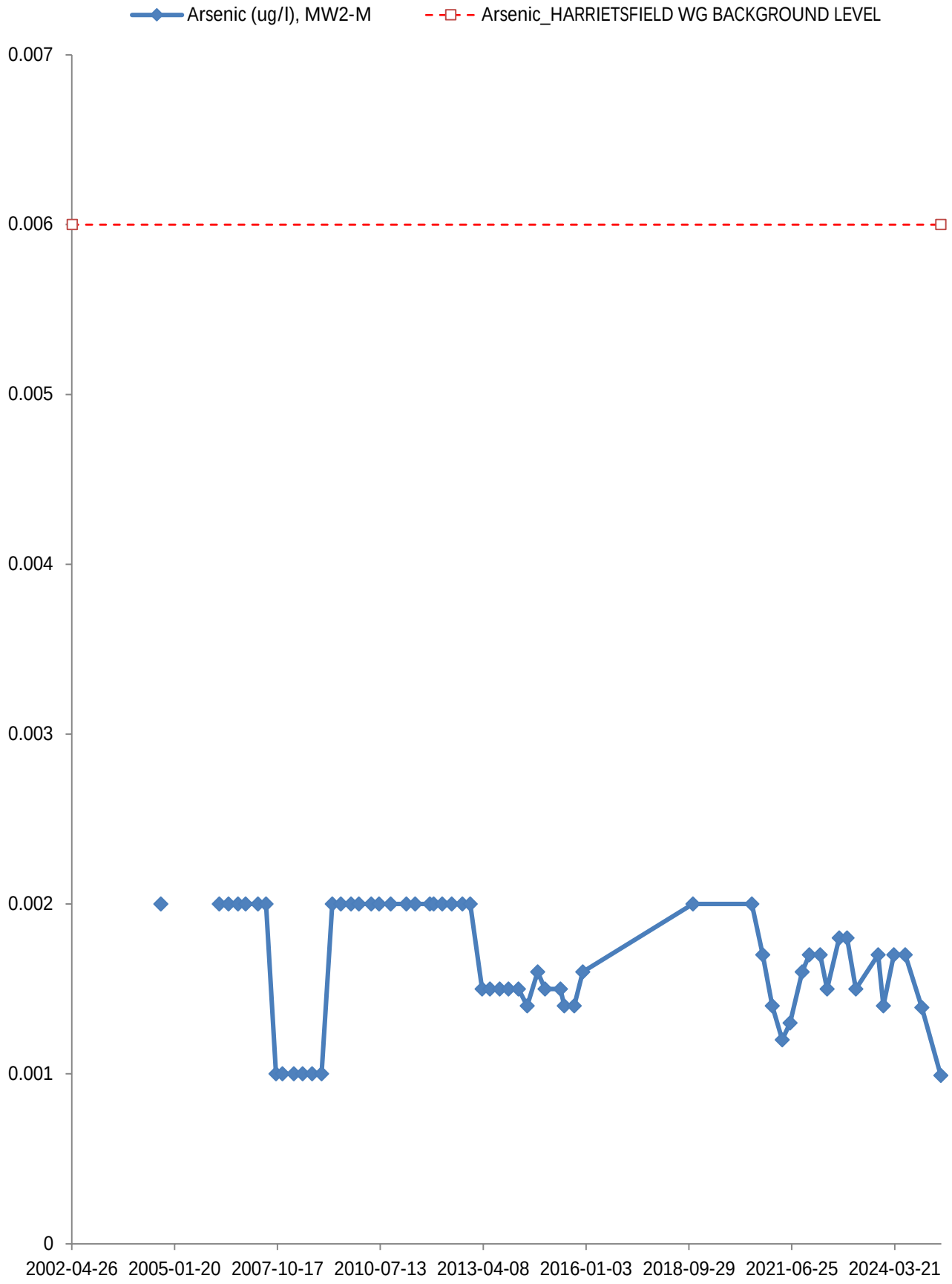

Silver (ug/l), MW2-D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Alkalinity, Total

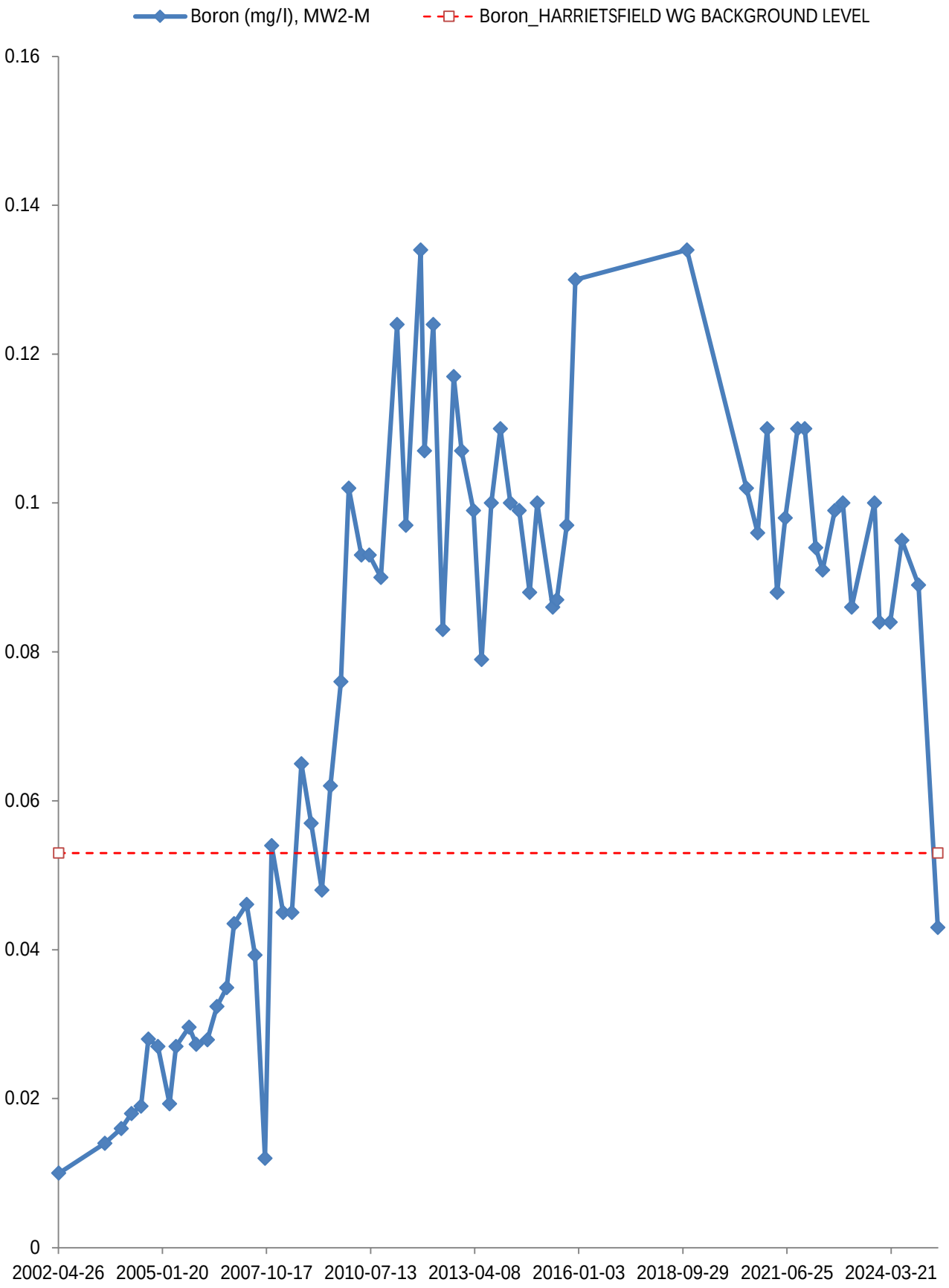


# Arsenic

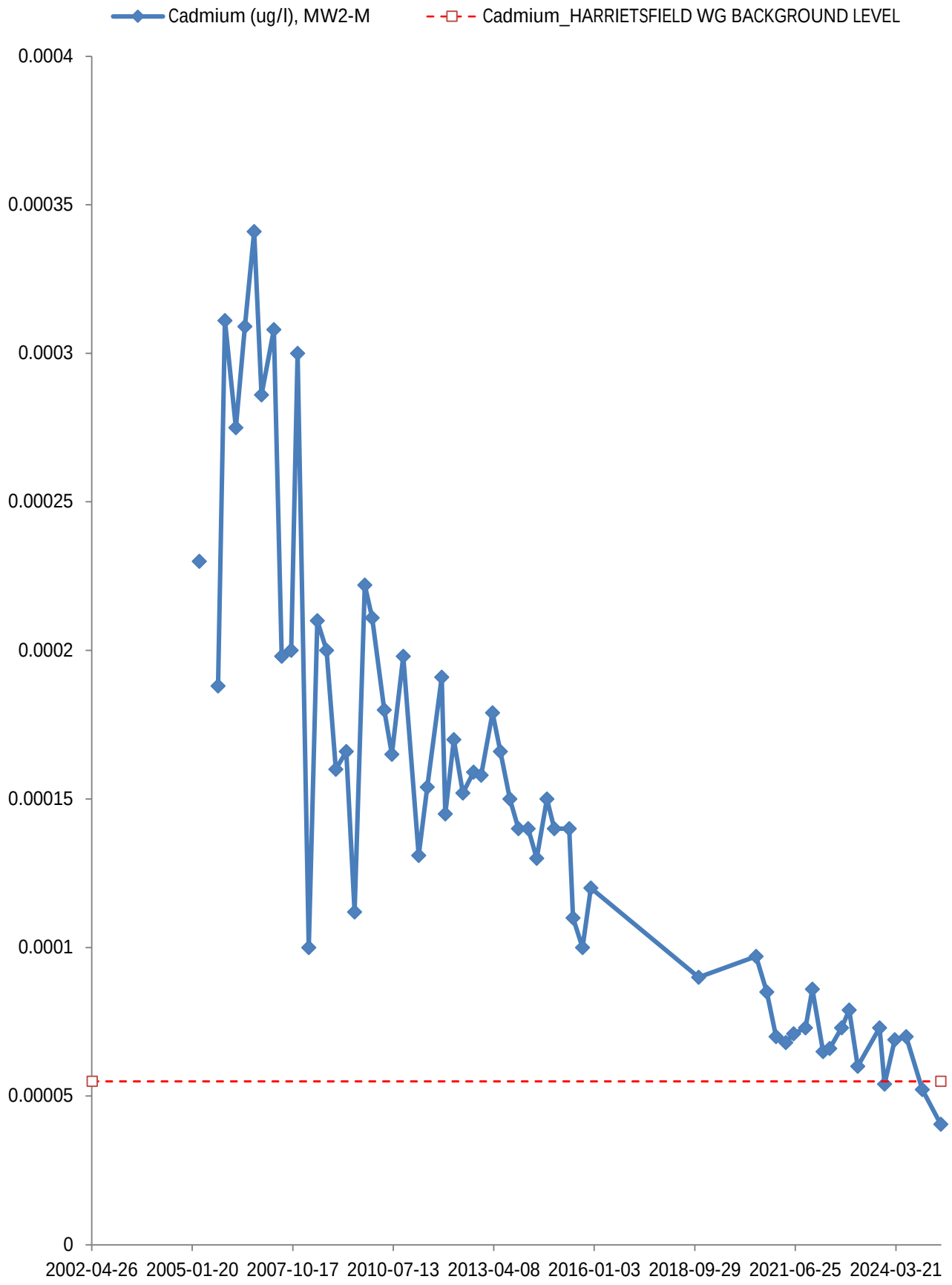



Arsenic (ug/l), MW2-M
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Boron

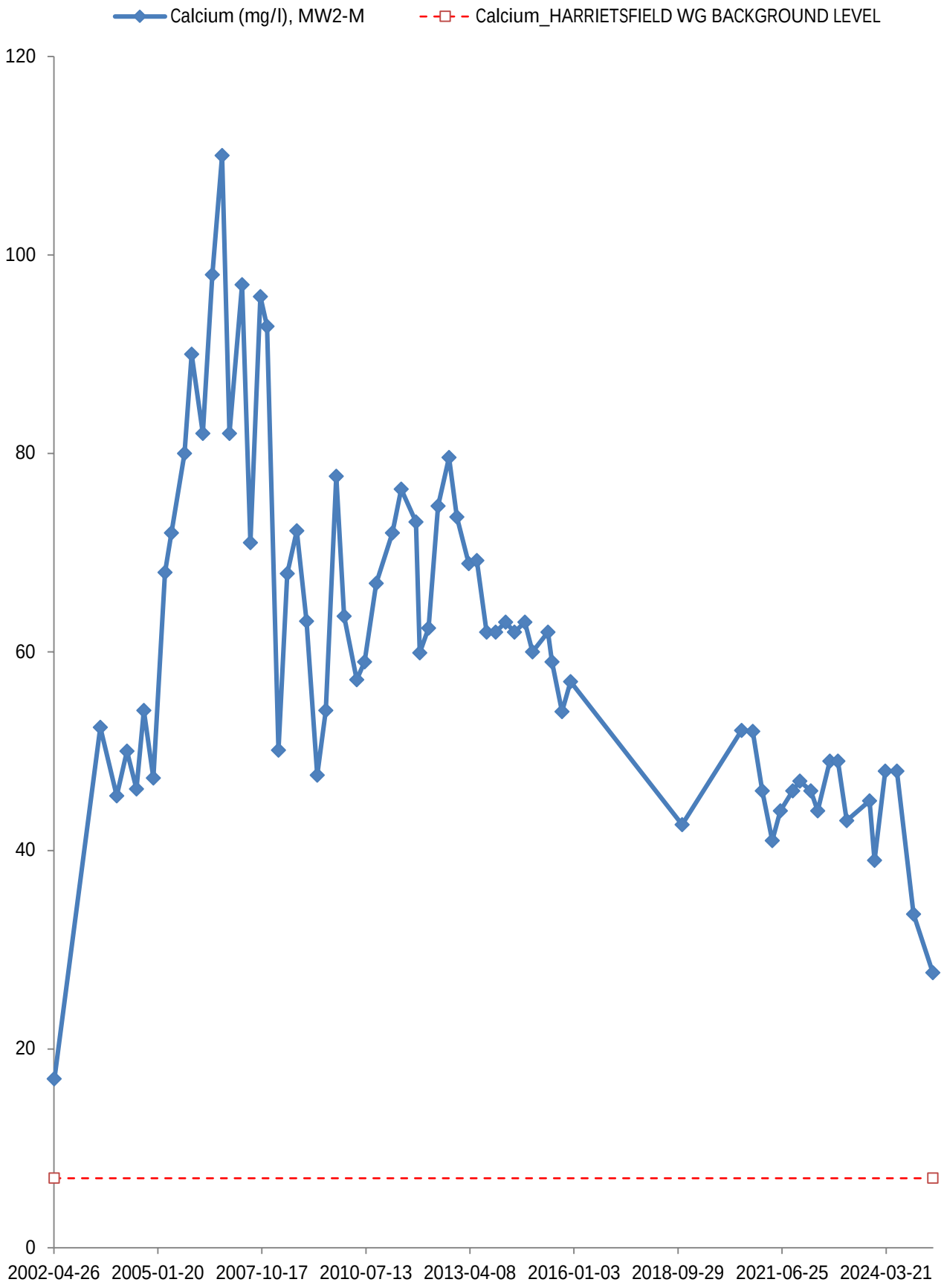

Boron (mg/l), MW2-M
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cadmium

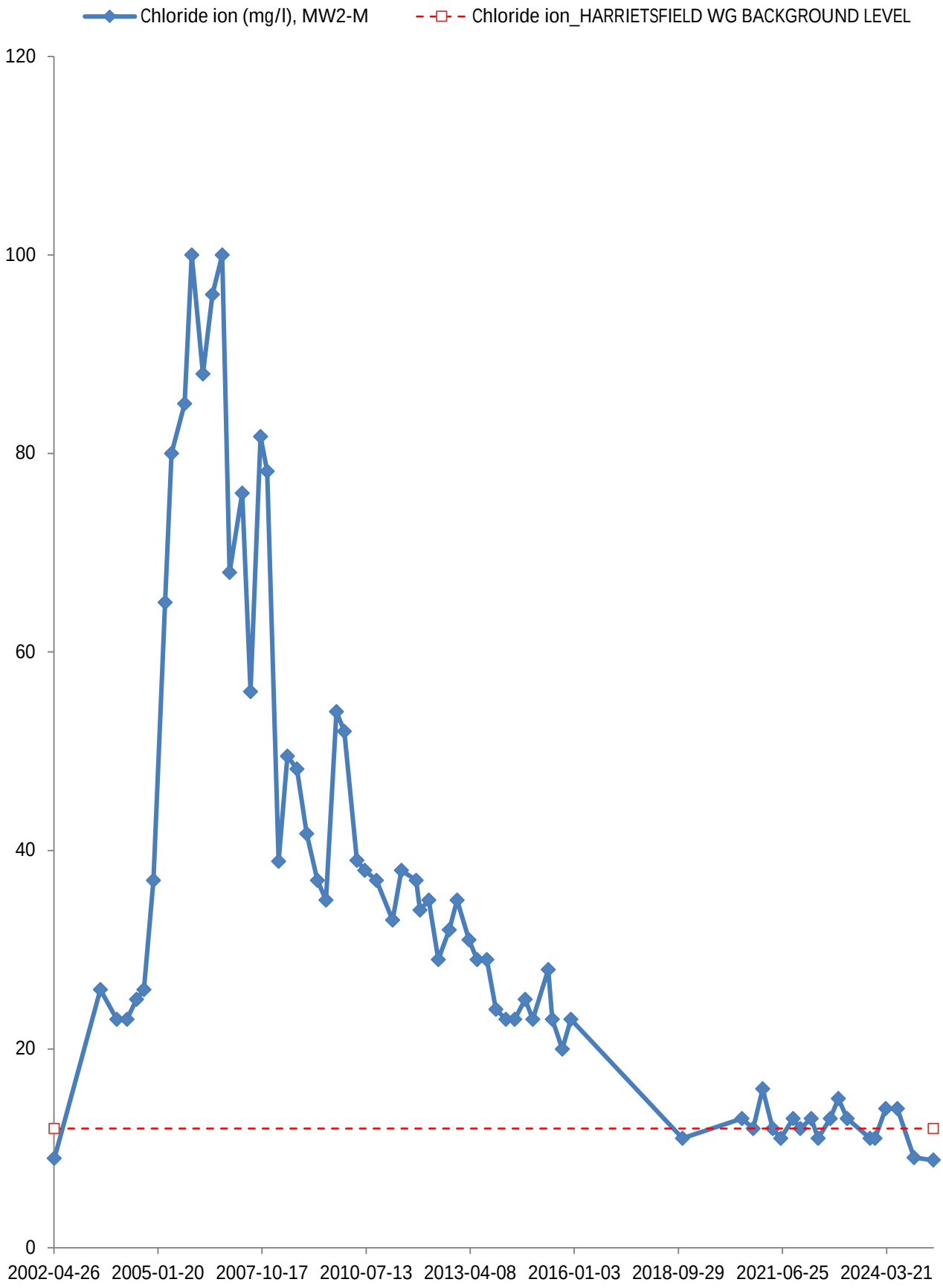

Cadmium (ug/l), MW2-M
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Calcium

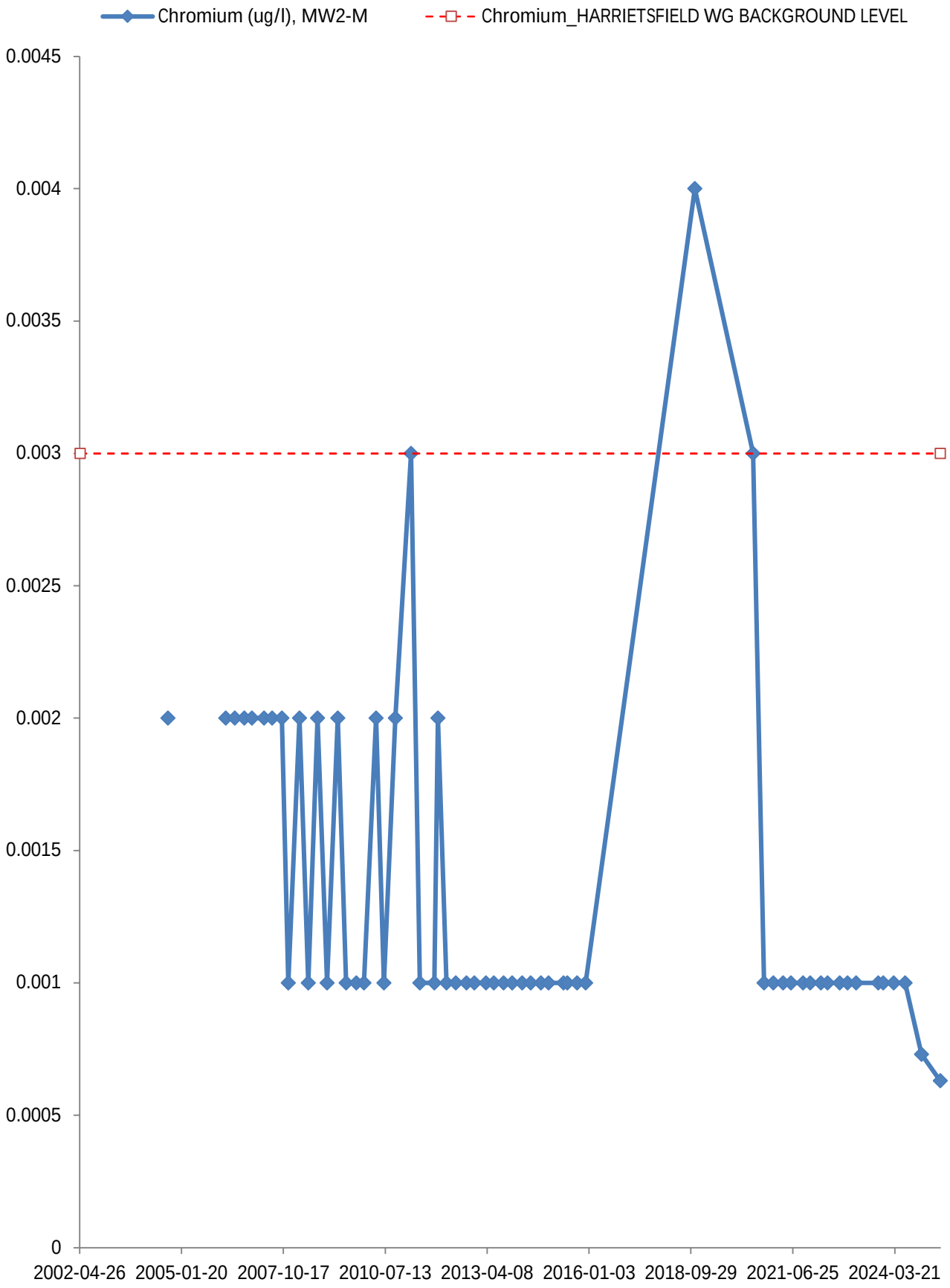



Calcium (mg/l), MW2-M
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Chloride ion

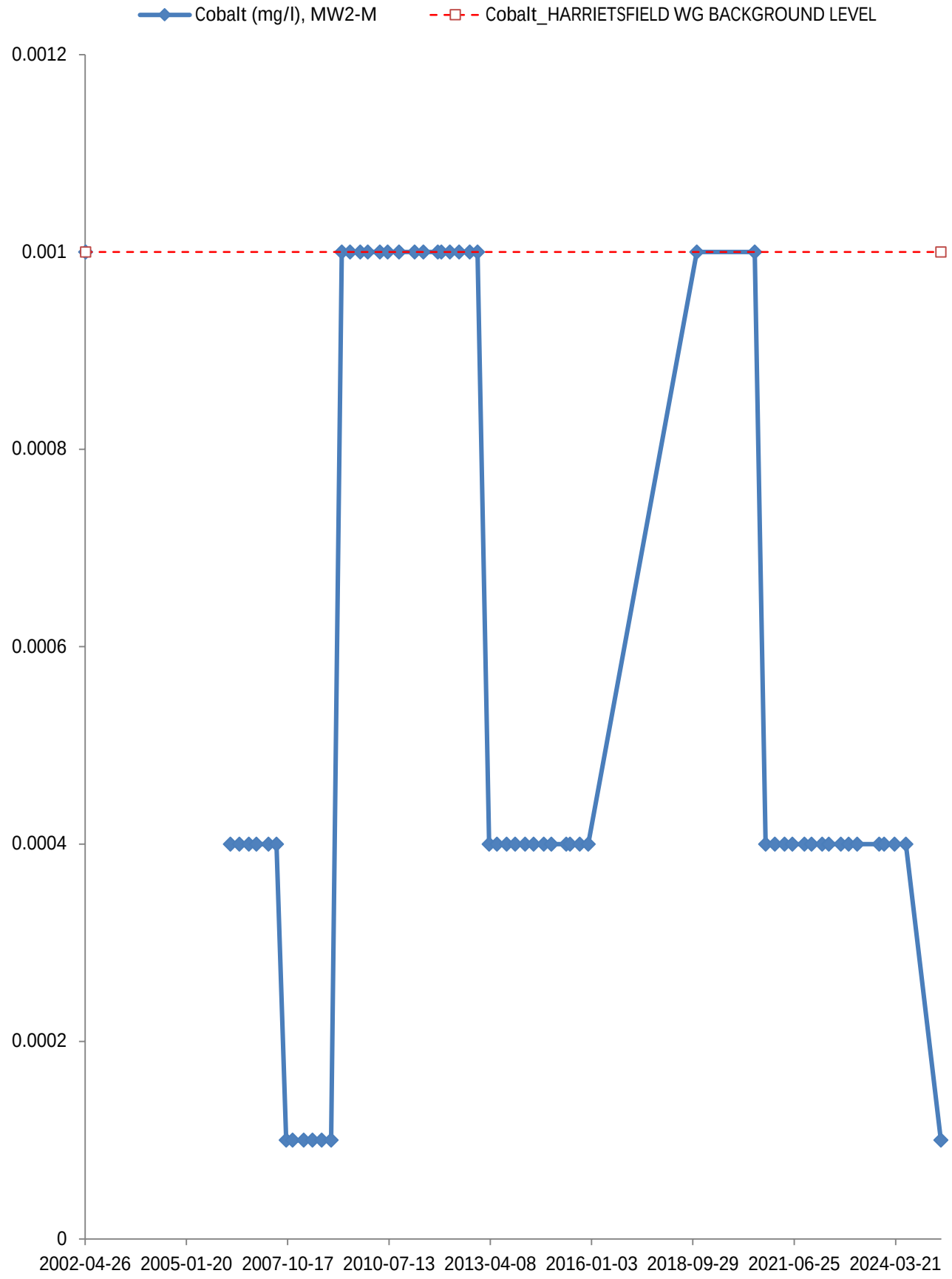


# Chromium

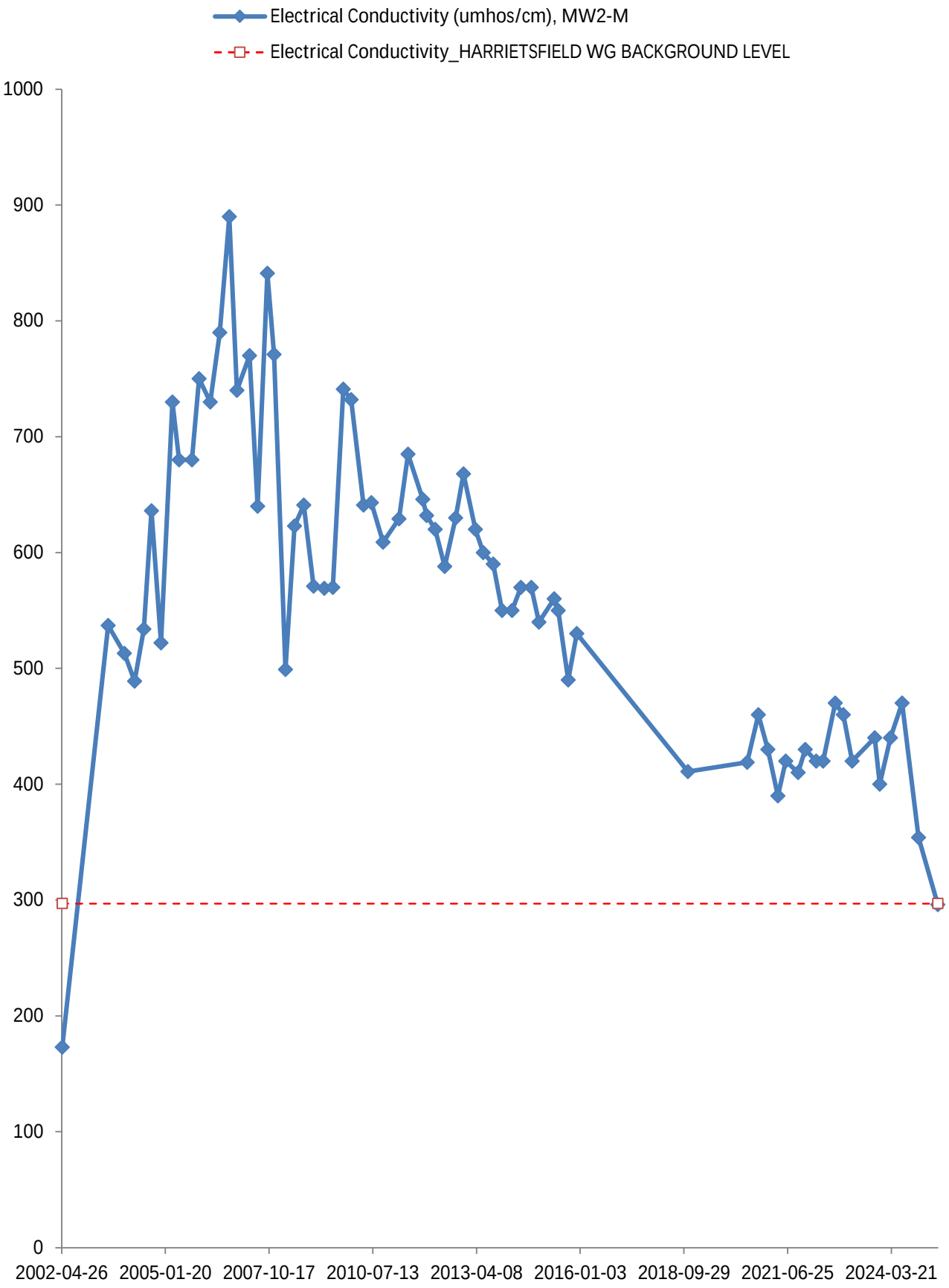

Chromium (ug/l), MW2-M
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cobalt



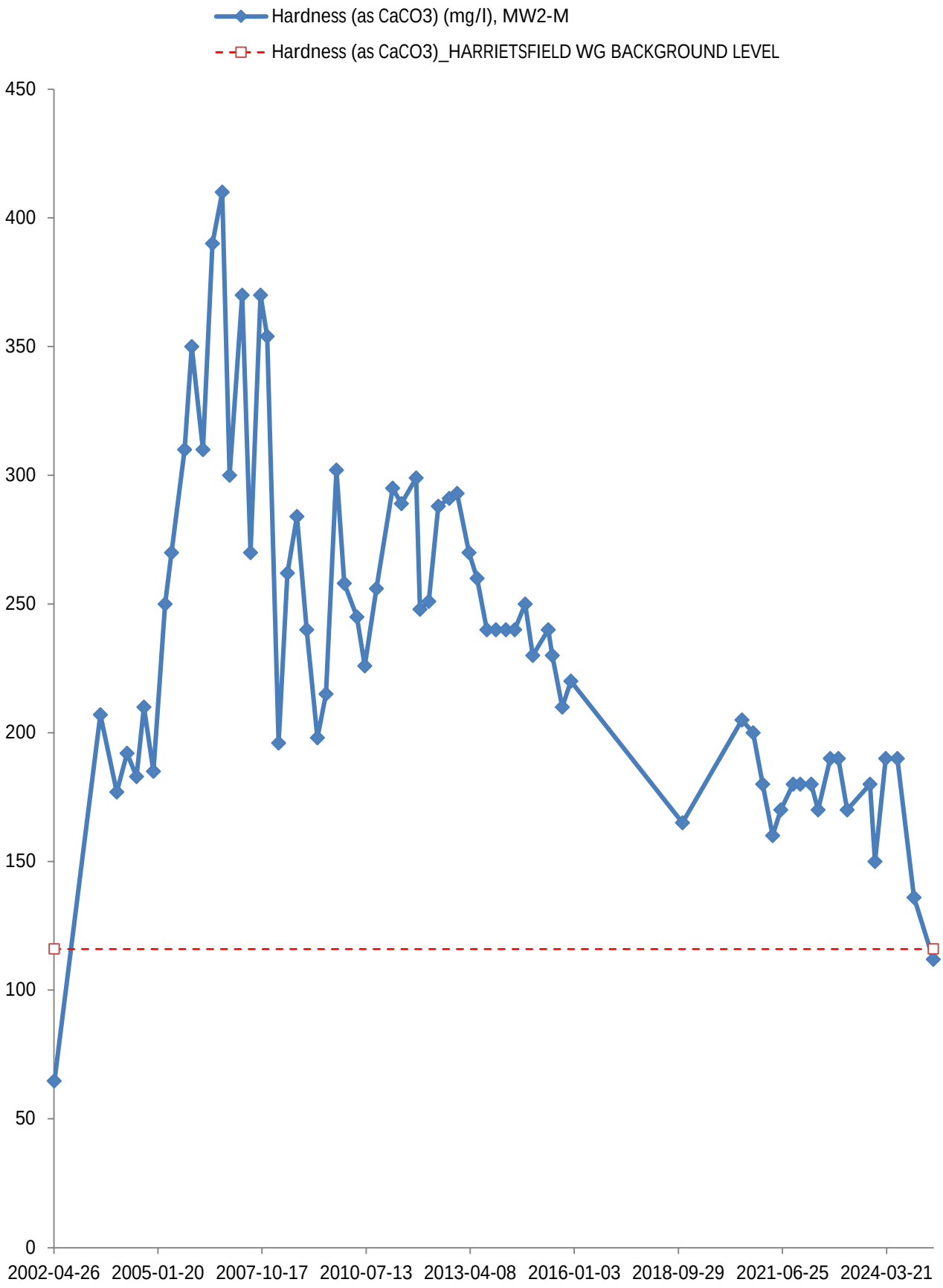

Cobalt (mg/l), MW2-M
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Electrical Conductivity



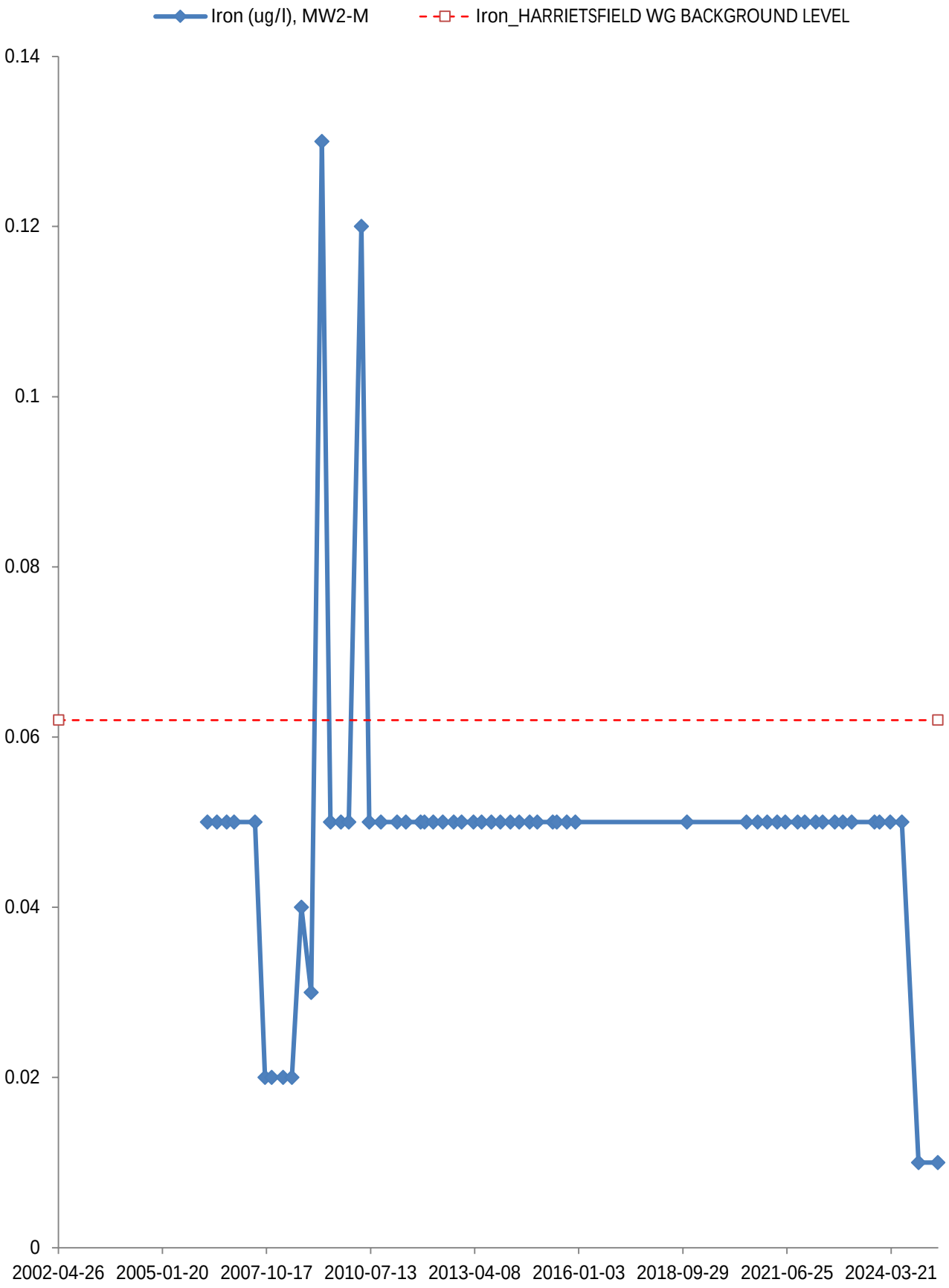
# Hardness (as CaCO3)



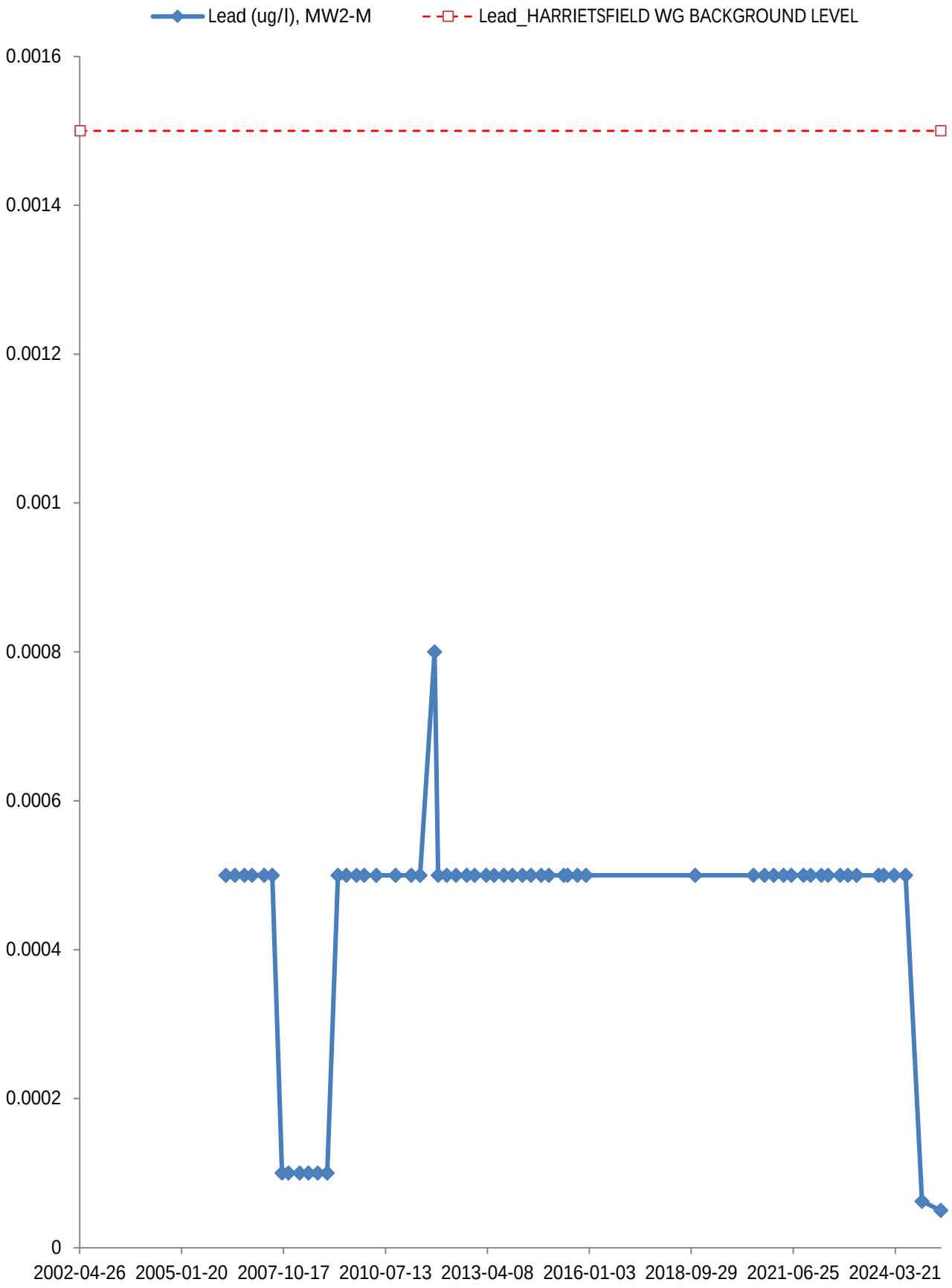


# Iron



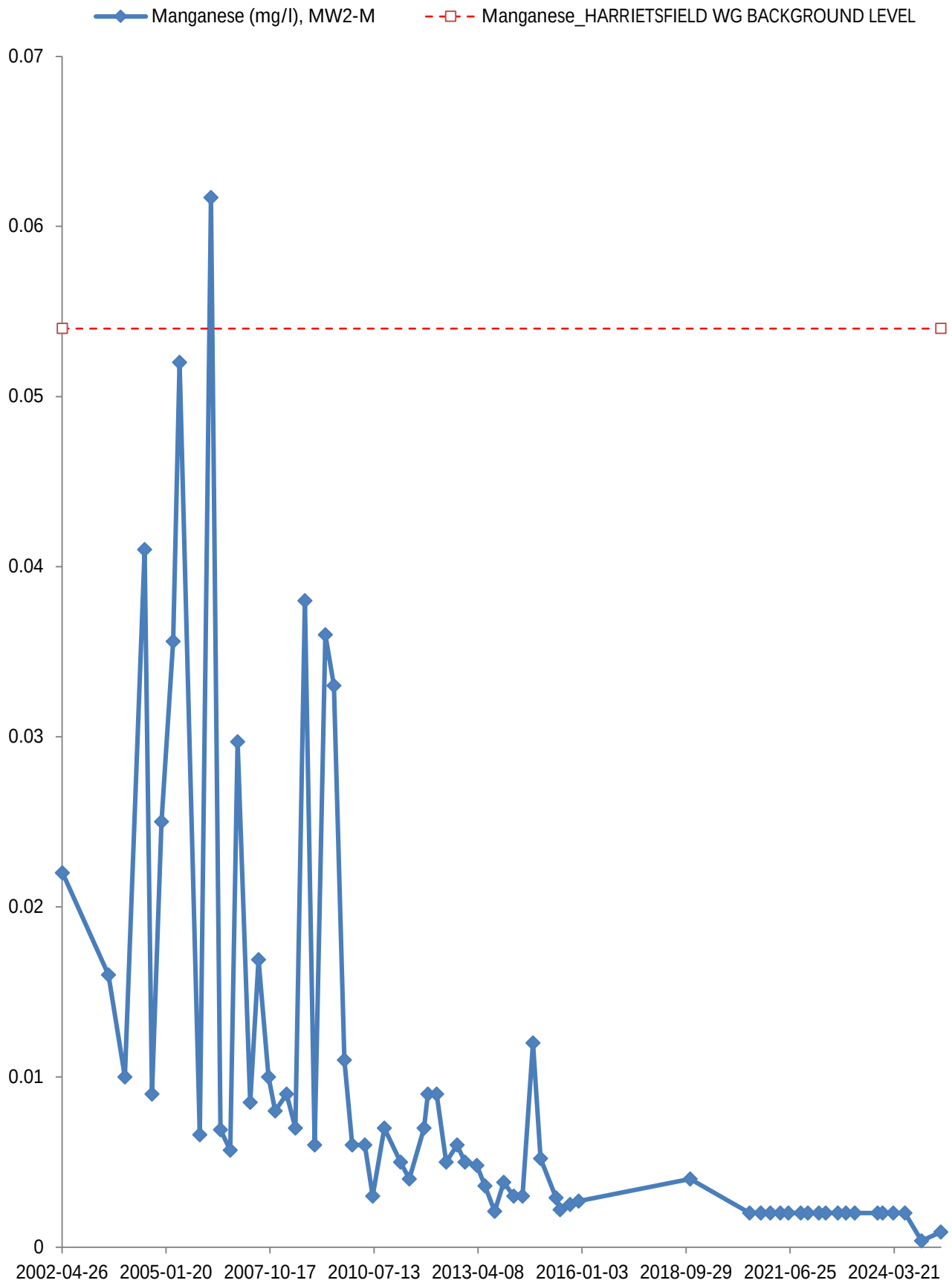

Iron (ug/l), MW2-M
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Lead

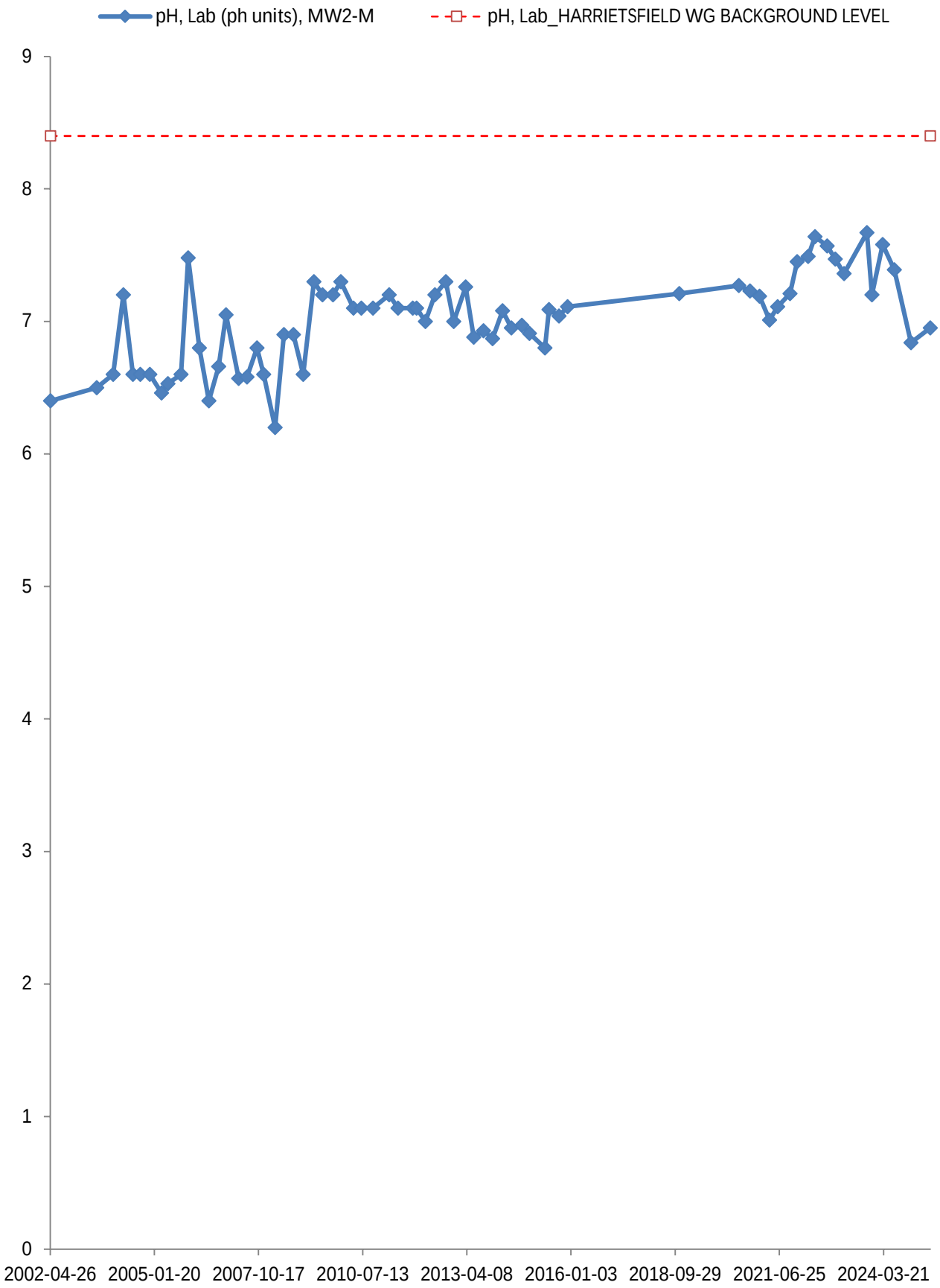

Lead (ug/l), MW2-M
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Manganese

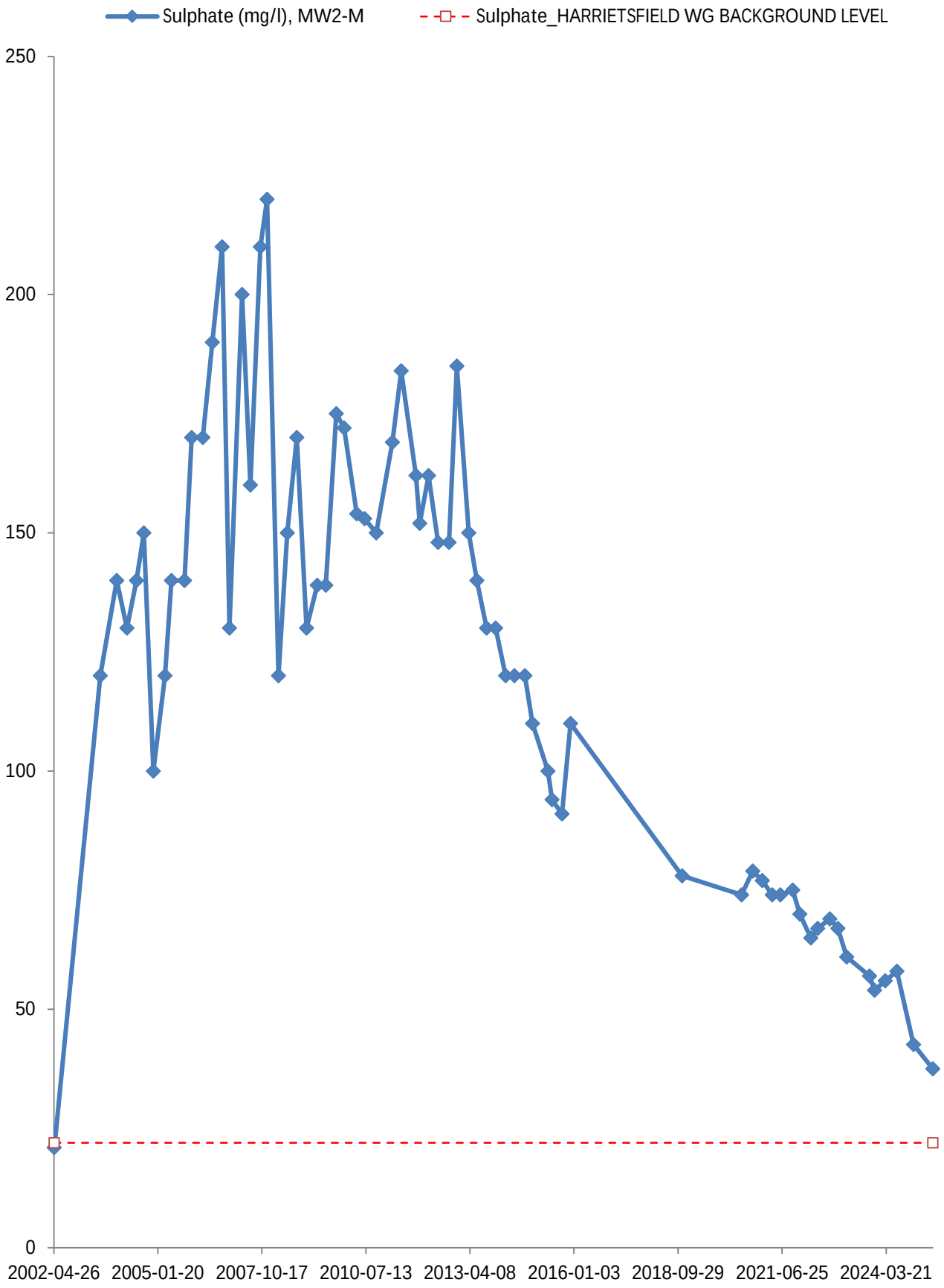



Manganese (mg/l), MW2-M
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# pH, Lab

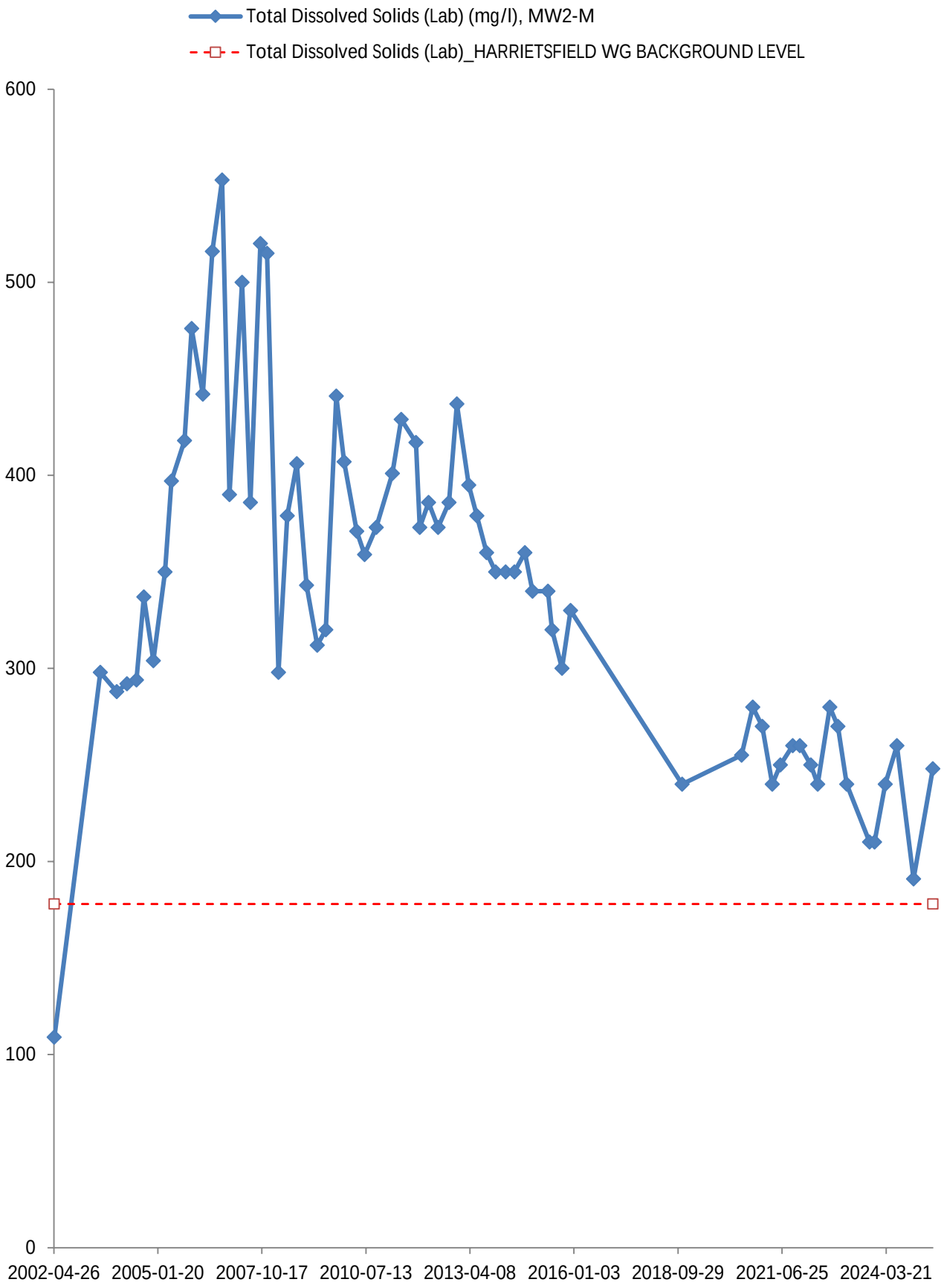

pH, Lab (ph units), MW2-M
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Sulphate

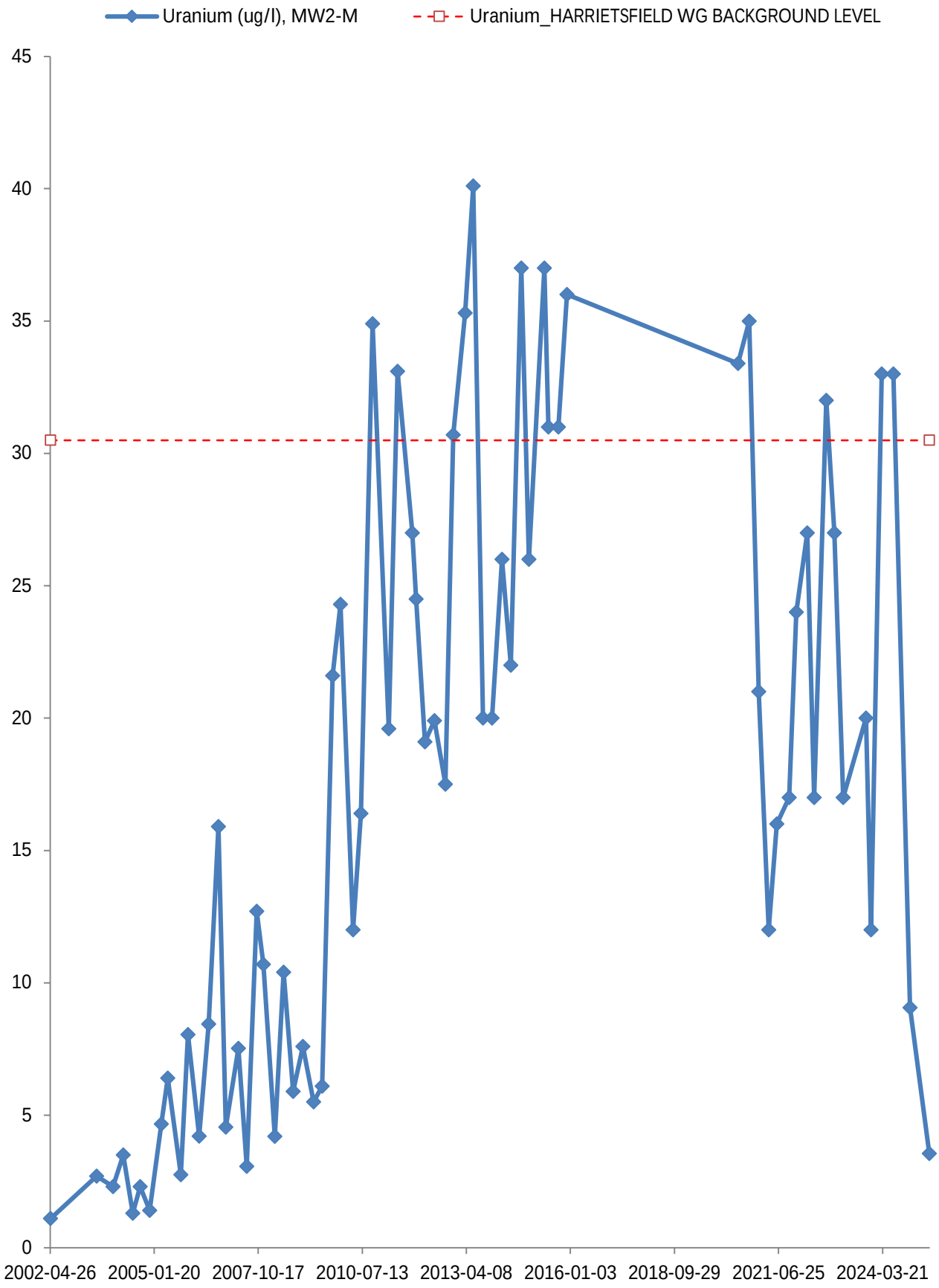

Sulphate (mg/l), MW2-M
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
250
200
150
100
50
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Total Dissolved Solids (5



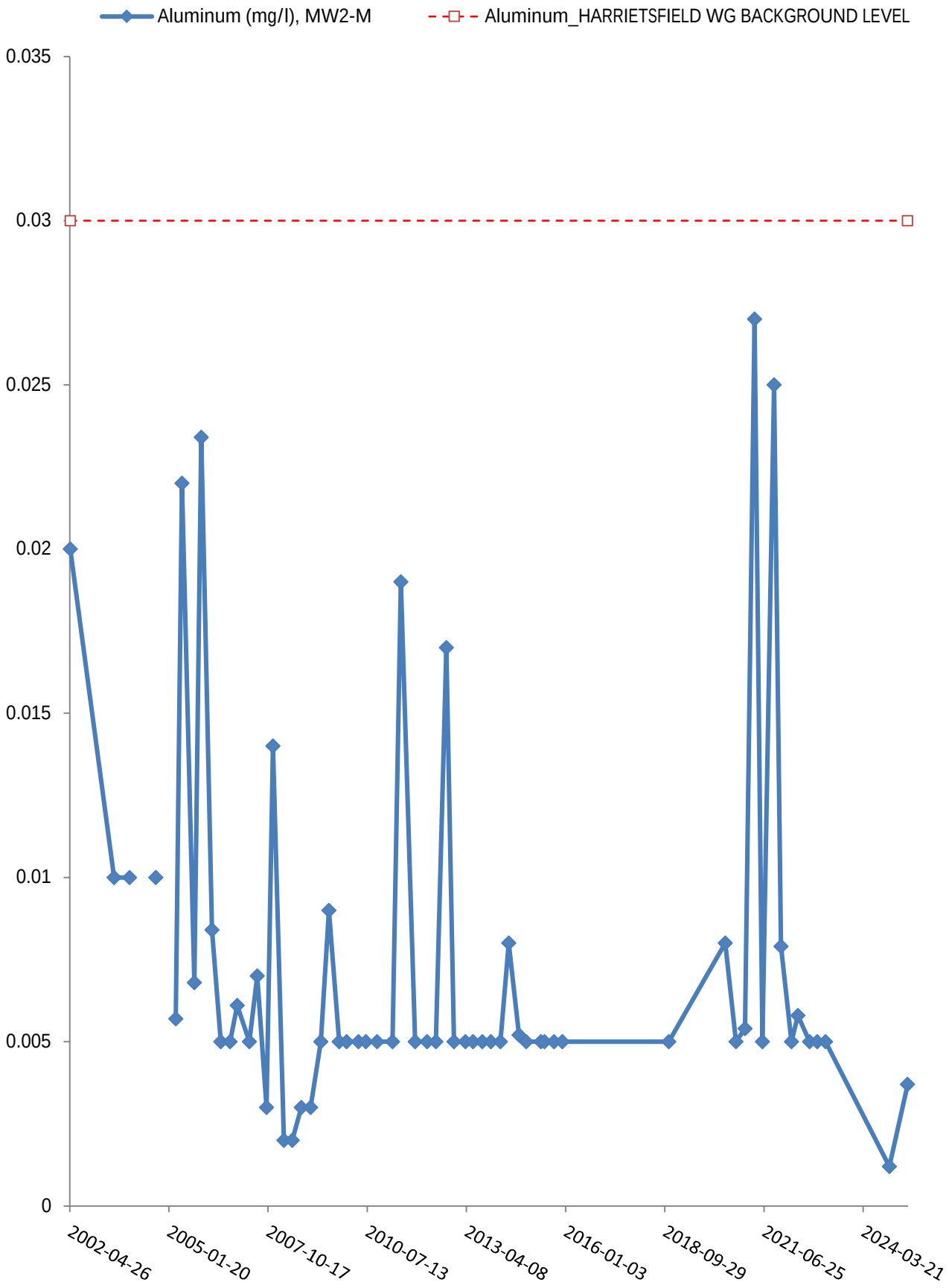


# Uranium


Uranium (ug/l), MW2-M
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
45
40
35
30
25
20
15
10
5
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

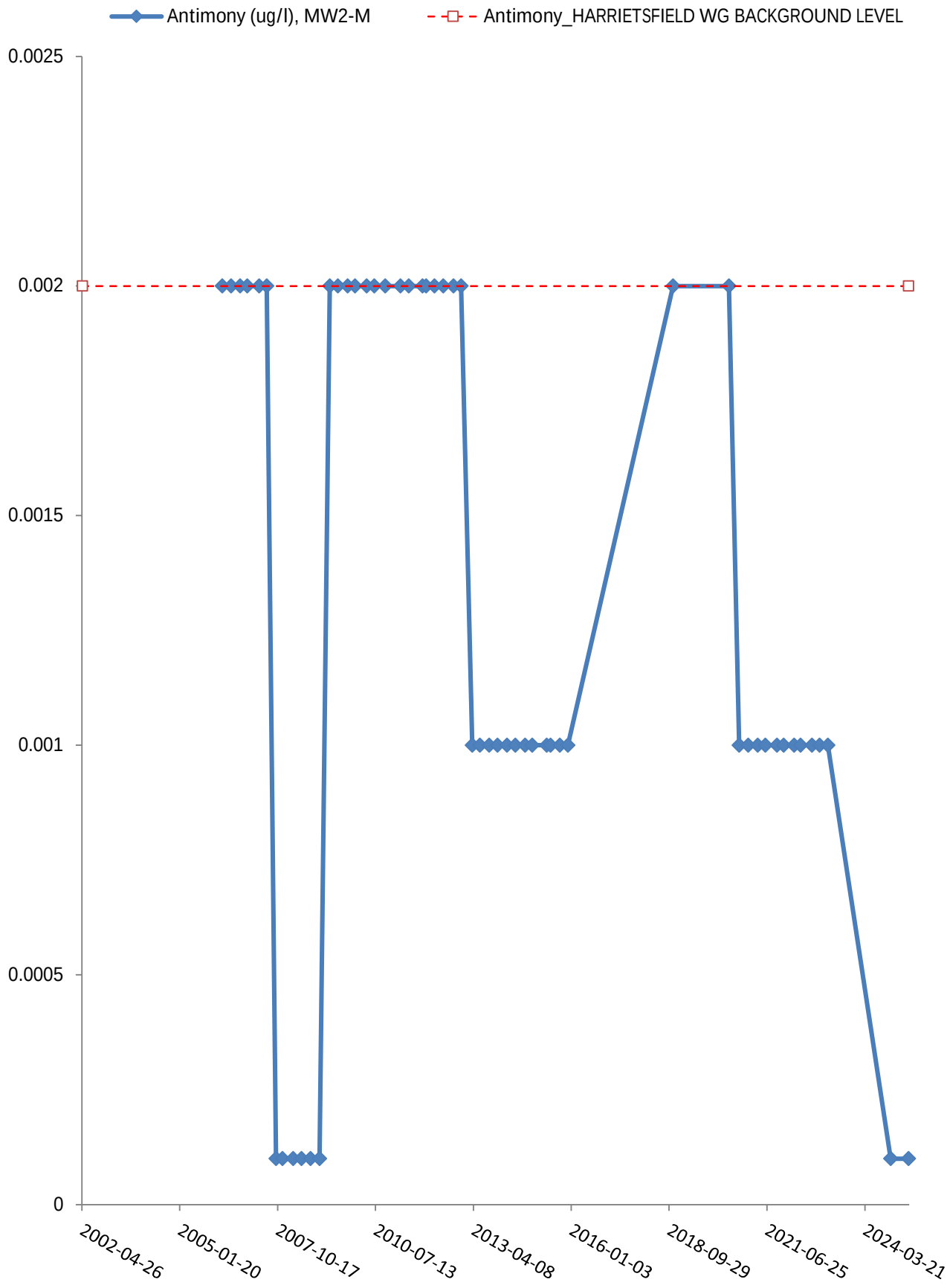
# Aluminum




Aluminum (mg/l), MW2-M
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

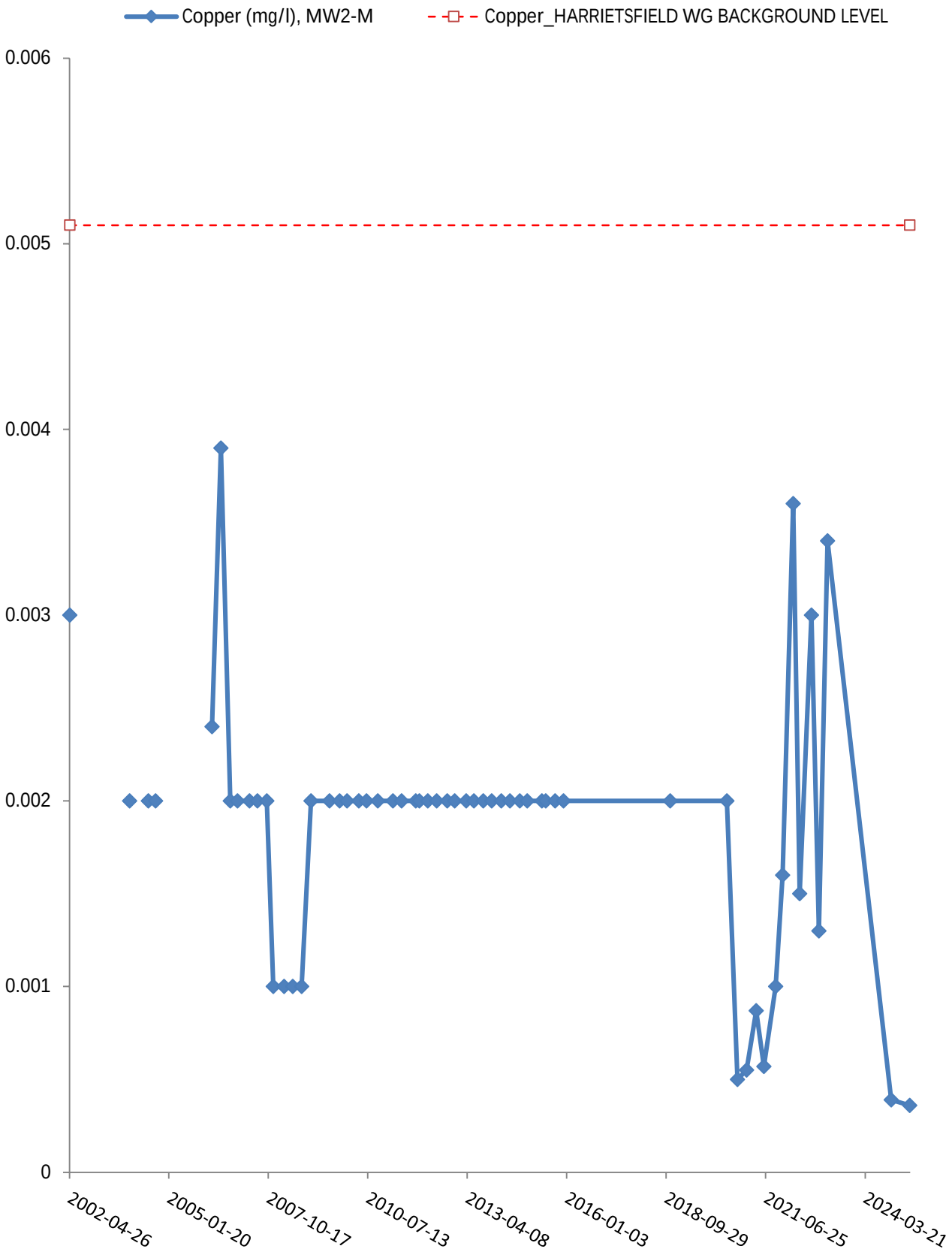
# Antimony




Antimony (ug/l), MW2-M
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

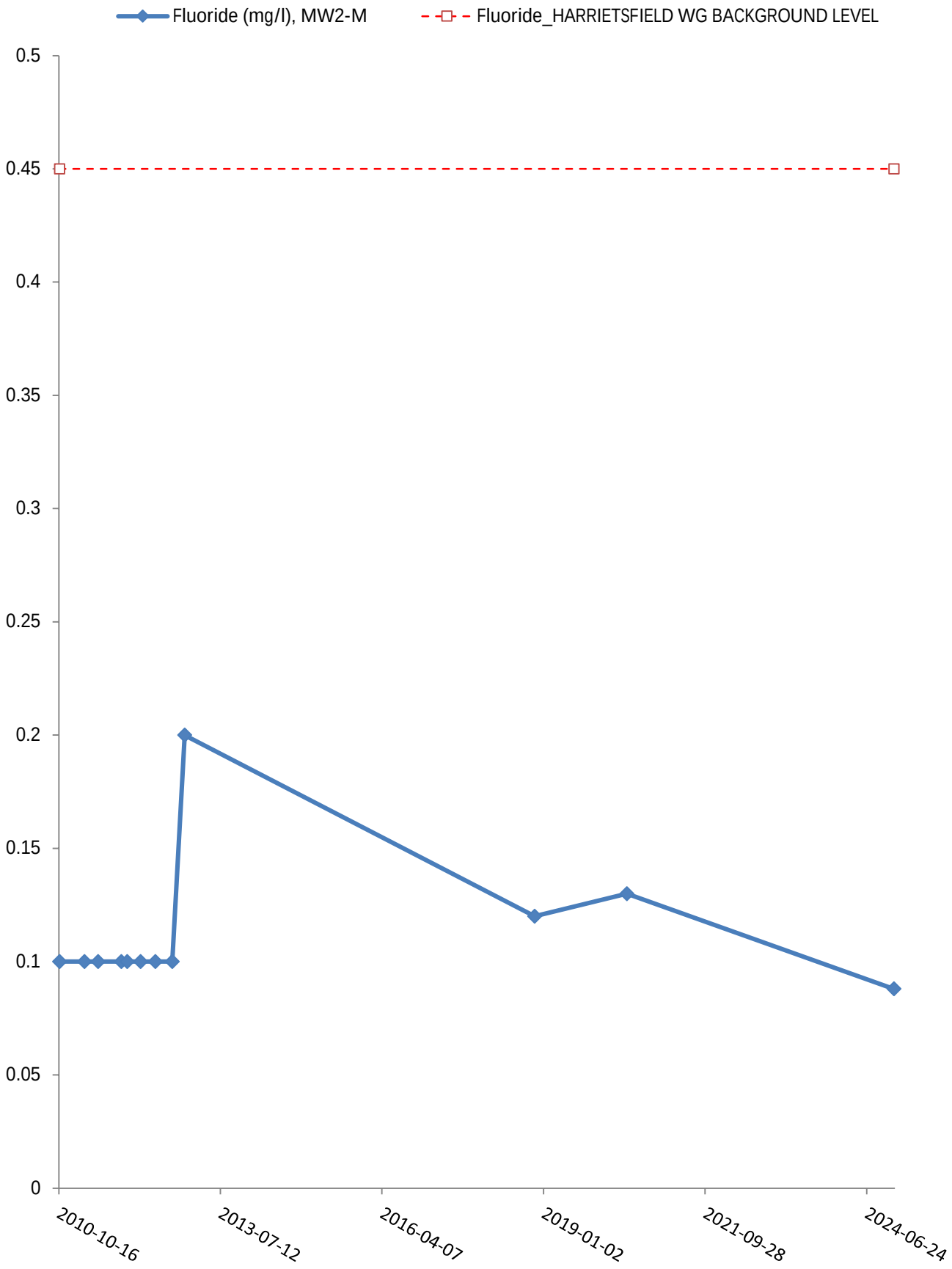
# Copper



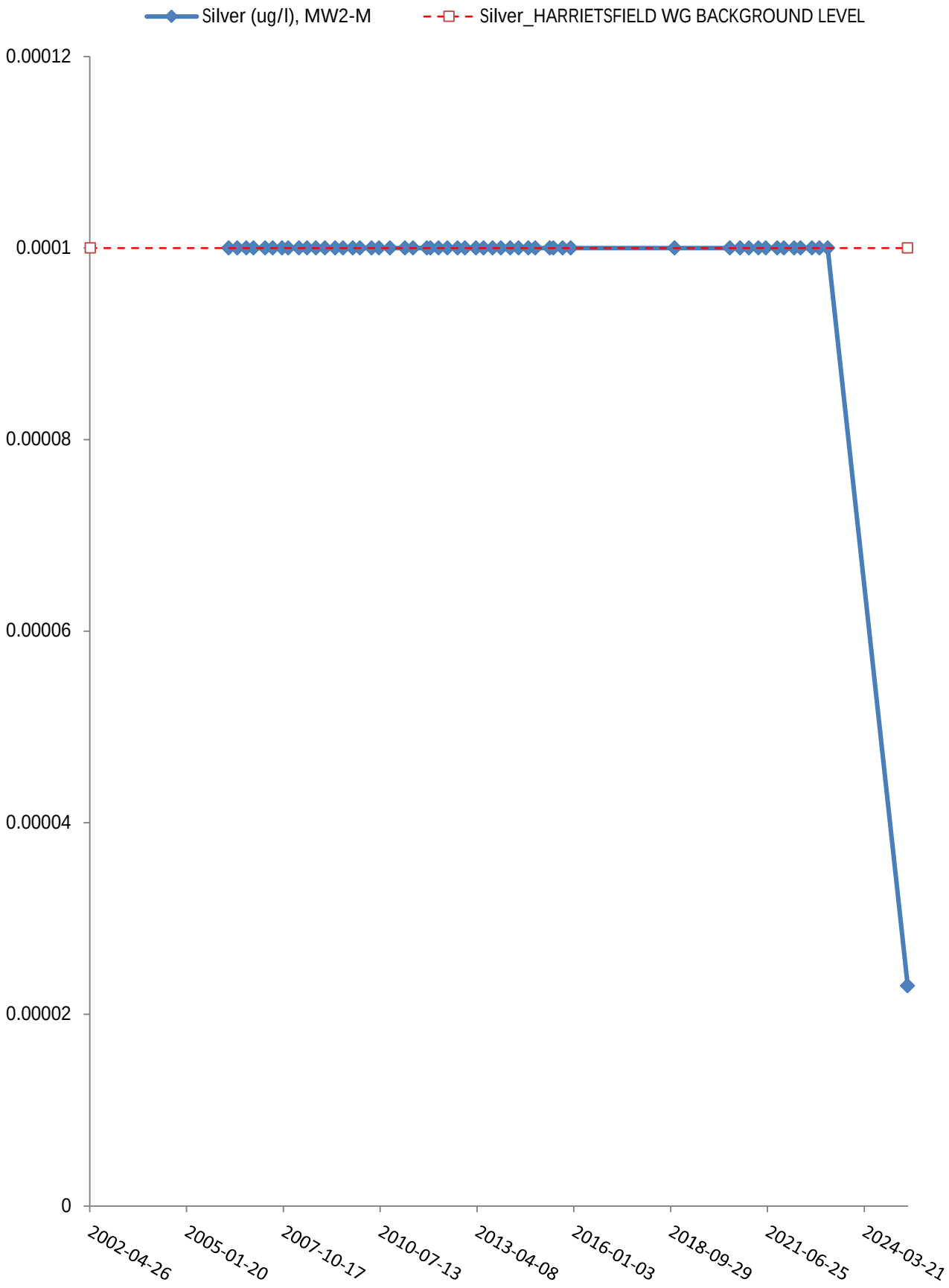

Copper (mg/l), MW2-M
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Fluoride

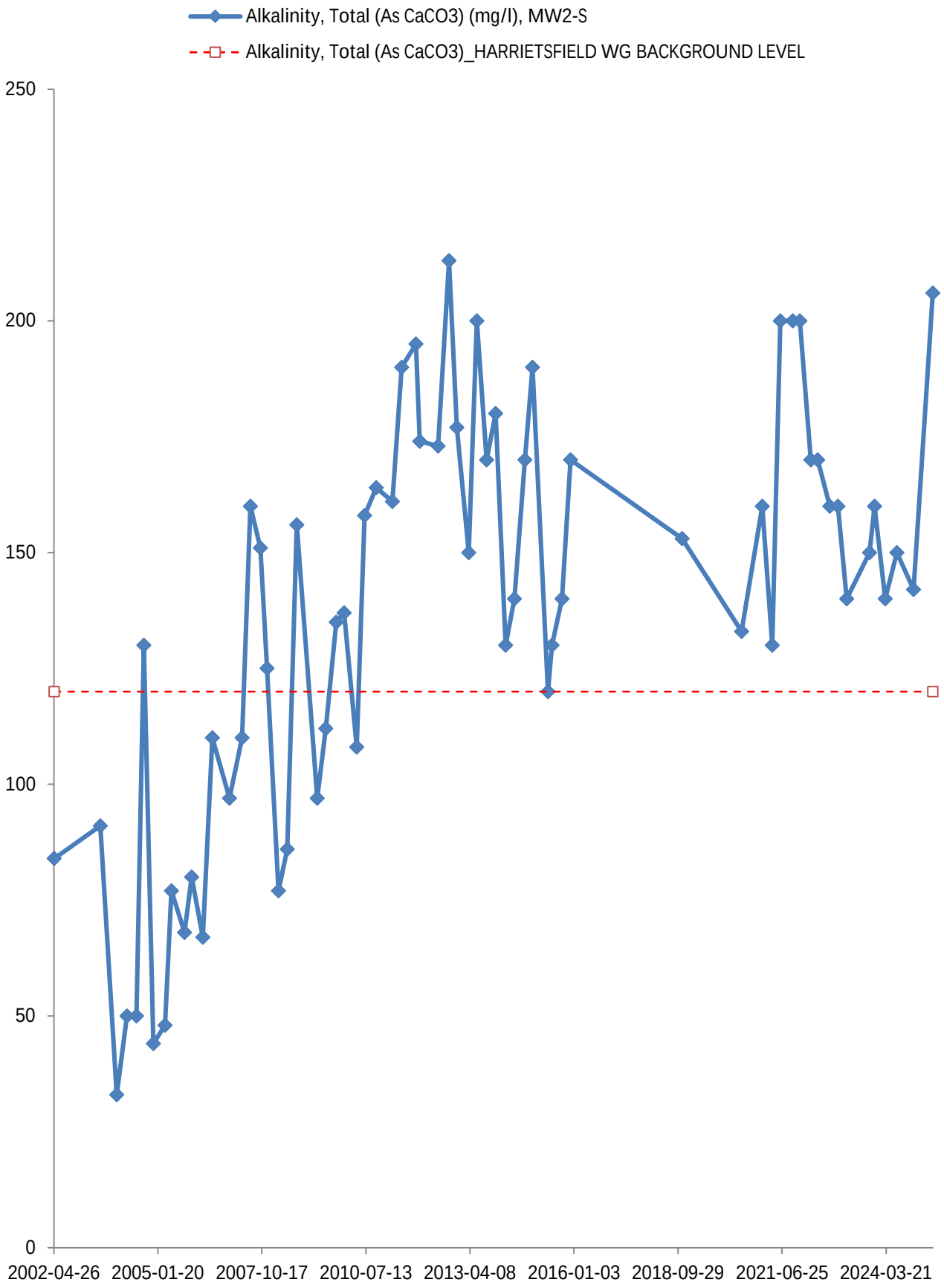



Fluoride (mg/l), MW2-M
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver

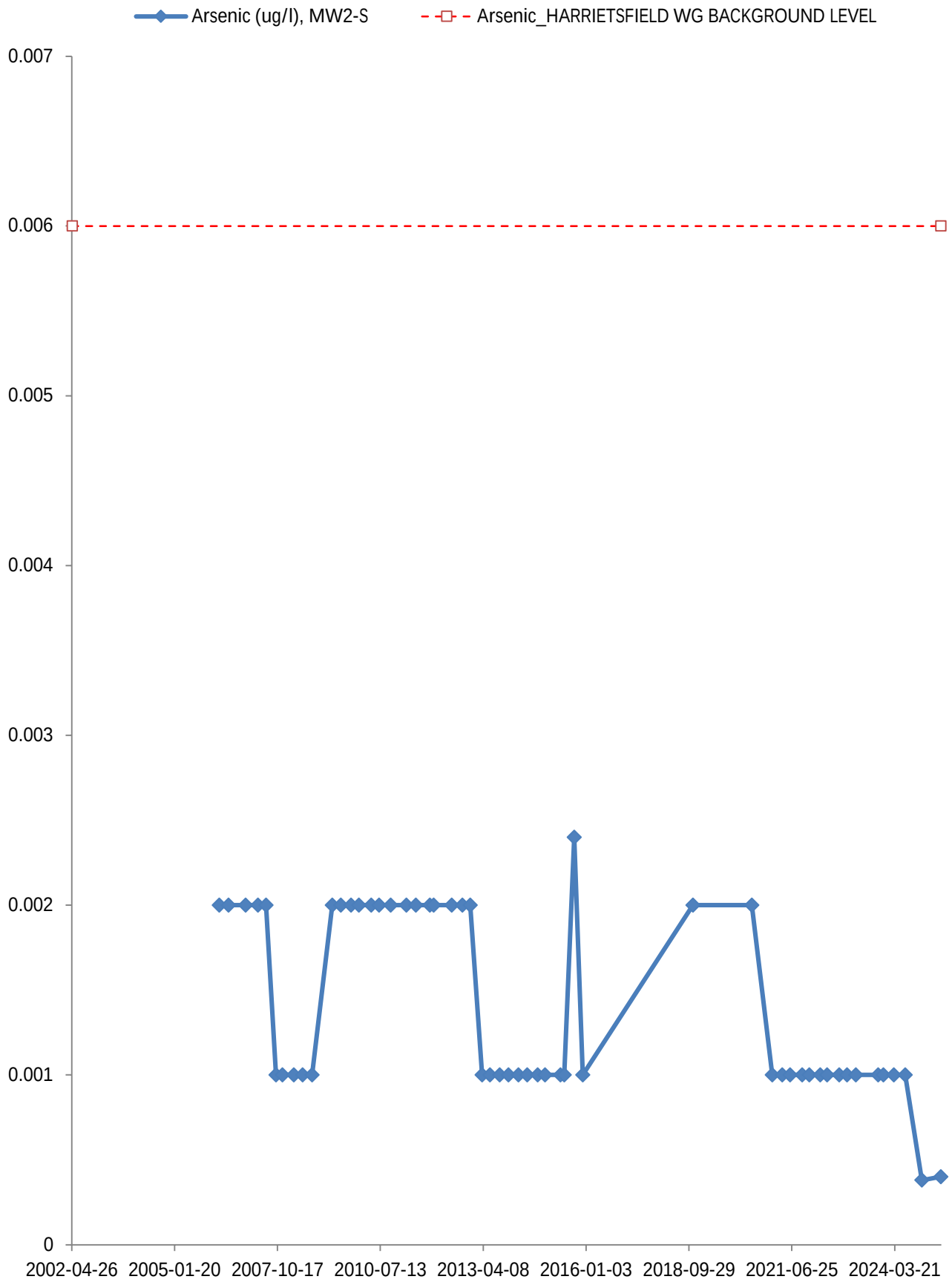

Silver (ug/l), MW2-M
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Alkalinity, Total



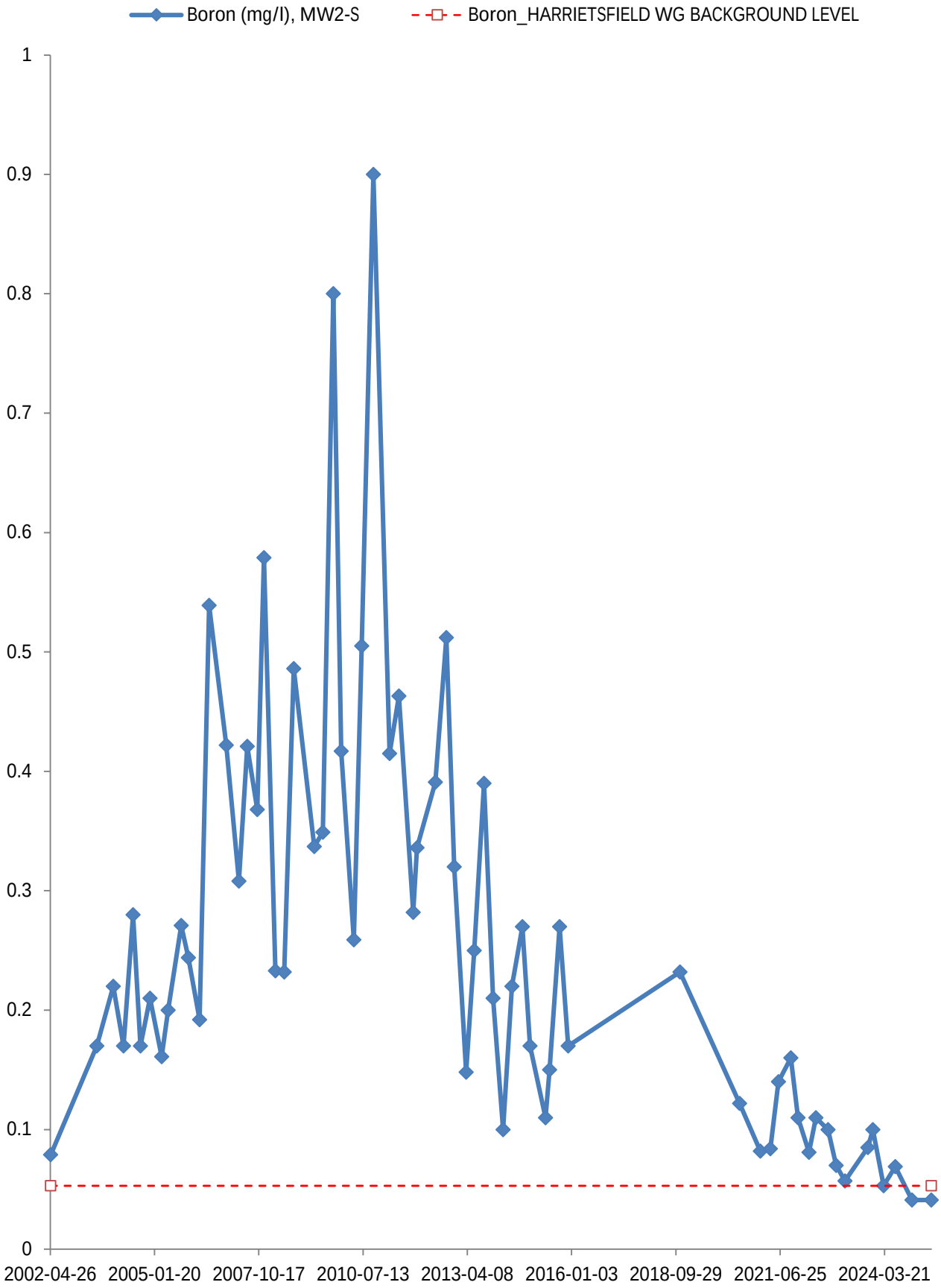
# Arsenic



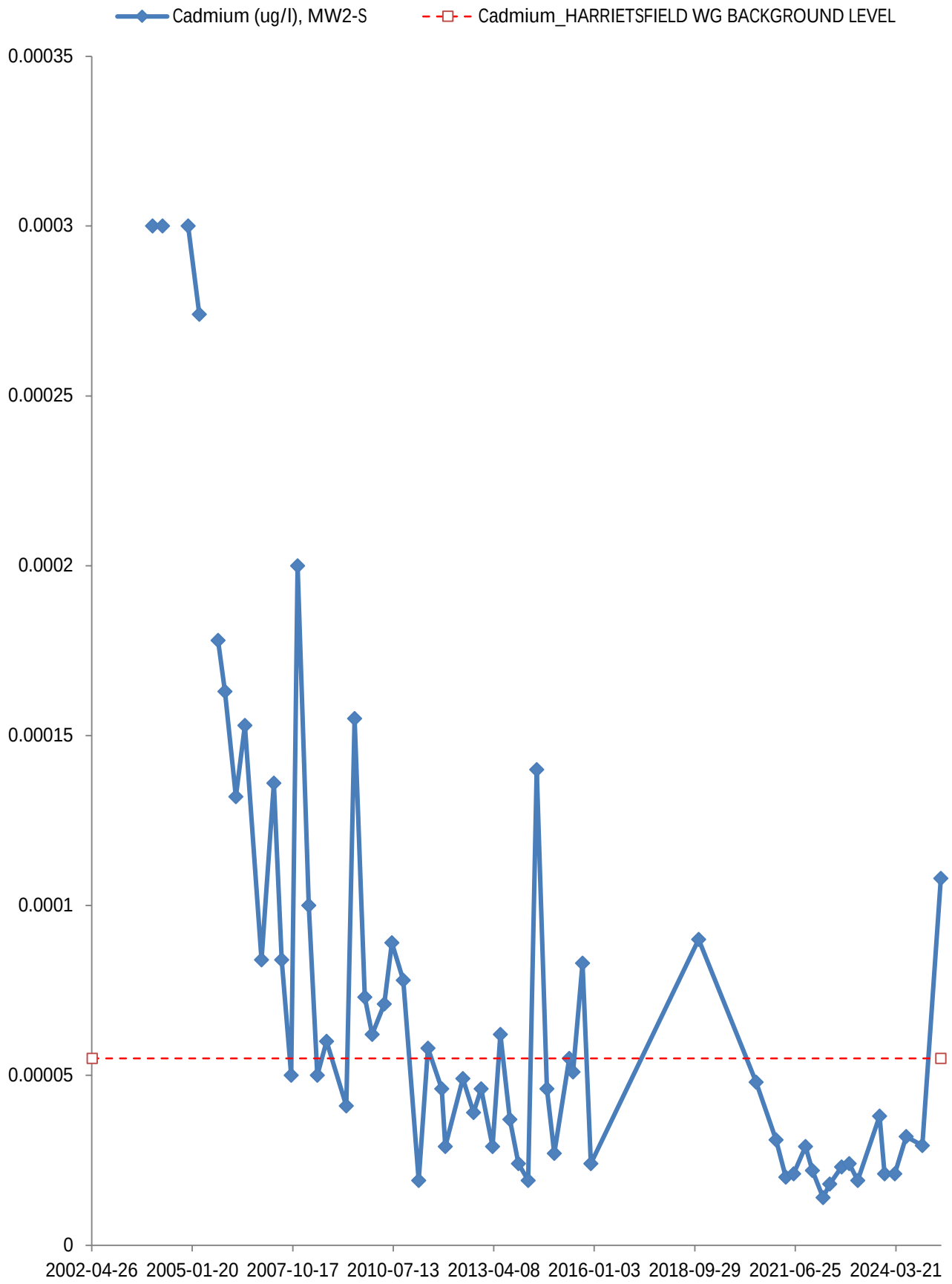

Arsenic (ug/l), MW2-S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Boron

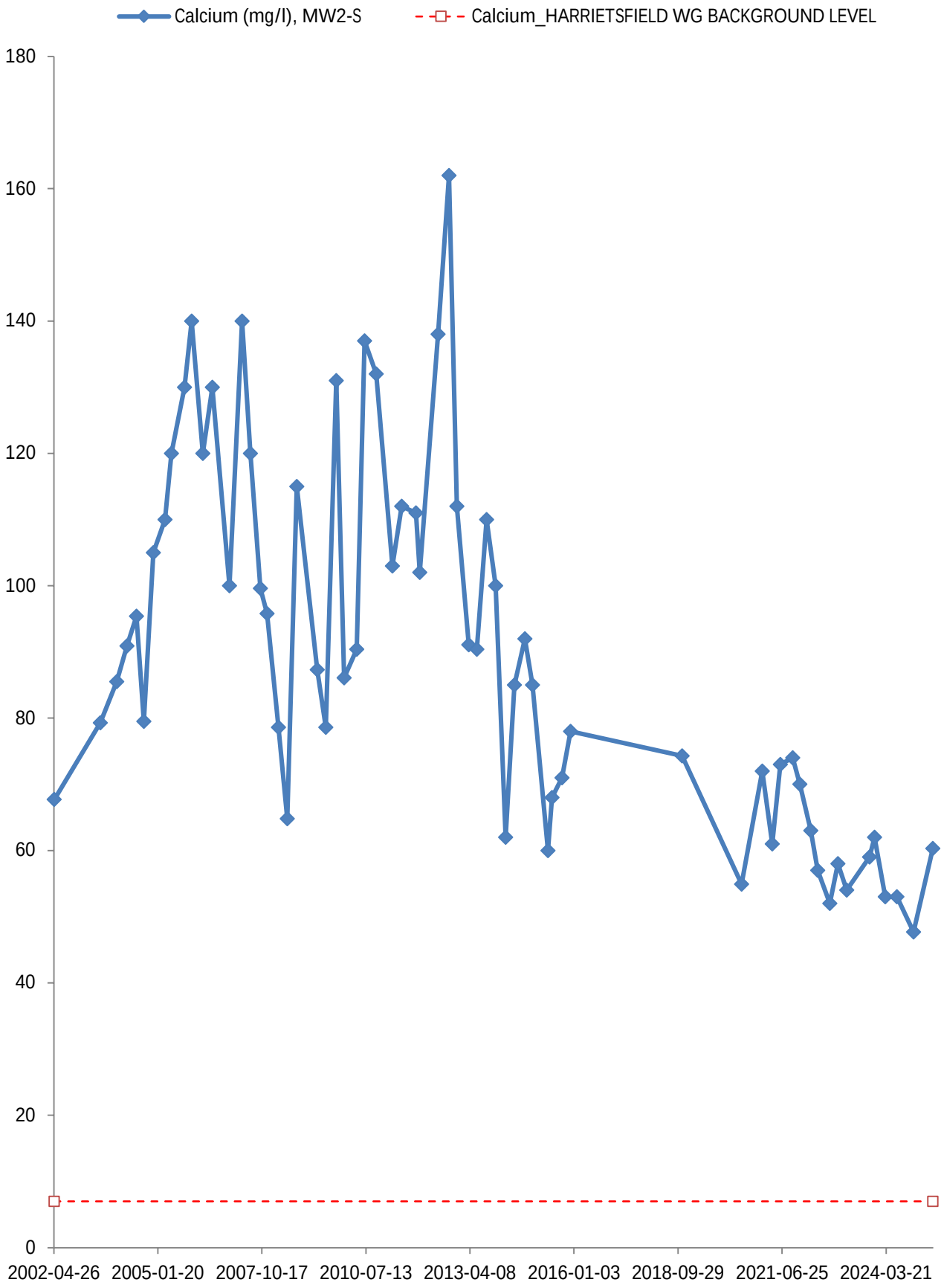



Boron (mg/l), MW2-S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

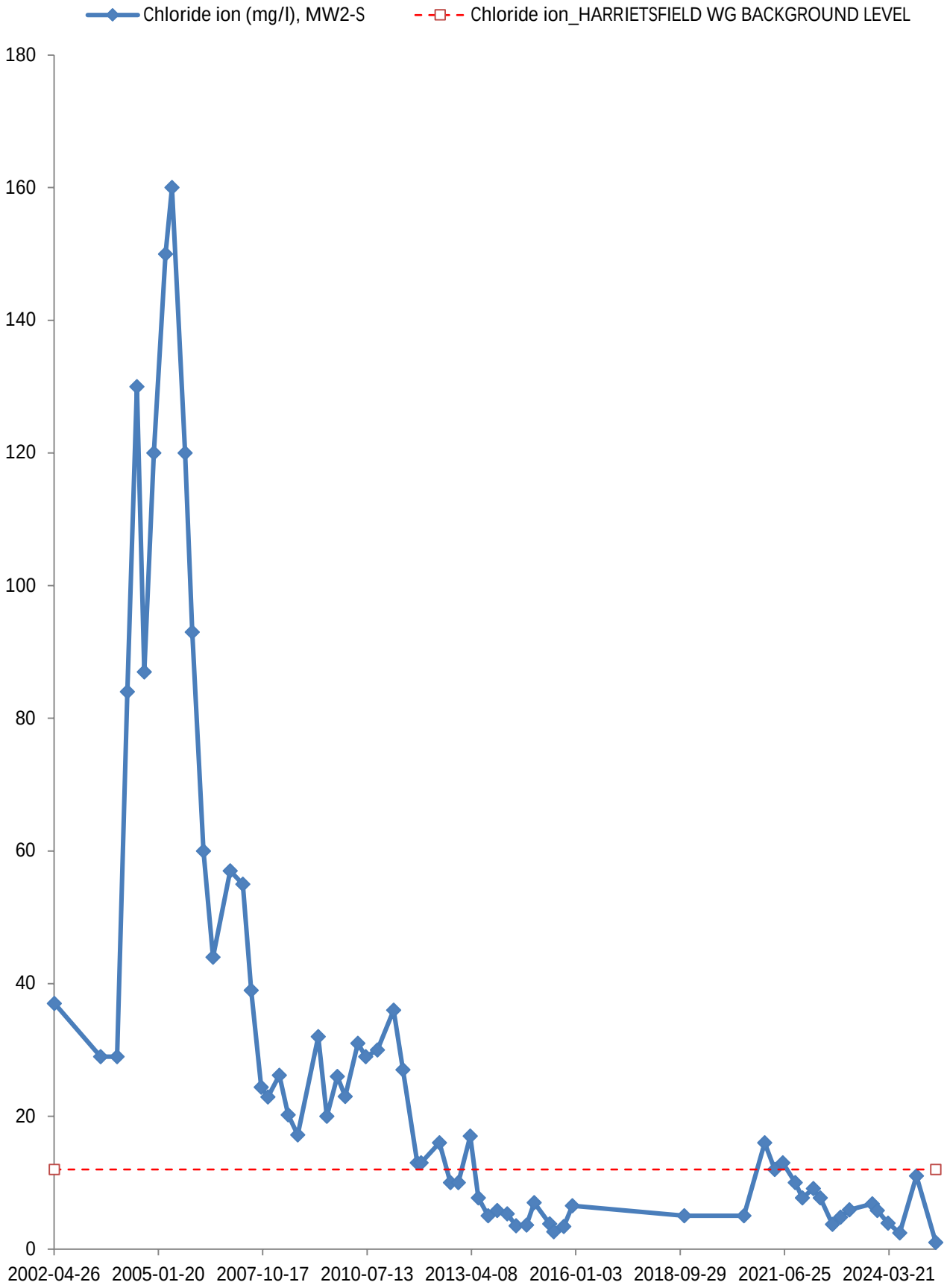
# Cadmium


Cadmium (ug/l), MW2-S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

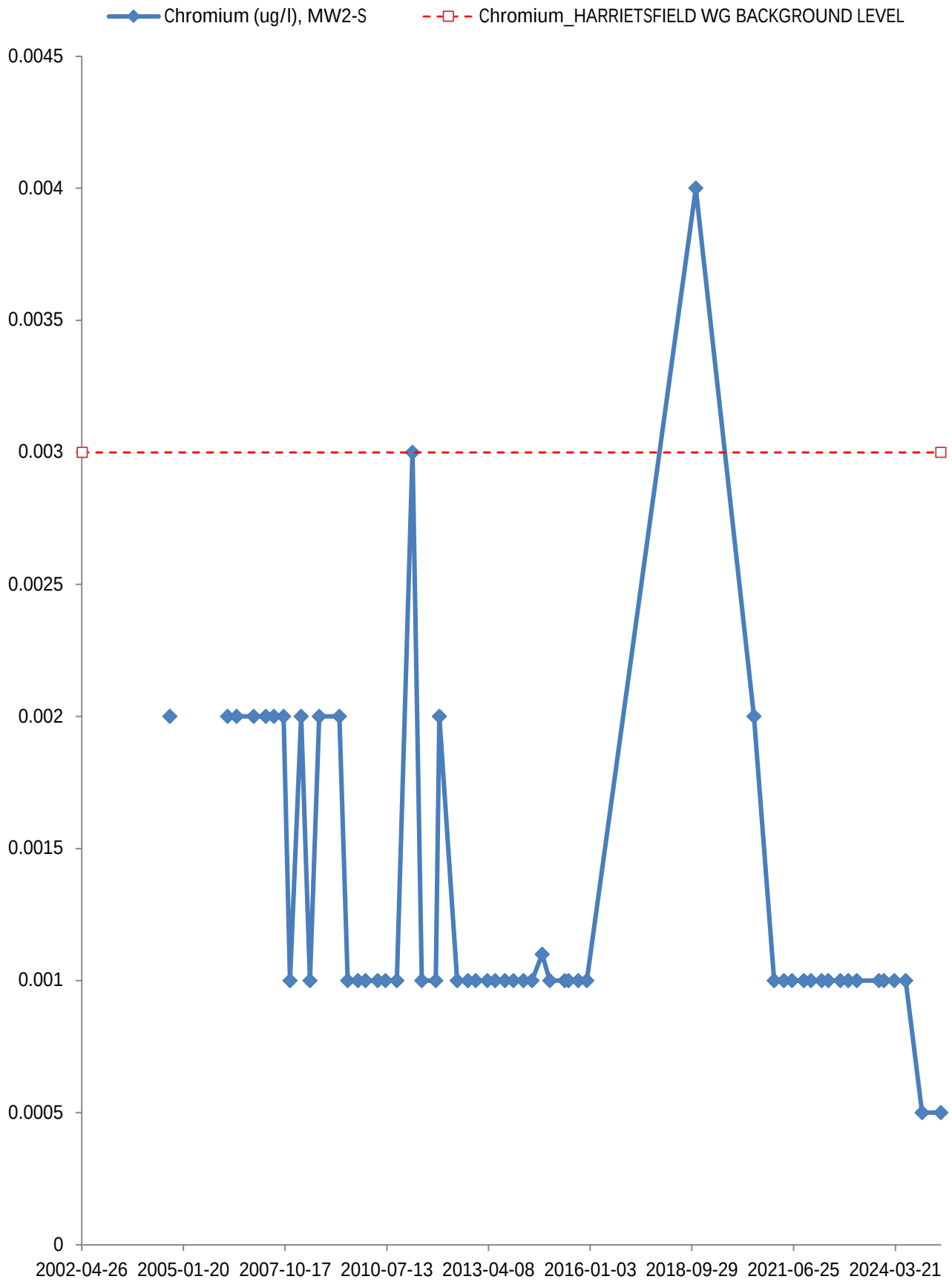
# Calcium


Calcium (mg/l), MW2-S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
180
160
140
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Chloride ion

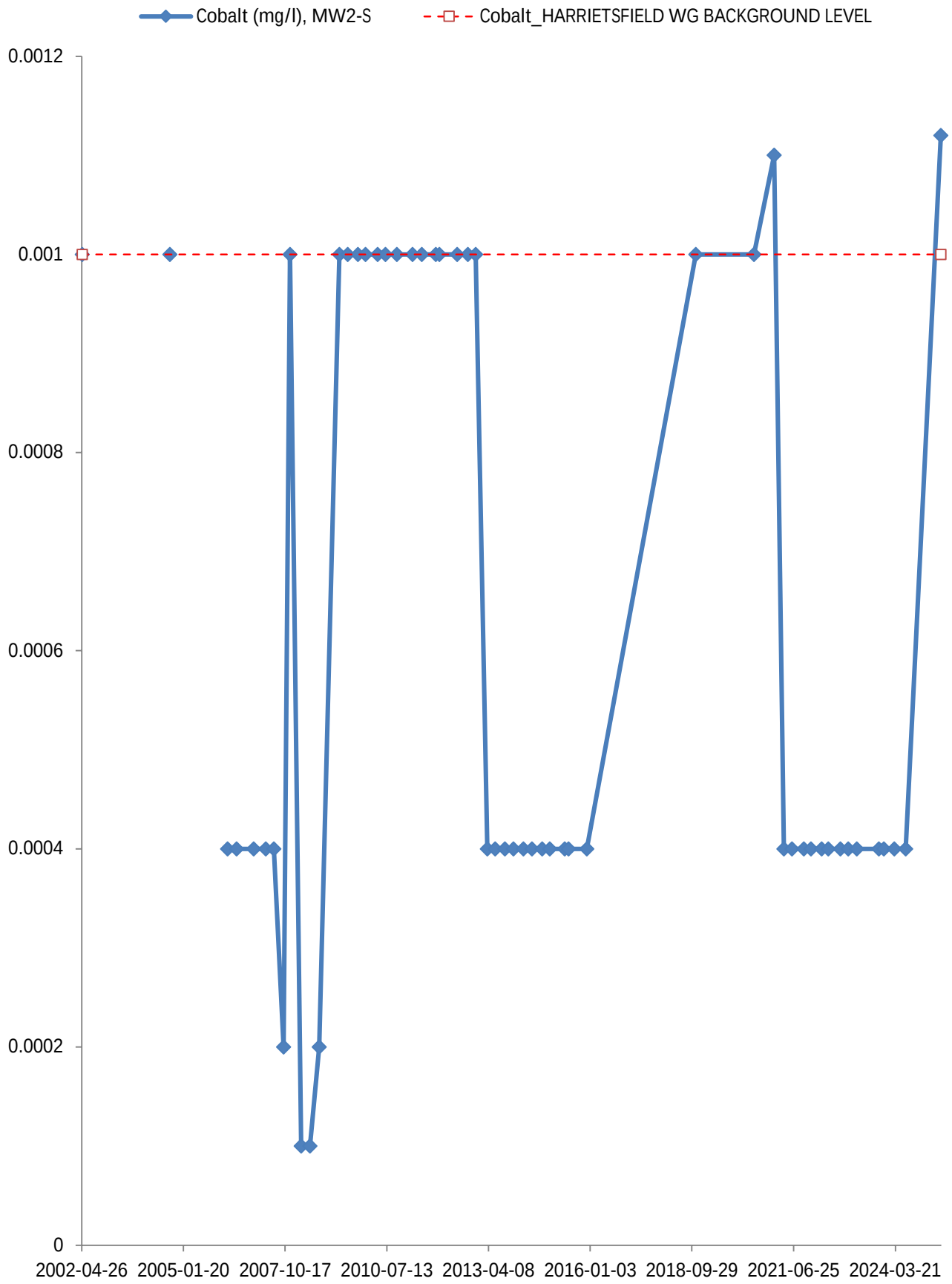


# Chromium

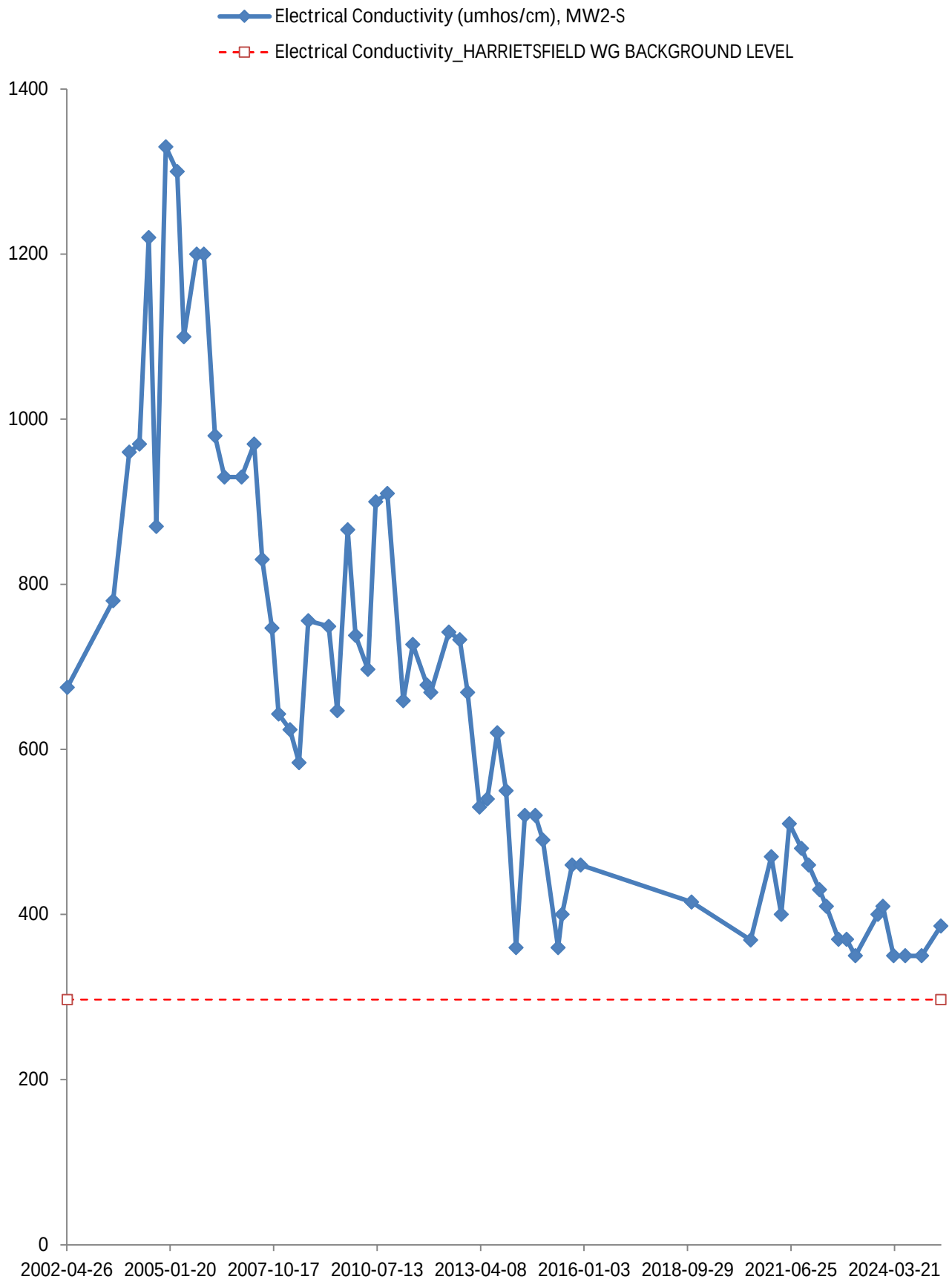

Chromium (ug/l), MW2-S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cobalt



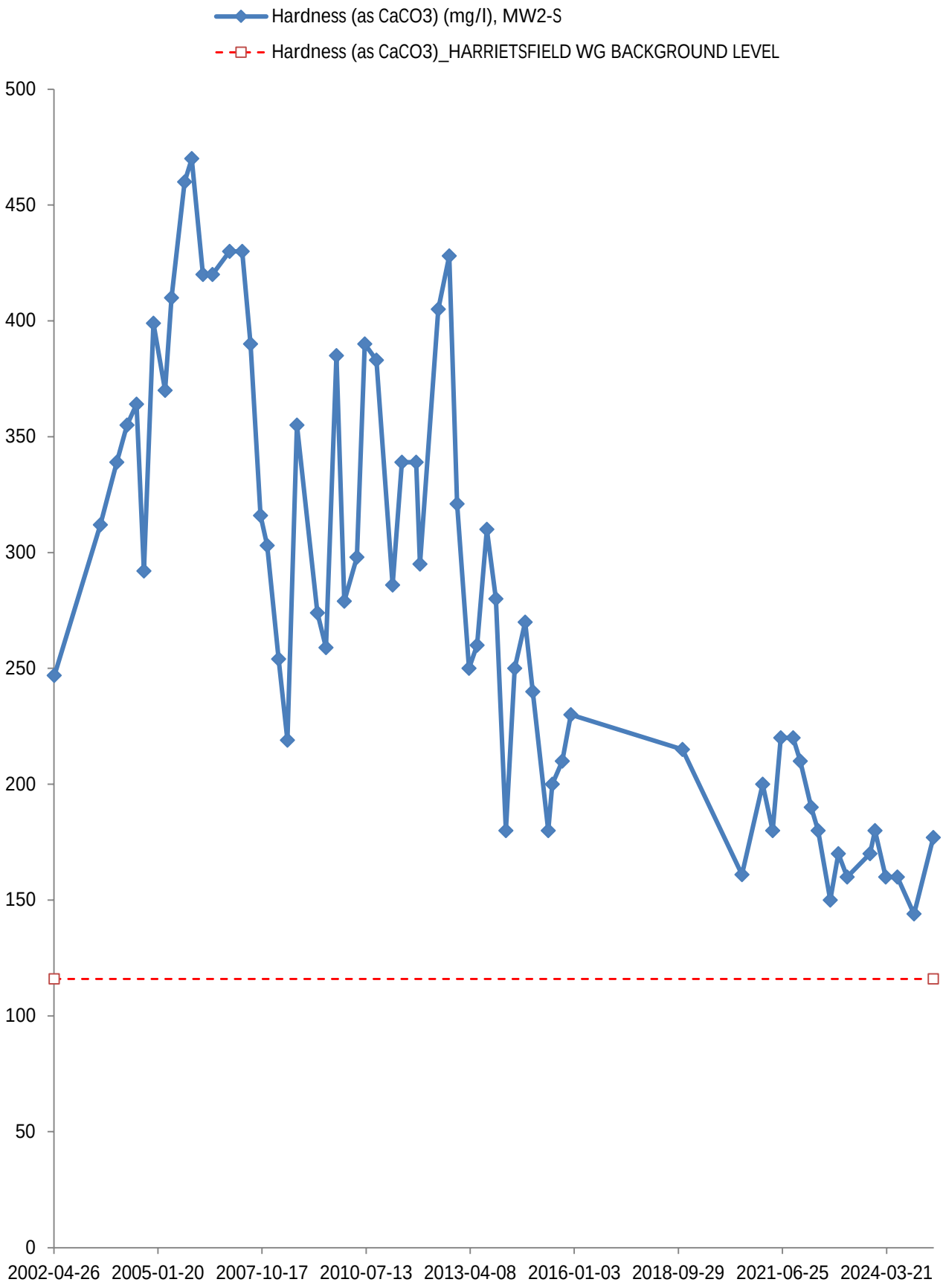

Cobalt (mg/l), MW2-S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Electrical Conductivity

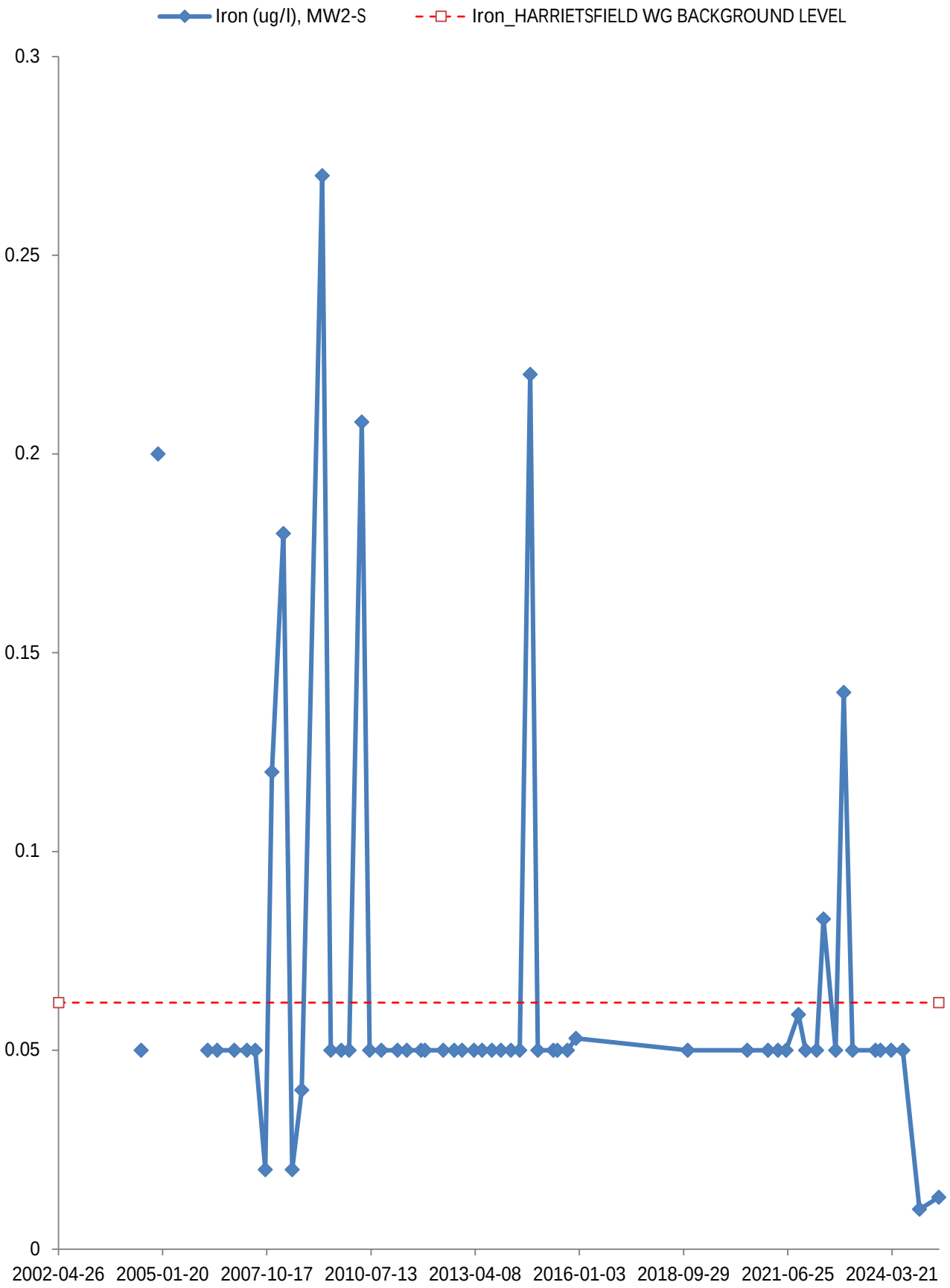


# Hardness (as CaCO3)

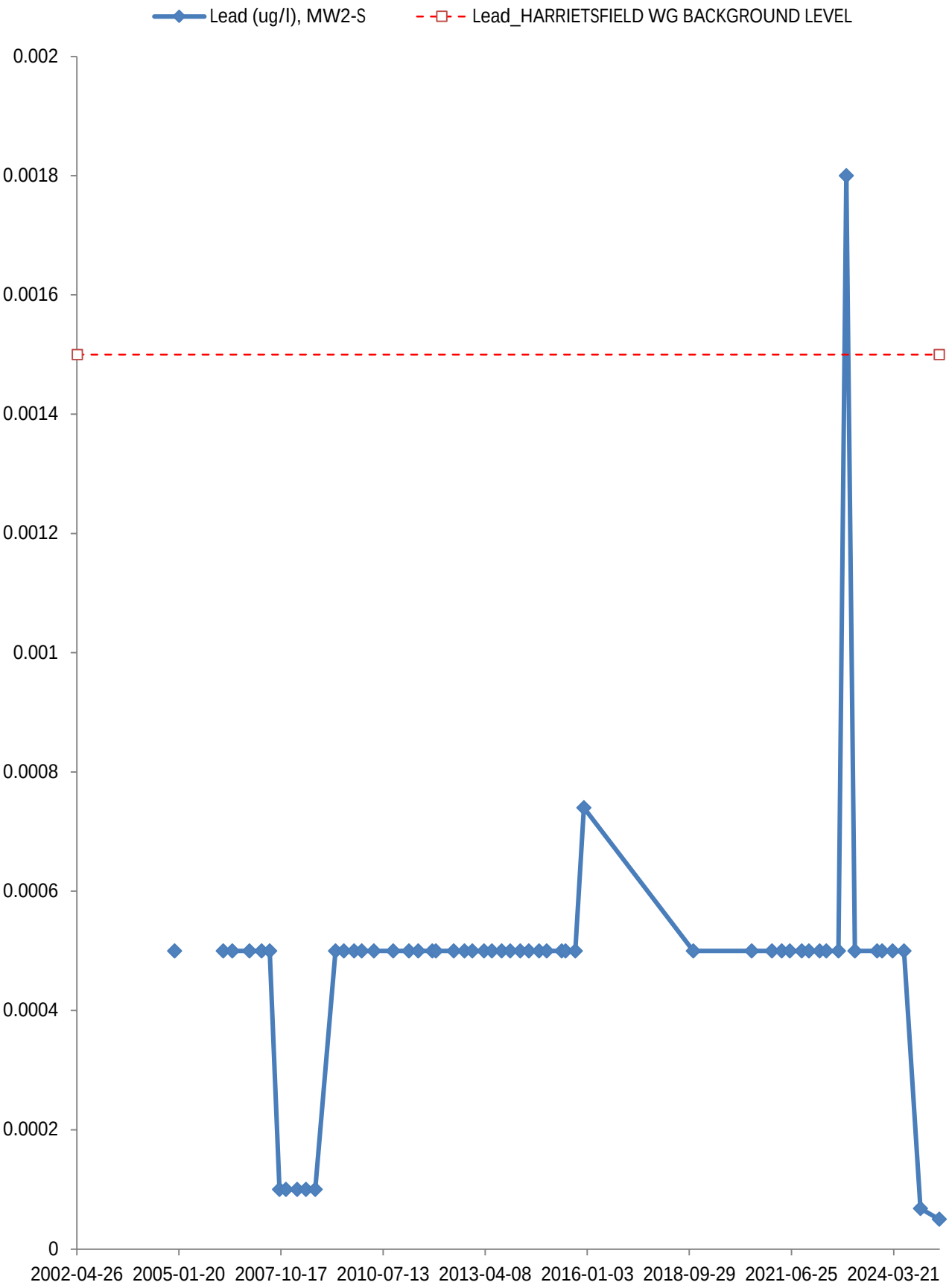




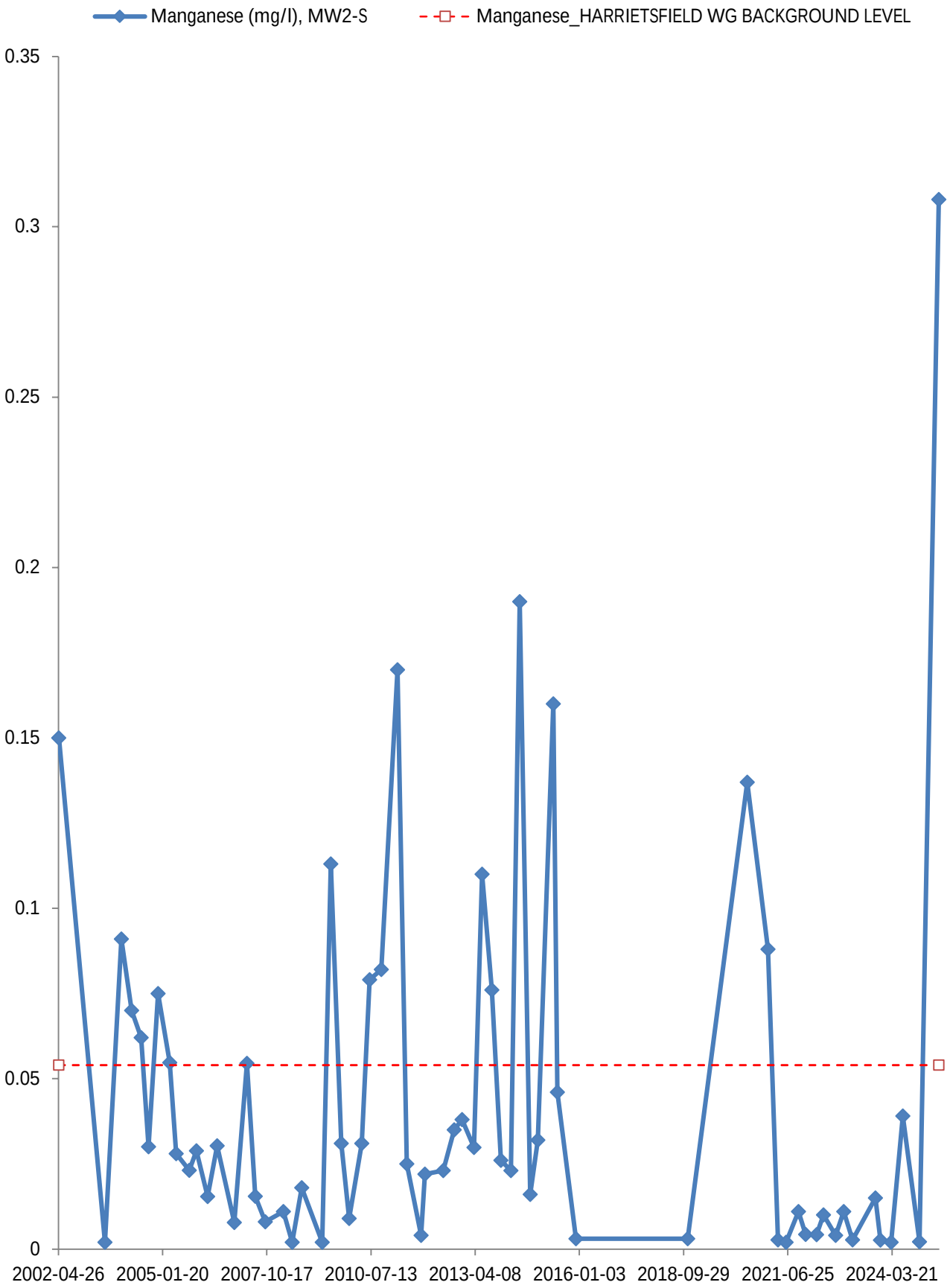
# Iron


Iron (ug/l), MW2-S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

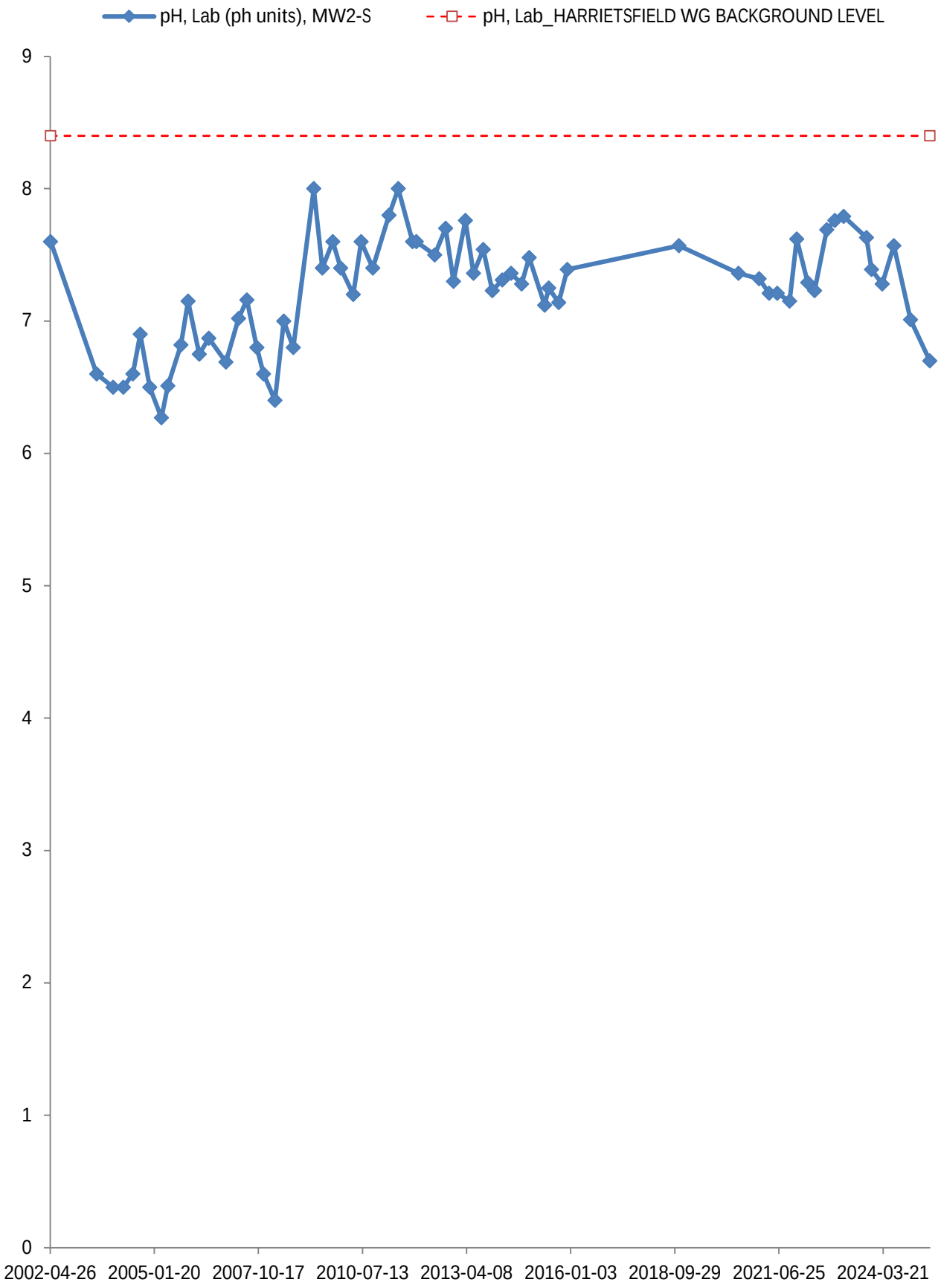
# Lead


Lead (ug/l), MW2-S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.002
0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Manganese

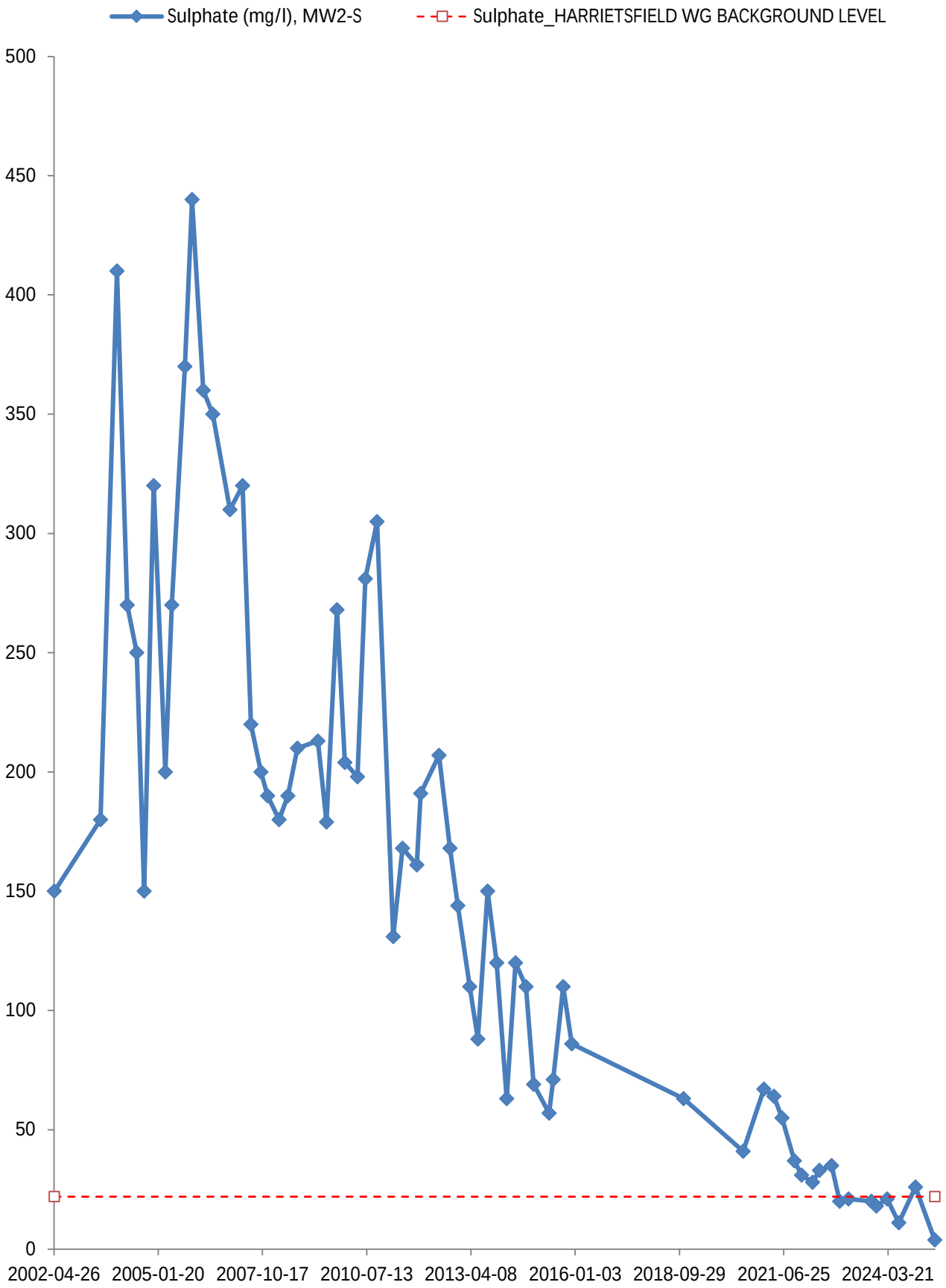

Manganese (mg/l), MW2-S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# pH, Lab

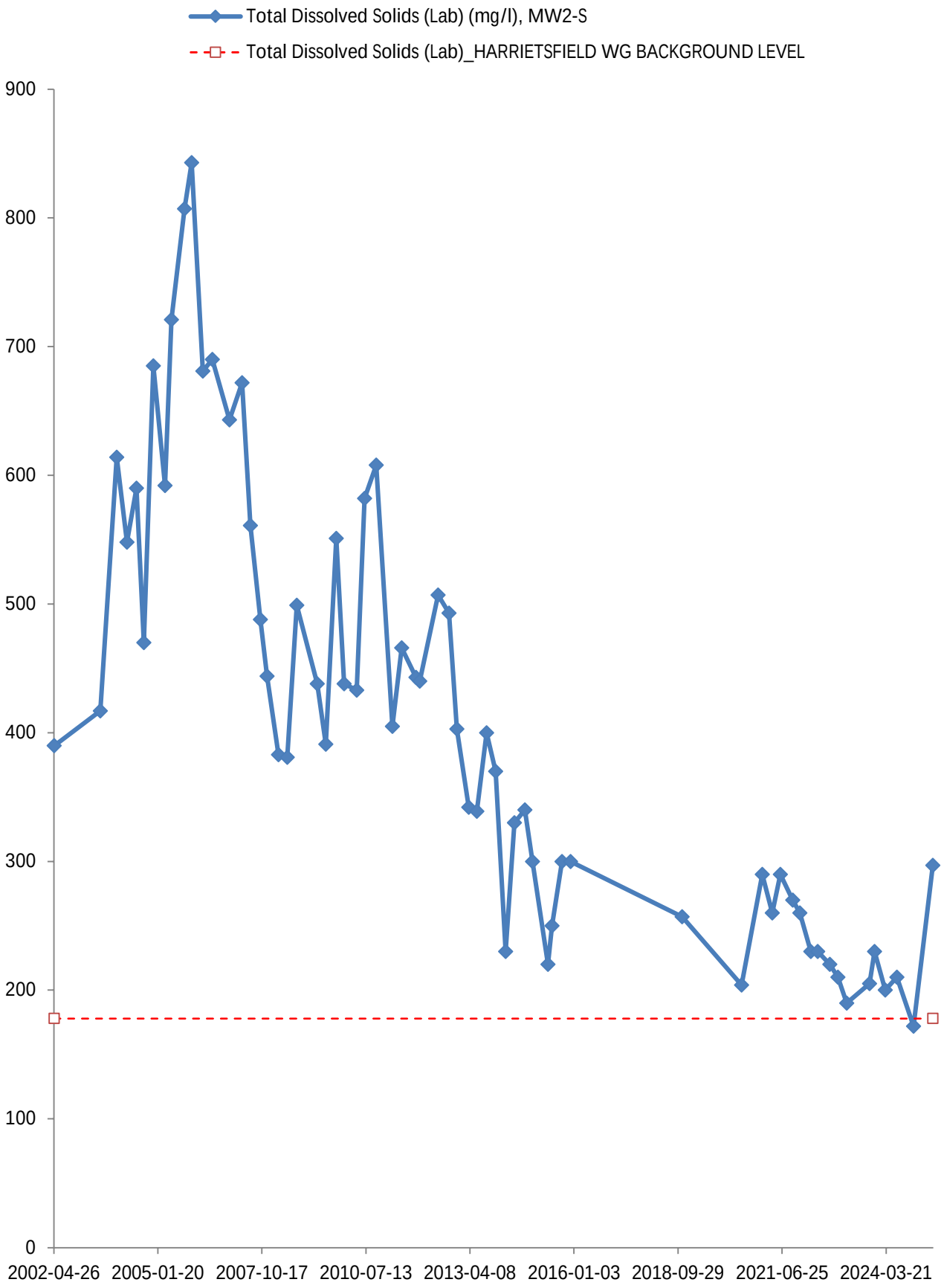

pH, Lab (ph units), MW2-S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Sulphate

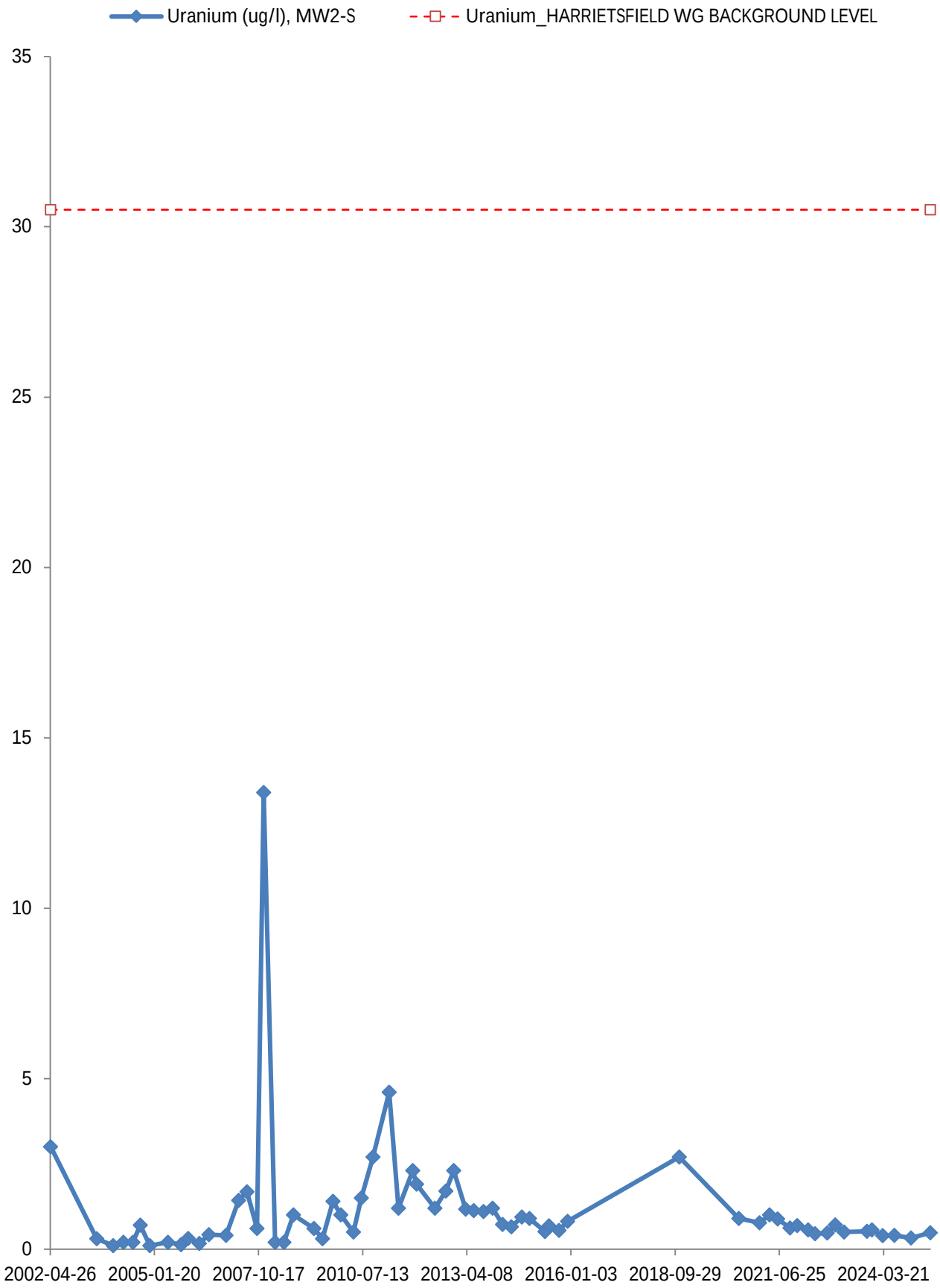



Sulphate (mg/l), MW2-S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
500
450
400
350
300
250
200
150
100
50
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Total Dissolved Solids (3

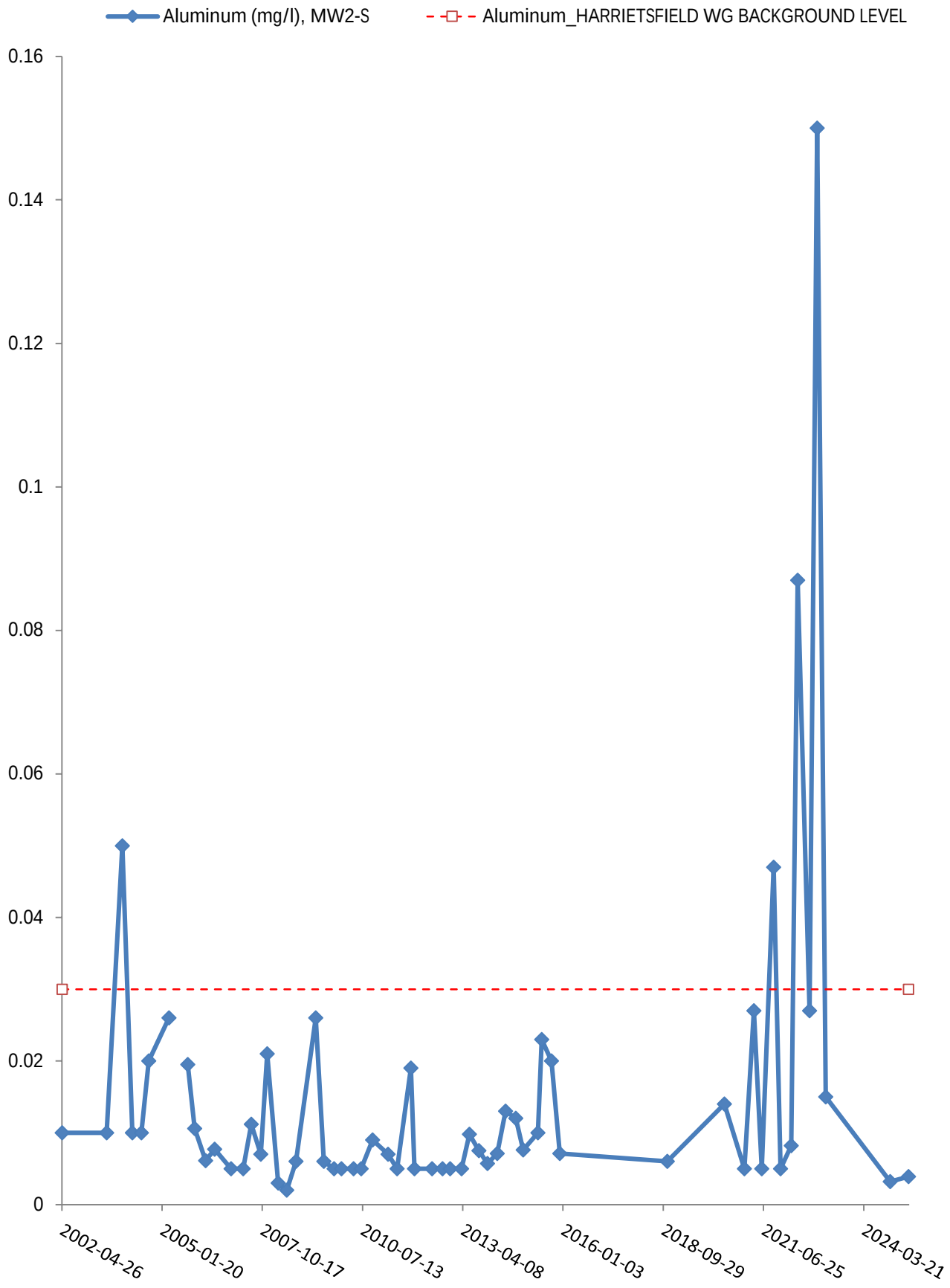


# Uranium


Uranium (ug/l), MW2-S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

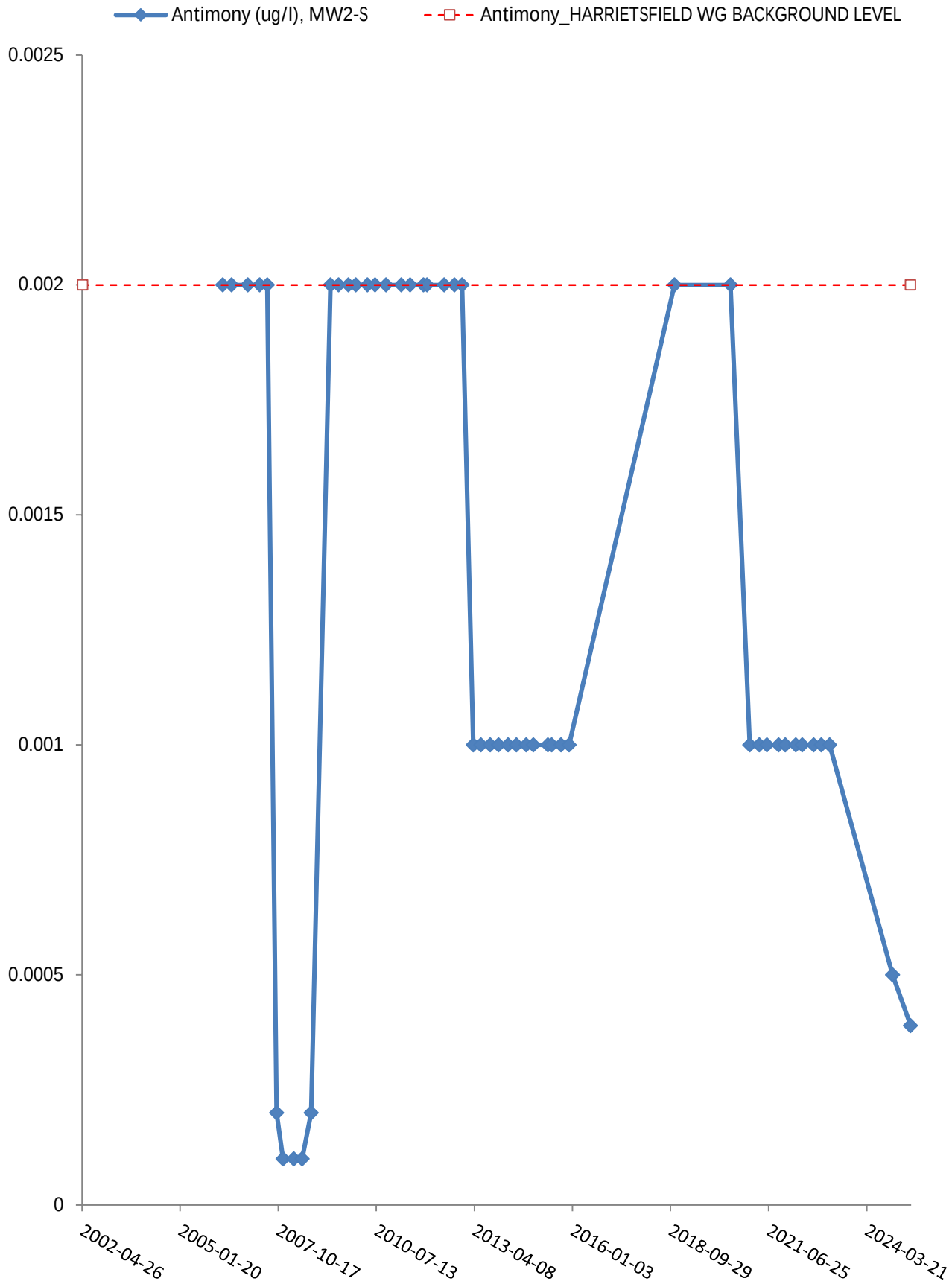
# Aluminum




Aluminum (mg/l), MW2-S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

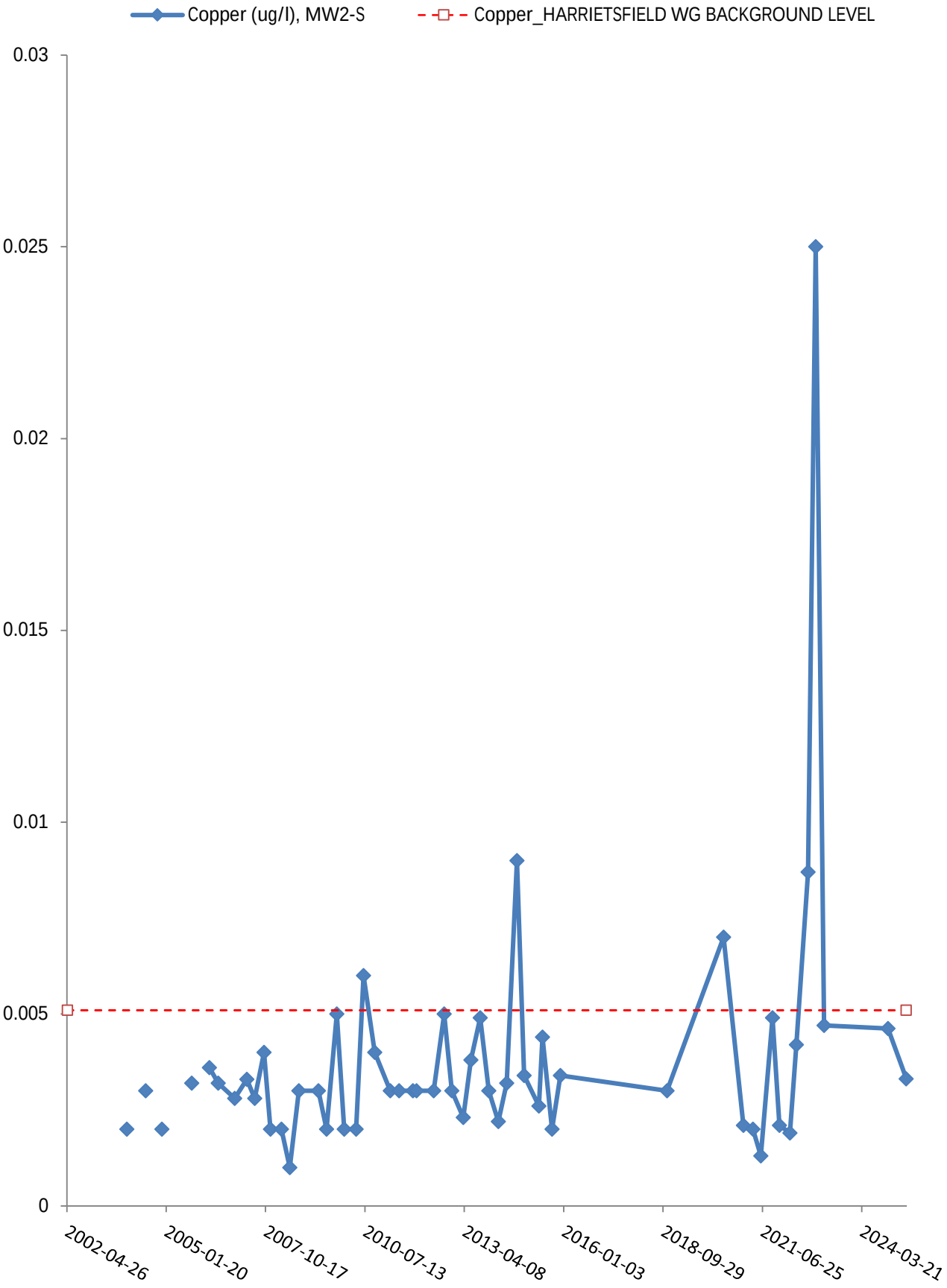
# Antimony




Antimony (ug/l), MW2-S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

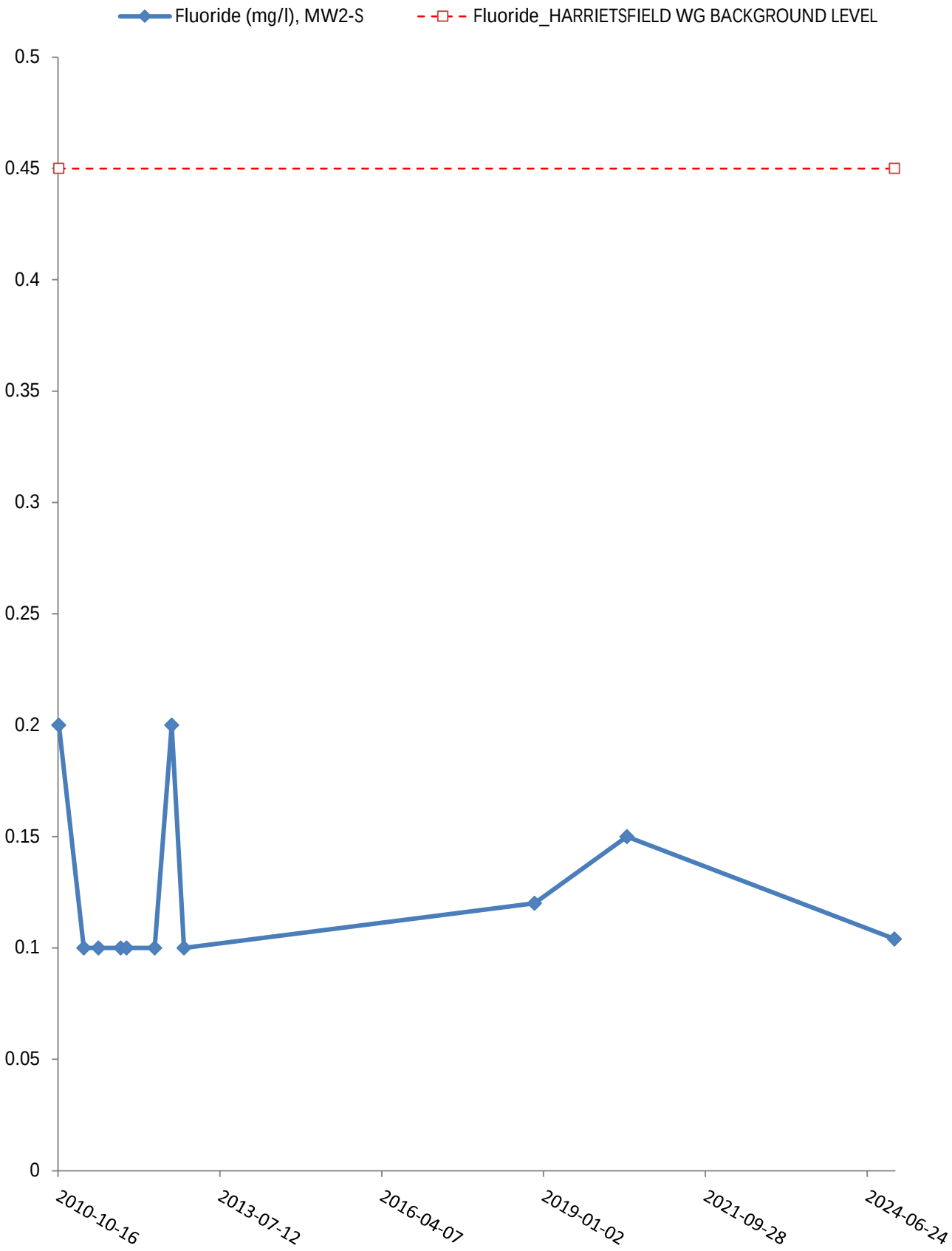
# Copper



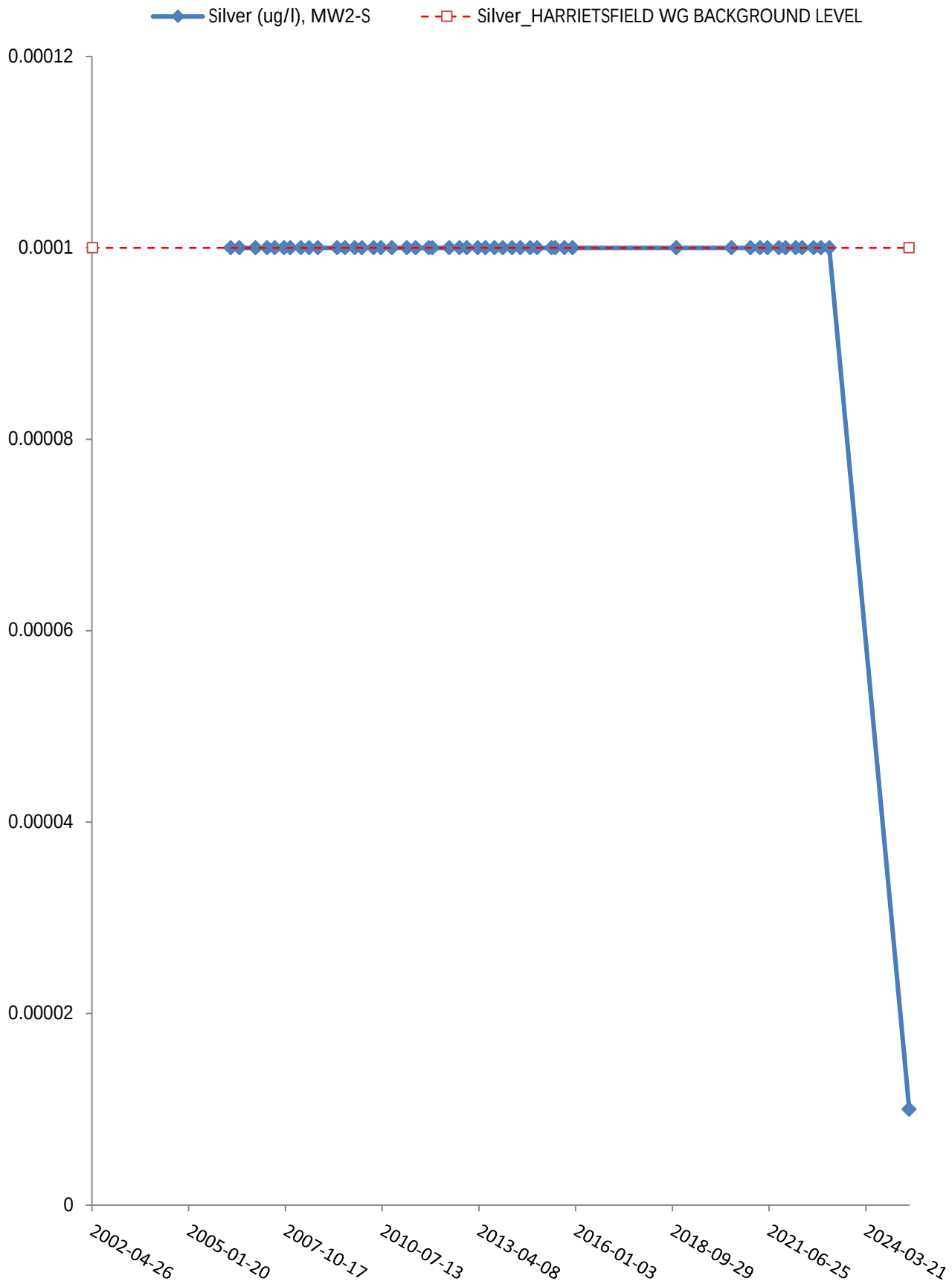

Copper (ug/l), MW2-S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.03
0.025
0.02
0.015
0.01
0.005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Fluoride

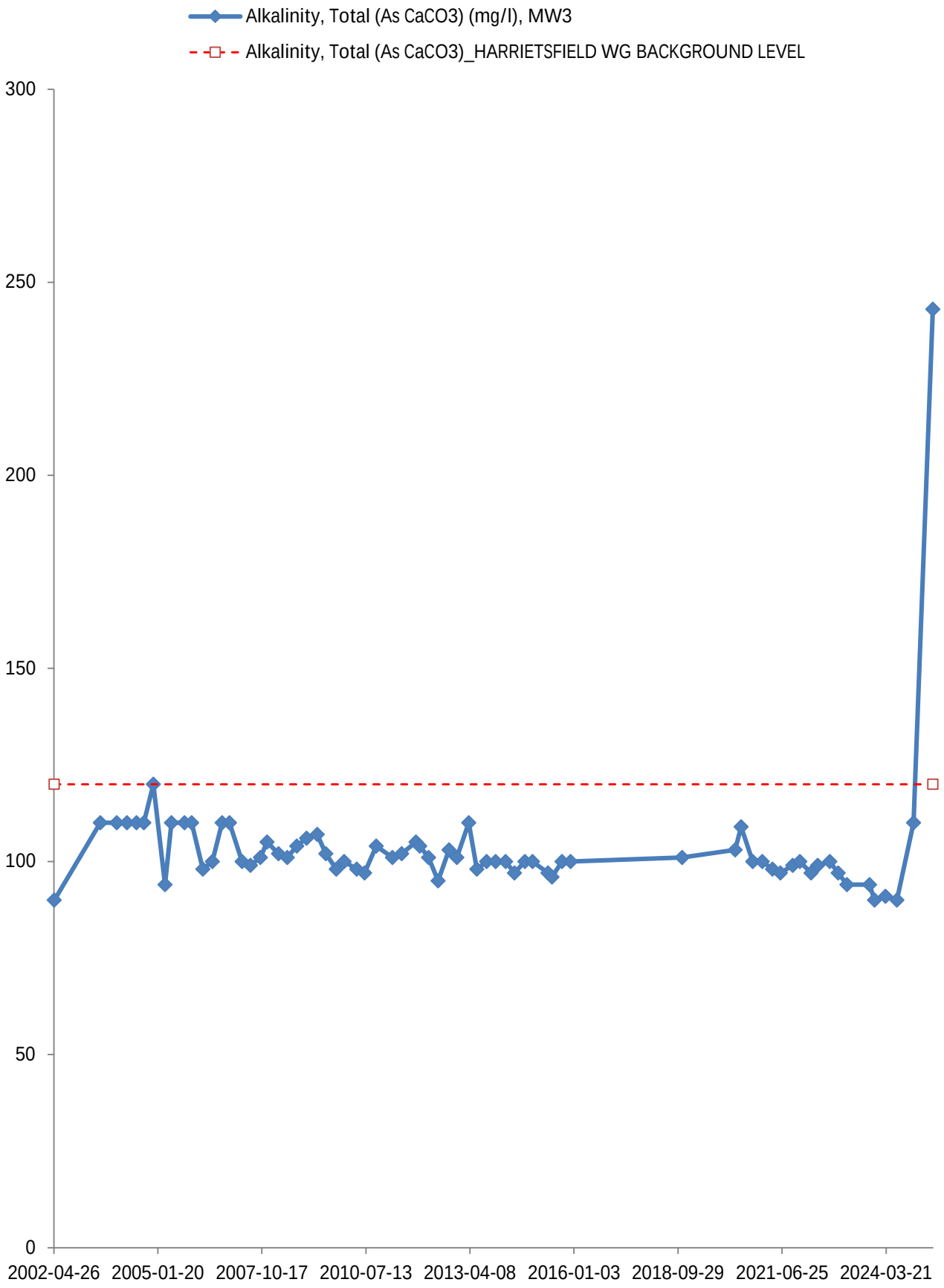



Fluoride (mg/l), MW2-S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

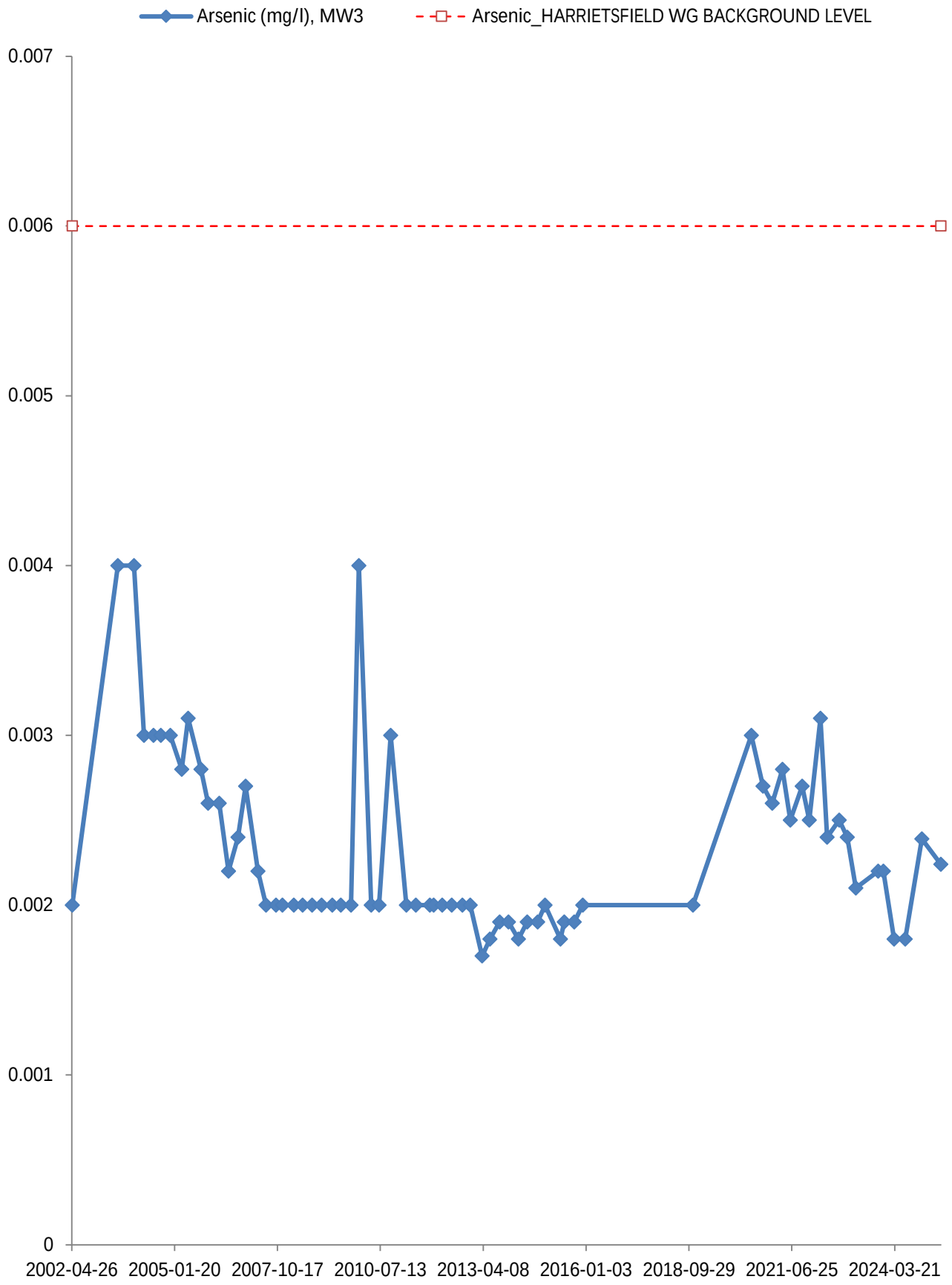
# Silver


Silver (ug/l), MW2-S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

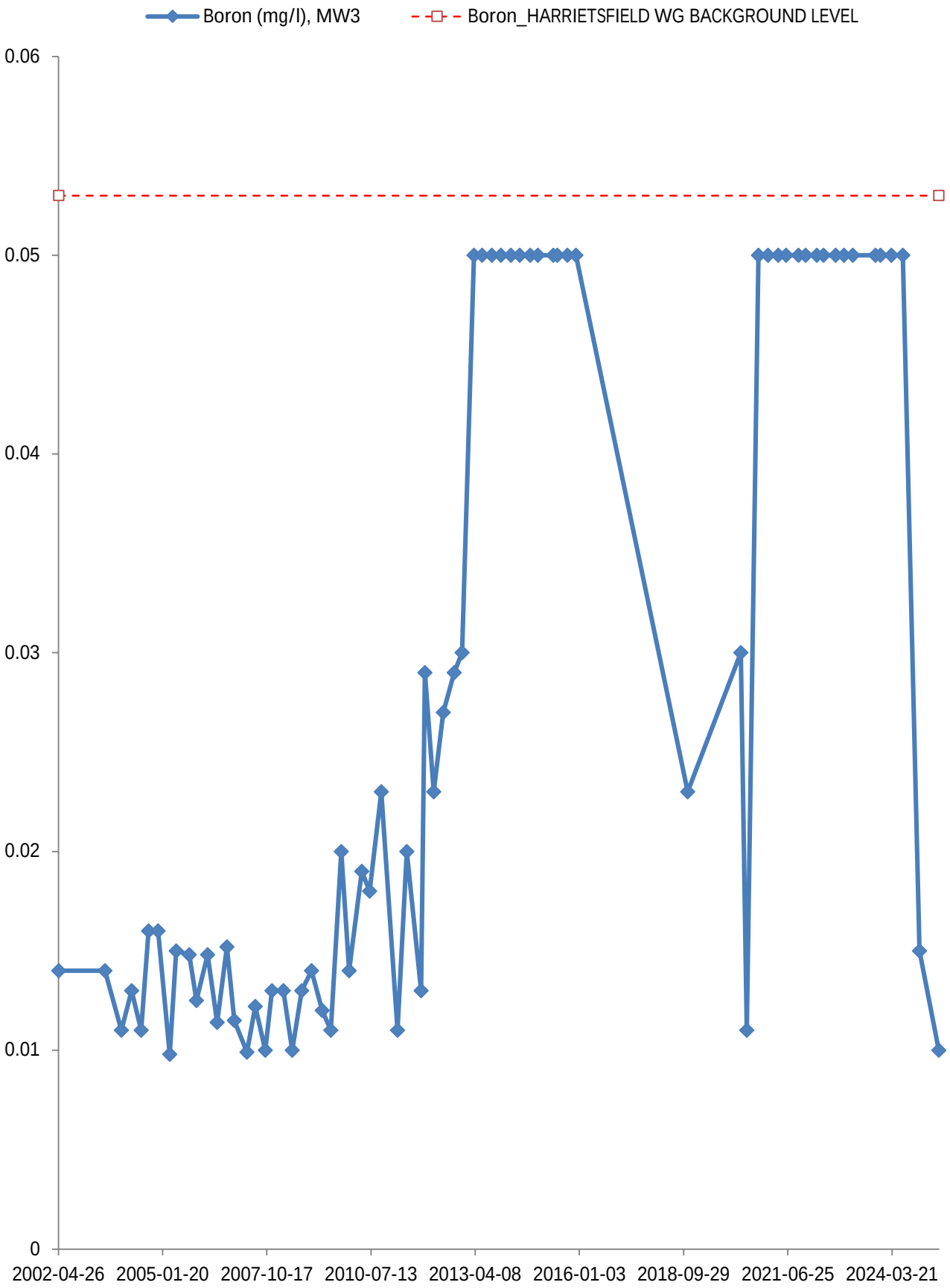
# Alkalinity, Total



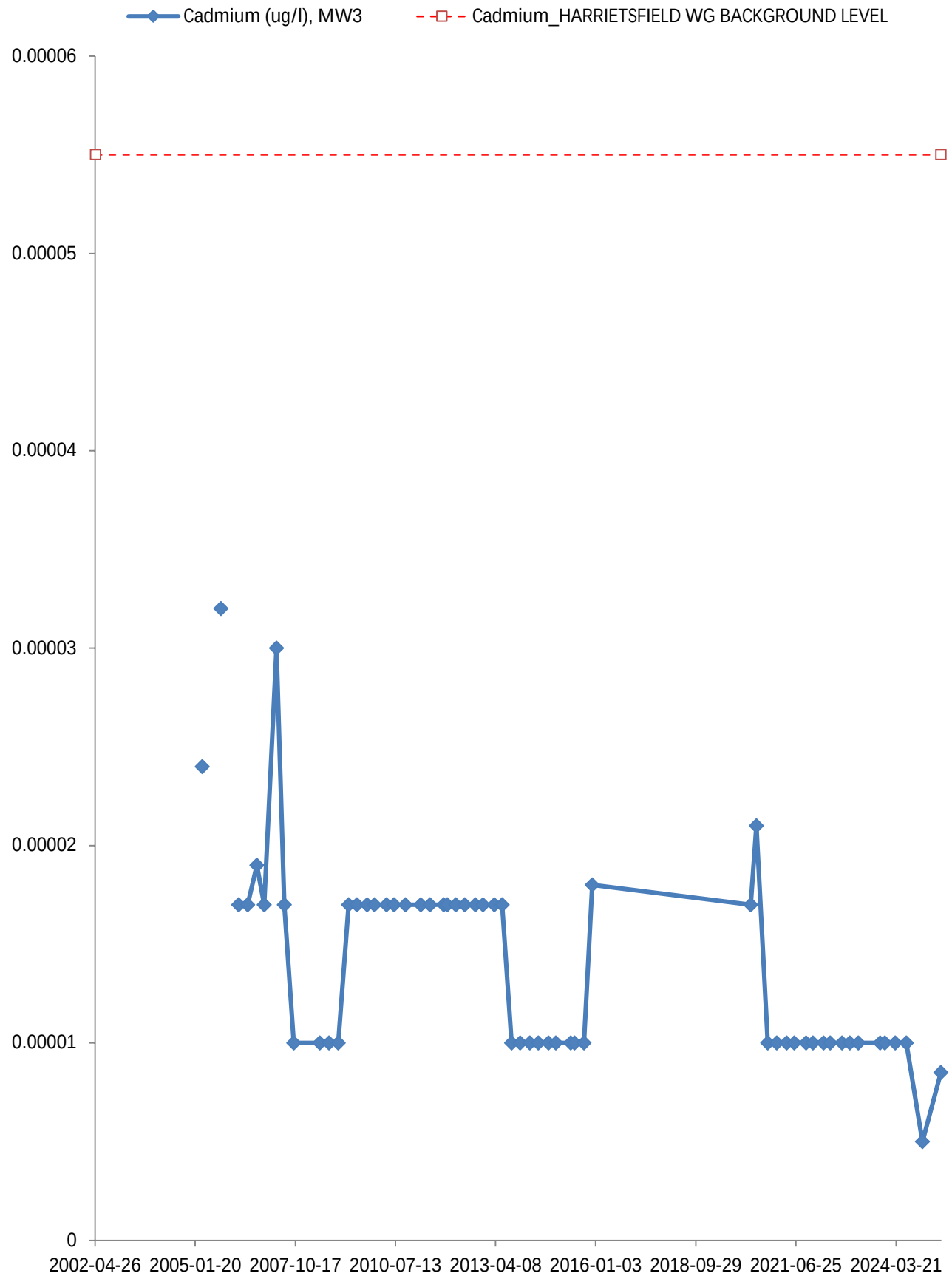
# Arsenic


Arsenic (mg/l), MW3
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Boron

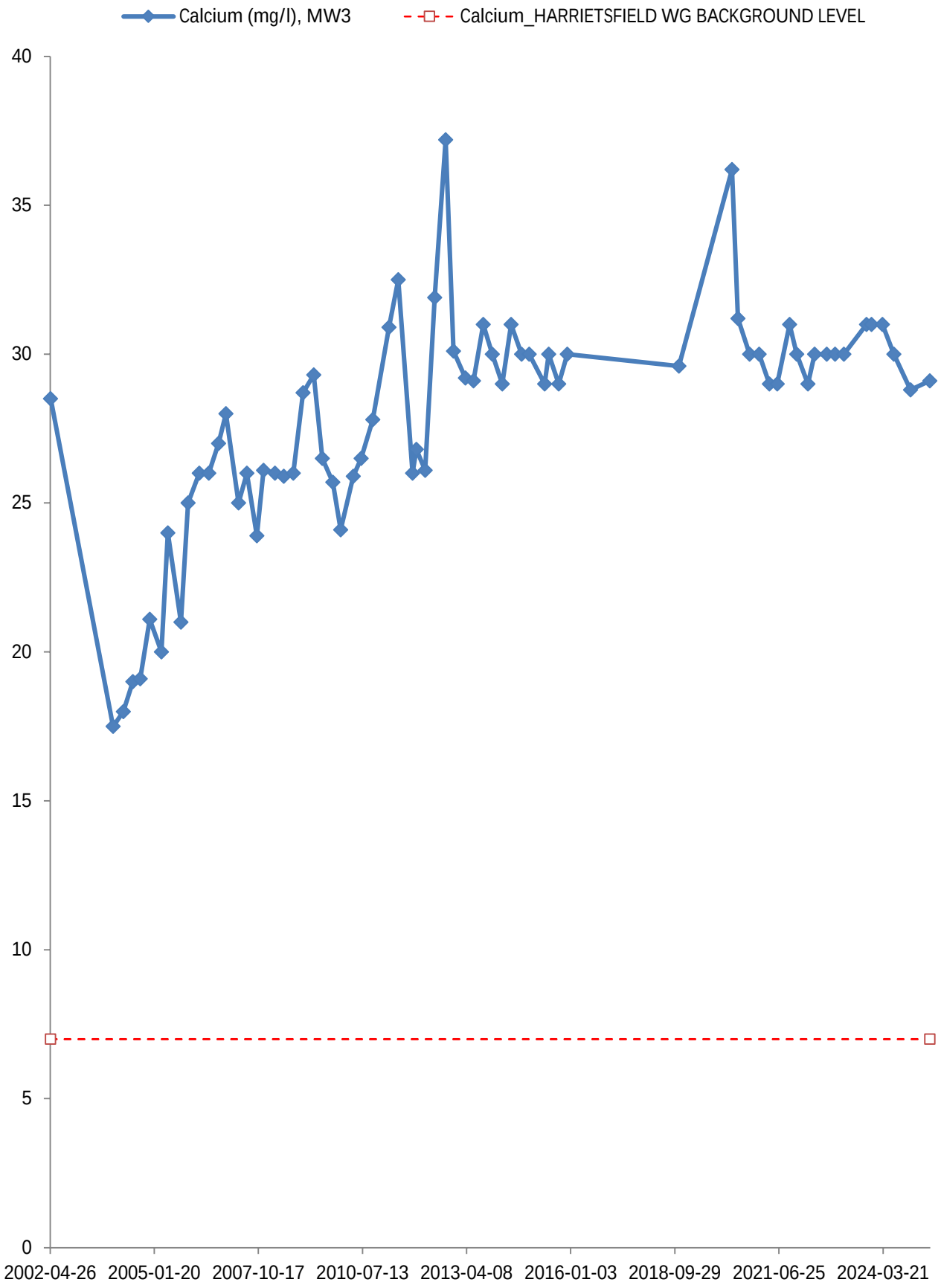

Boron (mg/l), MW3
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cadmium

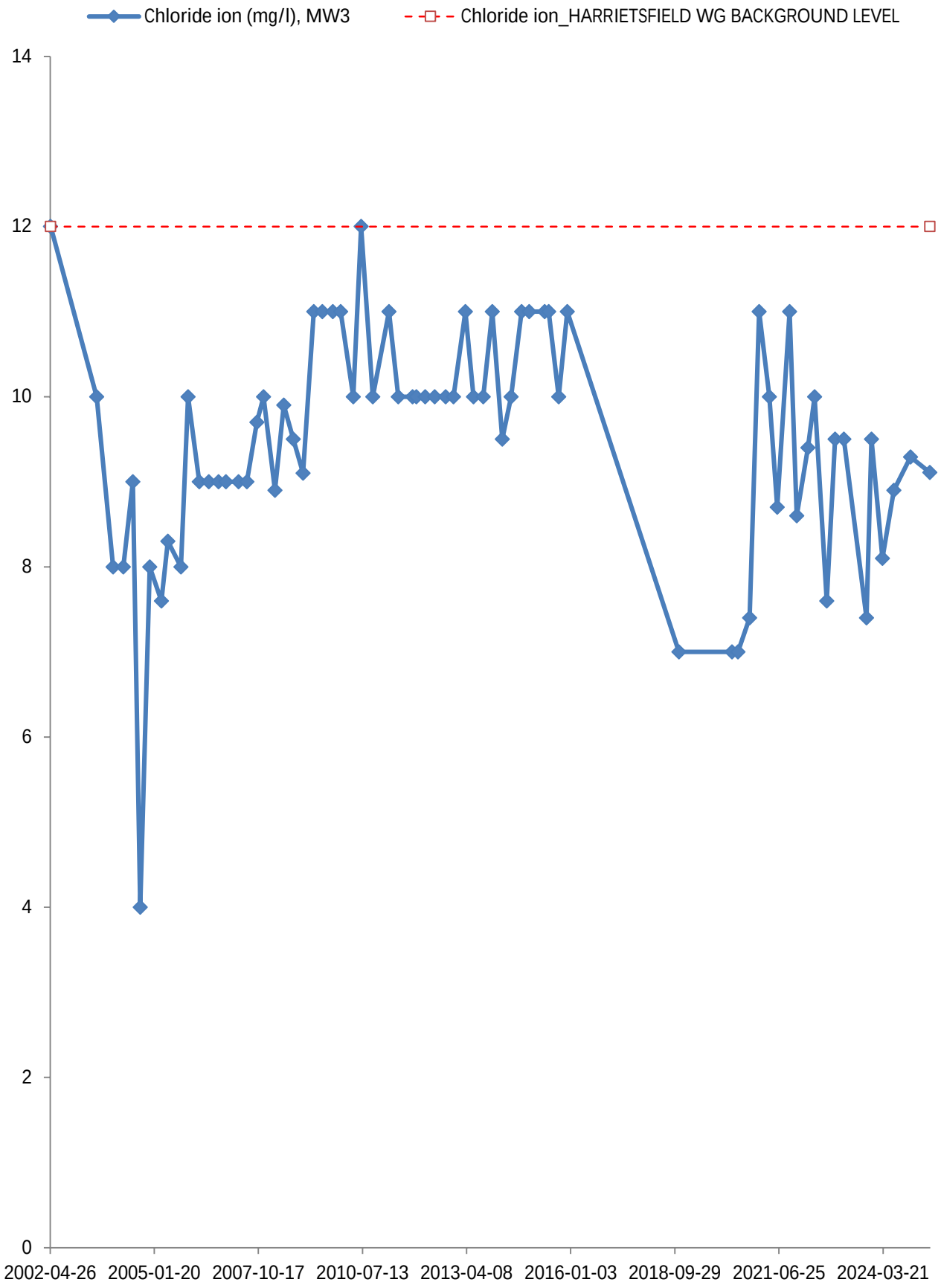

Cadmium (ug/l), MW3
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Calcium

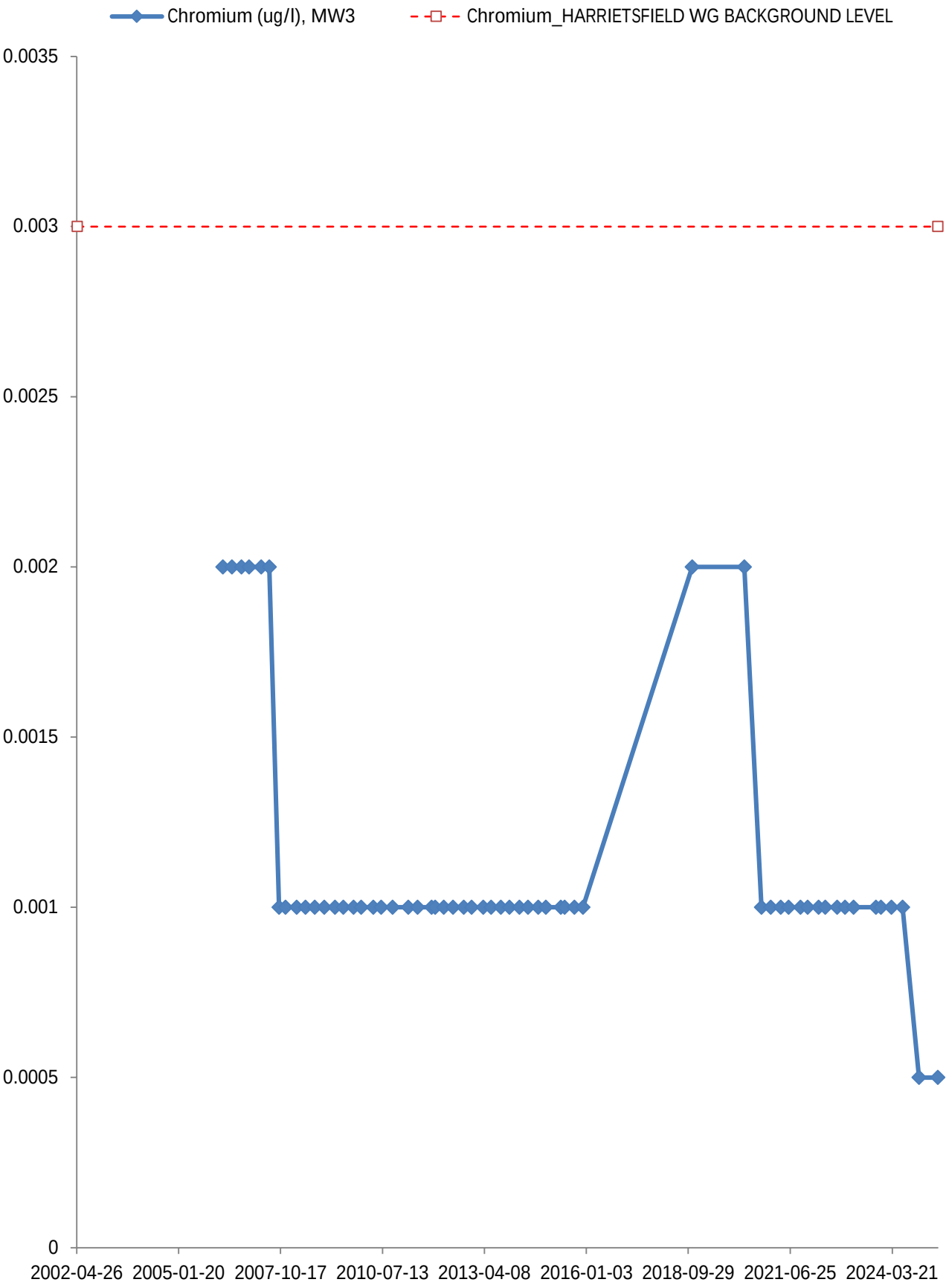



Calcium (mg/l), MW3
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
40
35
30
25
20
15
10
5
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

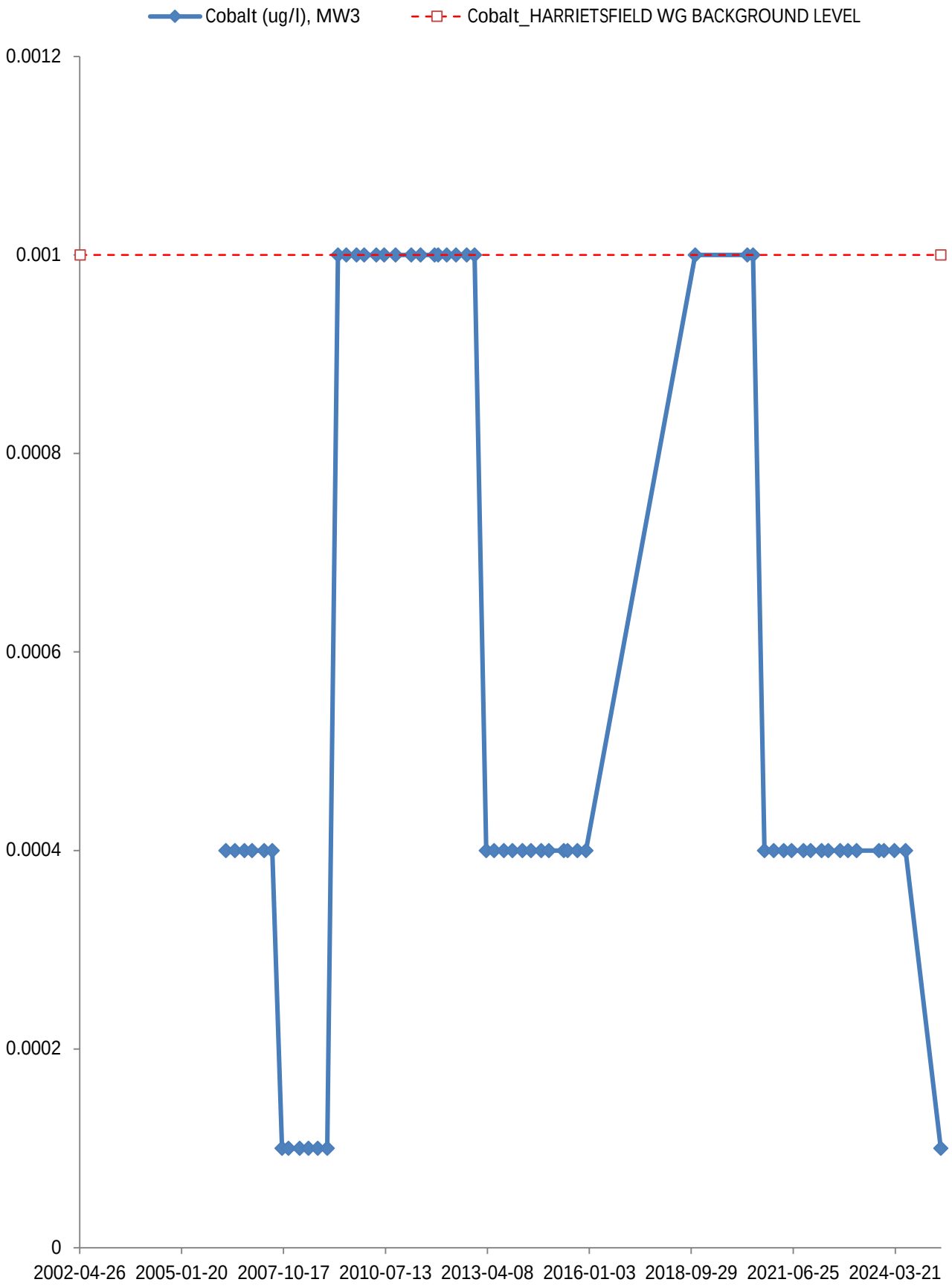
# Chloride ion



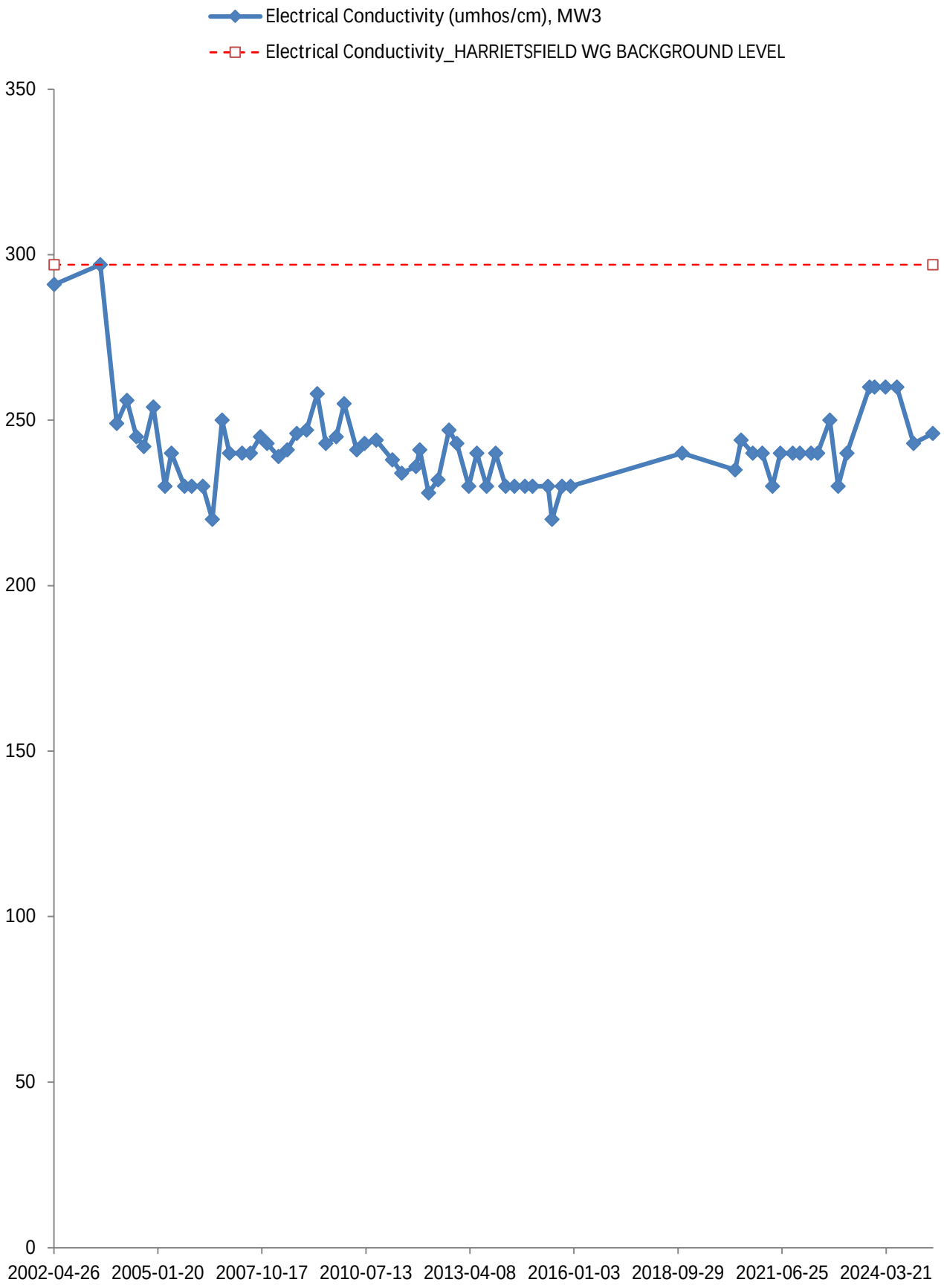
# Chromium


Chromium (ug/l), MW3
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cobalt

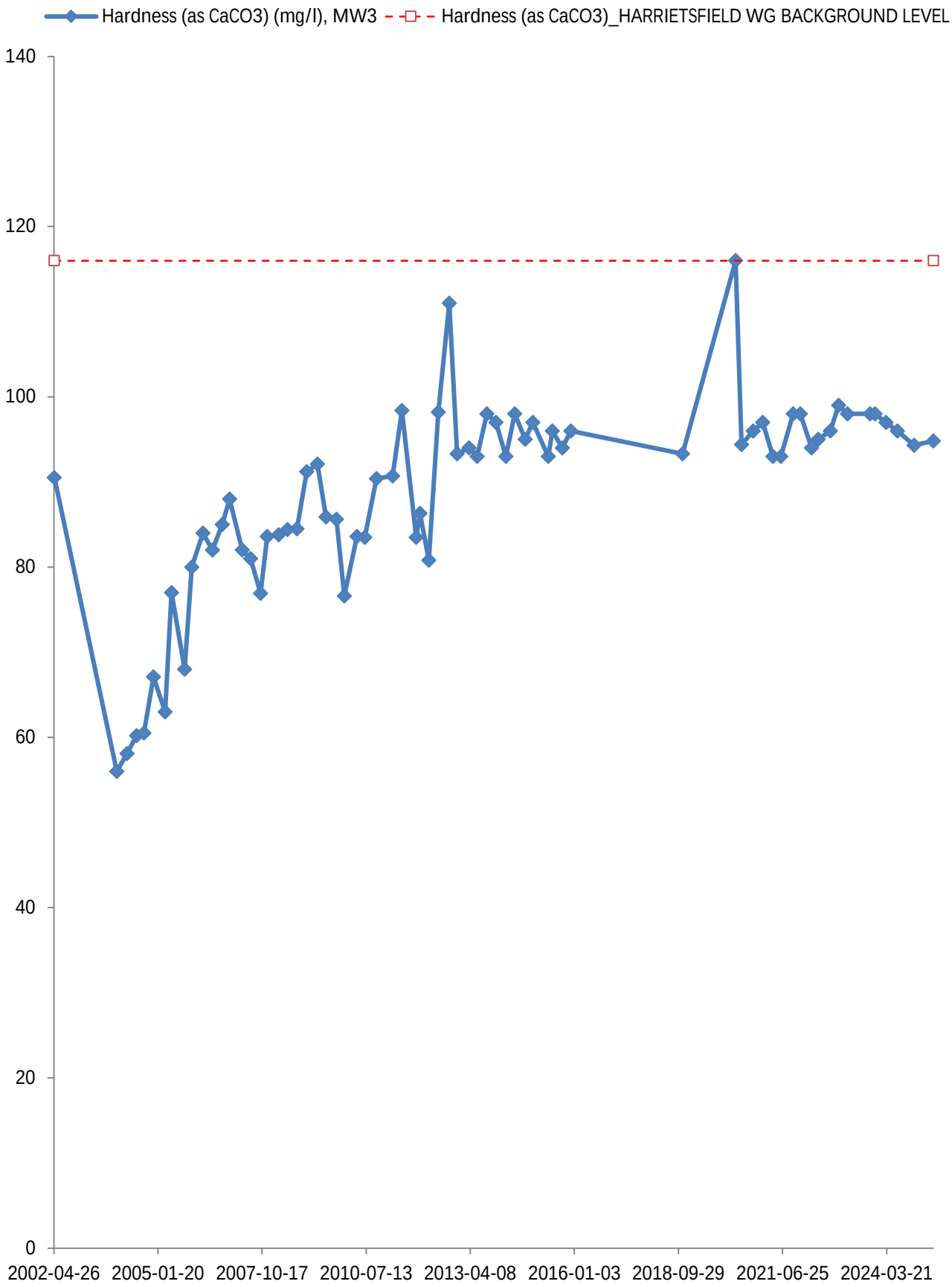

Cobalt (ug/l), MW3
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Electrical Conductivity

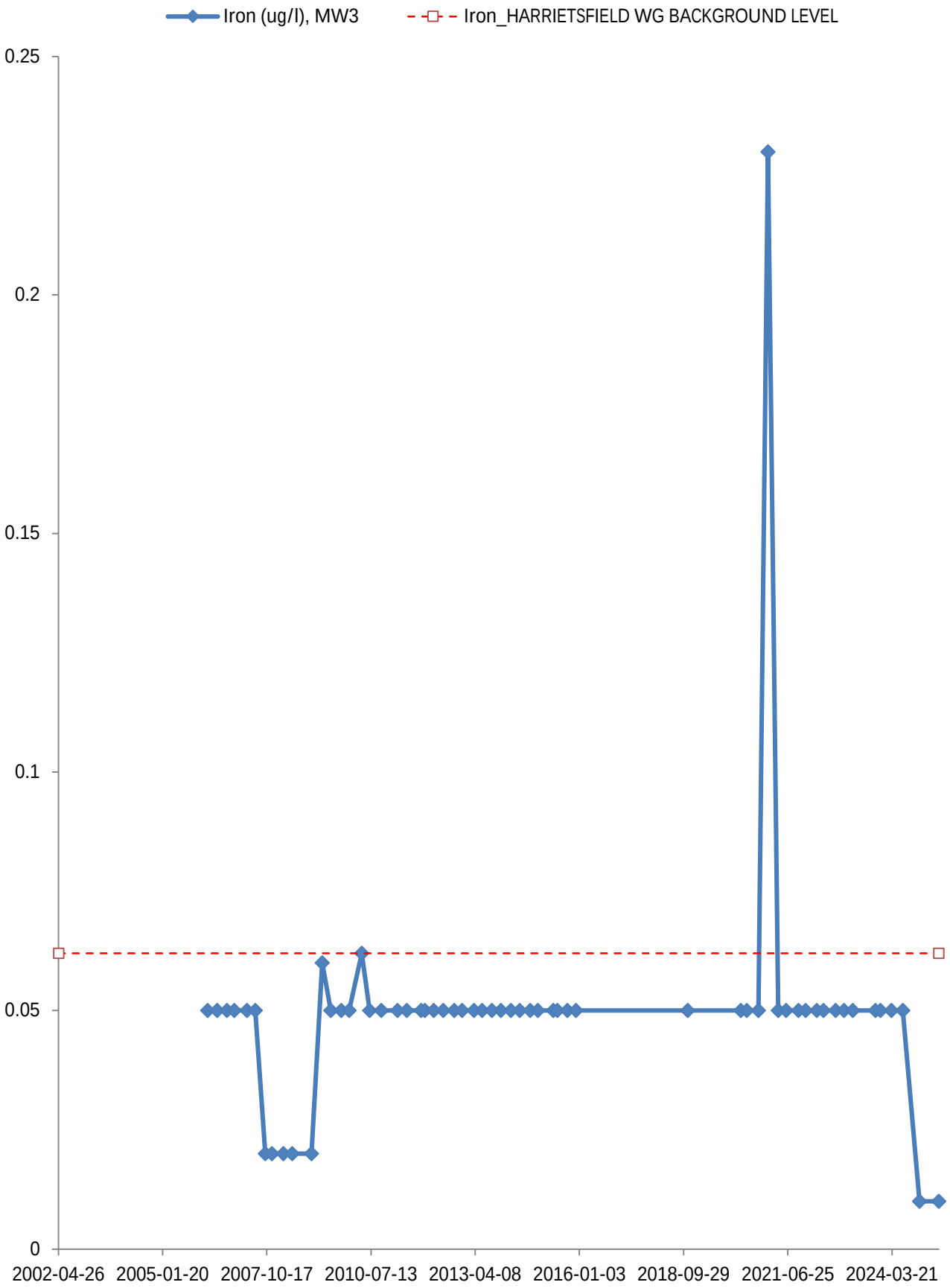


# Hardness (as CaCO3)



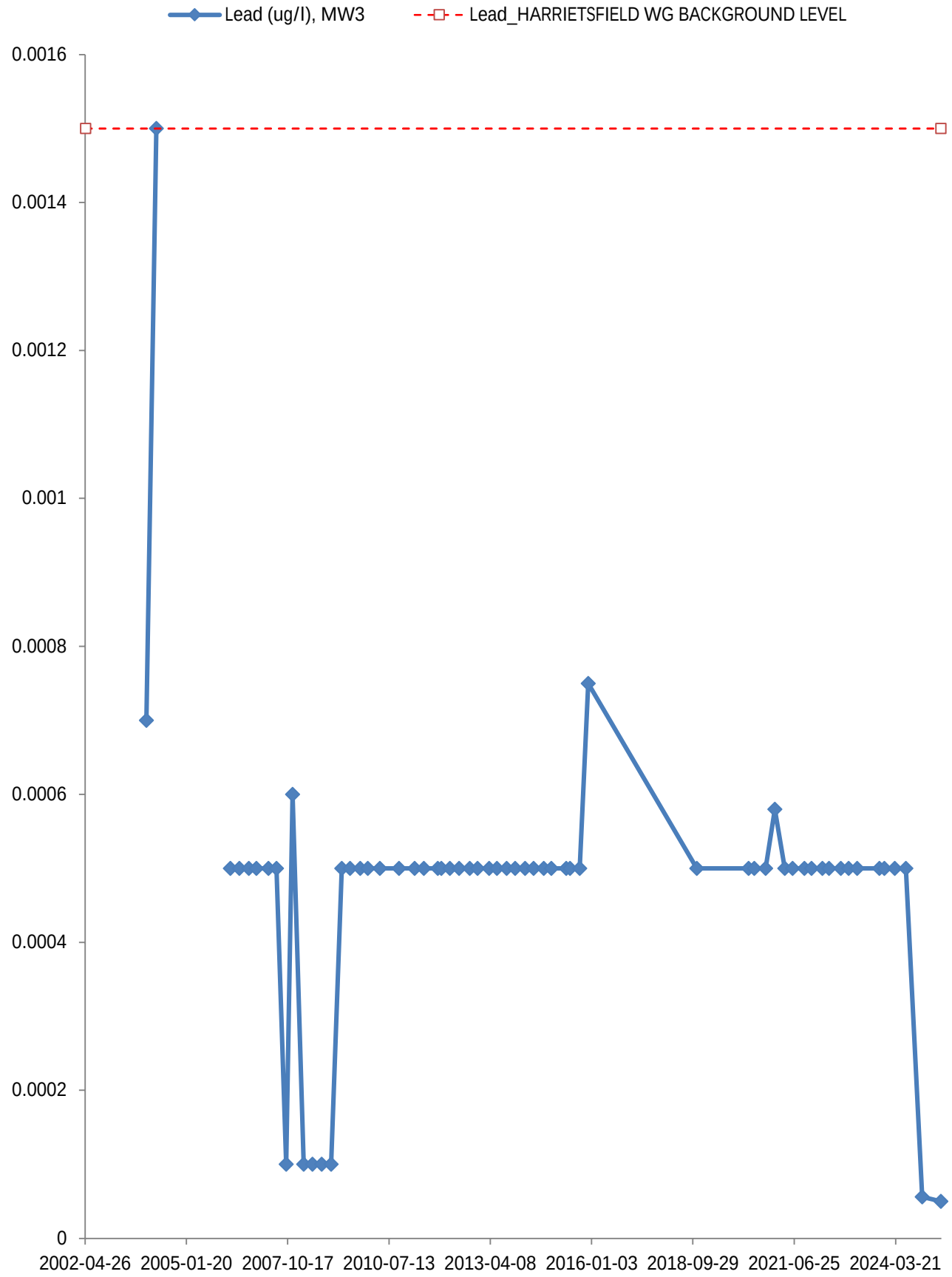


# Iron

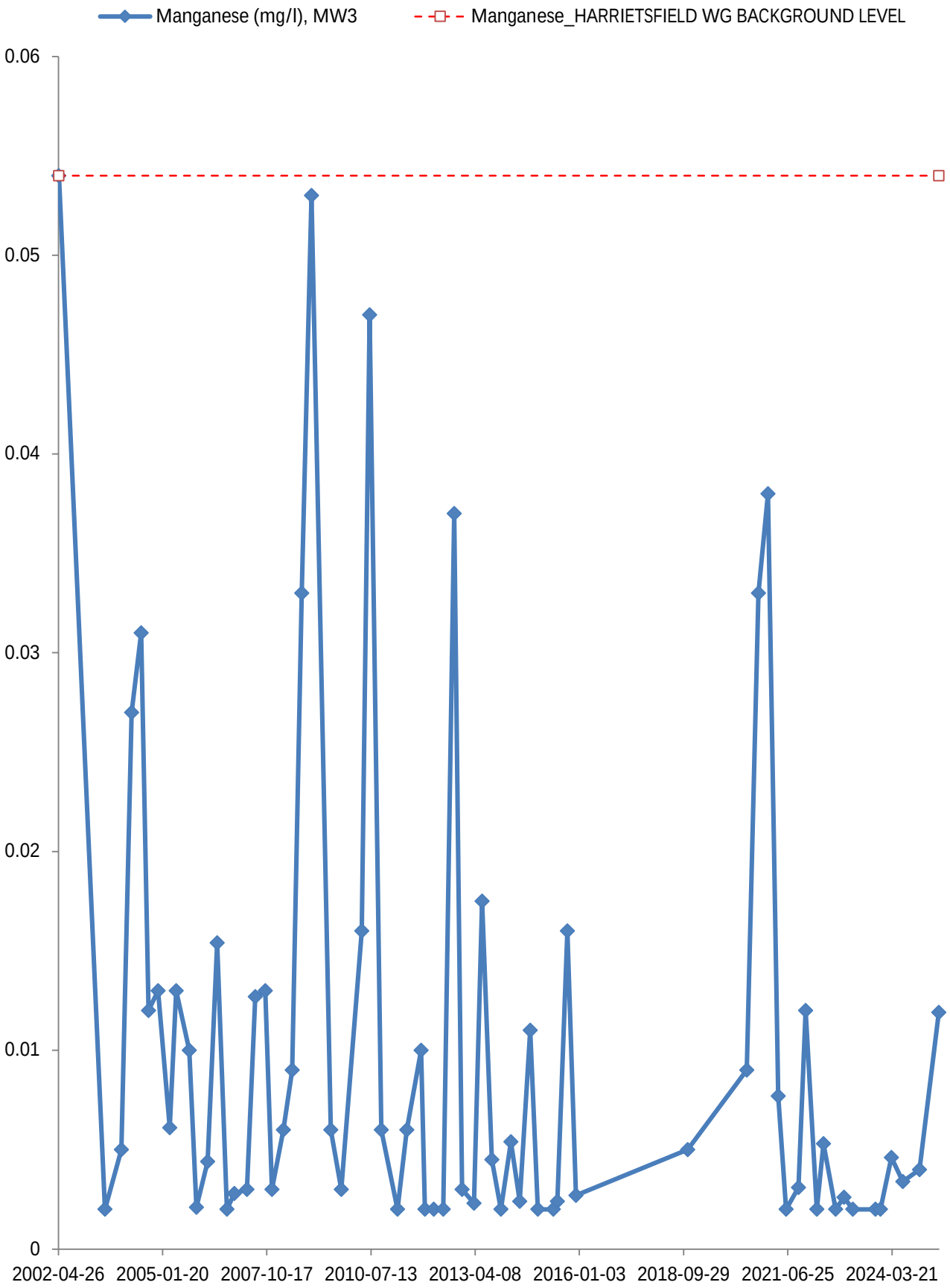

Iron (ug/l), MW3
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Lead



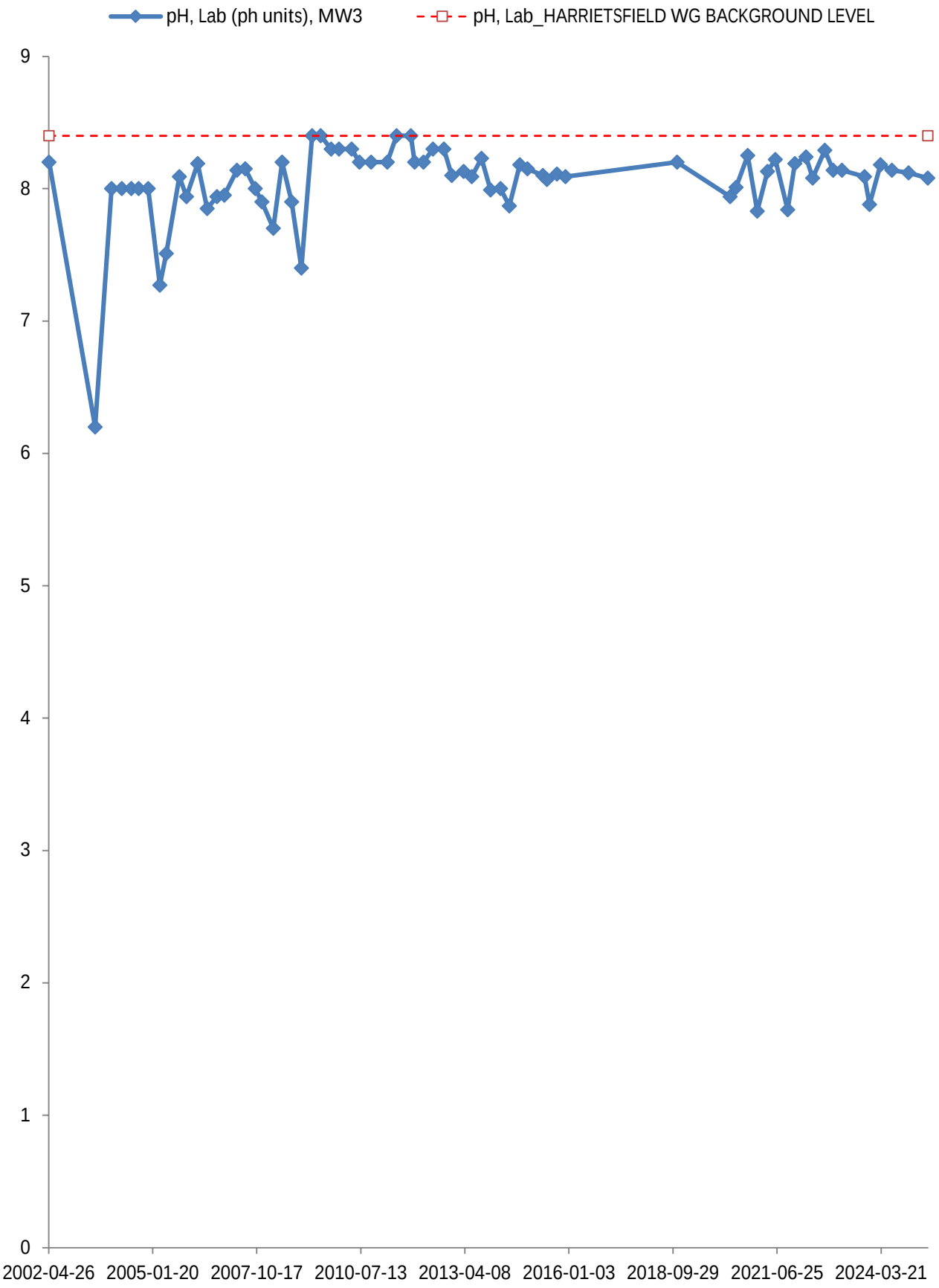

Lead (ug/l), MW3
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Manganese

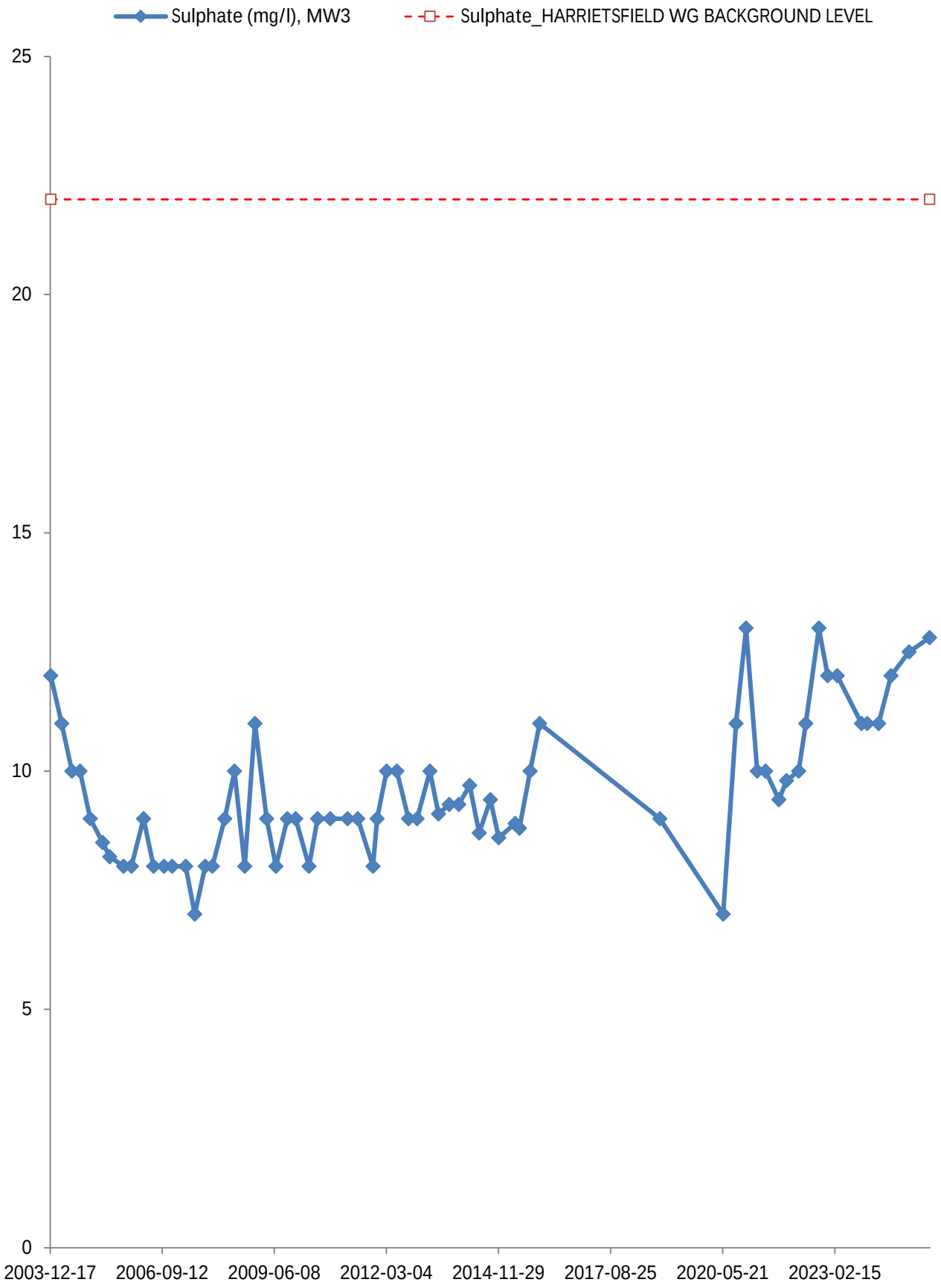

Manganese (mg/l), MW3
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# pH, Lab

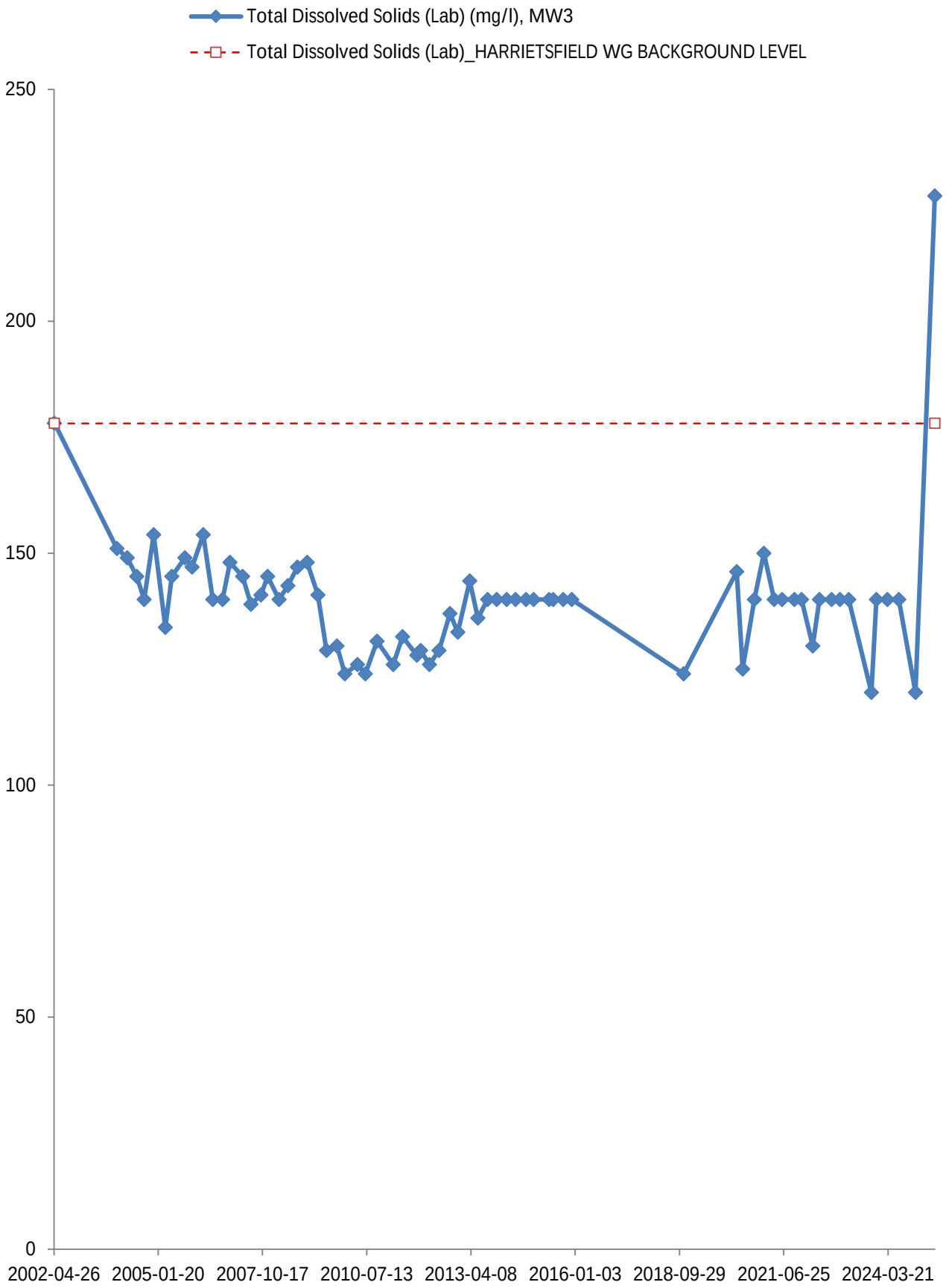



pH, Lab (ph units), MW3
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

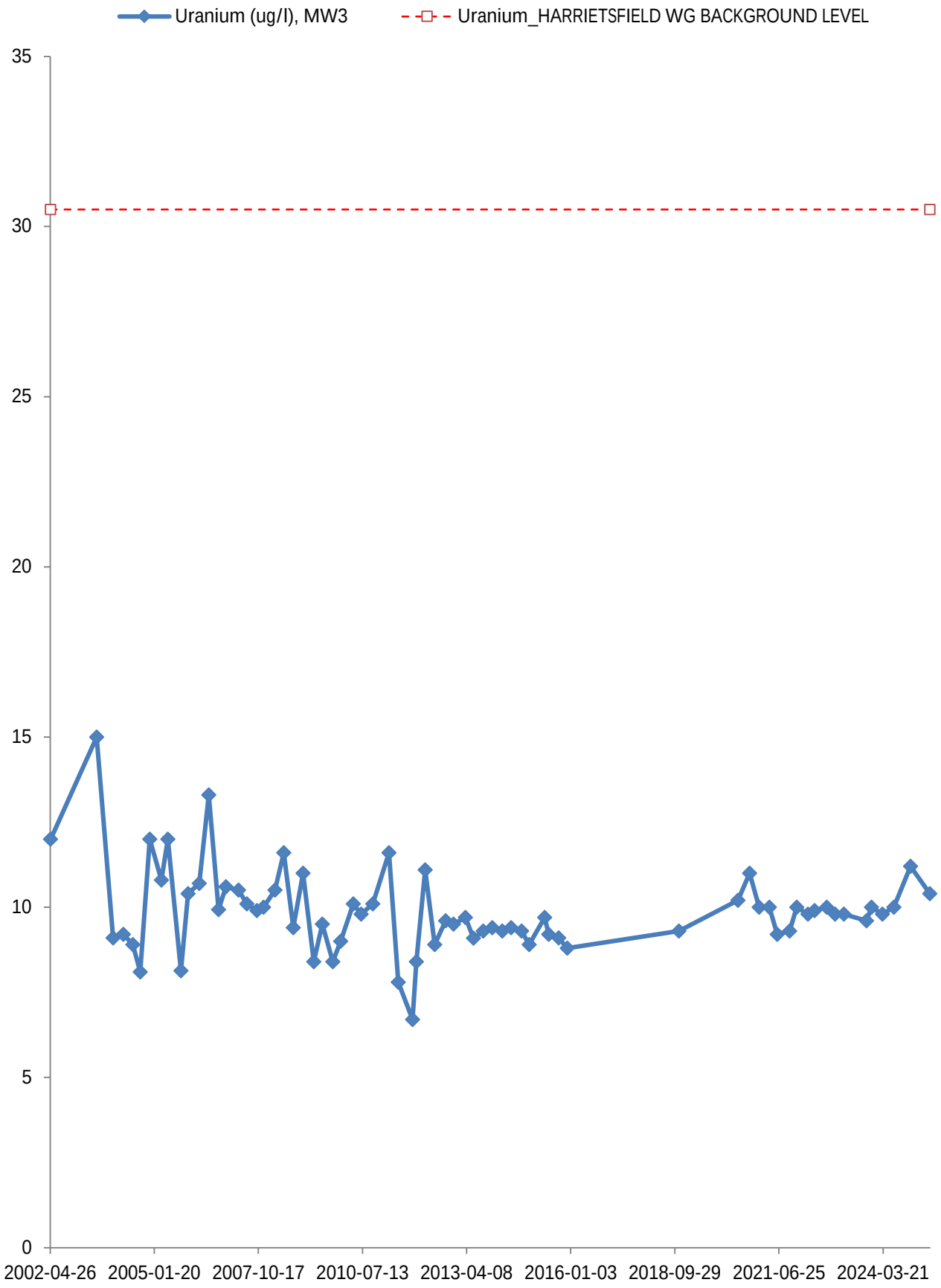
# Sulphate


Sulphate (mg/l), MW3
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2003-12-17
2006-09-12
2009-06-08
2012-03-04
2014-11-29
2017-08-25
2020-05-21
2023-02-15

# Total Dissolved Solids (5

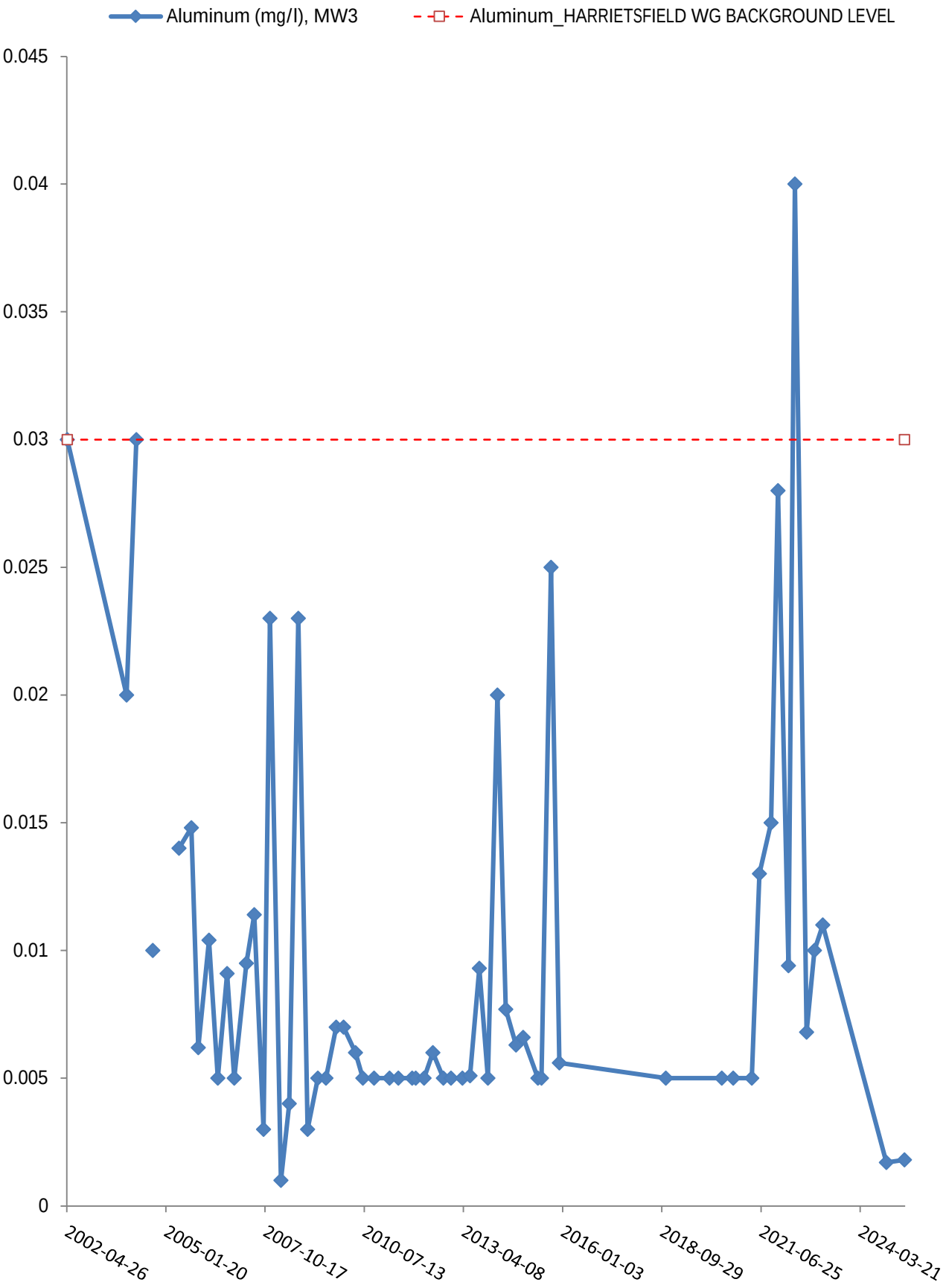


# Uranium


Uranium (ug/l), MW3
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

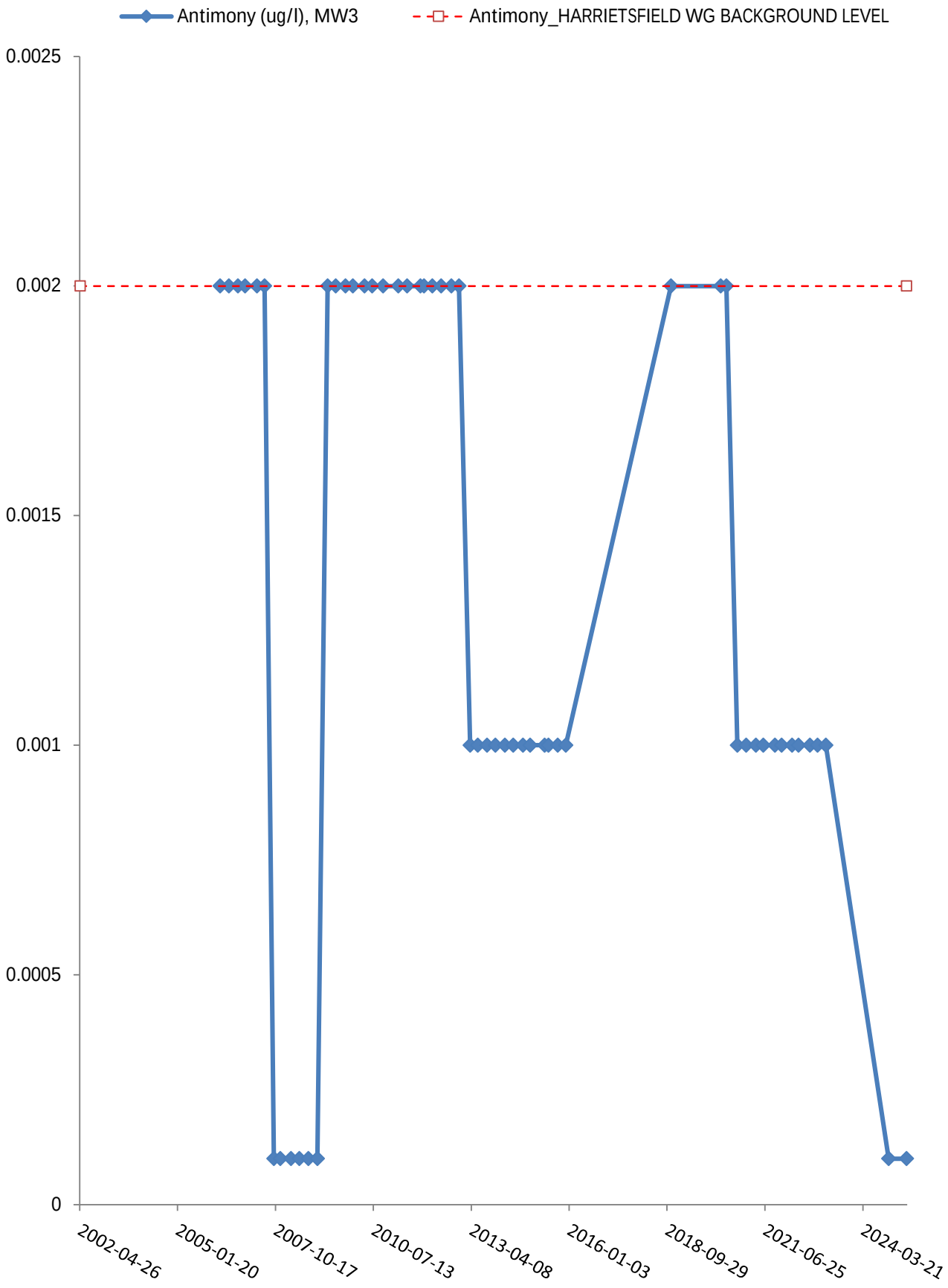
# Aluminum



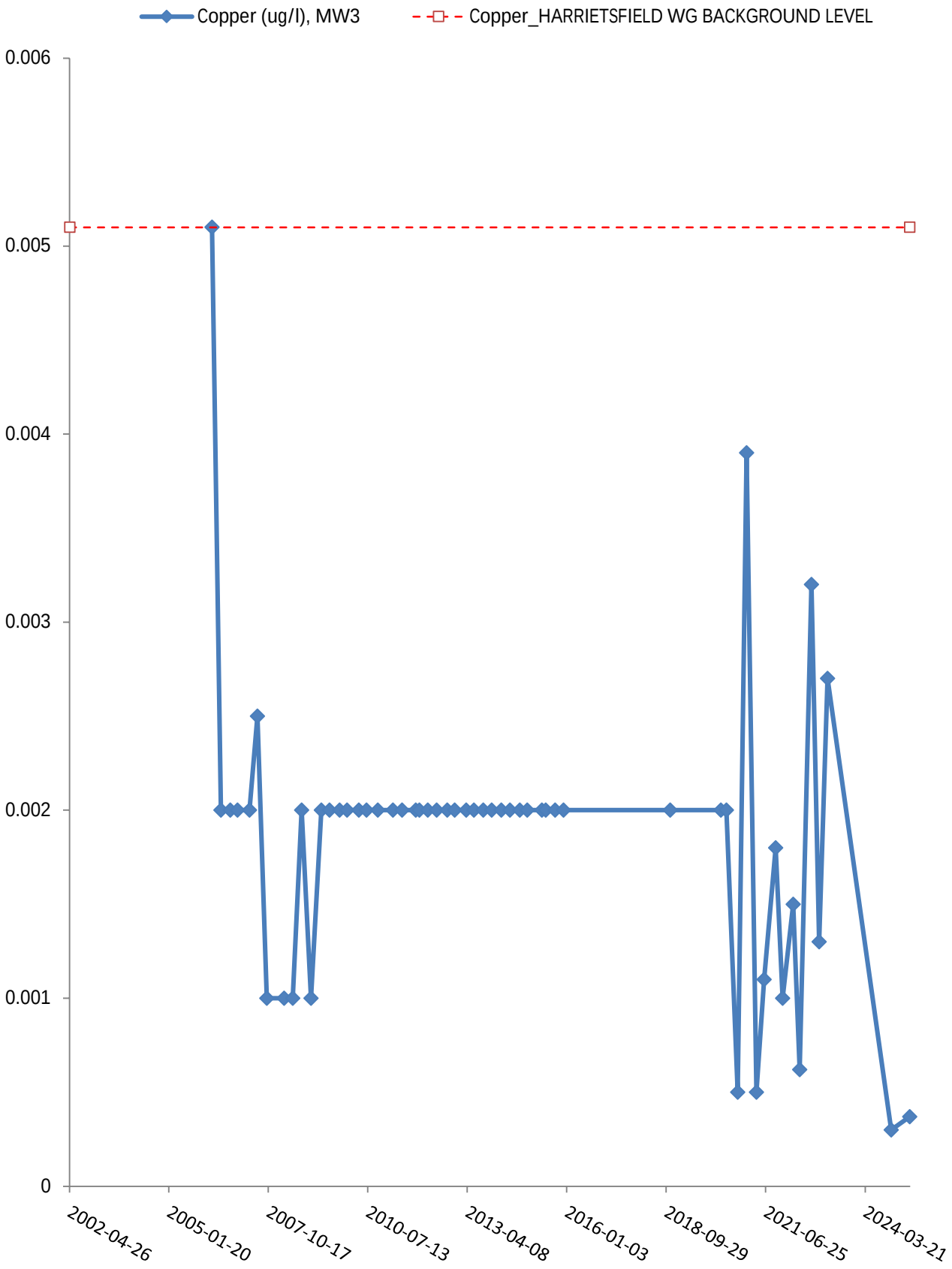

Aluminum (mg/l), MW3
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Antimony



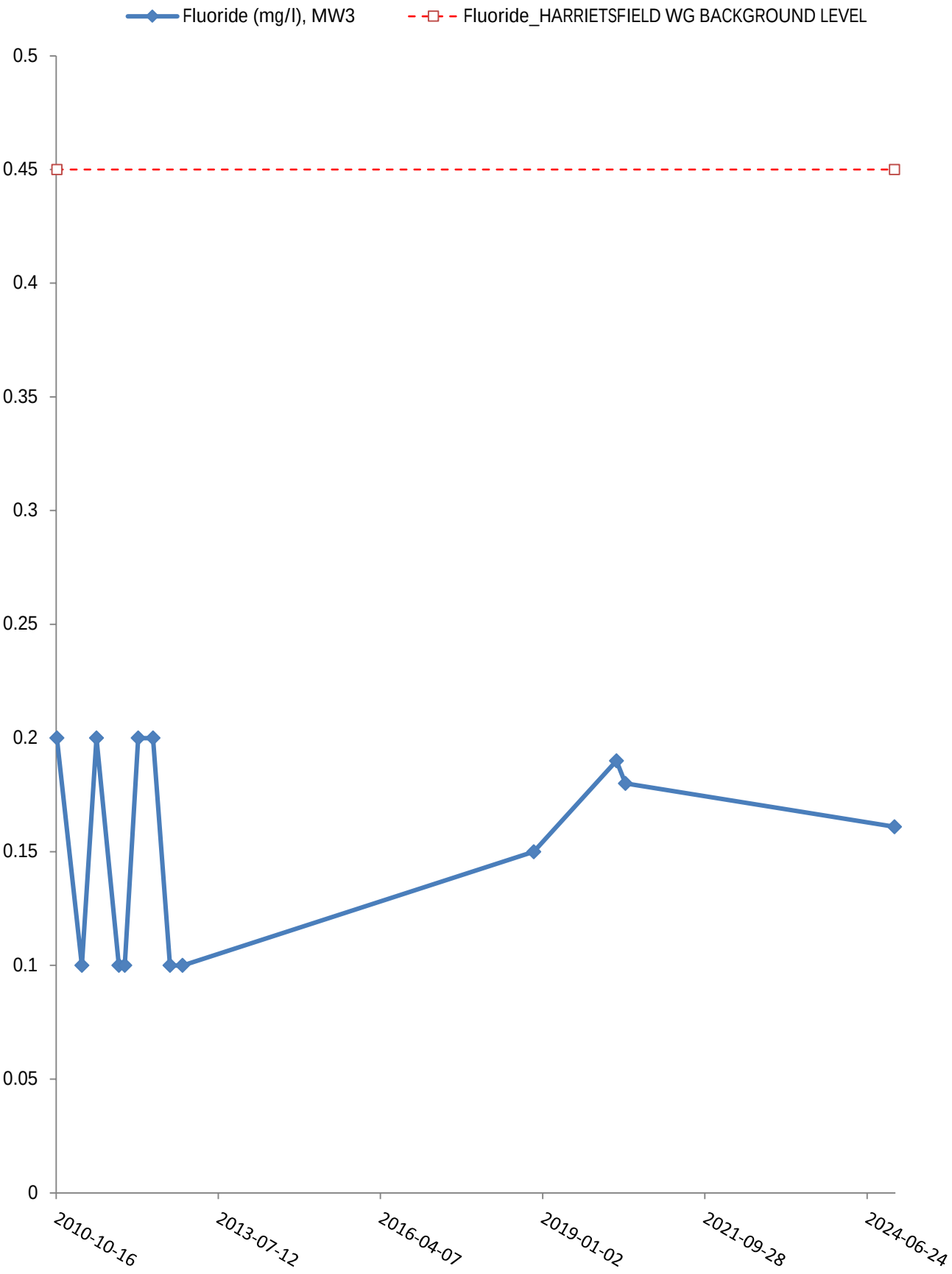

Antimony (ug/l), MW3
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Copper


Copper (ug/l), MW3
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

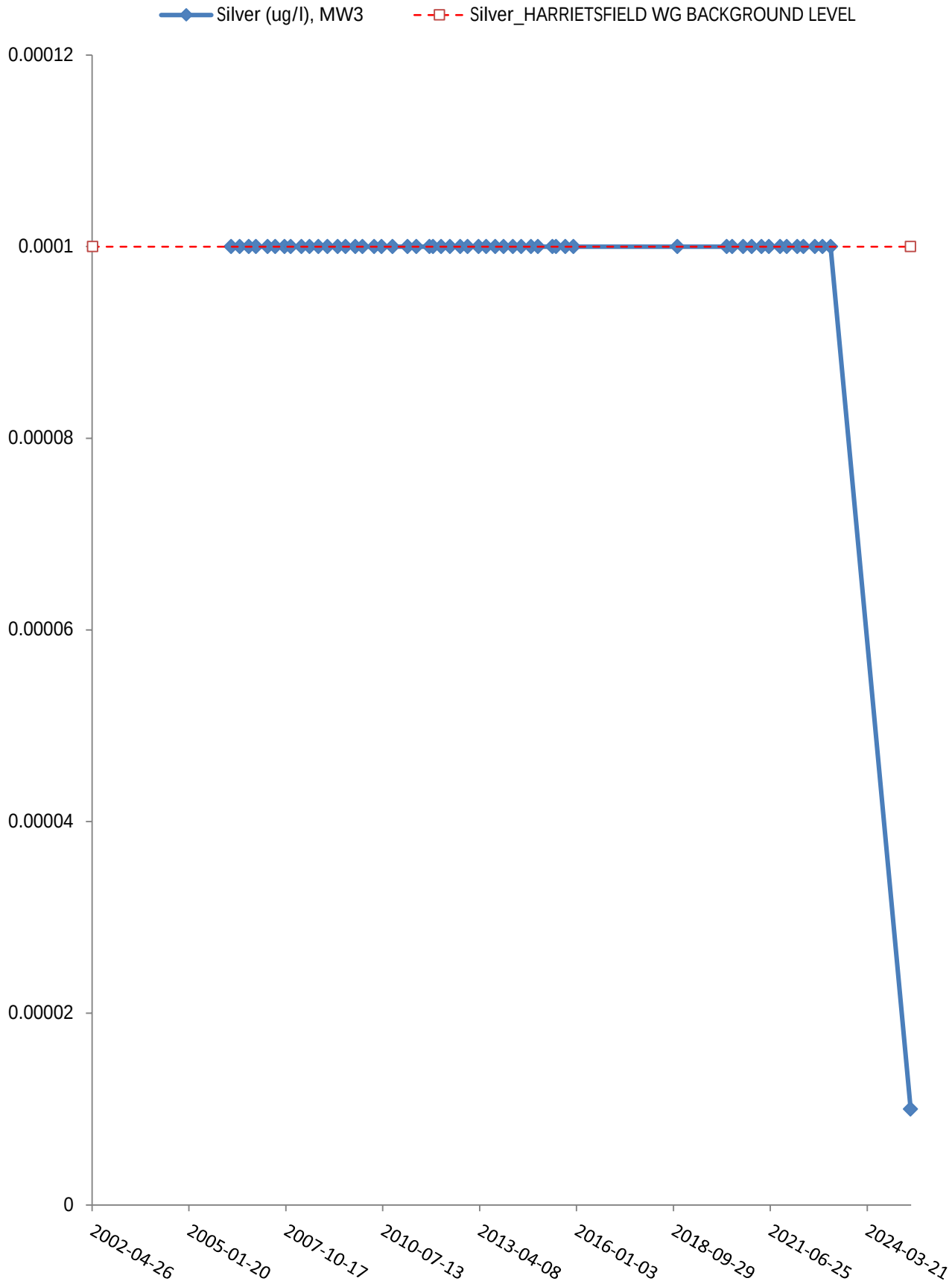
# Fluoride



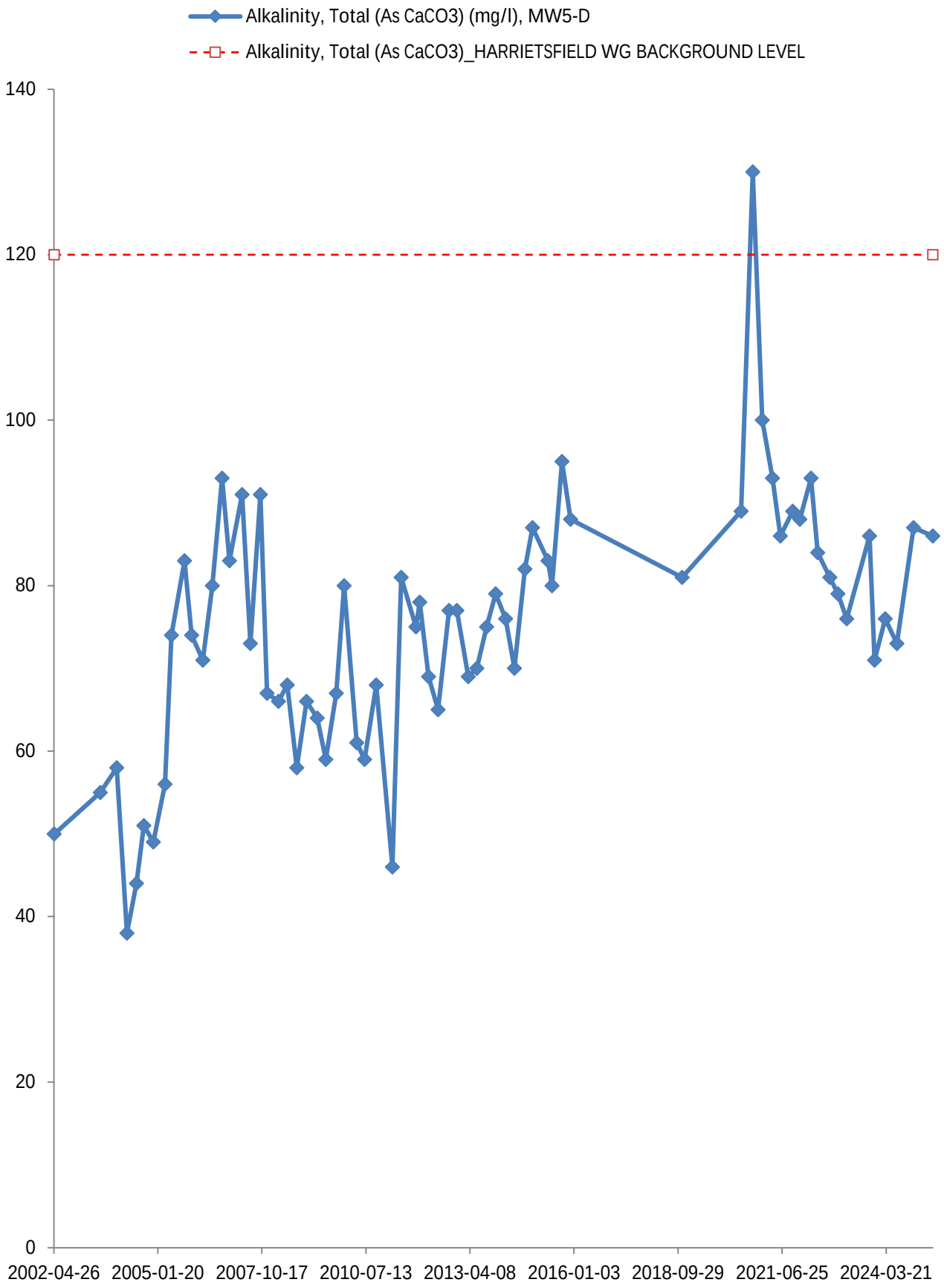

Fluoride (mg/l), MW3
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver

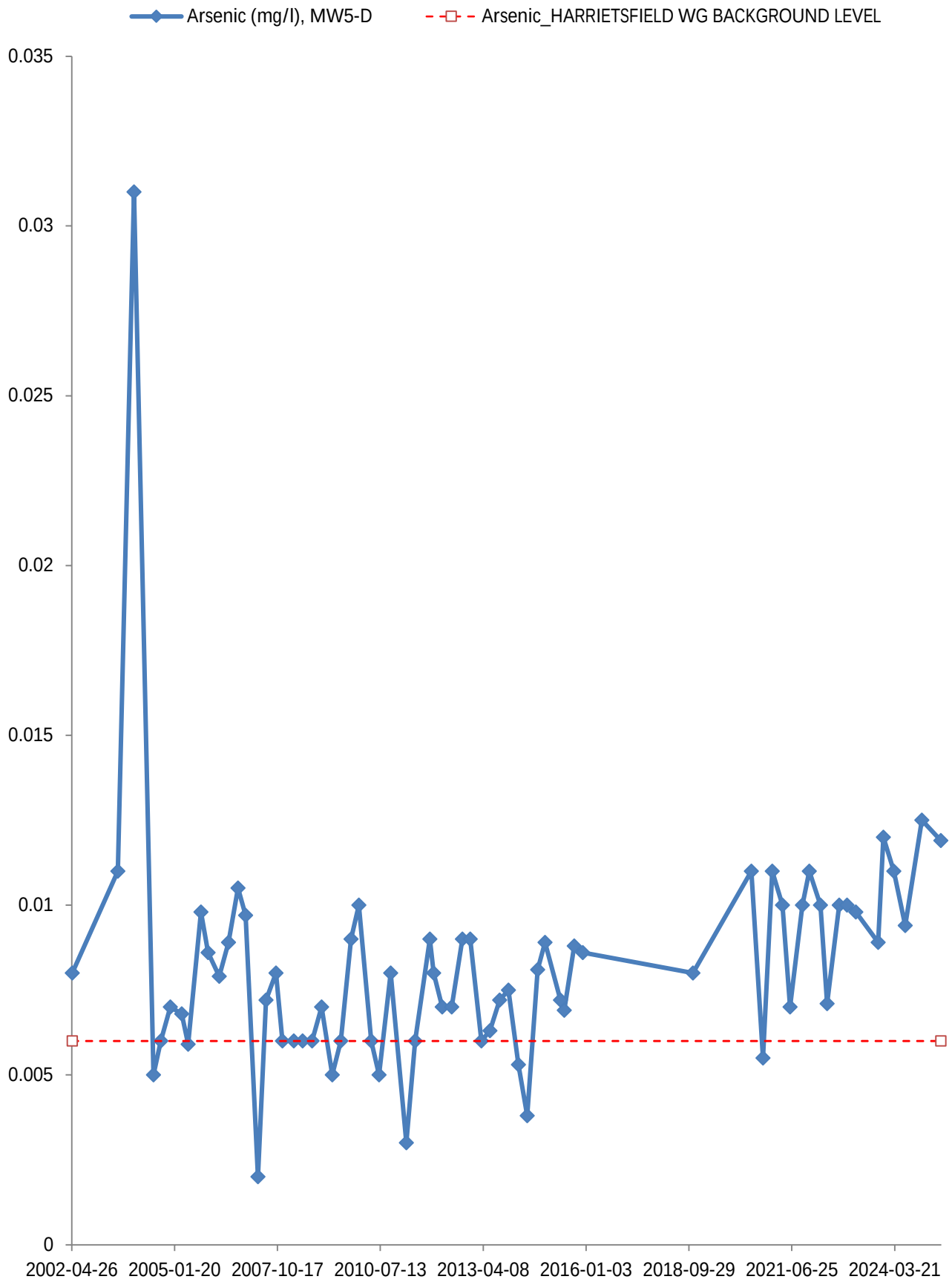



Silver (ug/l), MW3
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Alkalinity, Total

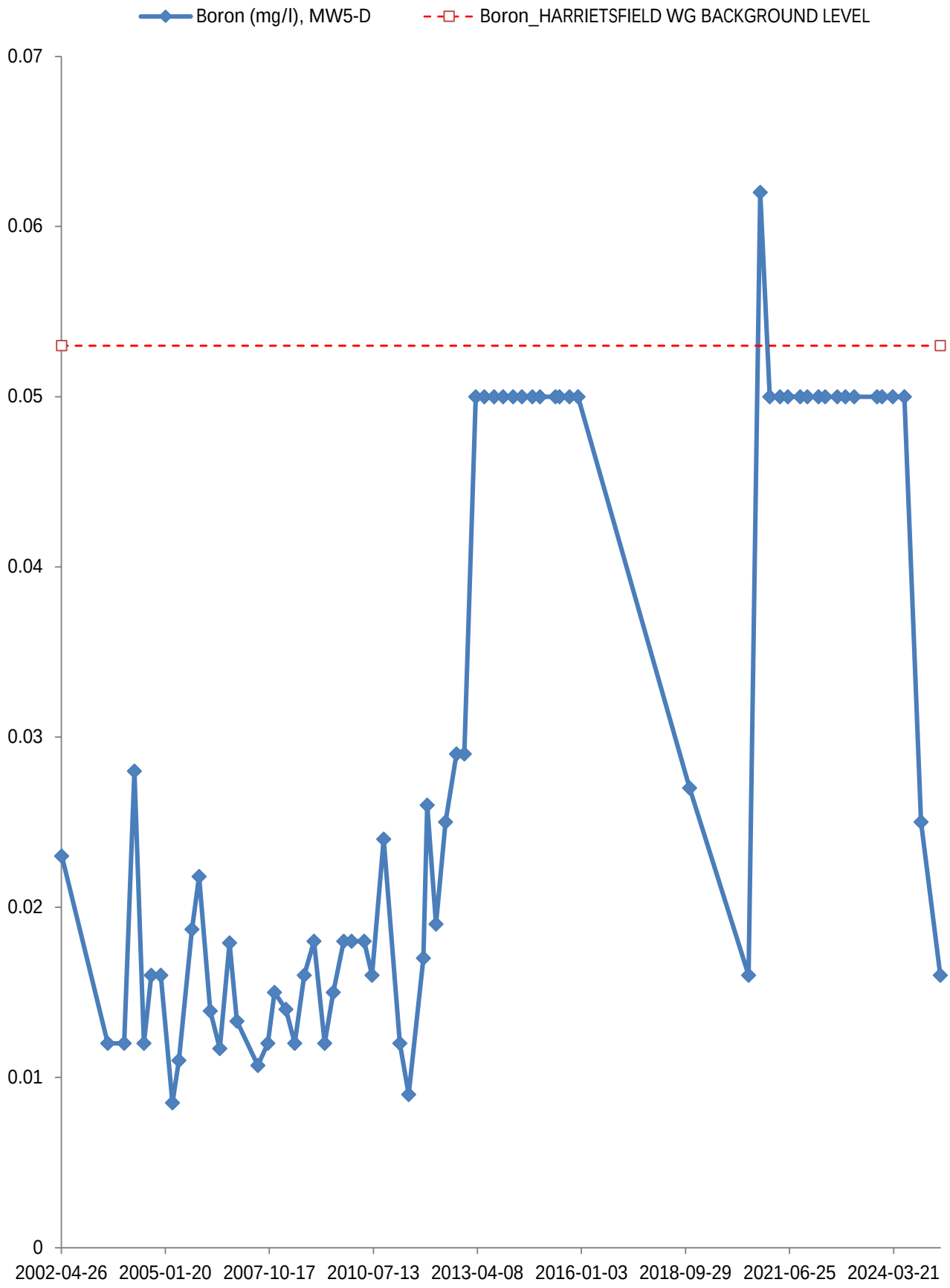


# Arsenic

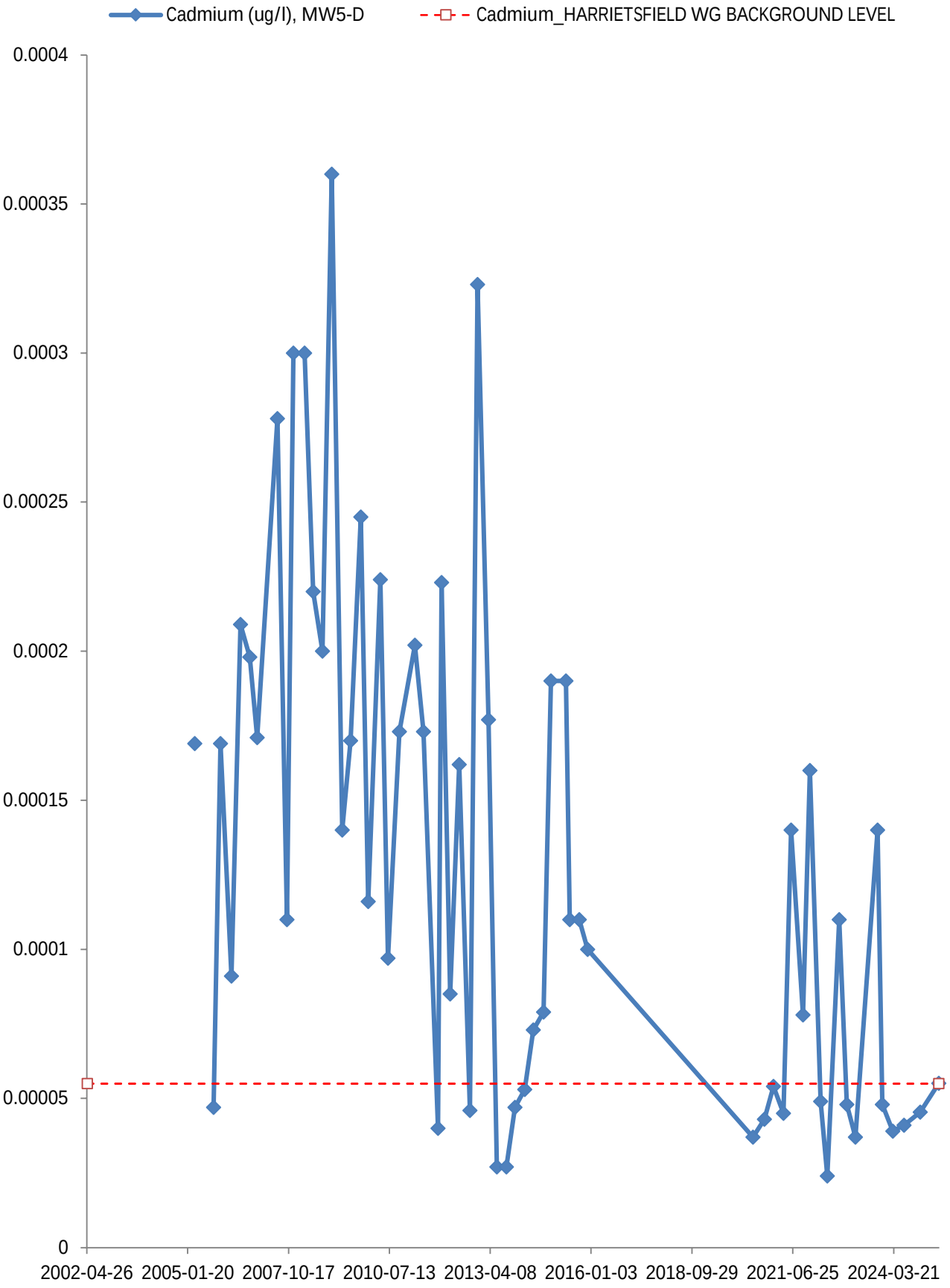

Arsenic (mg/l), MW5-D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Boron

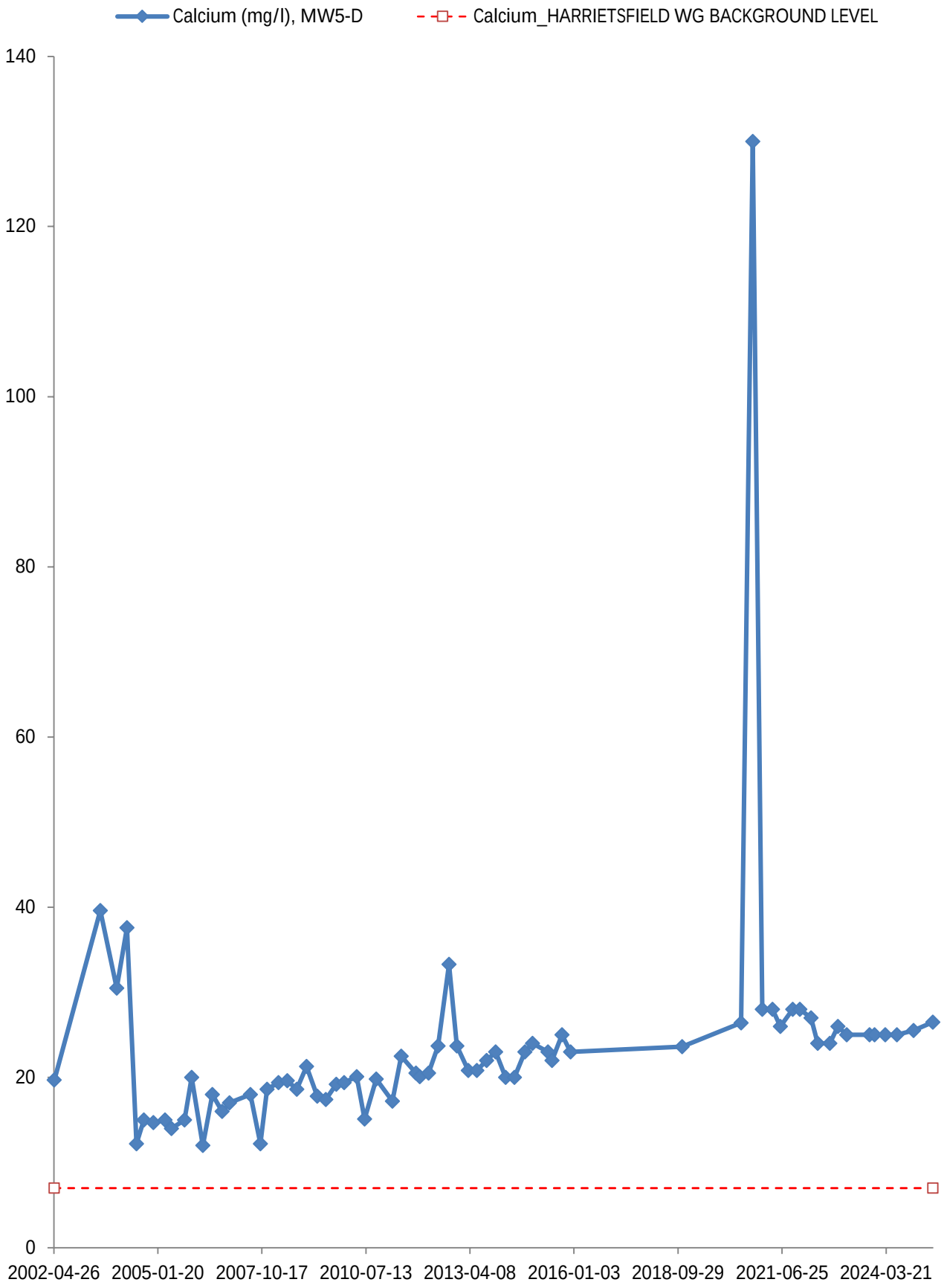



Boron (mg/l), MW5-D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

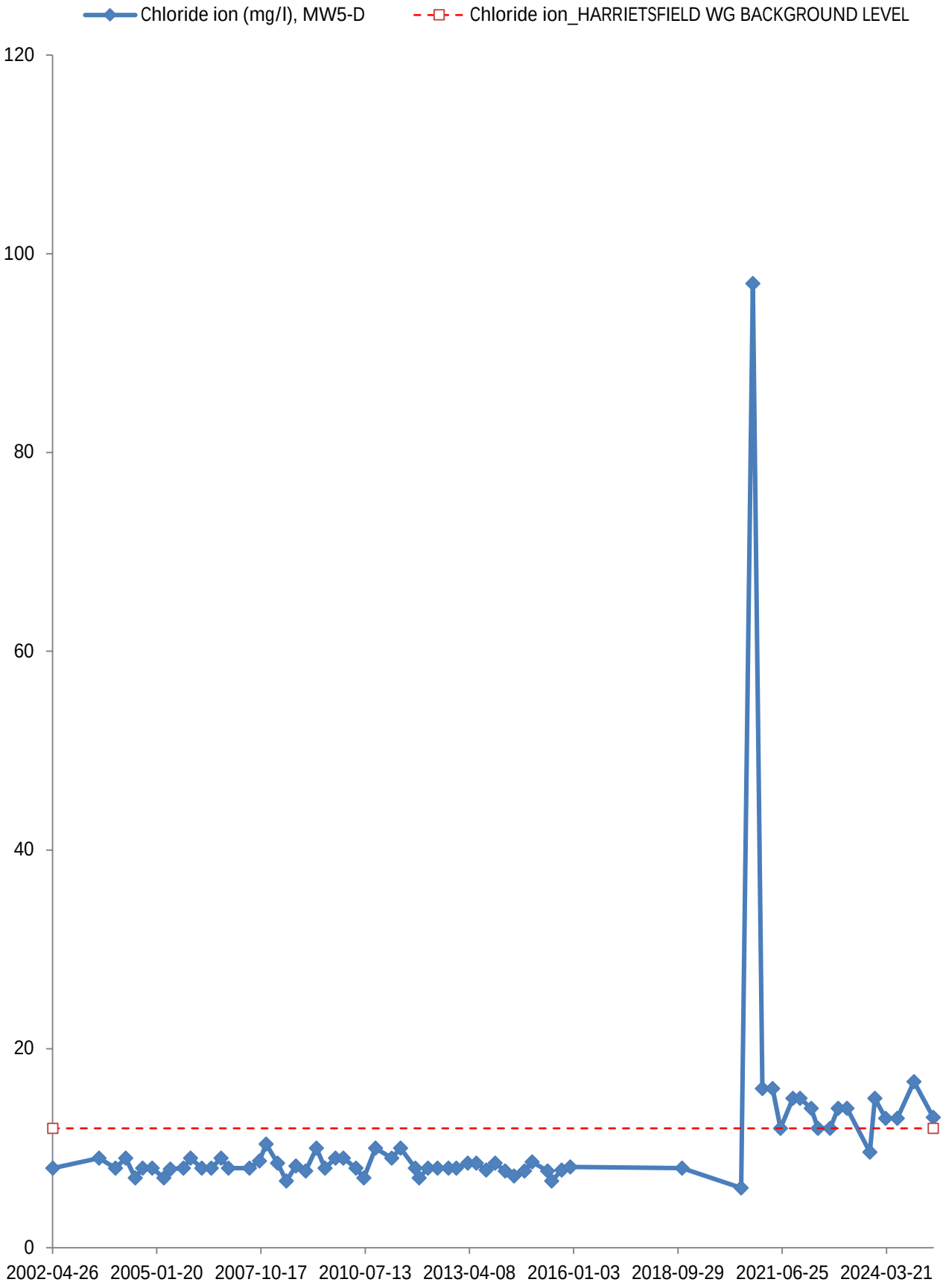
# Cadmium


Cadmium (ug/l), MW5-D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

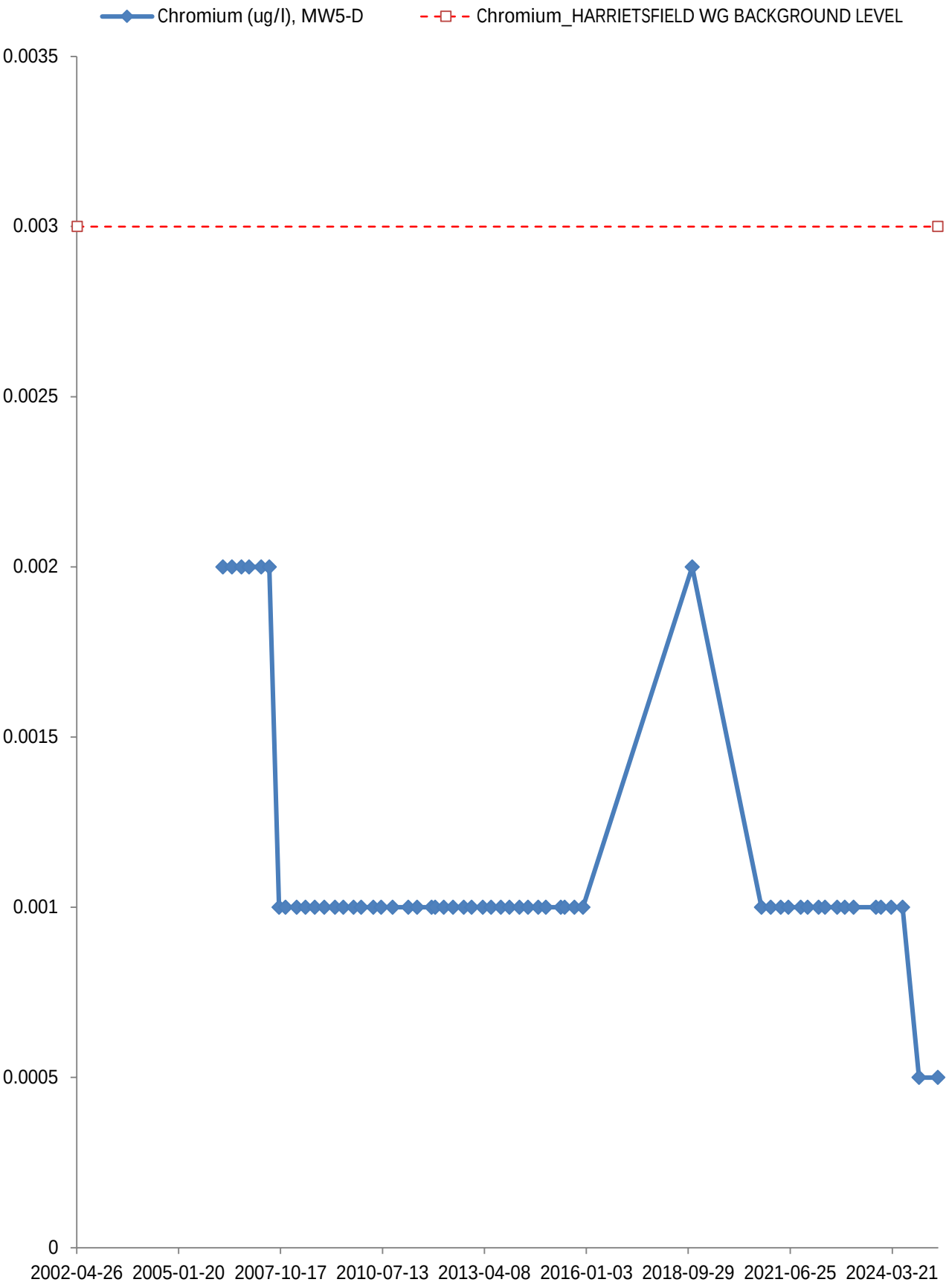
# Calcium


Calcium (mg/l), MW5-D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
140
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

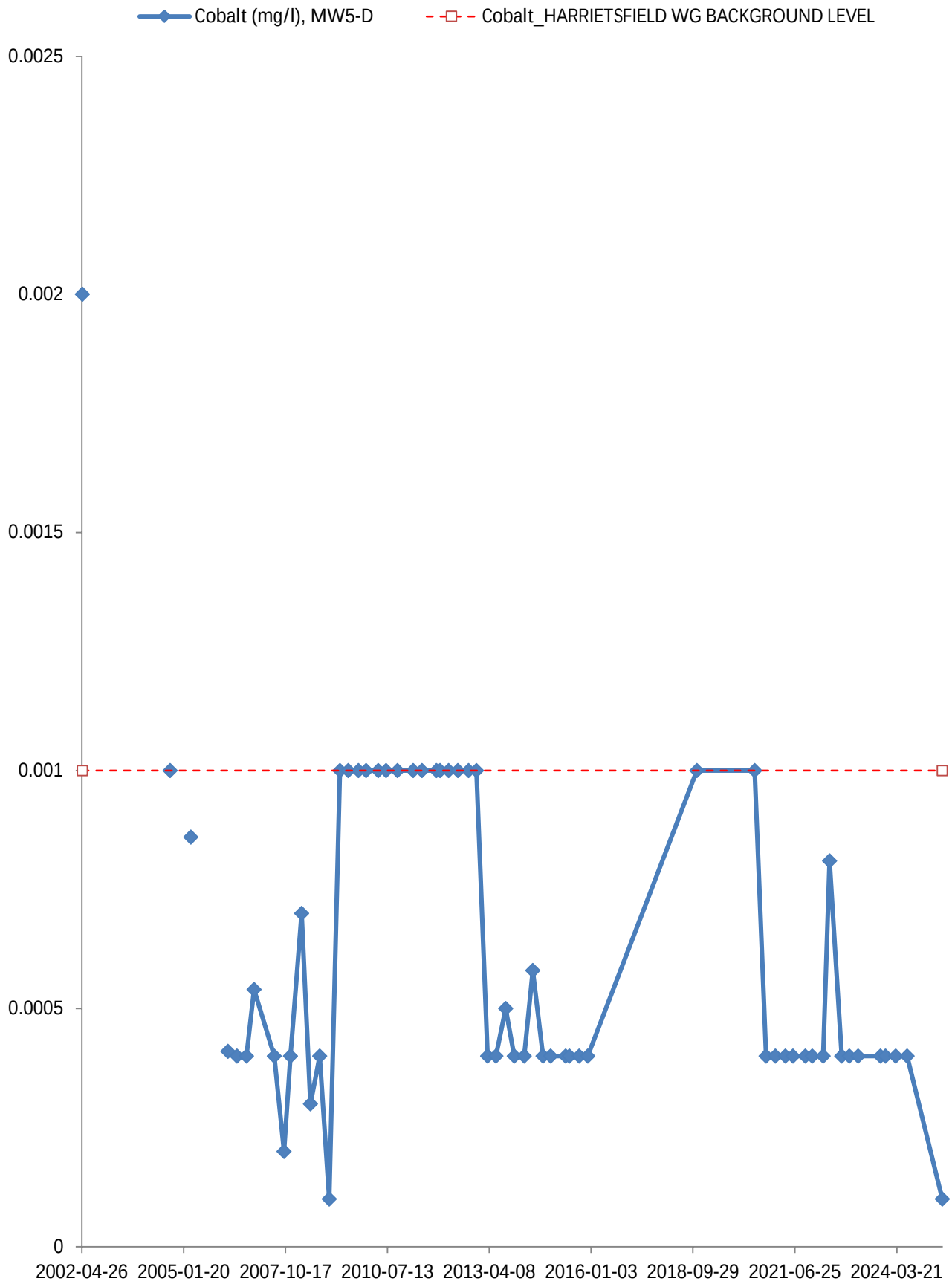
# Chloride ion



# Chromium

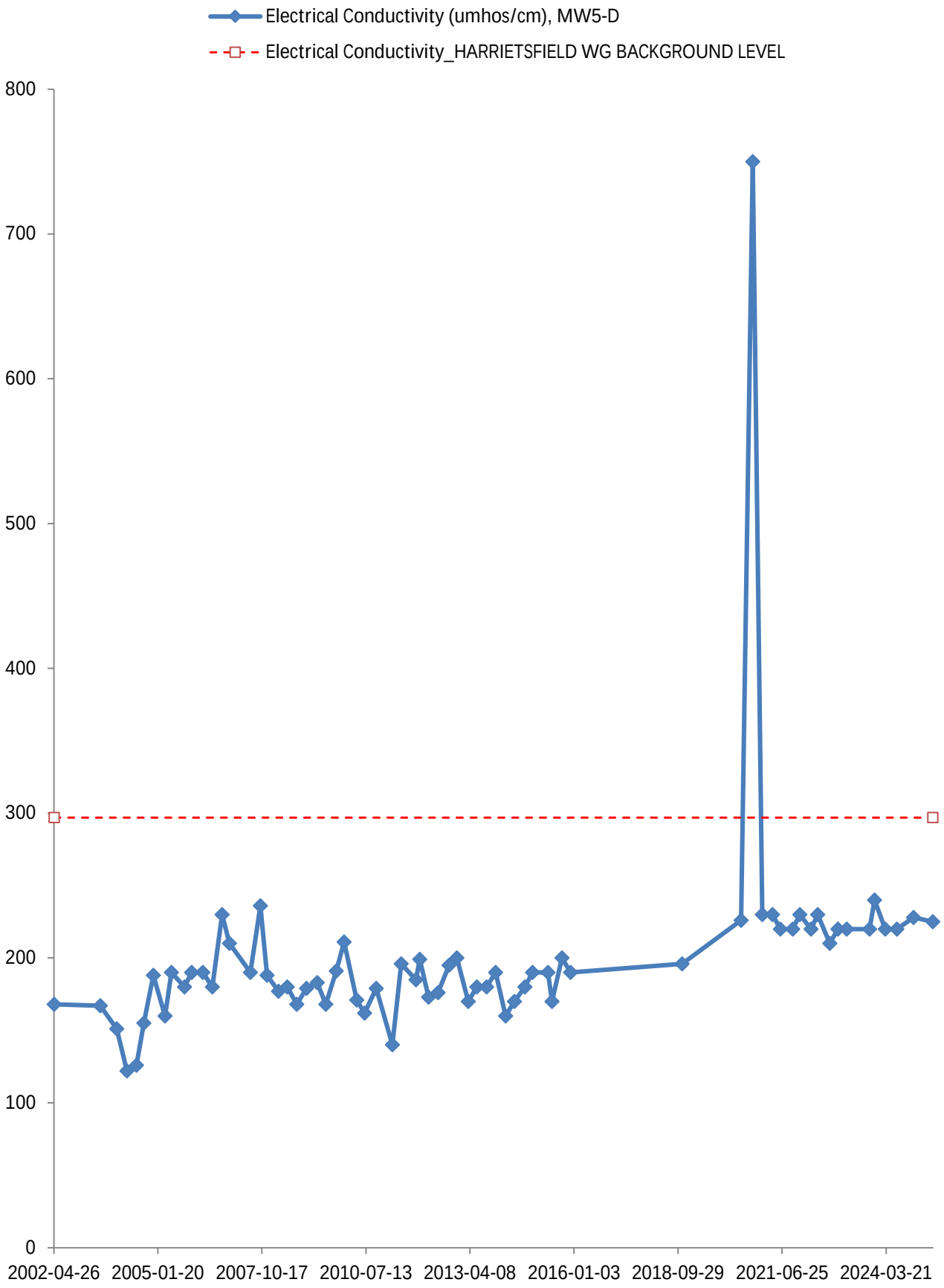

Chromium (ug/l), MW5-D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cobalt


Cobalt (mg/l), MW5-D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

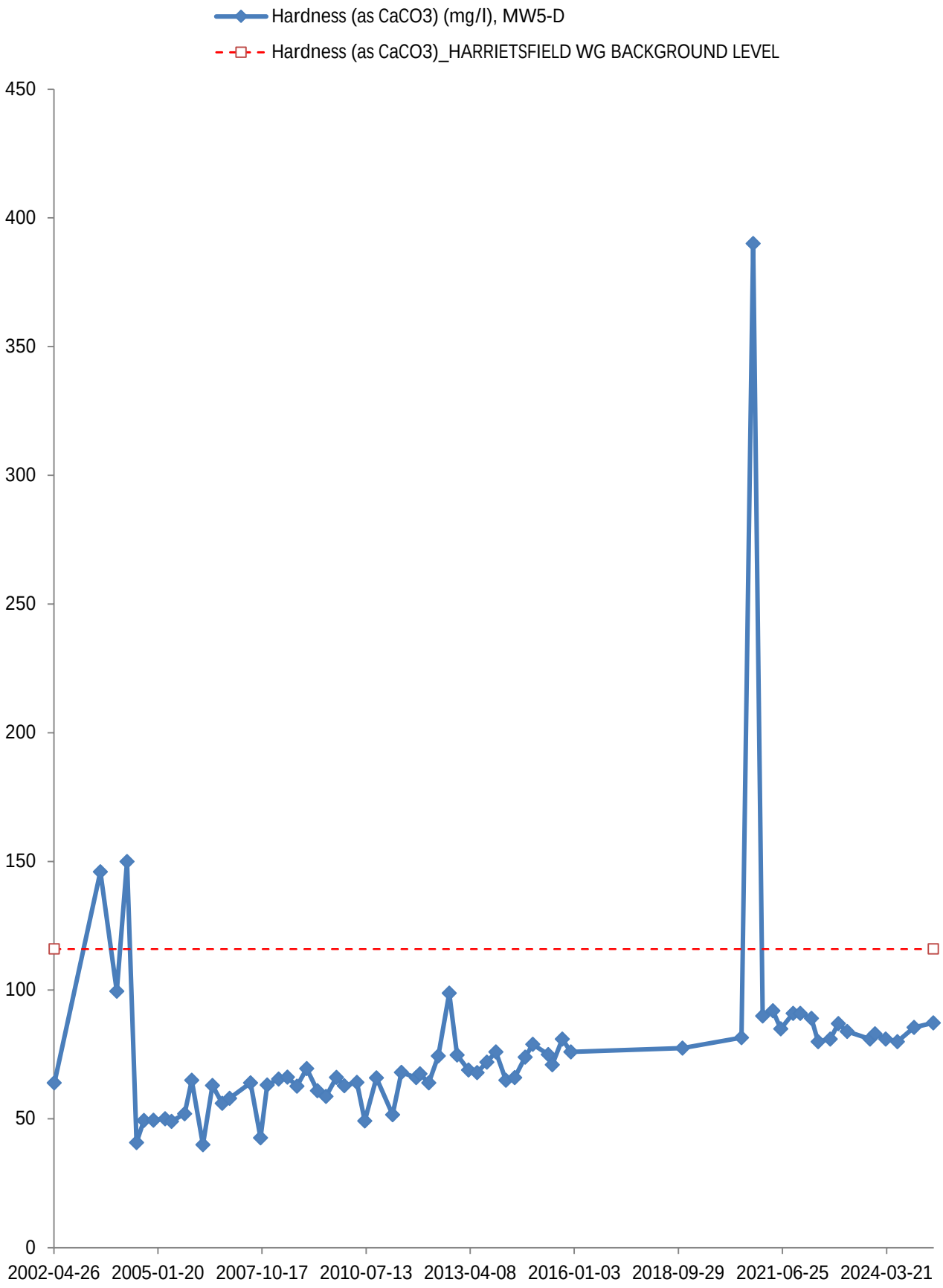
# Electrical Conductivity



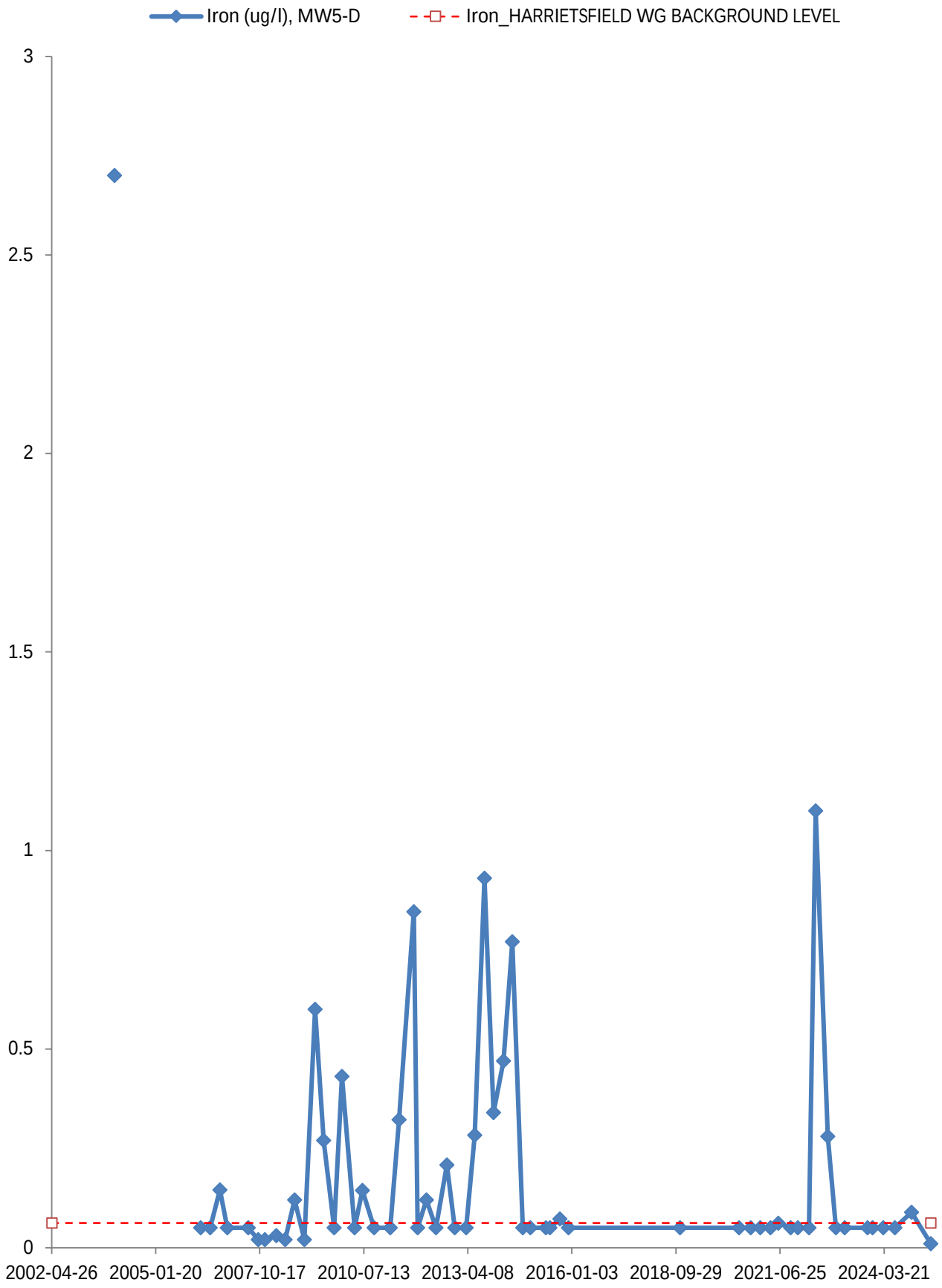


# Hardness (as CaCO3)



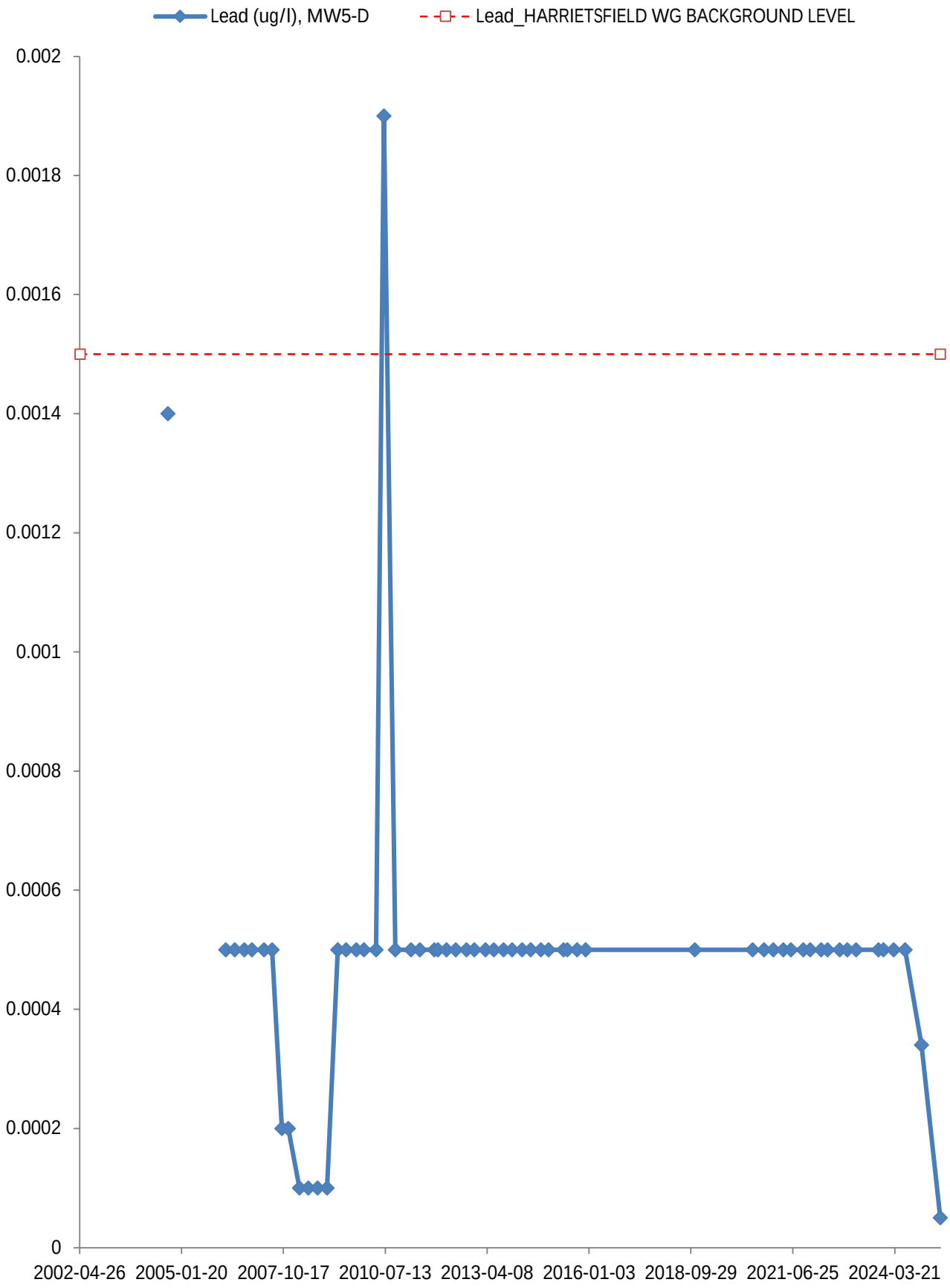


# Iron

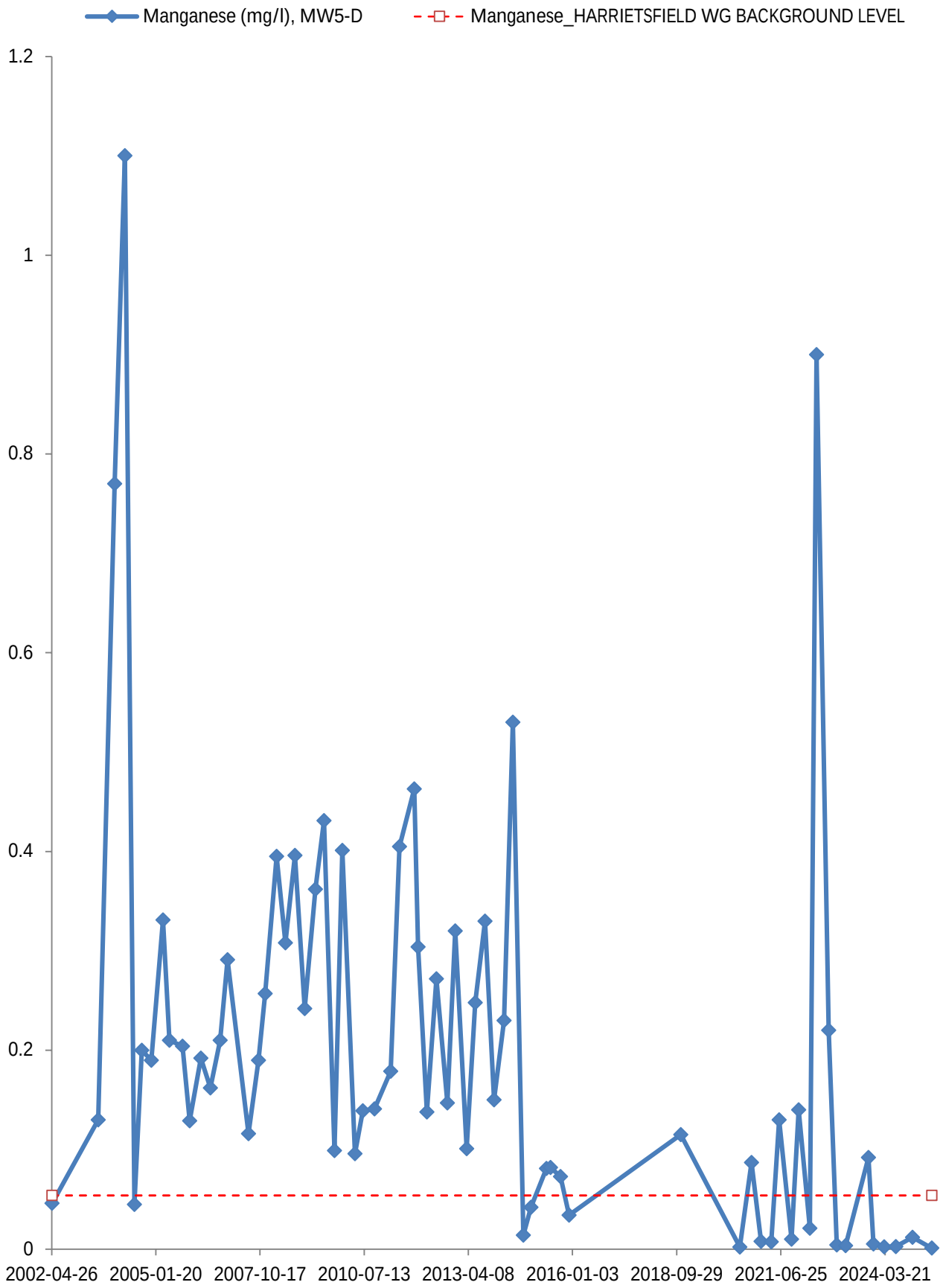

Iron (ug/l), MW5-D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
3
2.5
2
1.5
1
0.5
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Lead



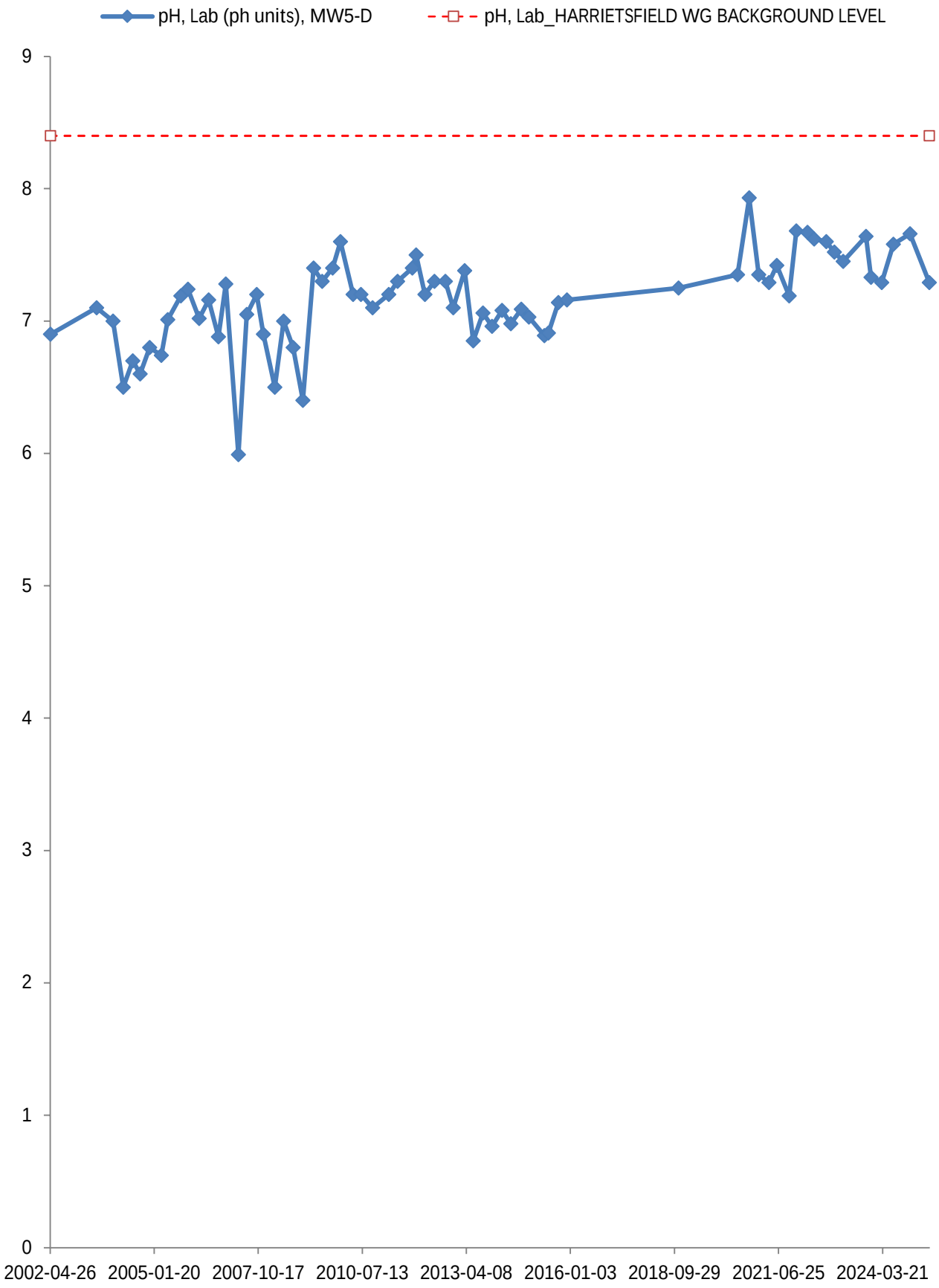

Lead (ug/l), MW5-D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.002
0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Manganese


Manganese (mg/l), MW5-D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
1.2
1
0.8
0.6
0.4
0.2
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

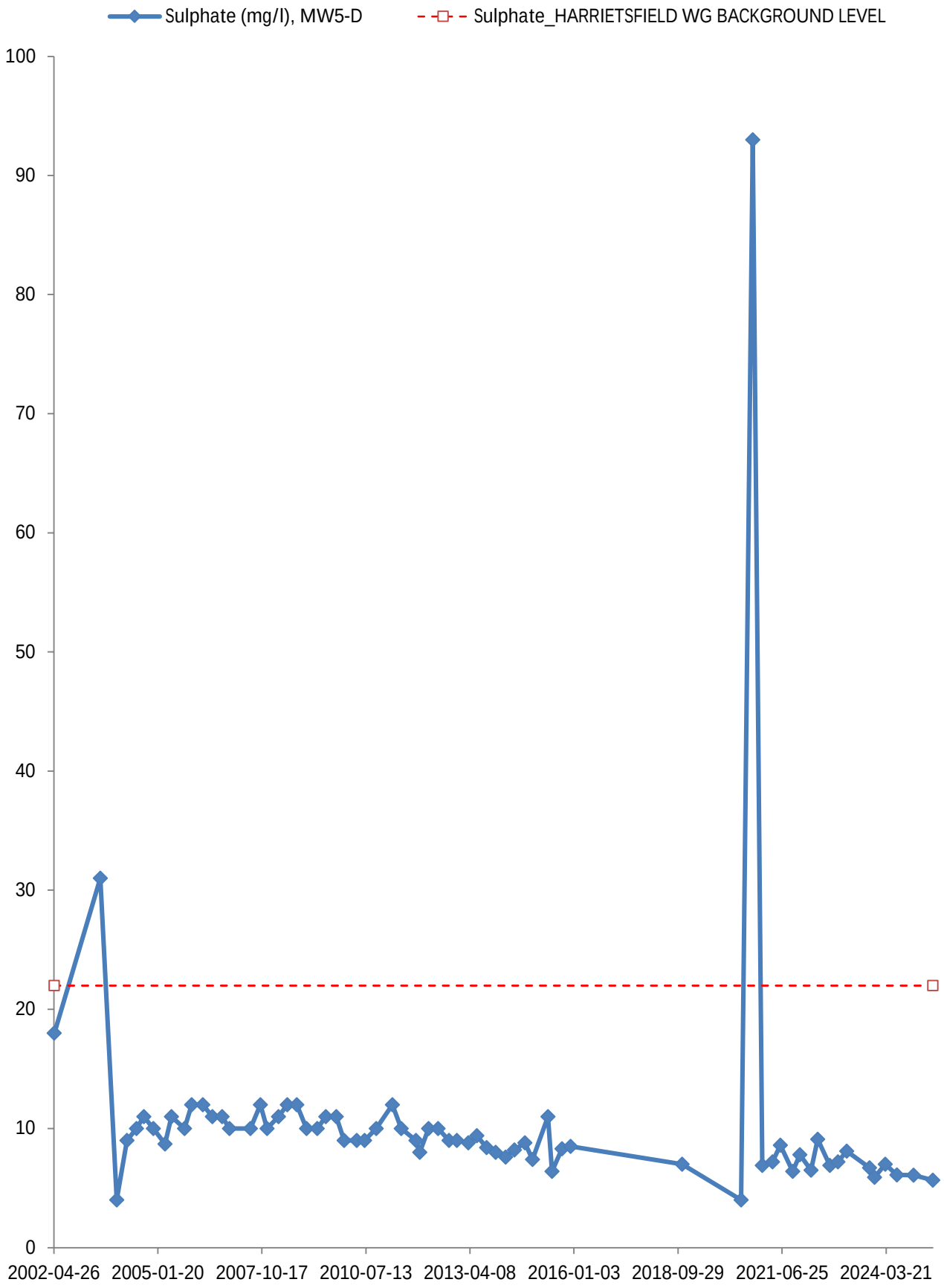
# pH, Lab




pH, Lab (ph units), MW5-D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

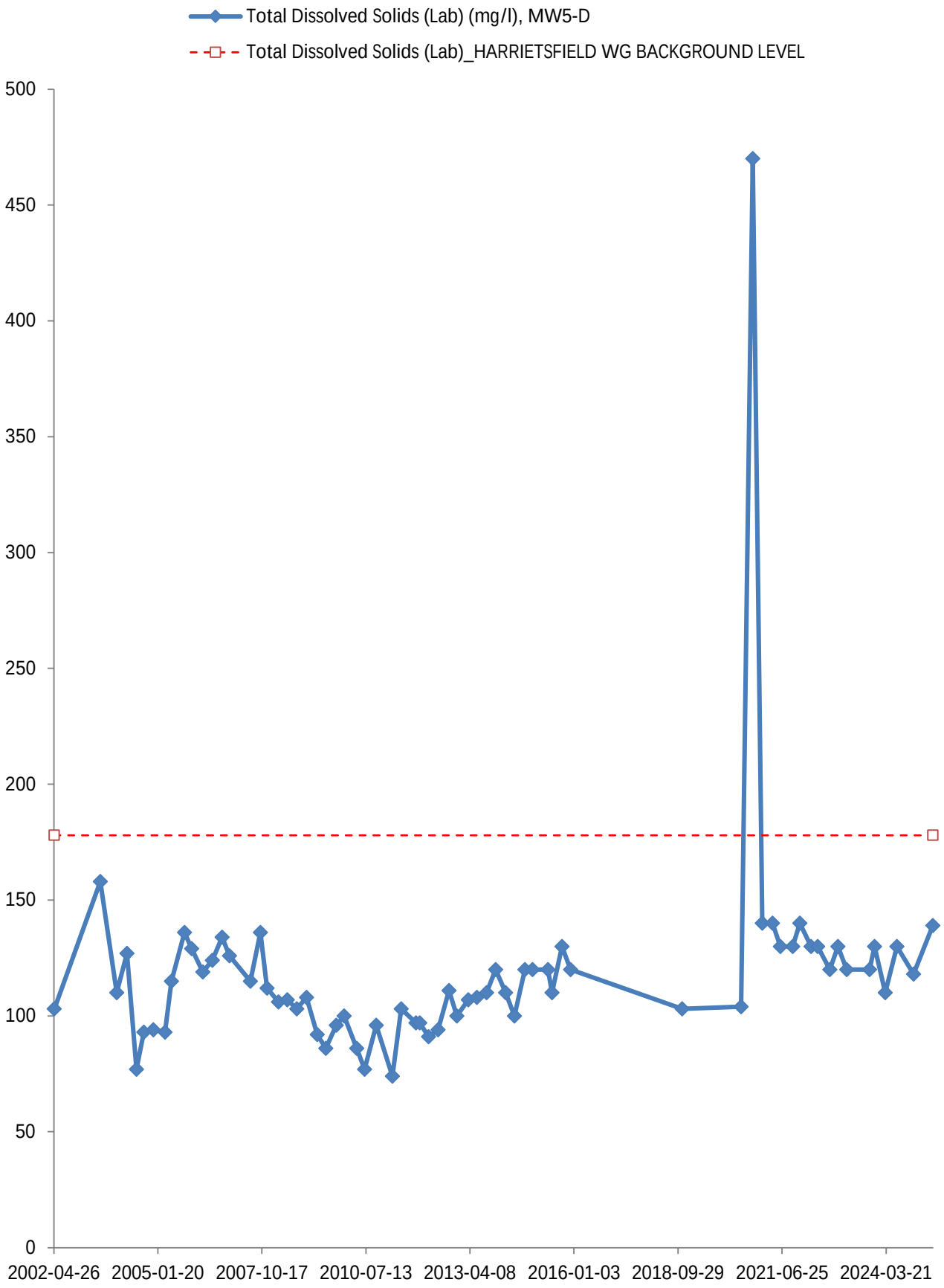
# Sulphate



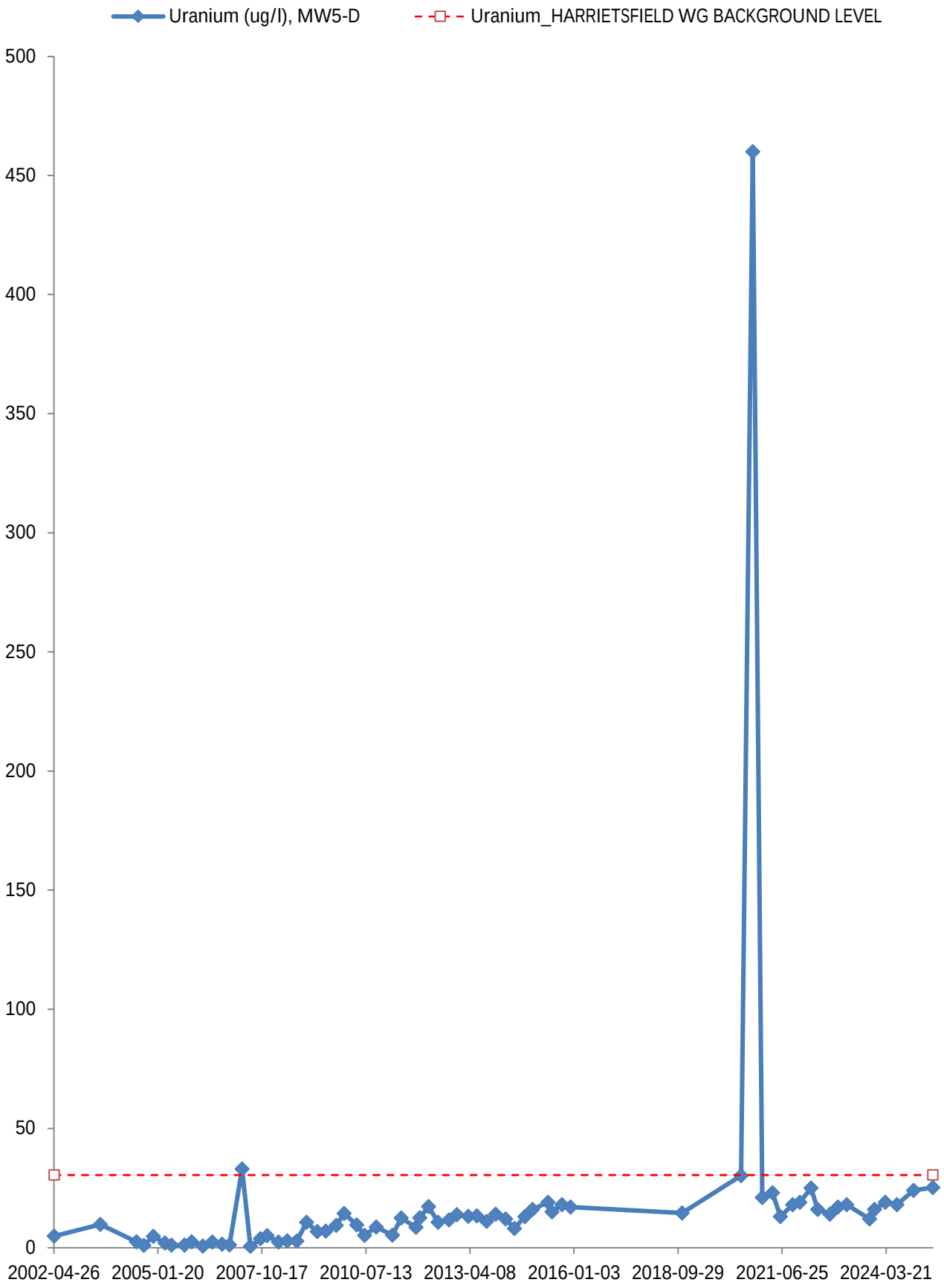

Sulphate (mg/l), MW5-D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
100
90
80
70
60
50
40
30
20
10
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Total Dissolved Solids (5

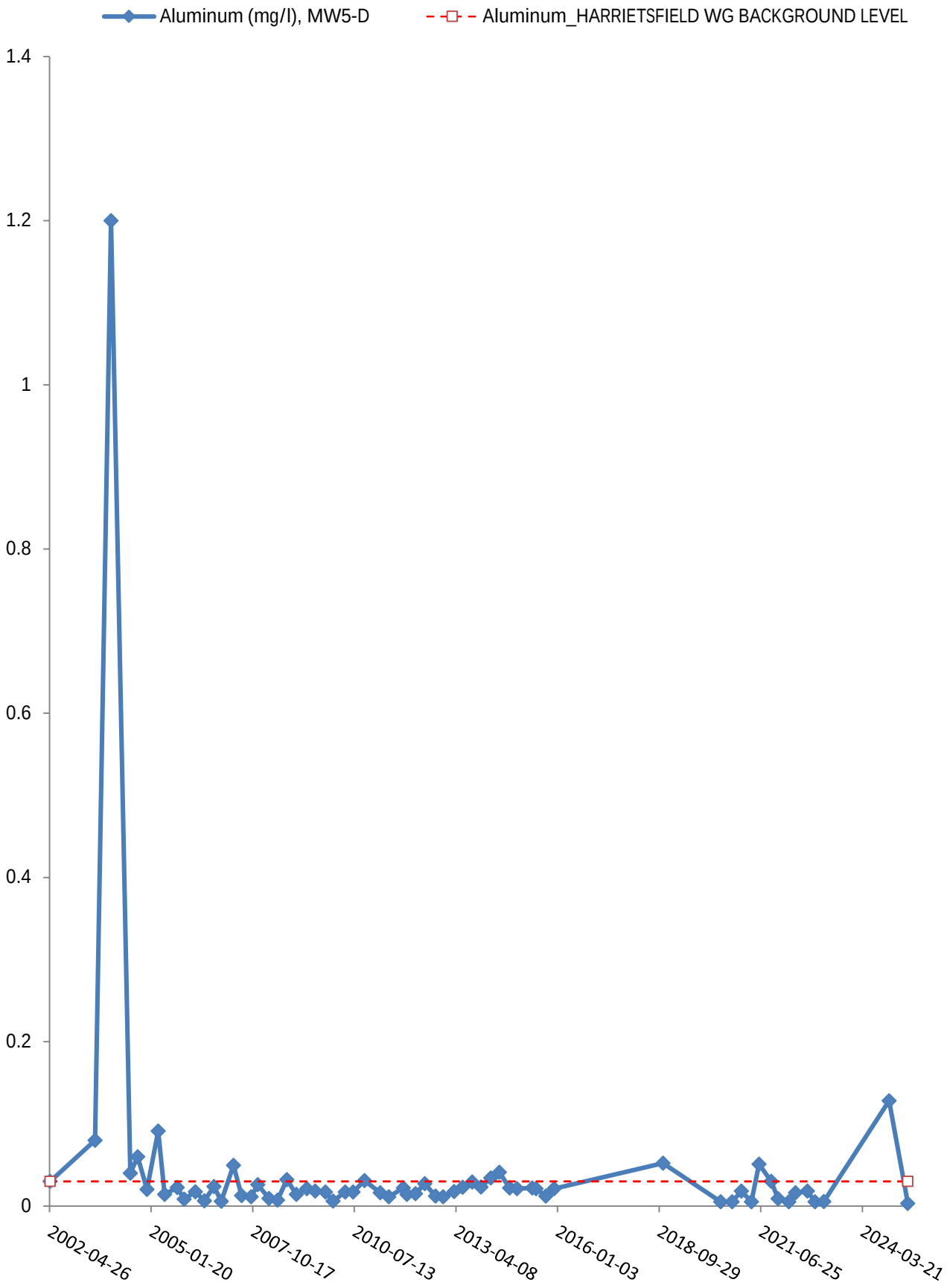




# Uranium

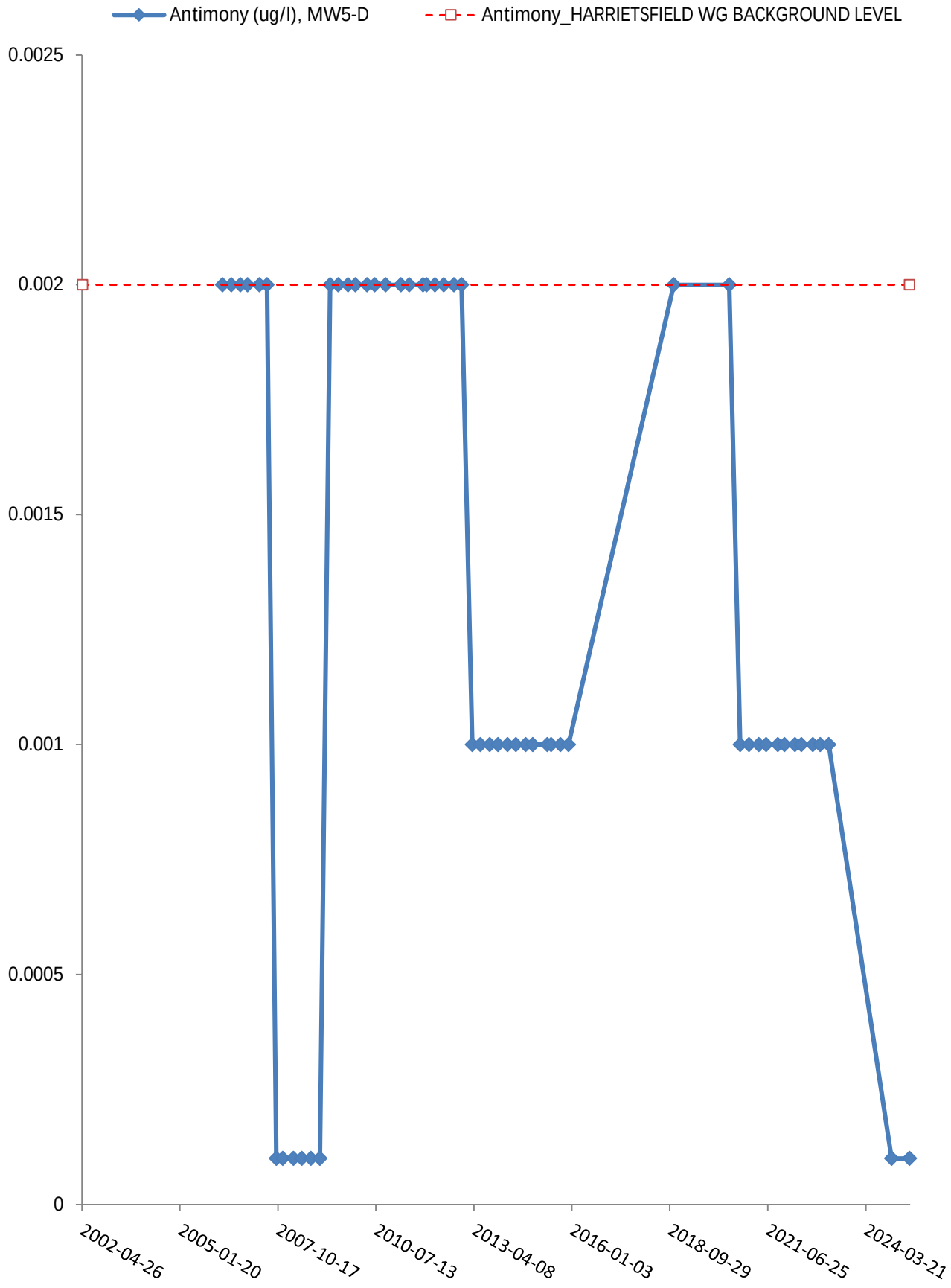

Uranium (ug/l), MW5-D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
500
450
400
350
300
250
200
150
100
50
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Aluminum

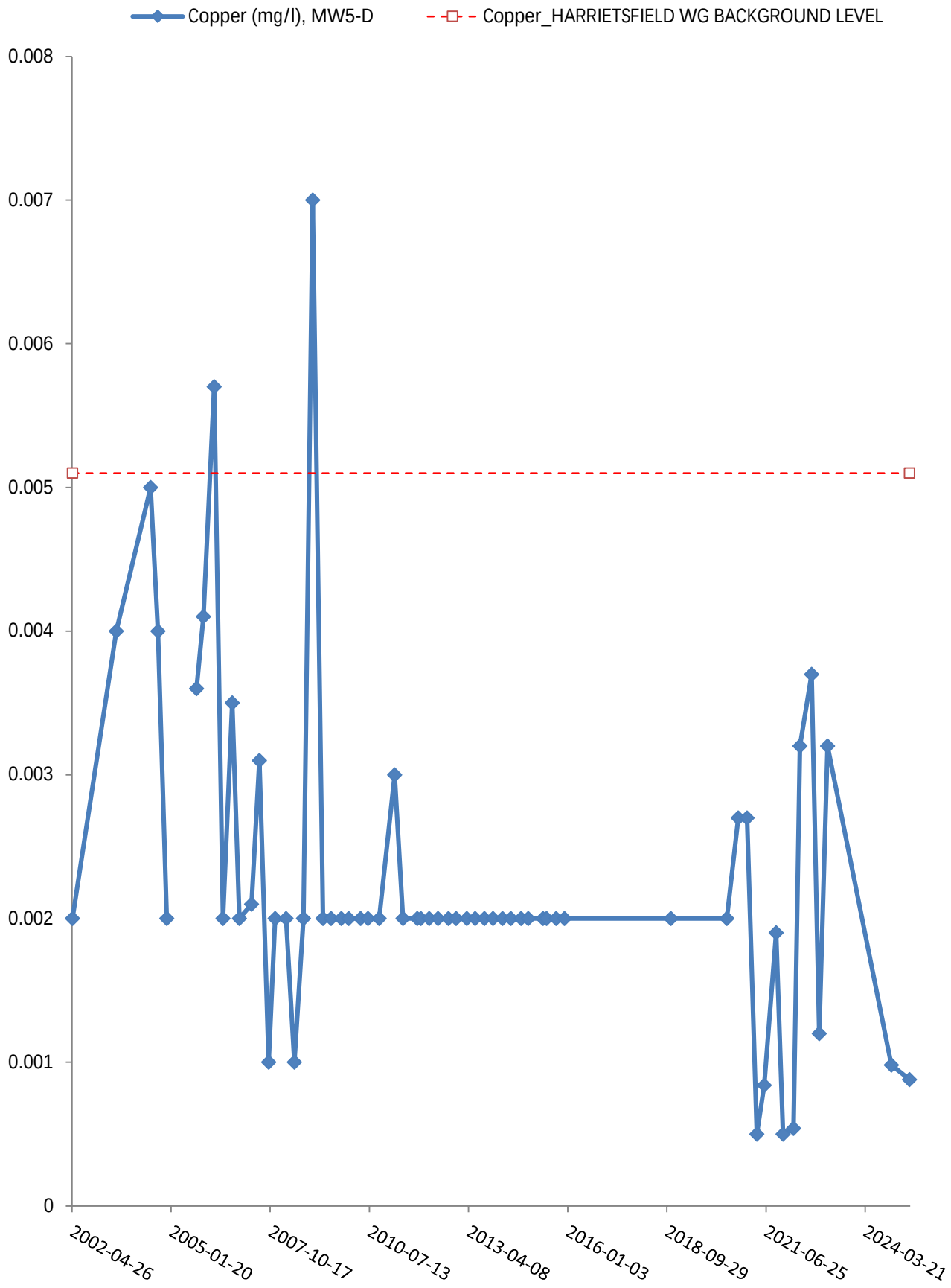

Aluminum (mg/l), MW5-D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Antimony

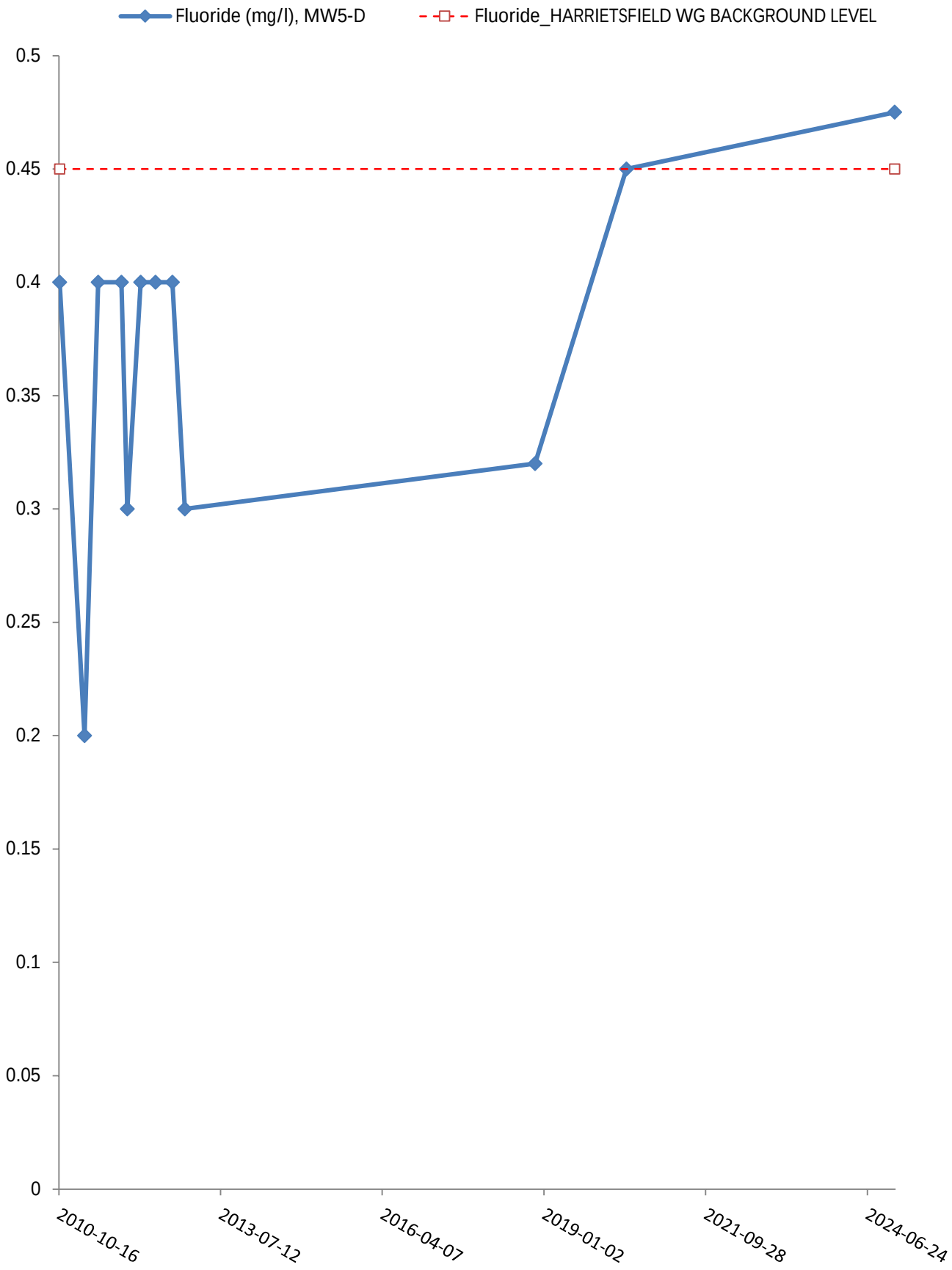



Antimony (ug/l), MW5-D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Copper


Copper (mg/l), MW5-D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

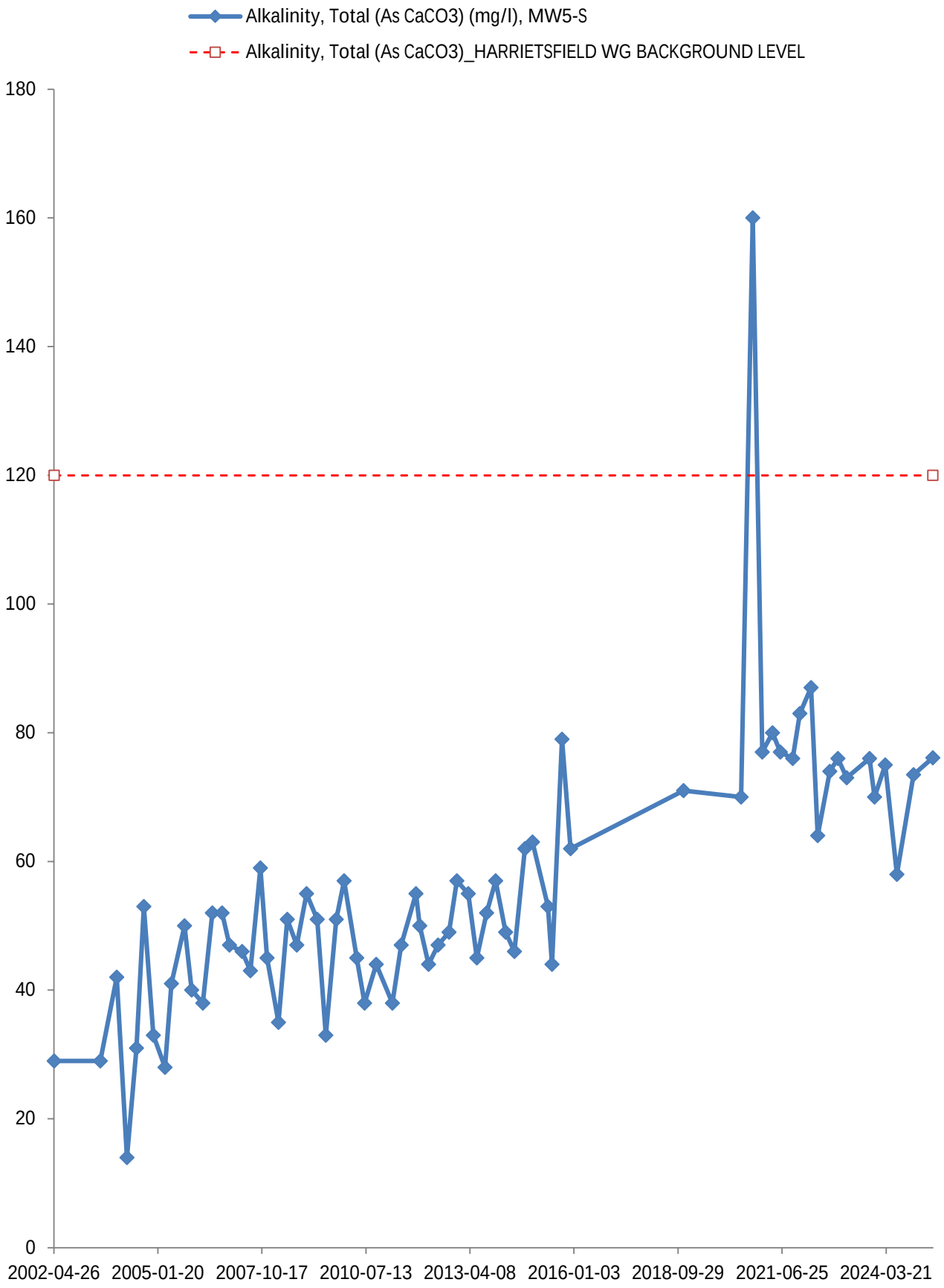
# Fluoride


Fluoride (mg/l), MW5-D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

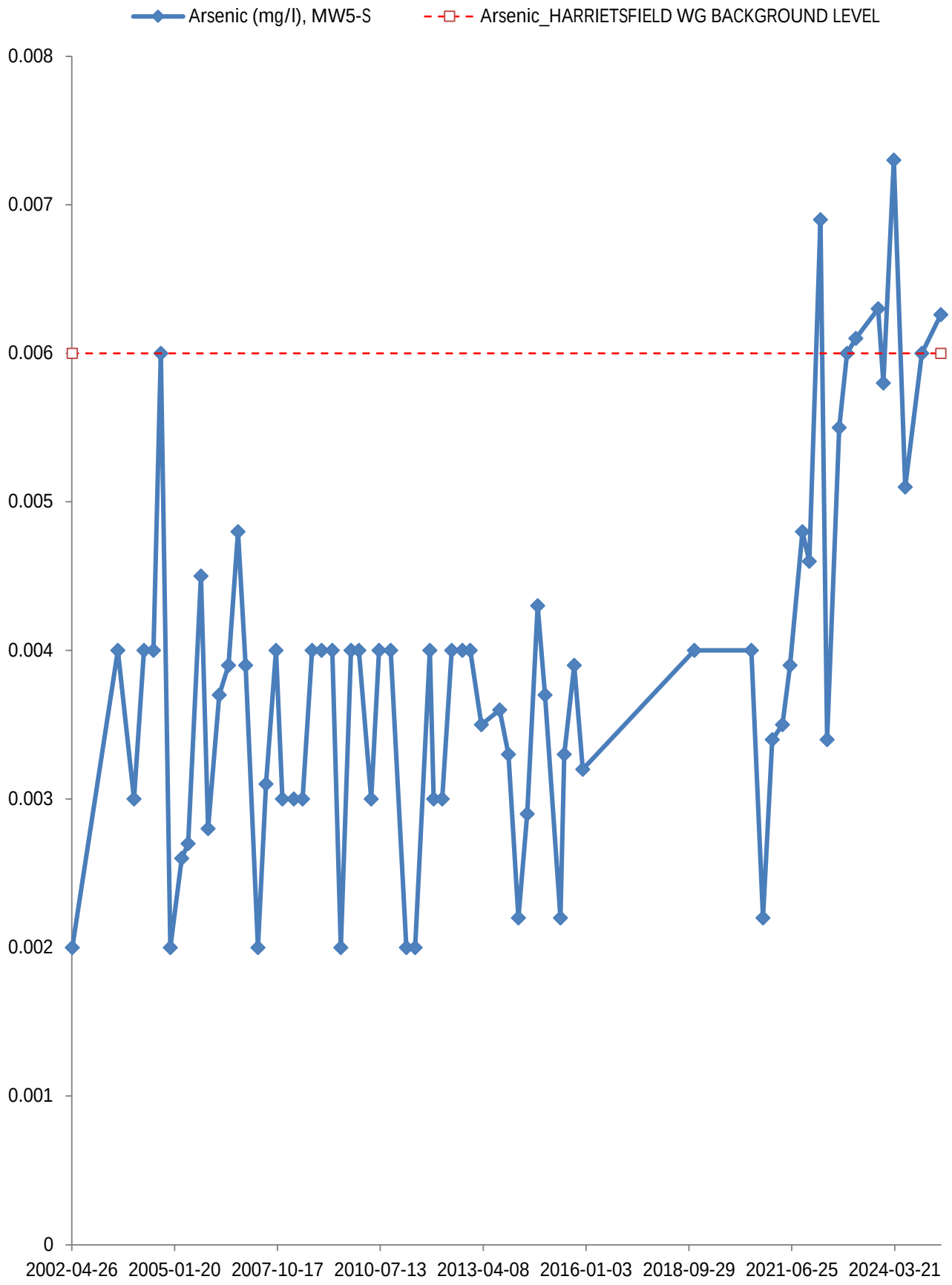
# Silver


Silver (ug/l), MW5-D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Alkalinity, Total

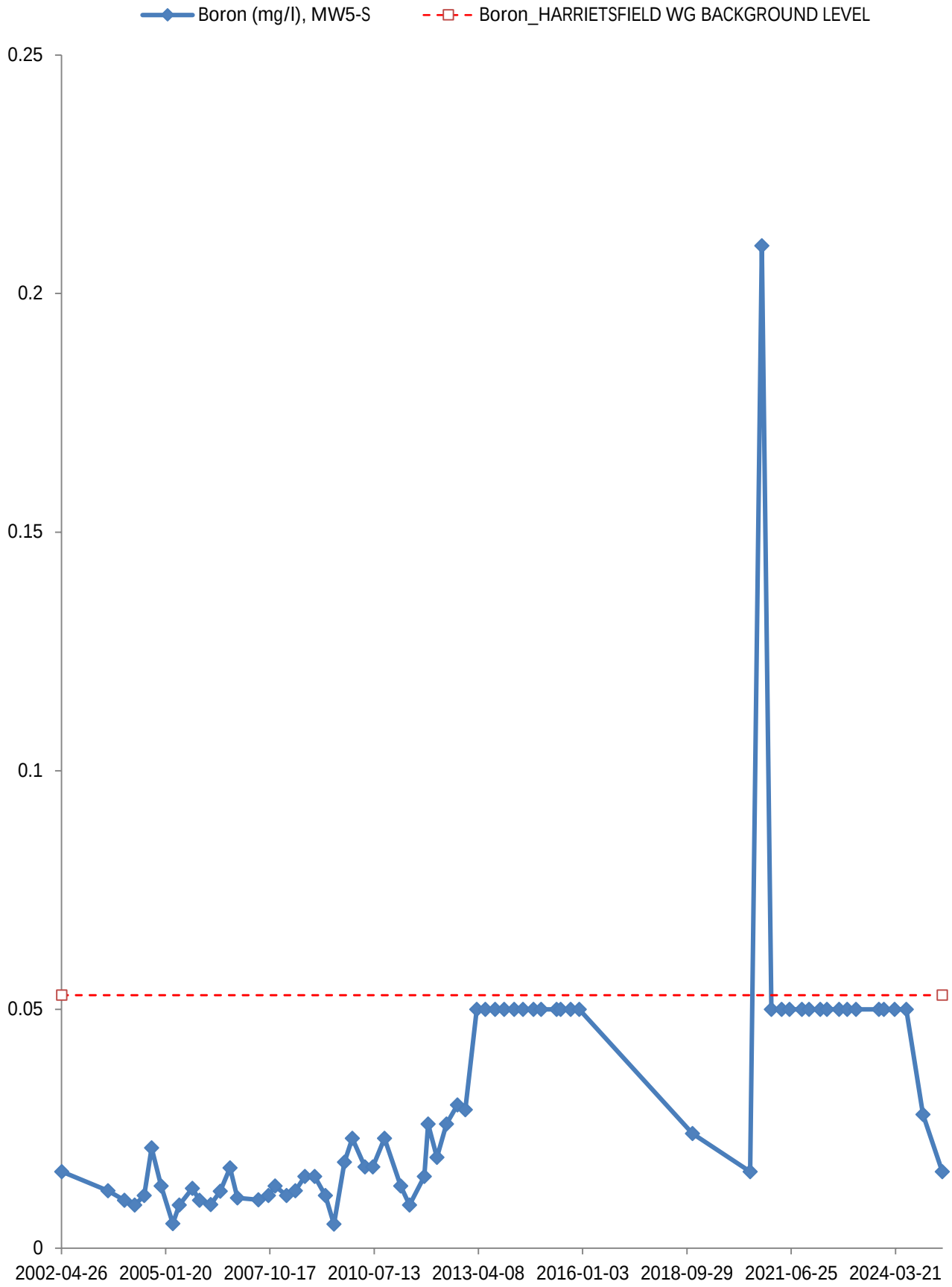


# Arsenic

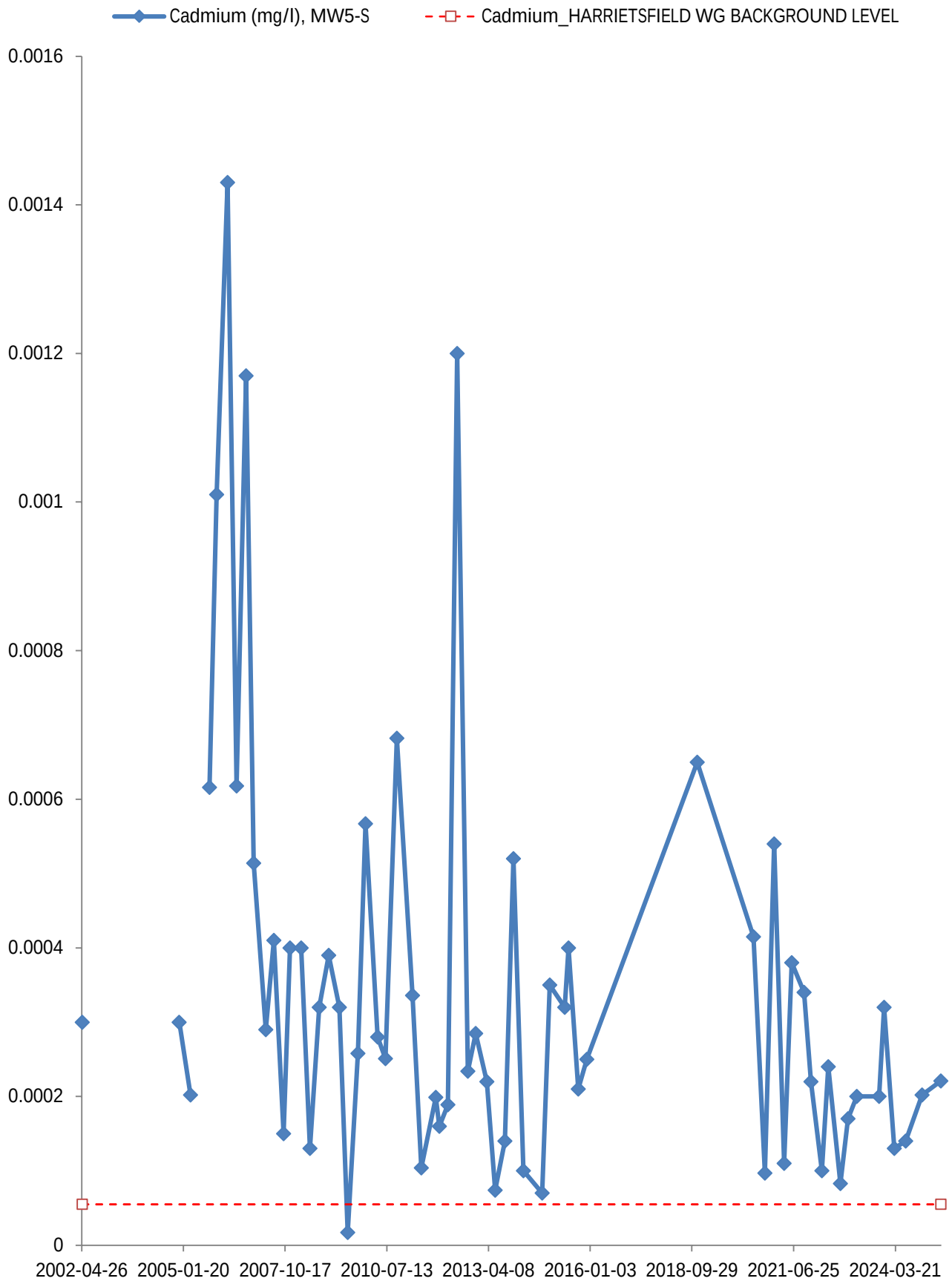

Arsenic (mg/l), MW5-S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Boron



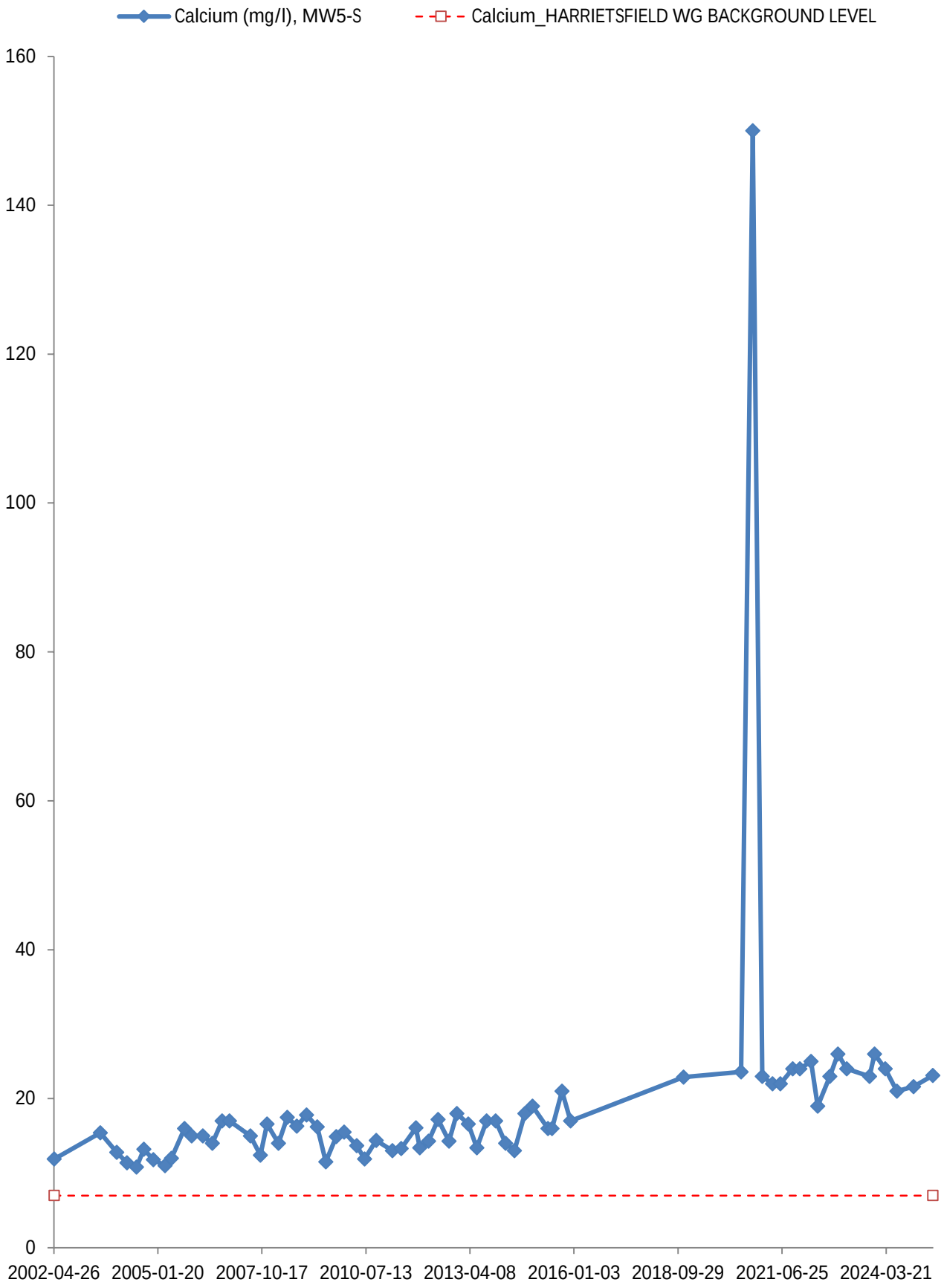

Boron (mg/l), MW5-S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Cadmium


Cadmium (mg/l), MW5-S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

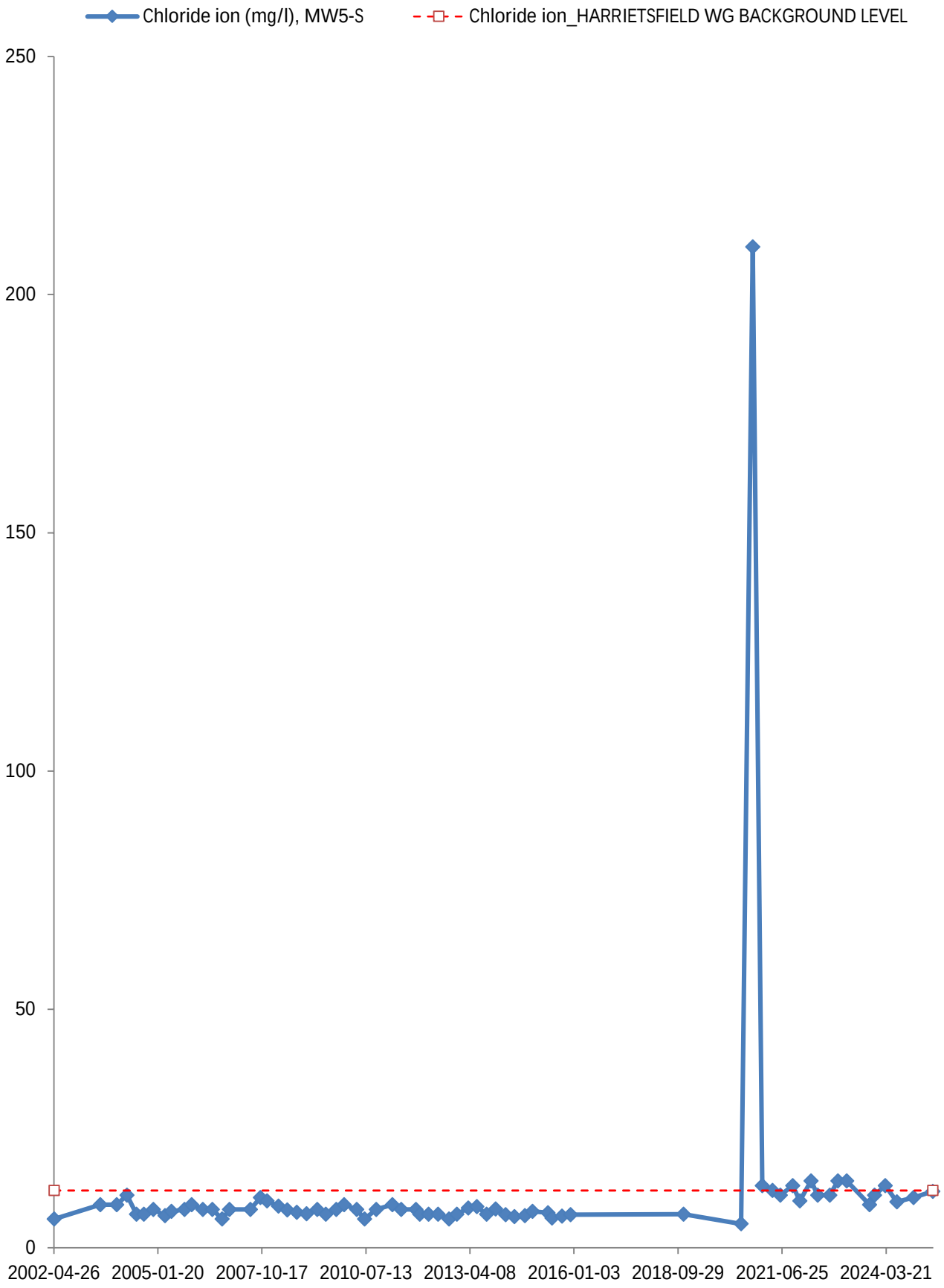
# Calcium



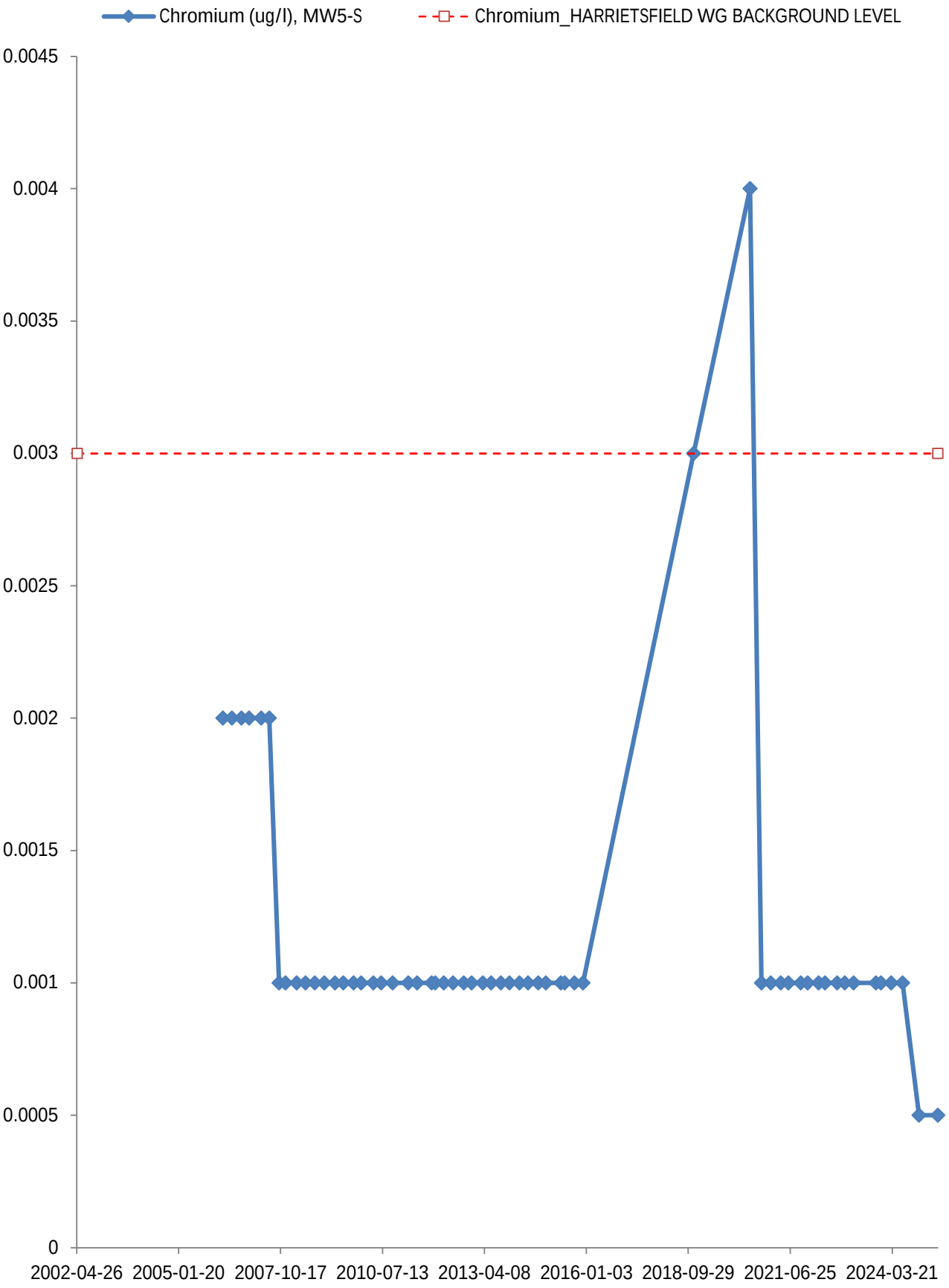

Calcium (mg/l), MW5-S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
160
140
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Chloride ion



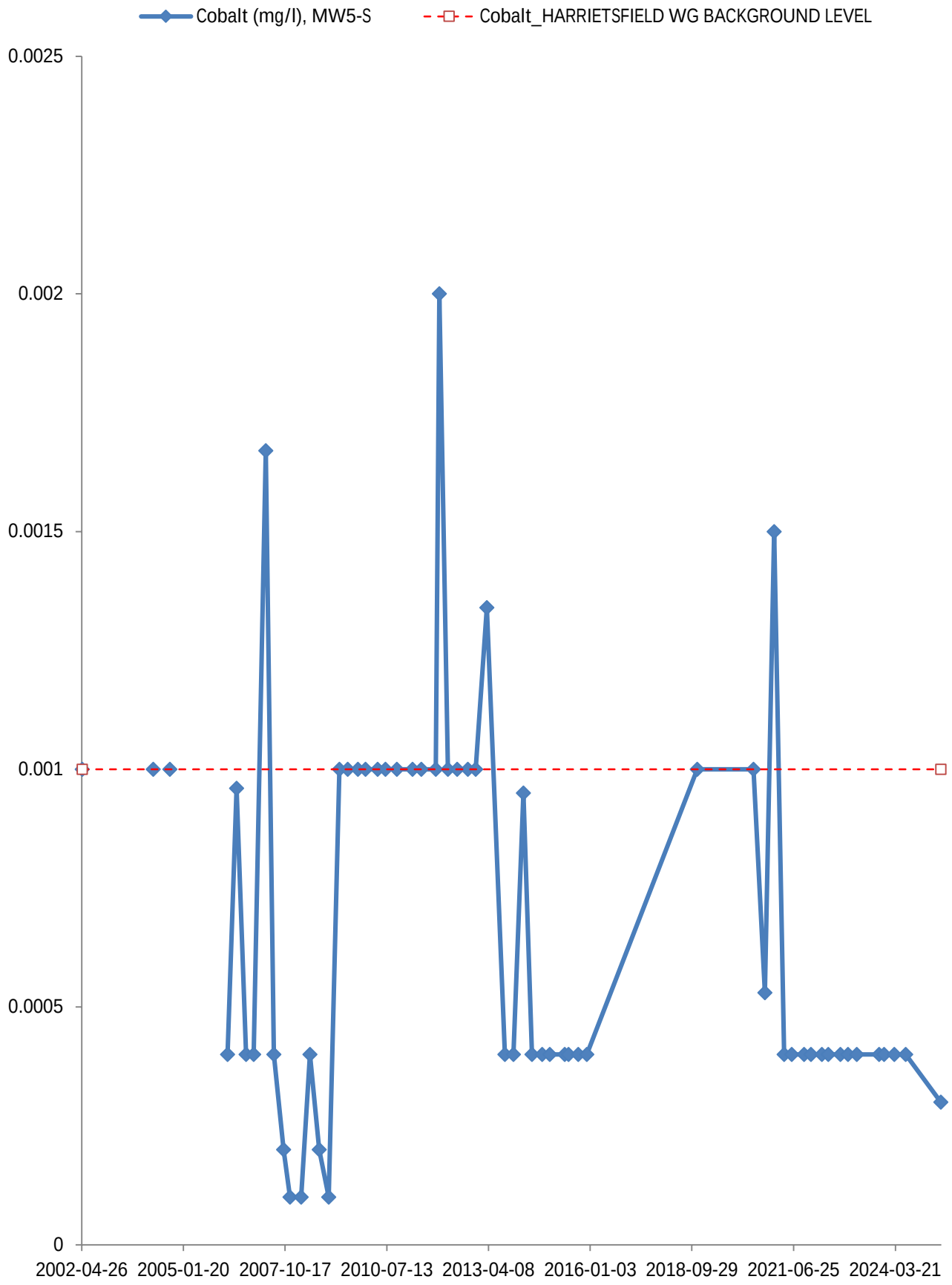


# Chromium


Chromium (ug/l), MW5-S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

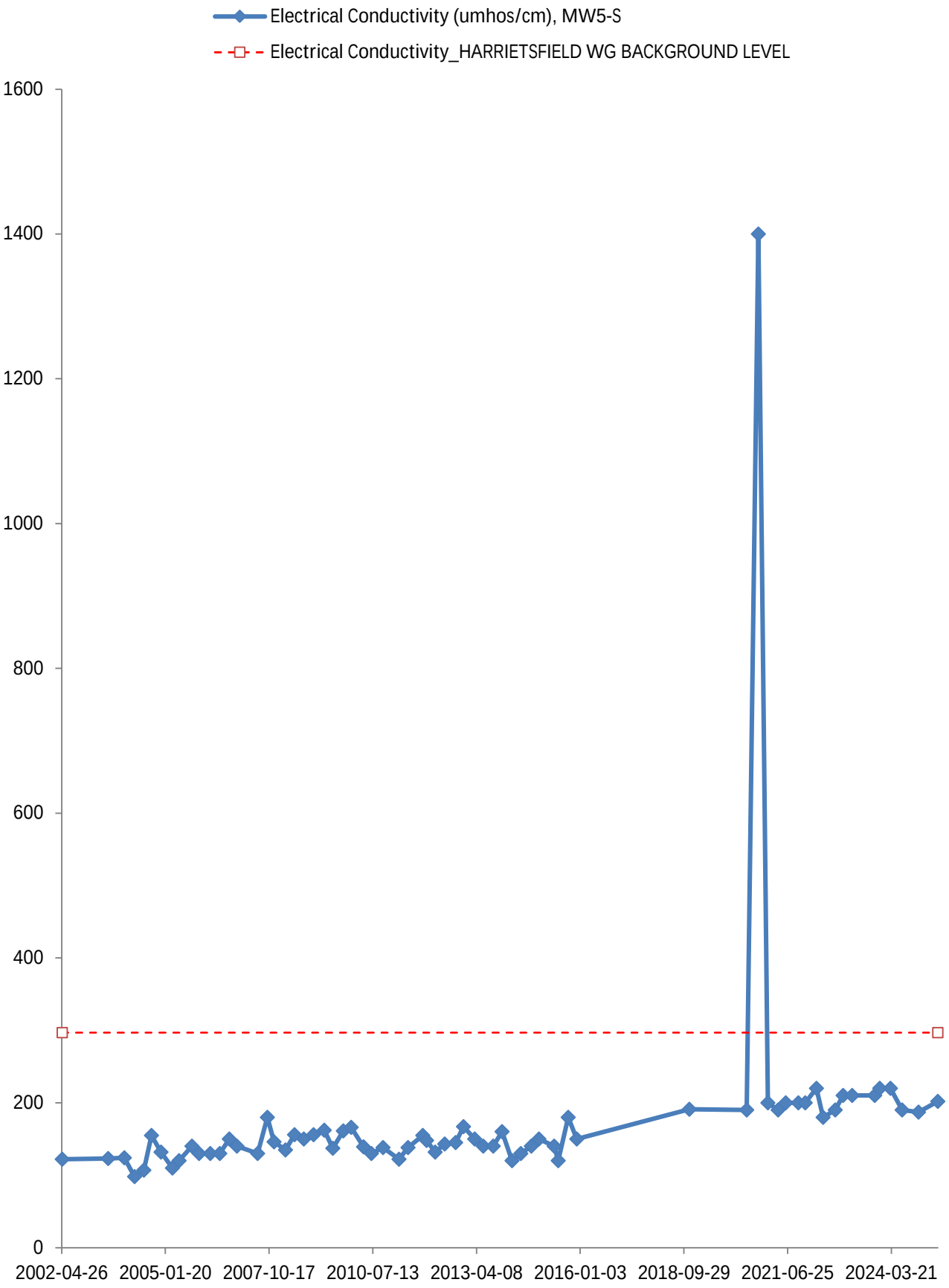
# Cobalt




Cobalt (mg/l), MW5-S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

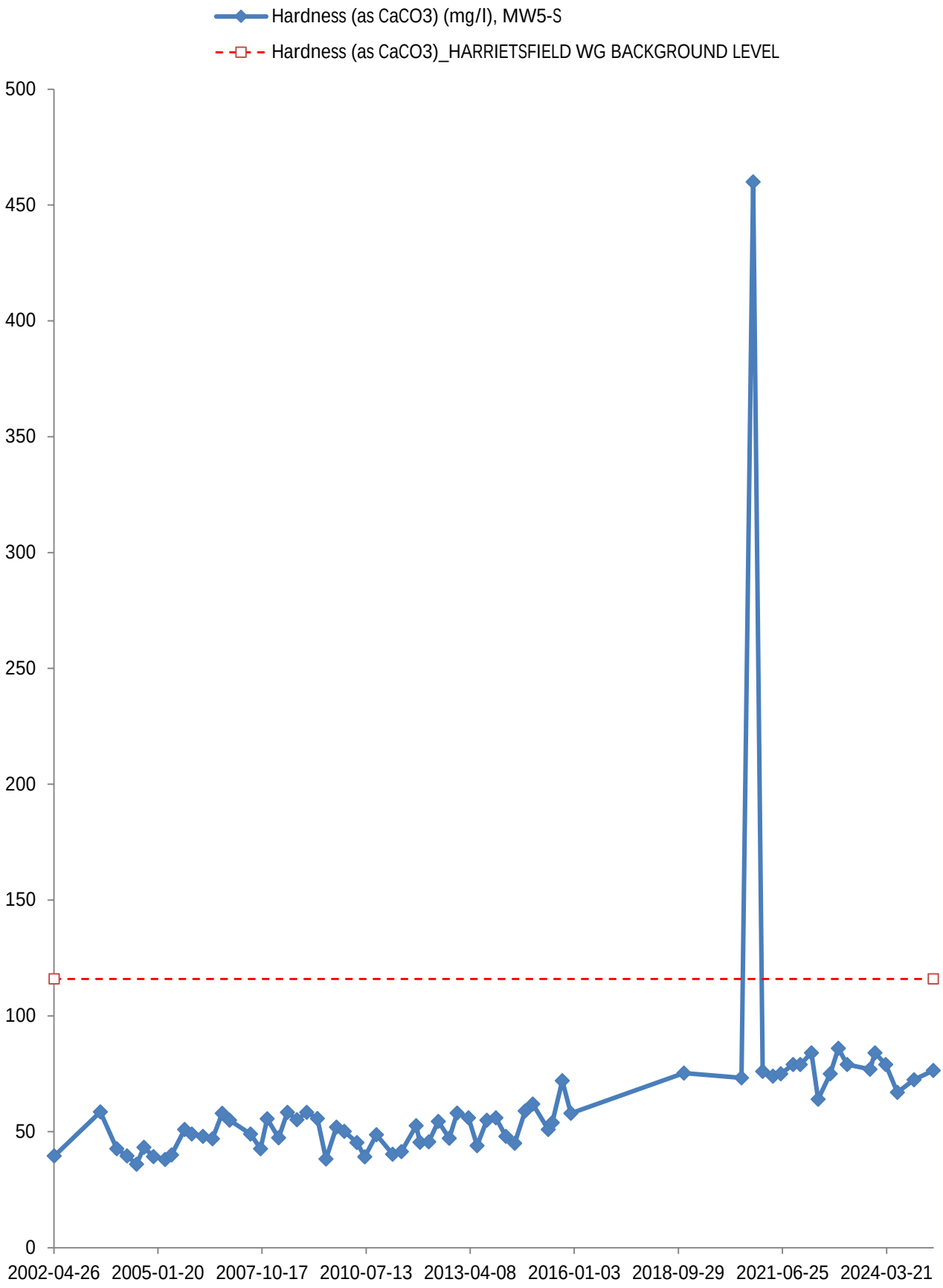
# Electrical Conductivity





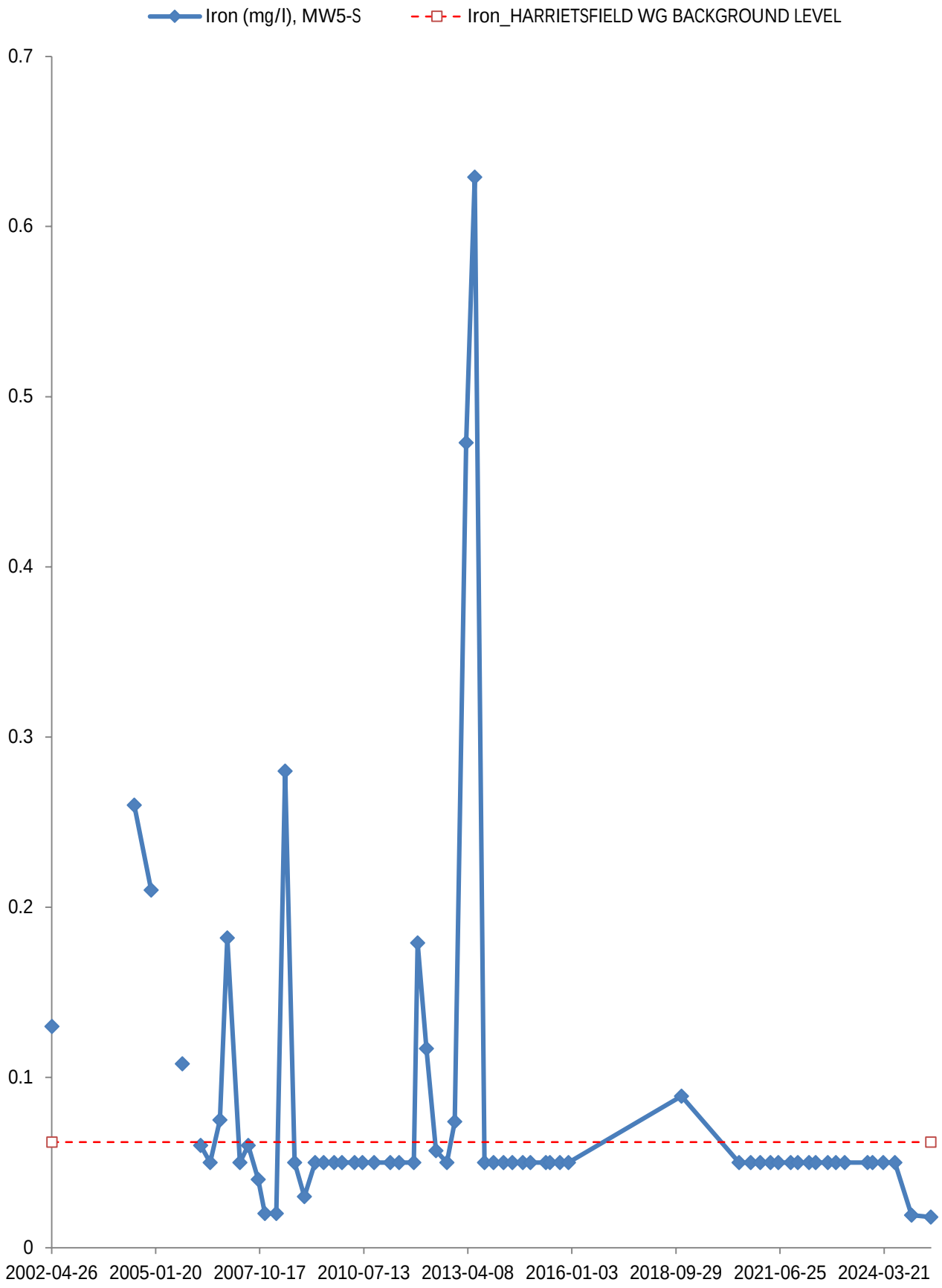
# Hardness (as CaCO3)



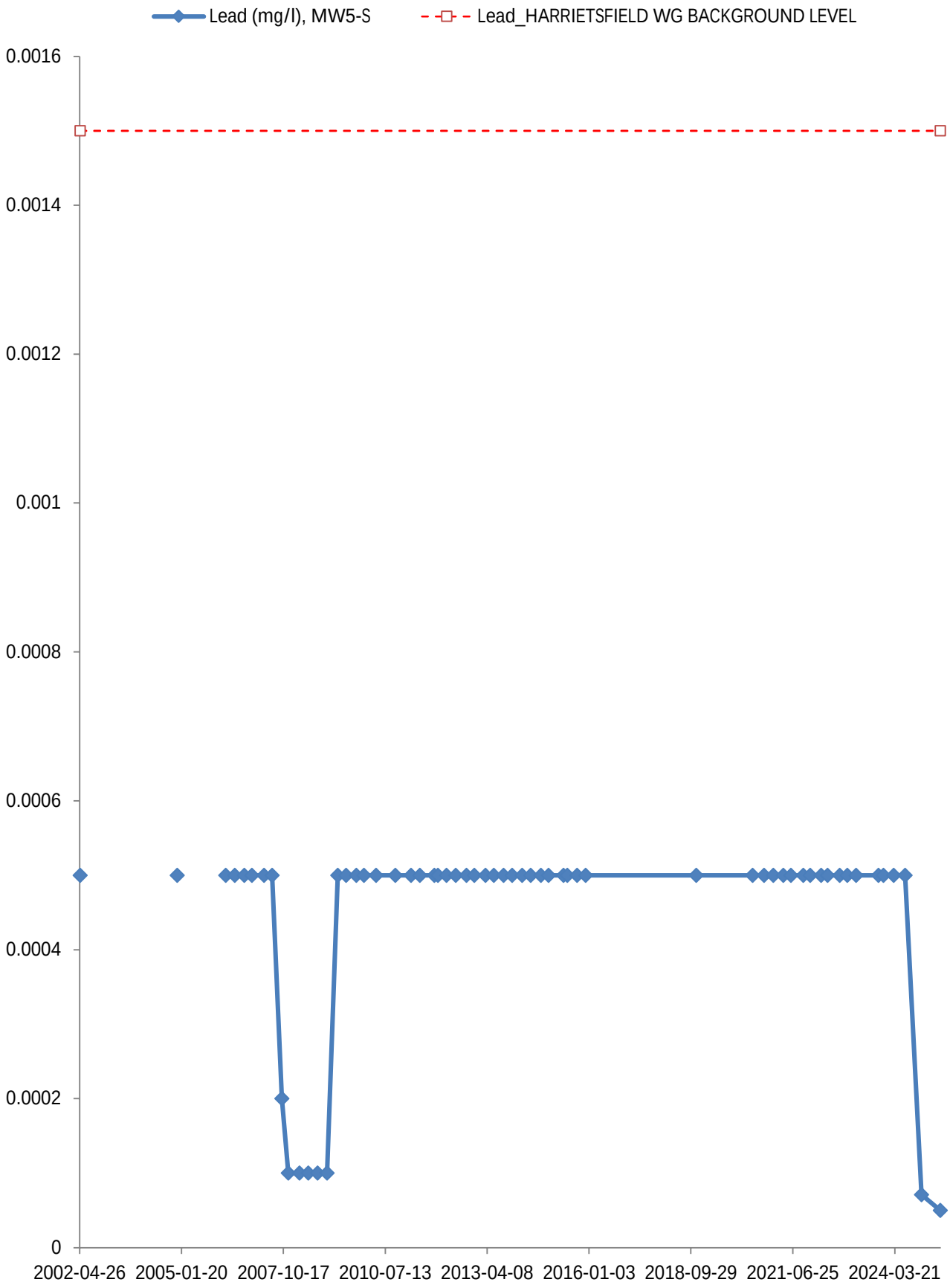


# Iron

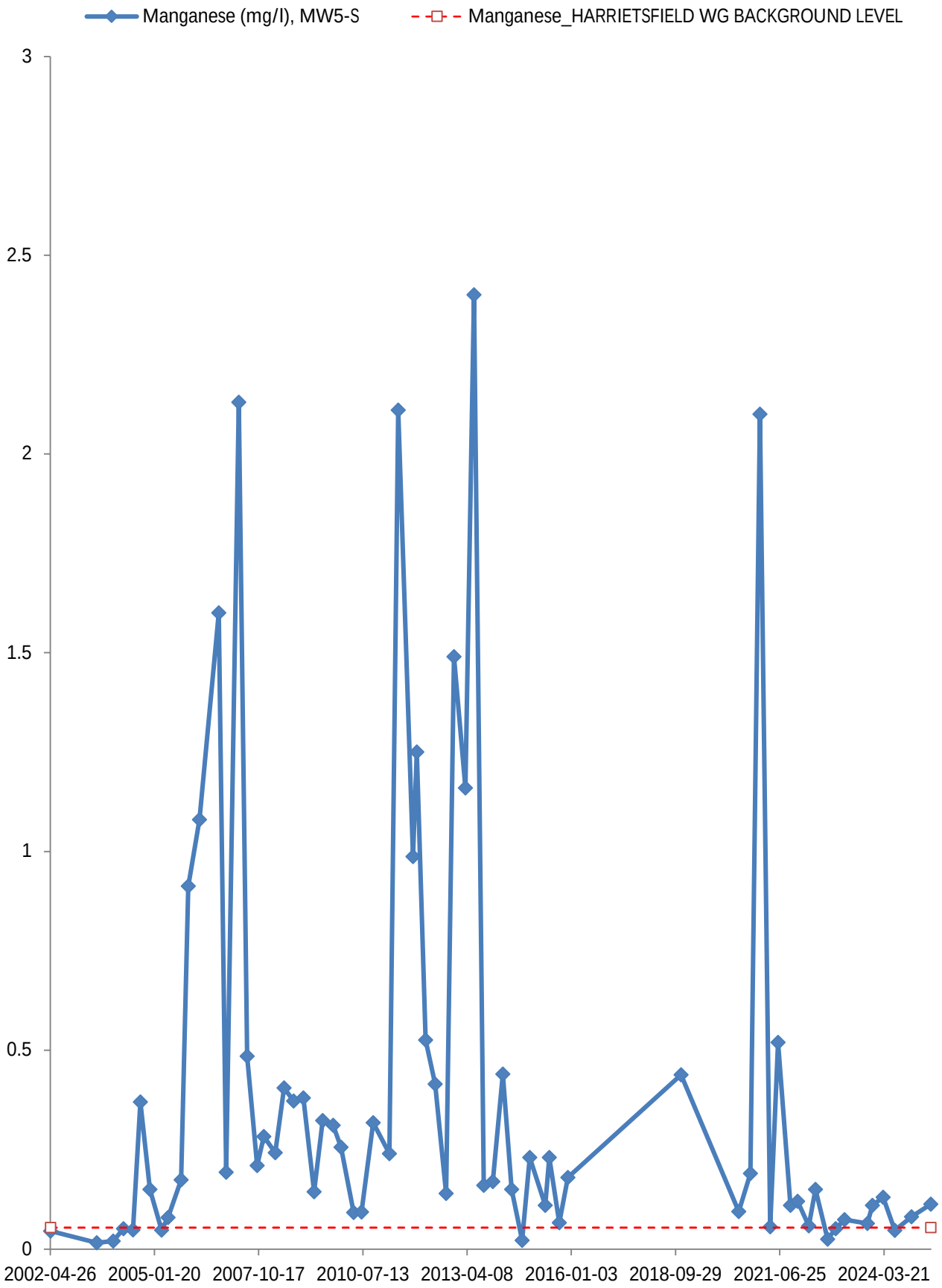



Iron (mg/l), MW5-S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

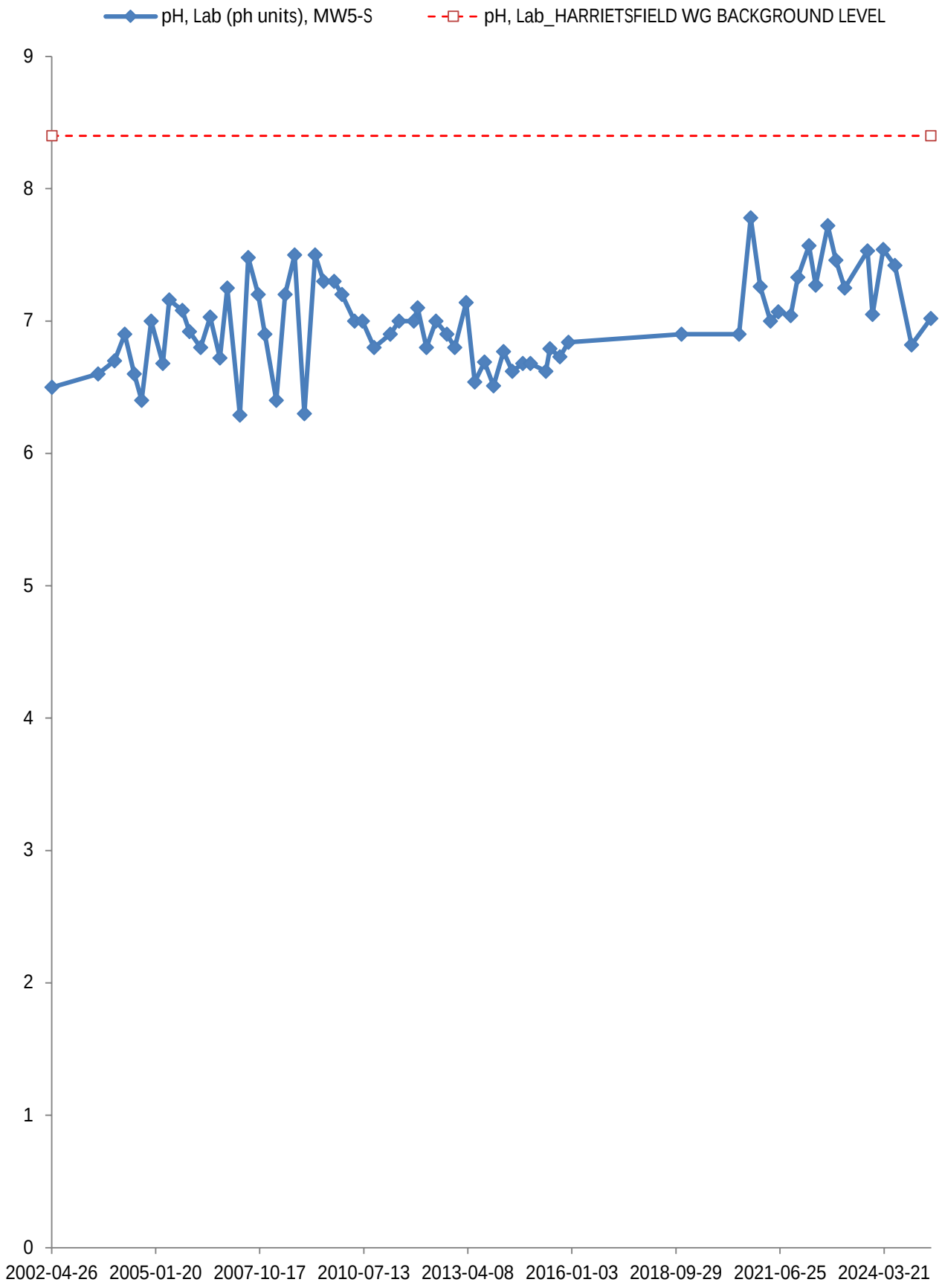
# Lead


Lead (mg/l), MW5-S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

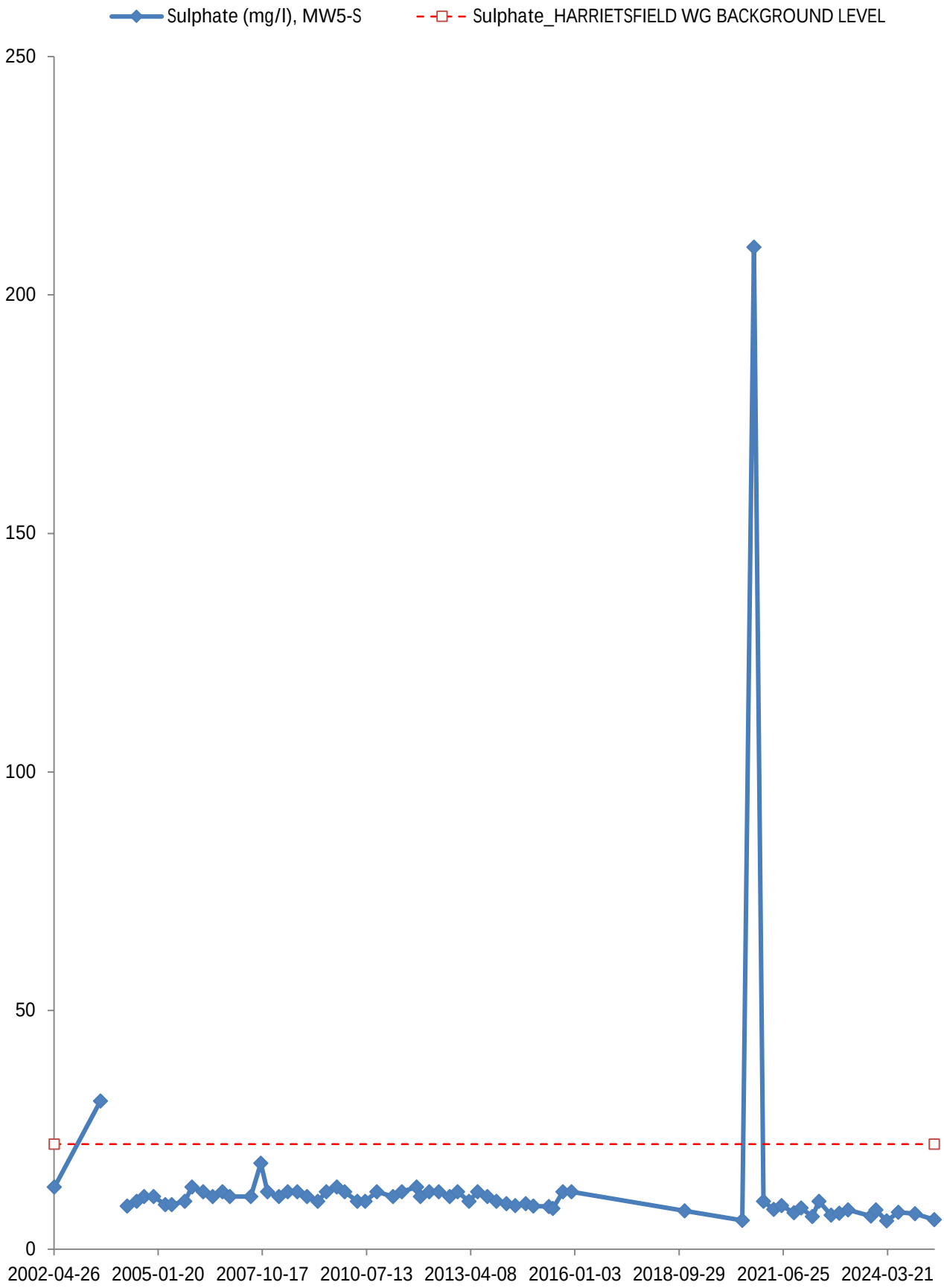
# Manganese


Manganese (mg/l), MW5-S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
3
2.5
2
1.5
1
0.5
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

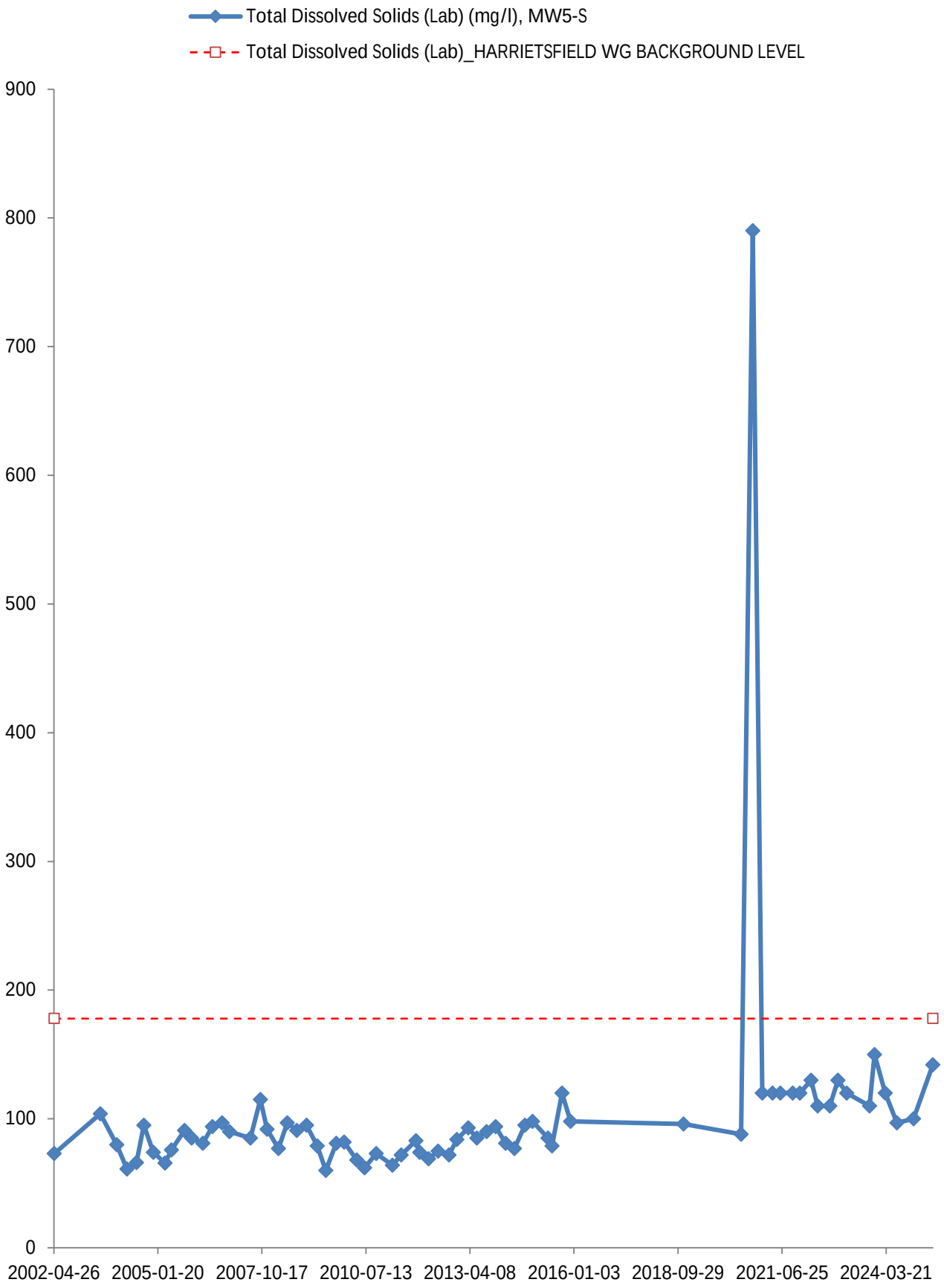
# pH, Lab


pH, Lab (ph units), MW5-S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

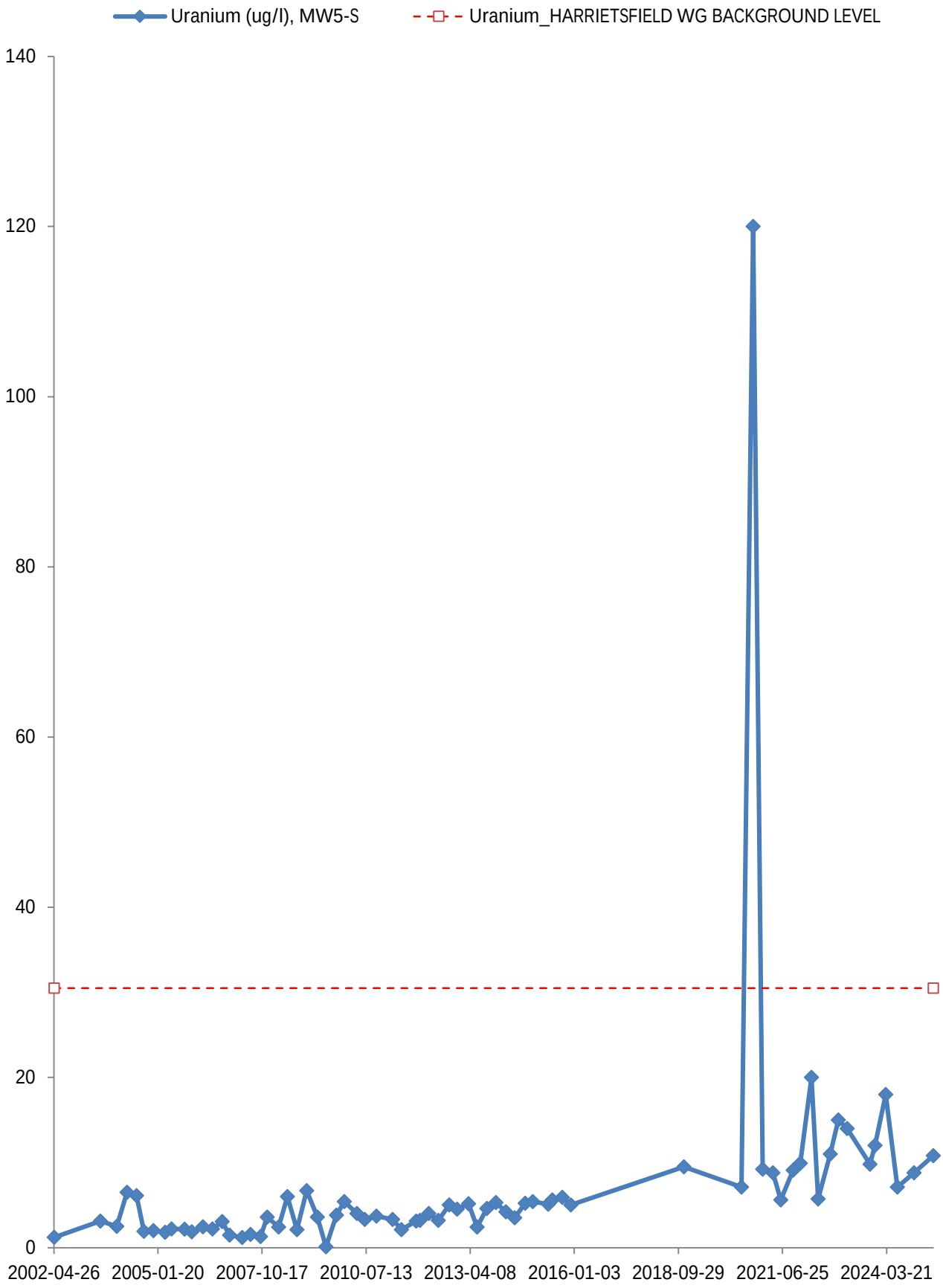
# Sulphate


Sulphate (mg/l), MW5-S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
250
200
150
100
50
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Total Dissolved Solids (5

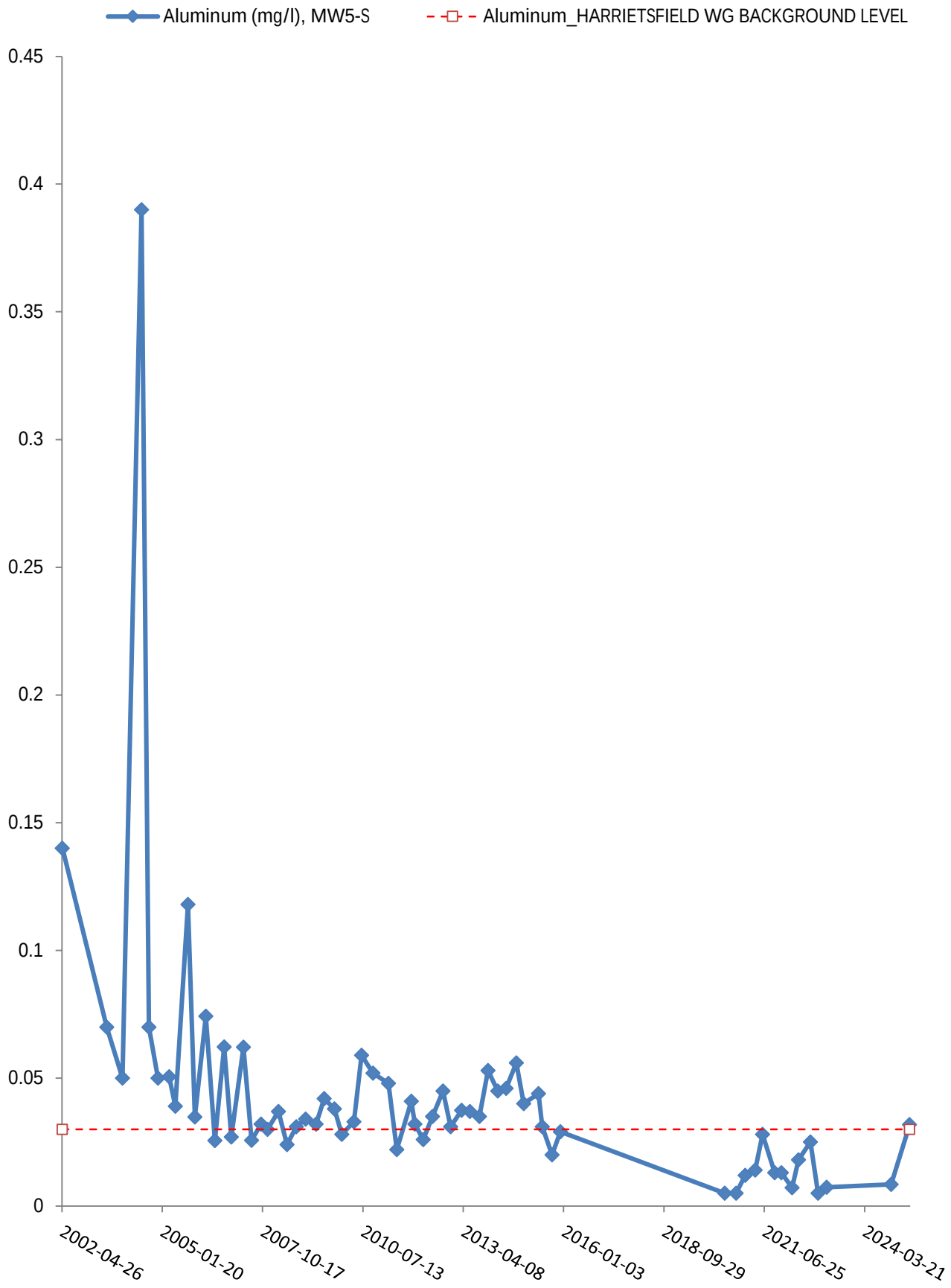


# Uranium


Uranium (ug/l), MW5-S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
140
120
100
80
60
40
20
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

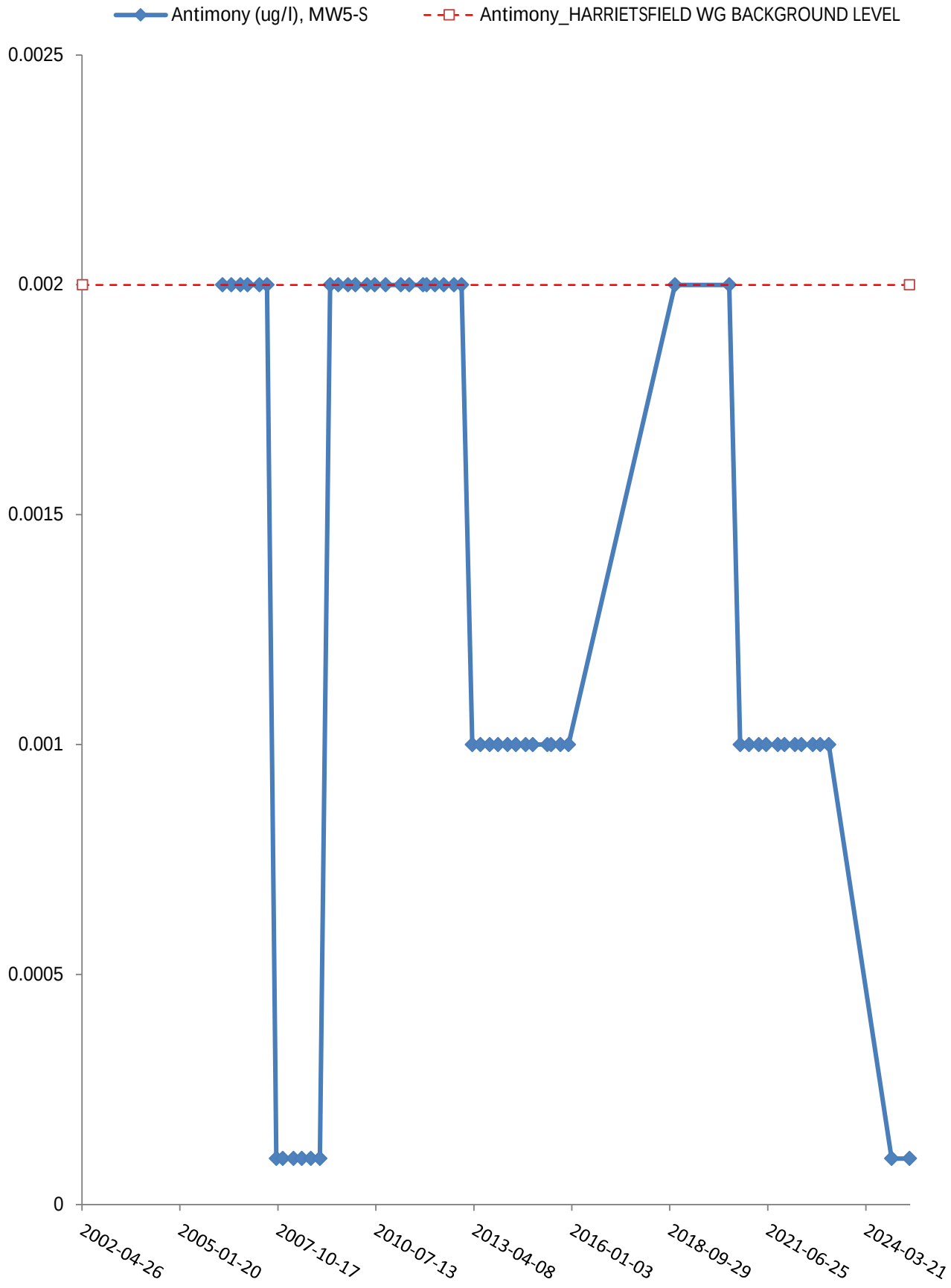
# Aluminum



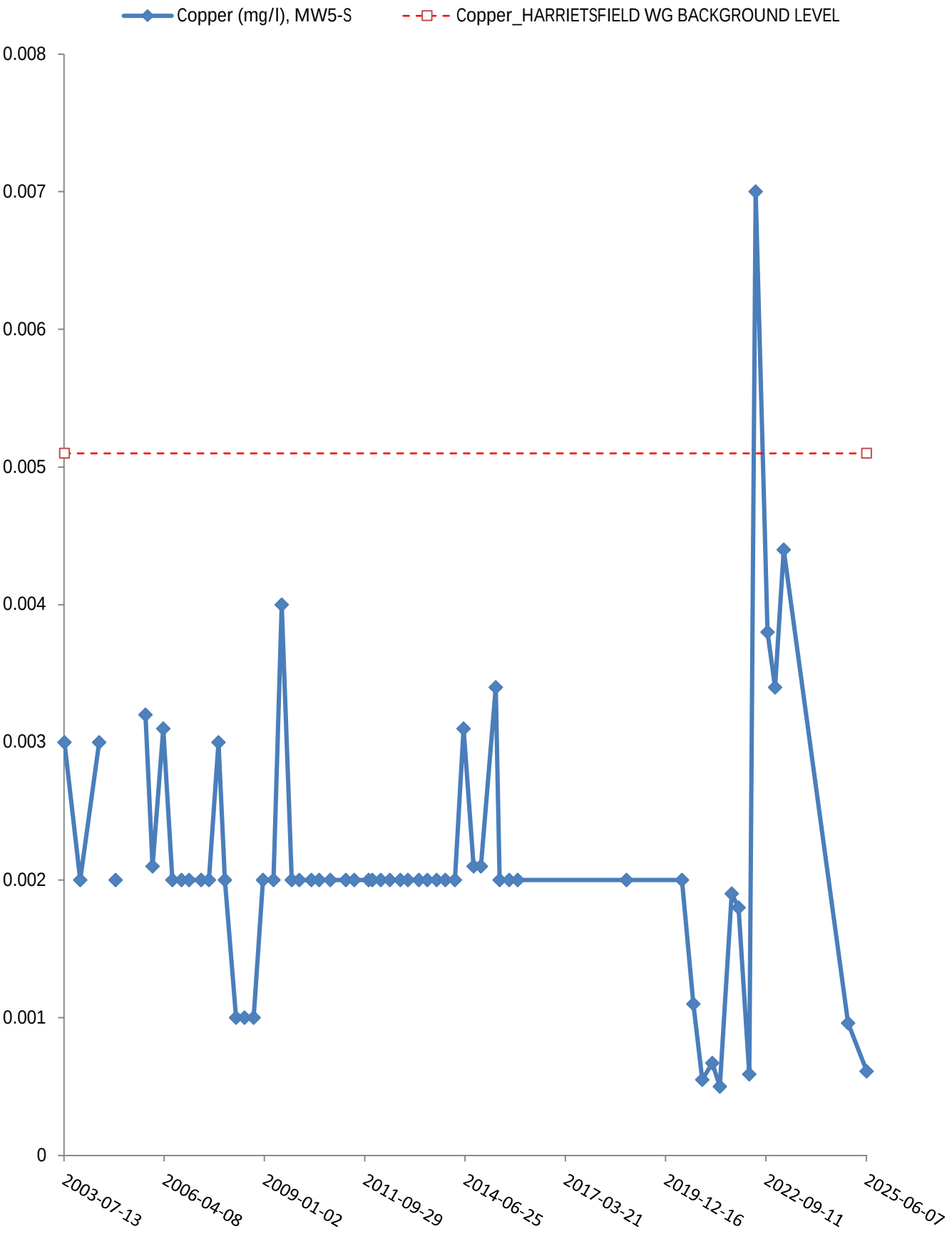

Aluminum (mg/l), MW5-S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Antimony



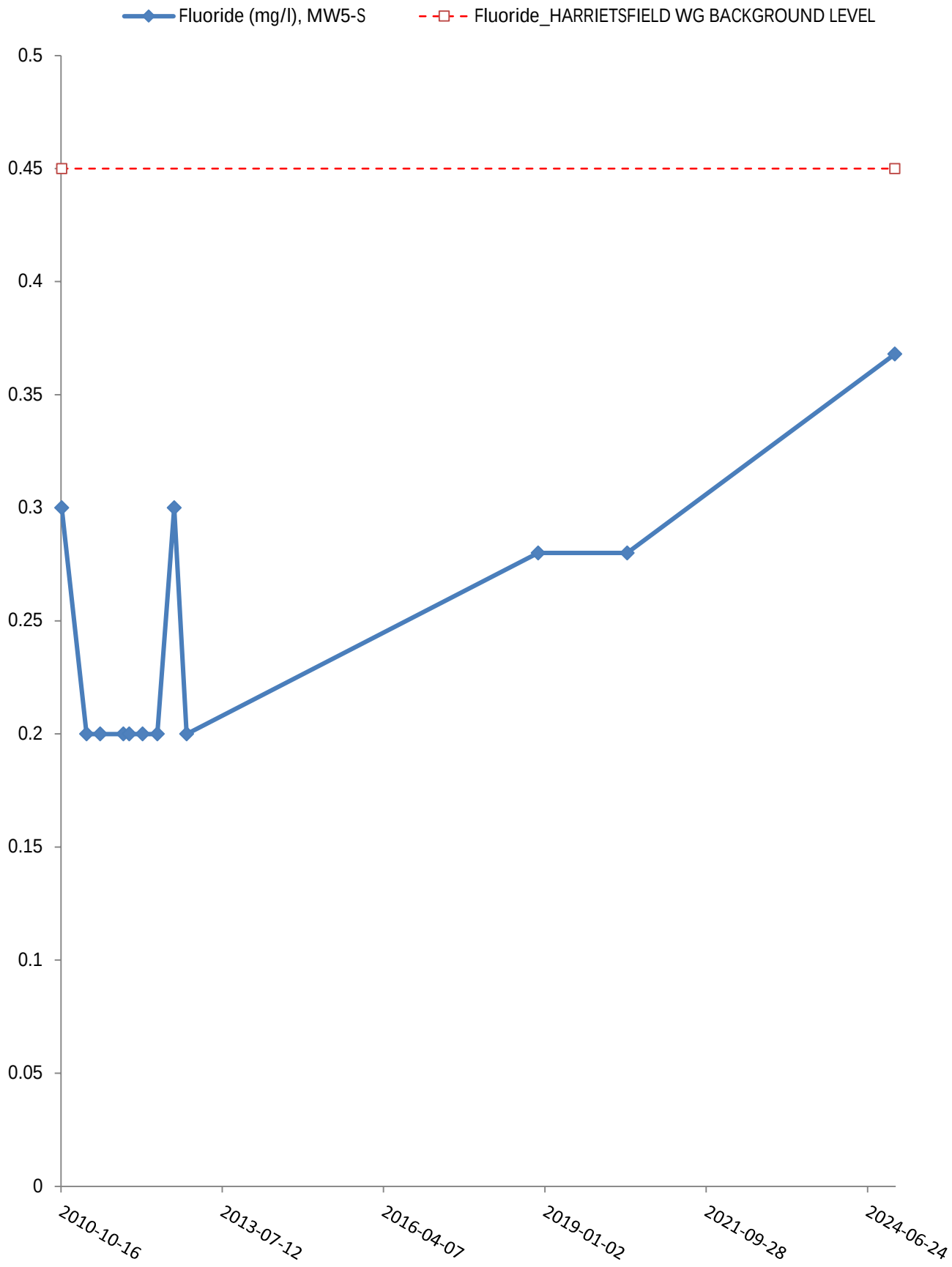

Antimony (ug/l), MW5-S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Copper


Copper (mg/l), MW5-S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2003-07-13
2006-04-08
2009-01-02
2011-09-29
2014-06-25
2017-03-21
2019-12-16
2022-09-11
2025-06-07

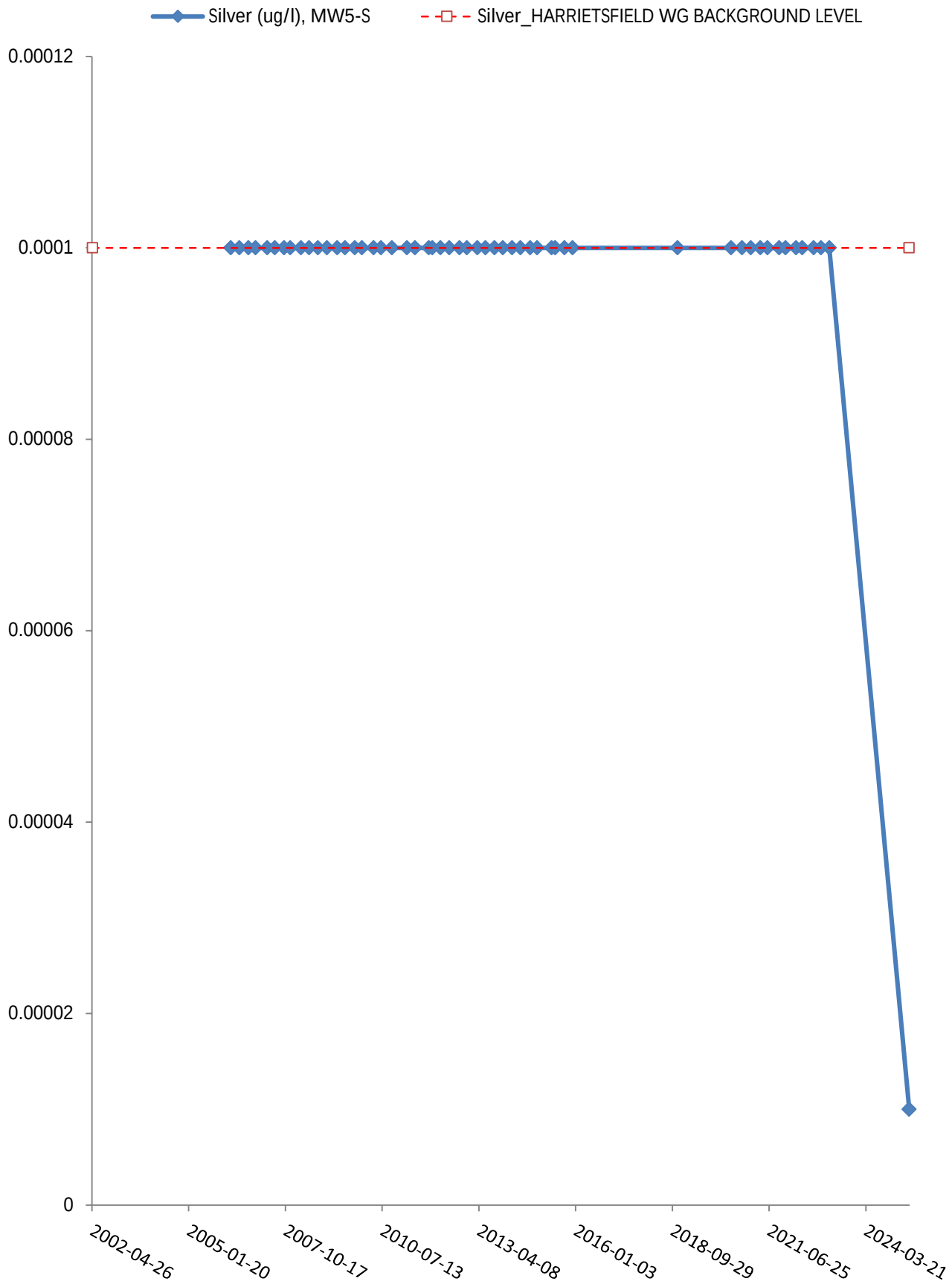
# Fluoride



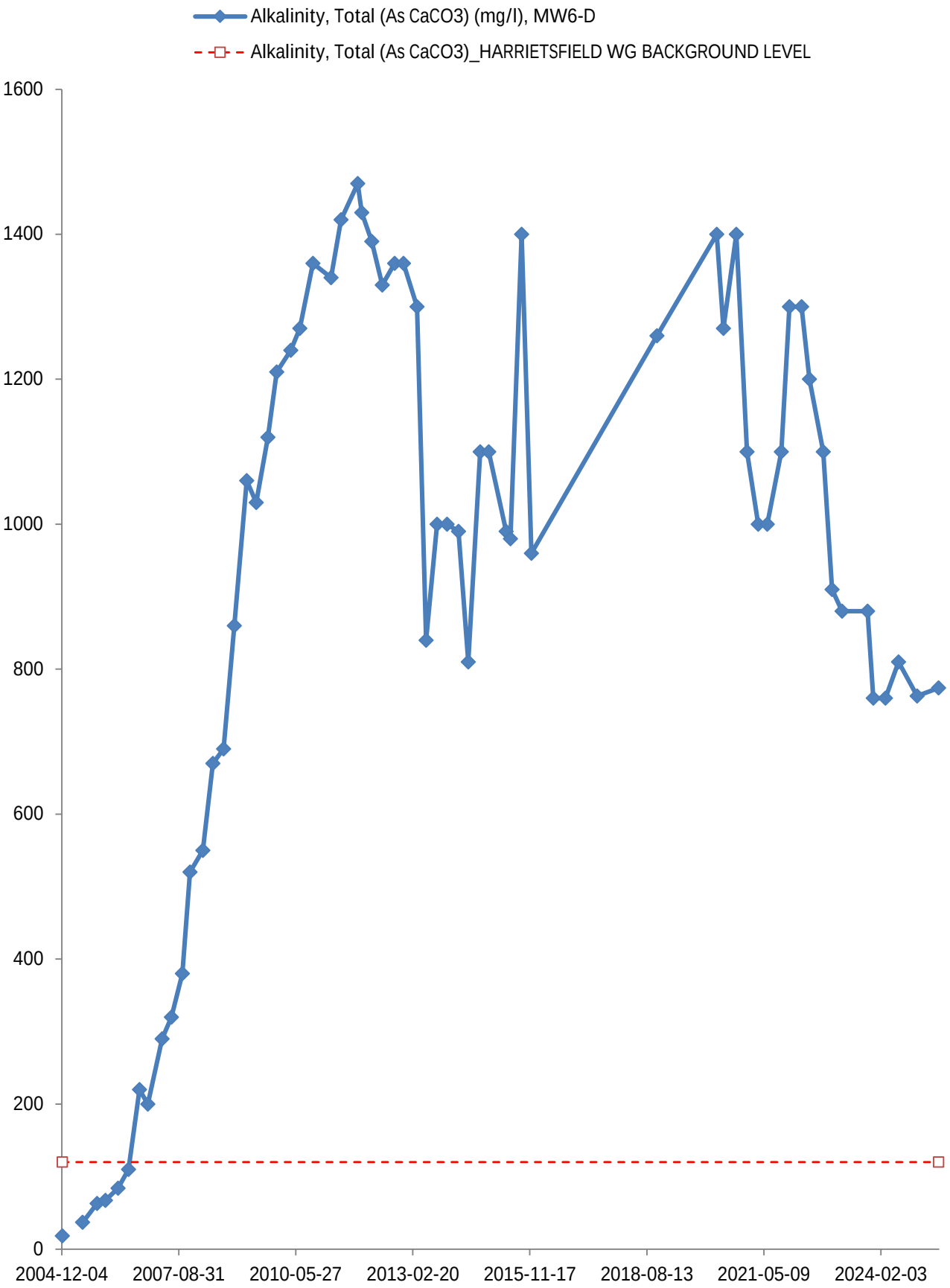

Fluoride (mg/l), MW5-S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver

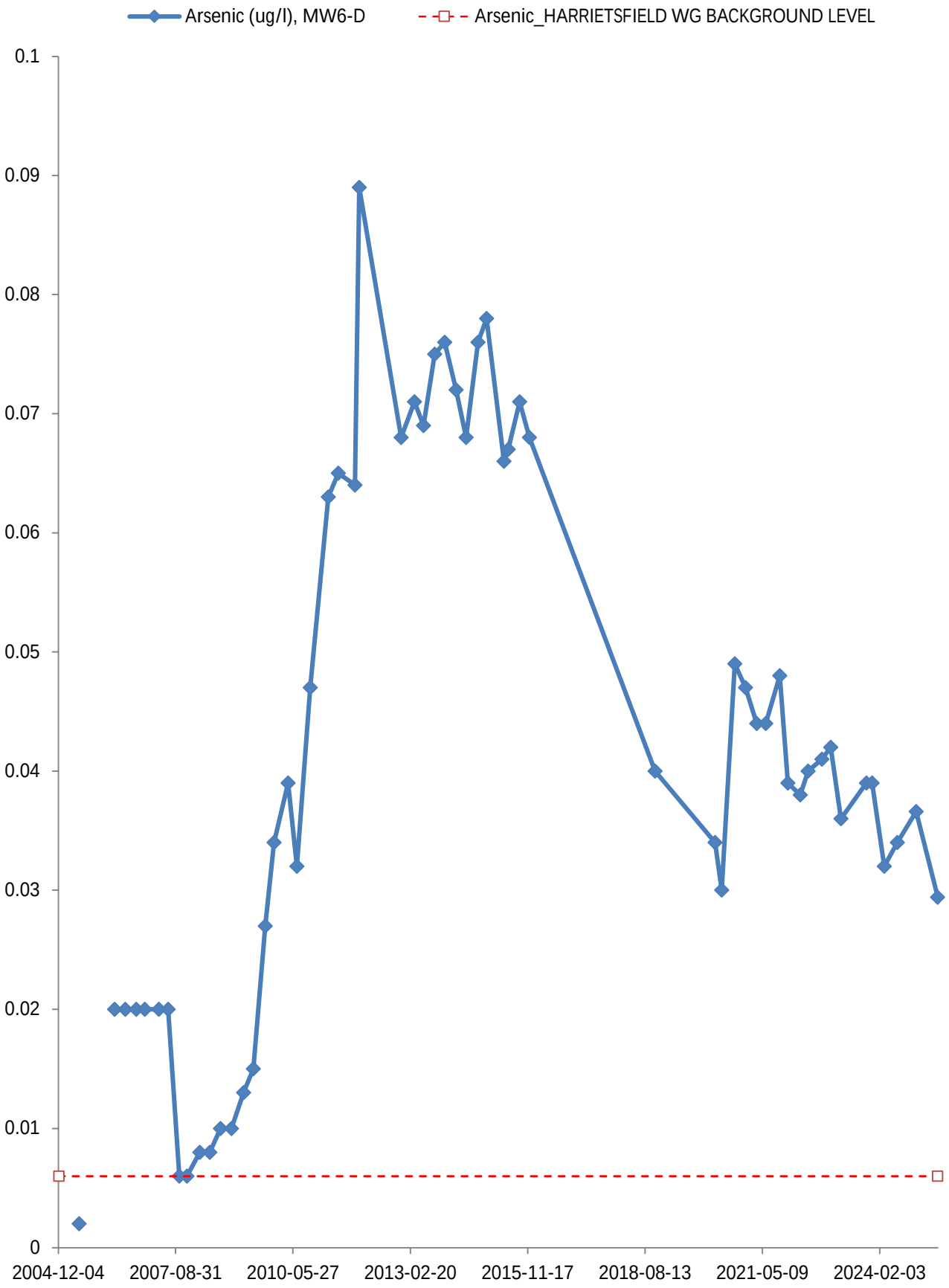



Silver (ug/l), MW5-S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2002-04-26
2005-01-20
2007-10-17
2010-07-13
2013-04-08
2016-01-03
2018-09-29
2021-06-25
2024-03-21

# Alkalinity, Total

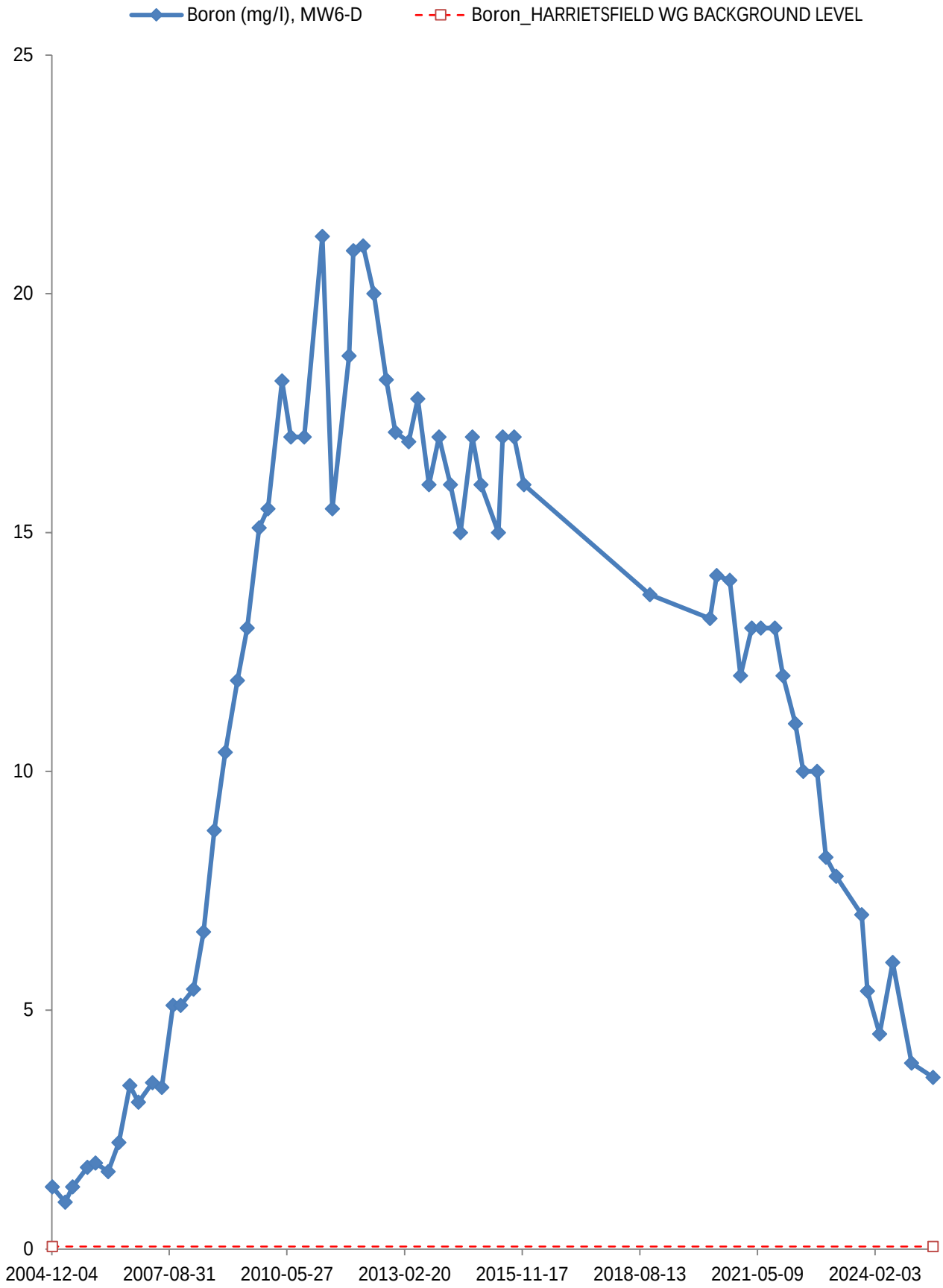


# Arsenic

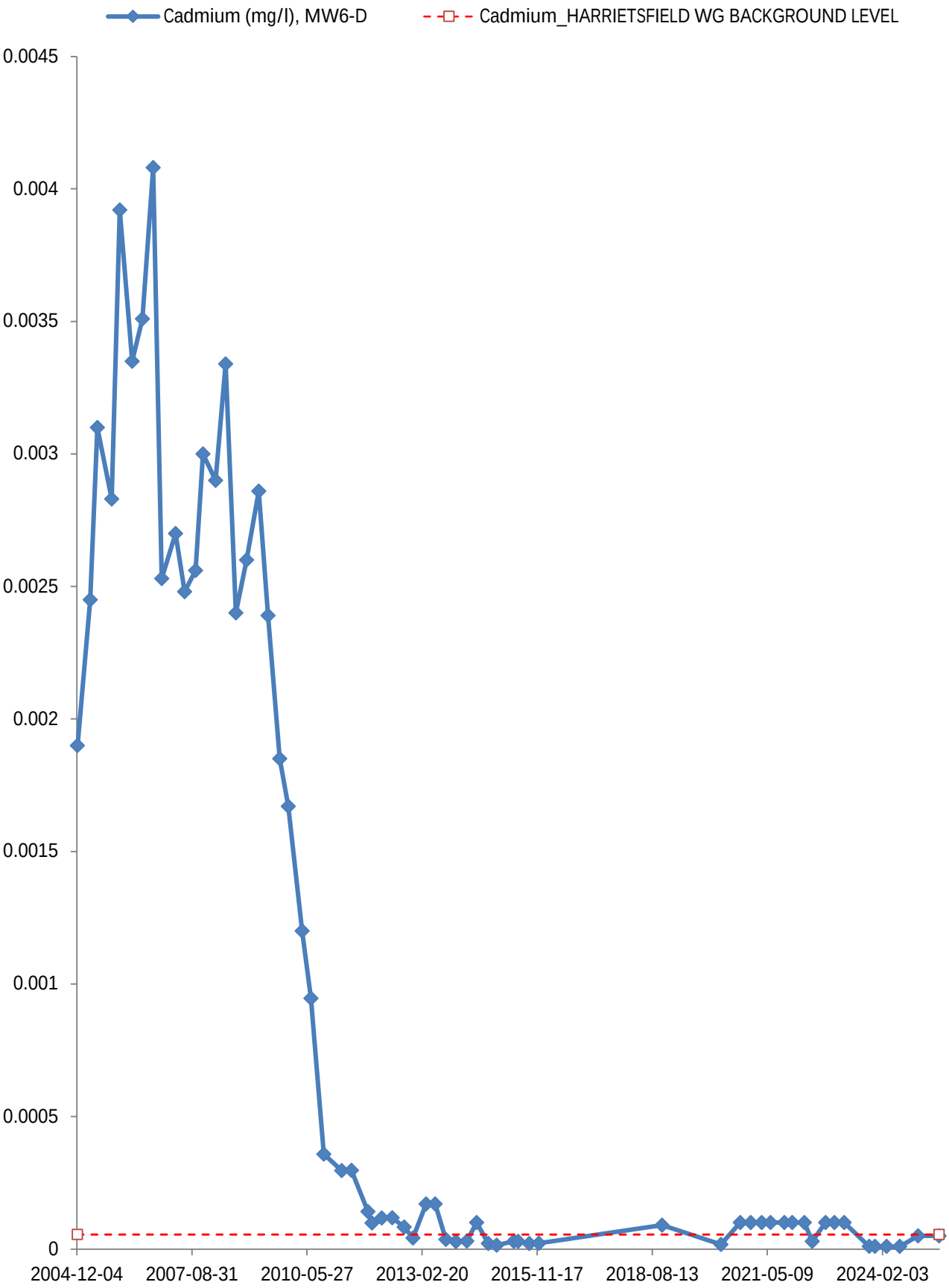

Arsenic (ug/l), MW6-D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Boron

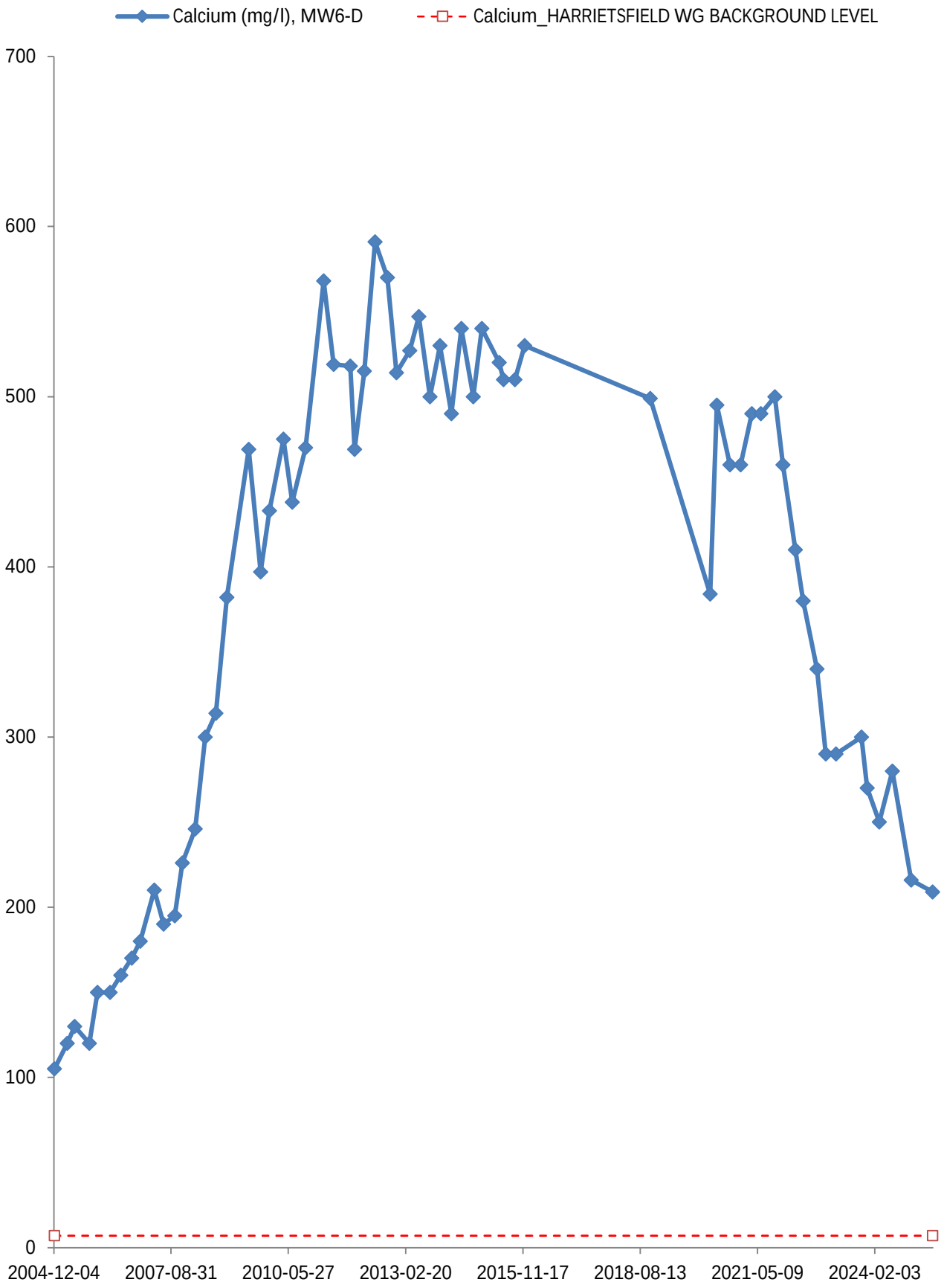



Boron (mg/l), MW6-D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Cadmium

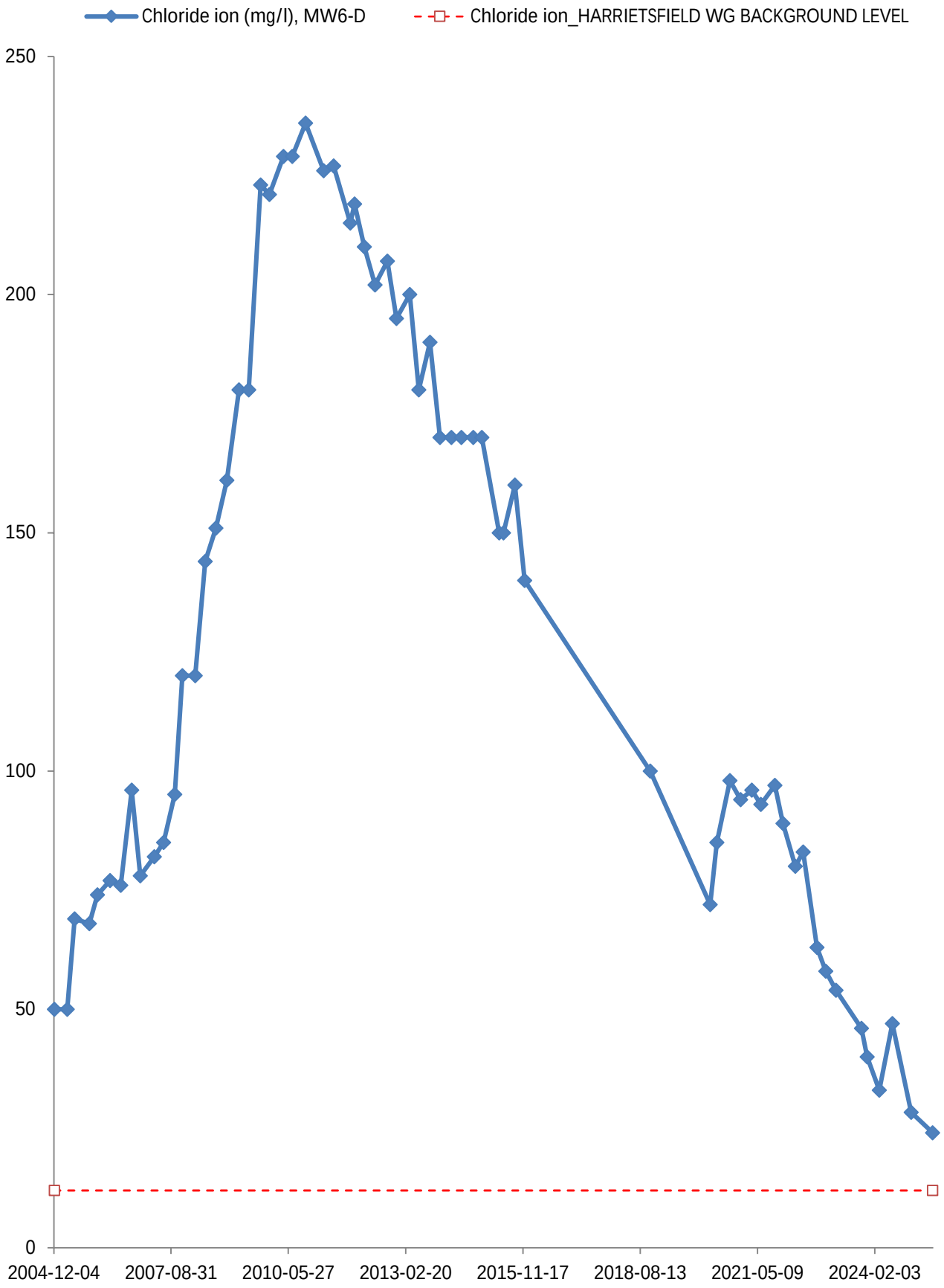

Cadmium (mg/l), MW6-D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Calcium

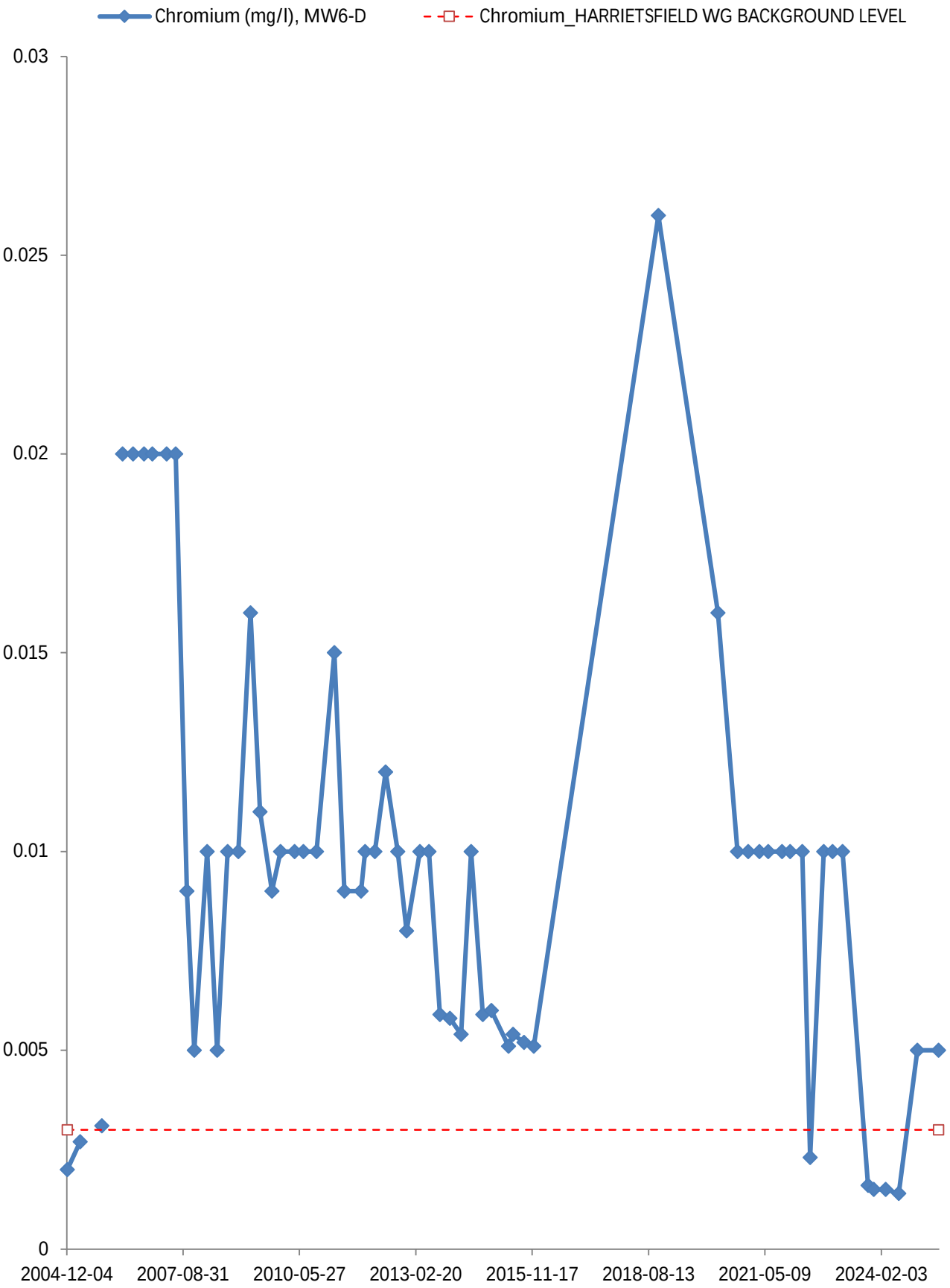

Calcium (mg/l), MW6-D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
700
600
500
400
300
200
100
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Chloride ion



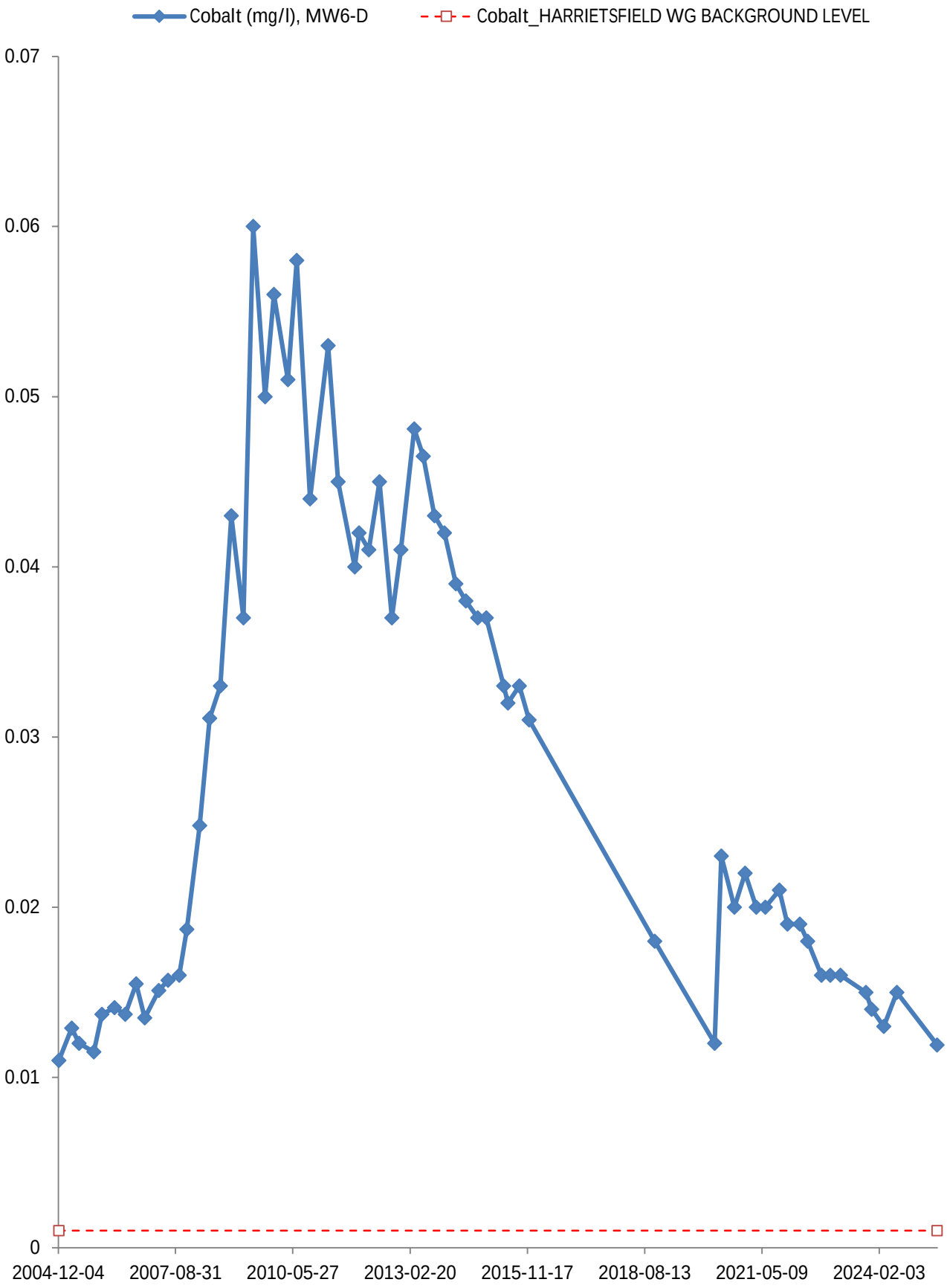


# Chromium


Chromium (mg/l), MW6-D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.03
0.025
0.02
0.015
0.01
0.005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

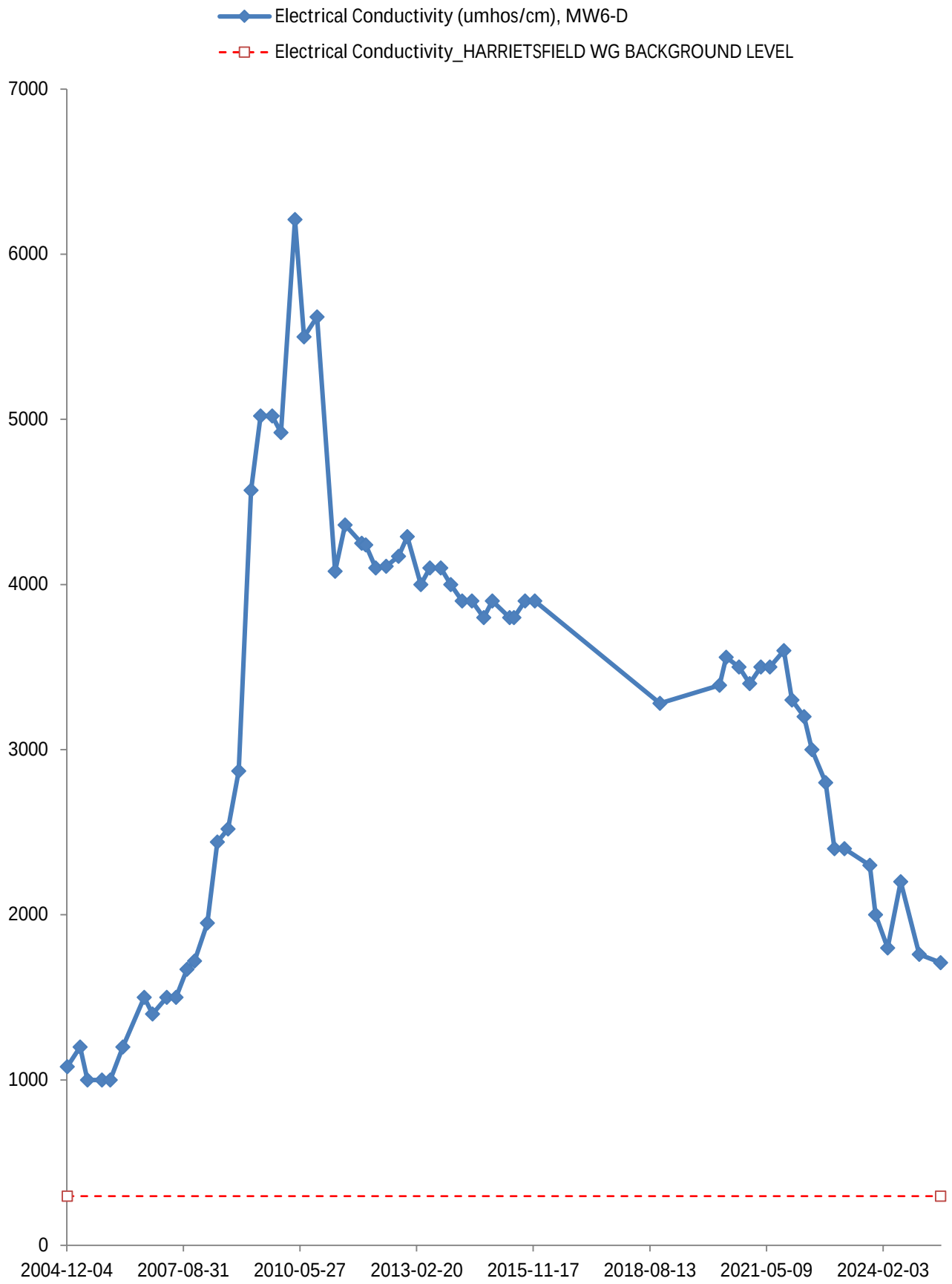
# Cobalt




Cobalt (mg/l), MW6-D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

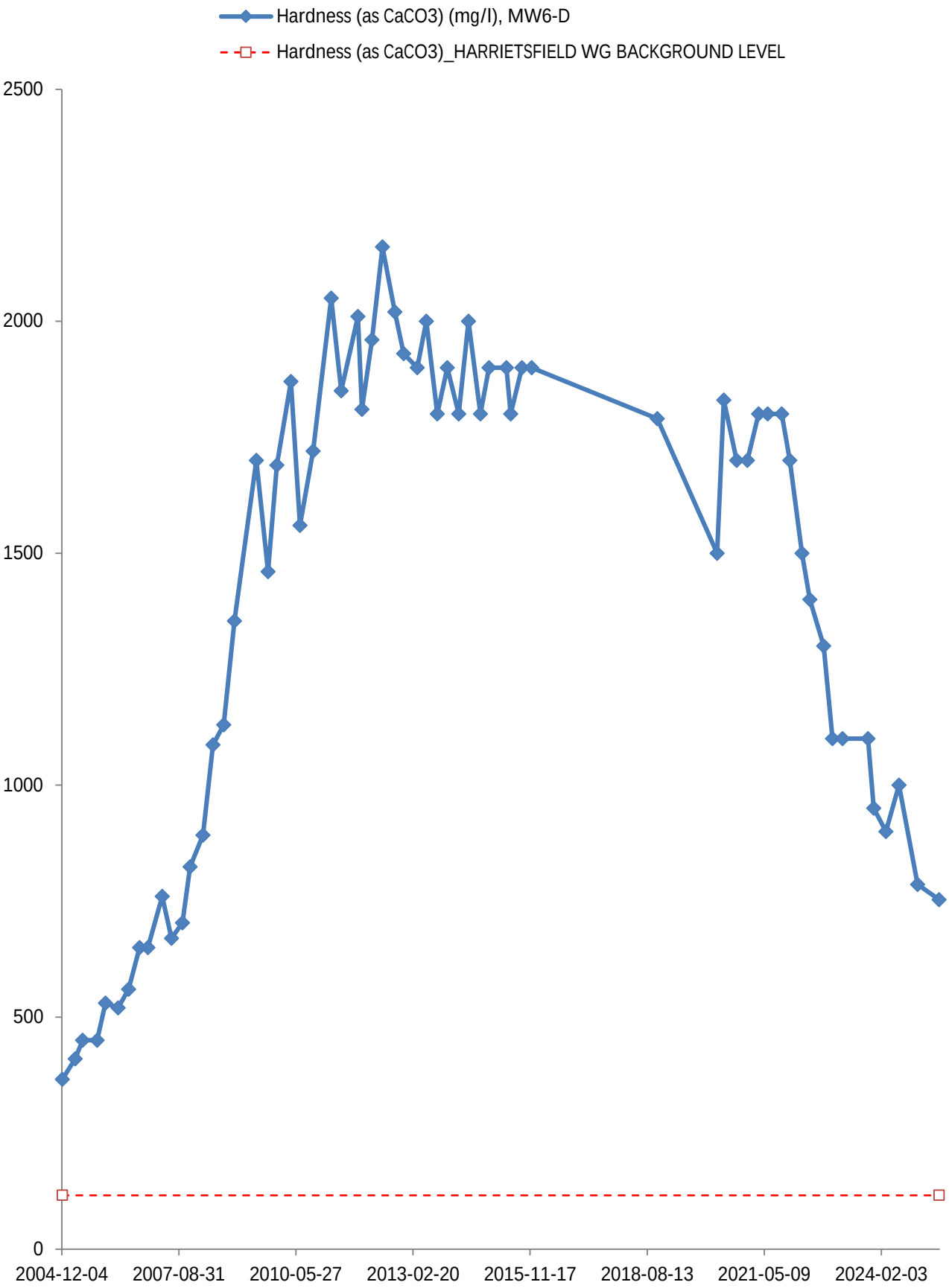
# Electrical Conductivity





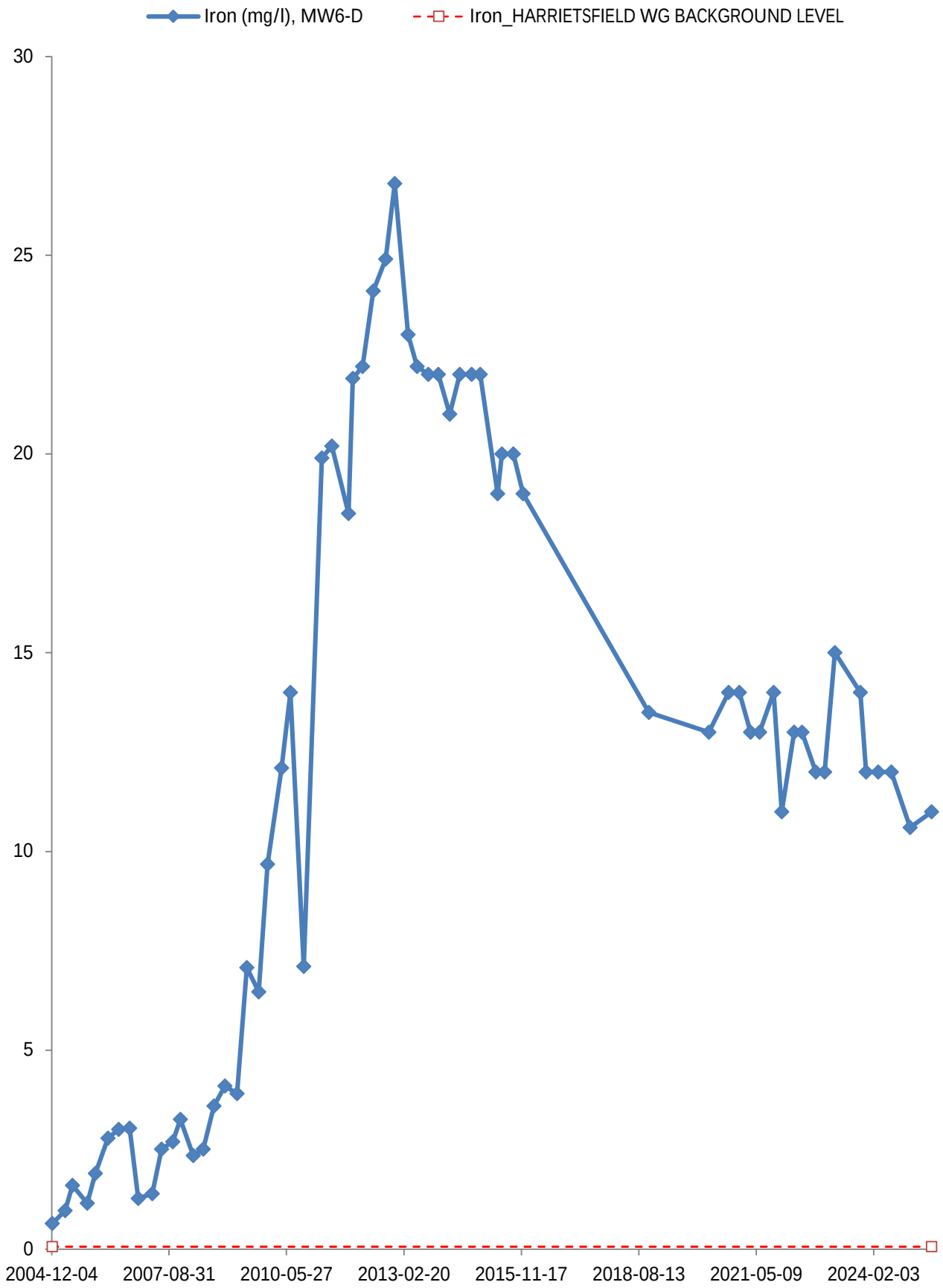
# Hardness (as CaCO3)



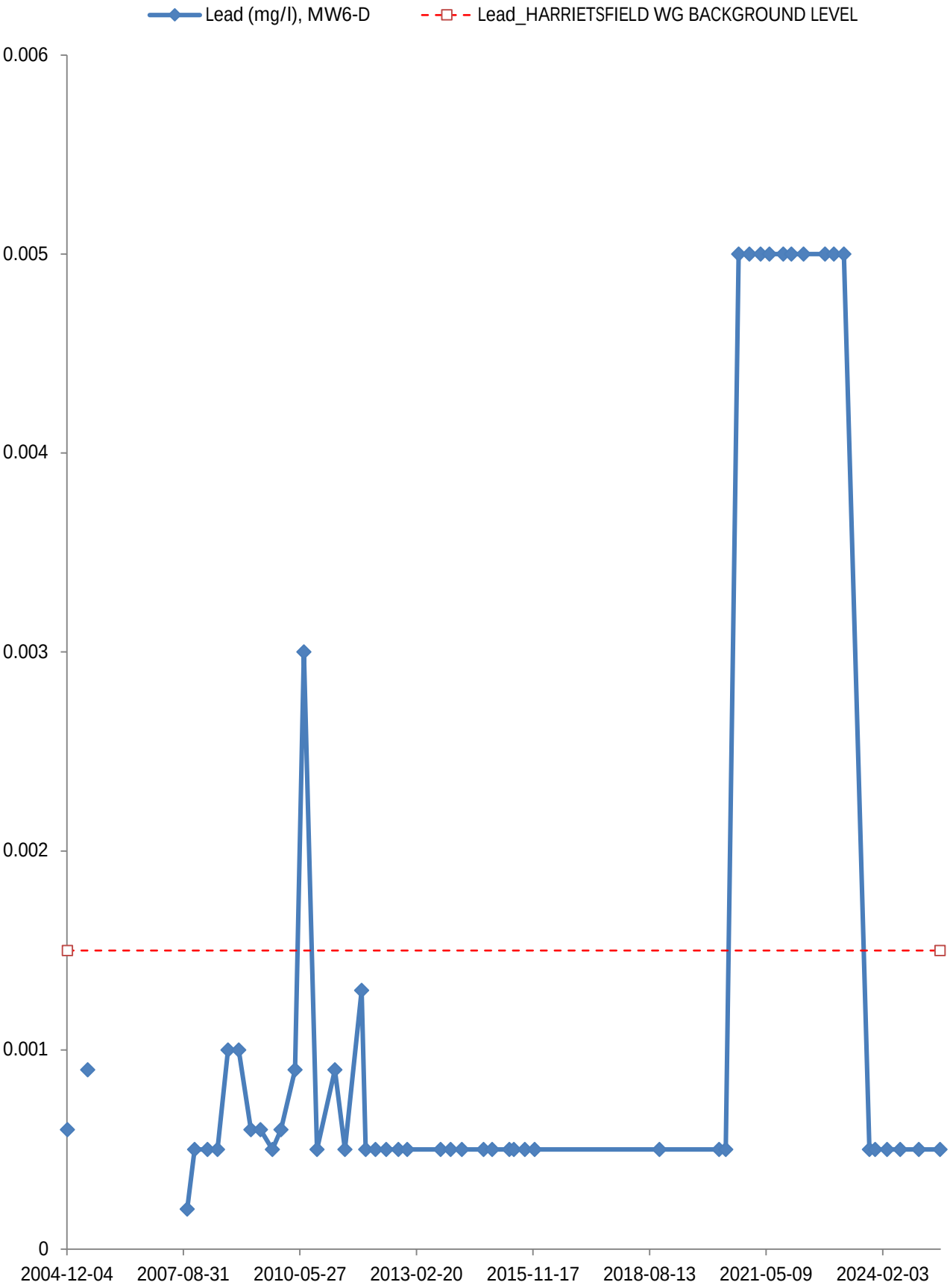


# Iron



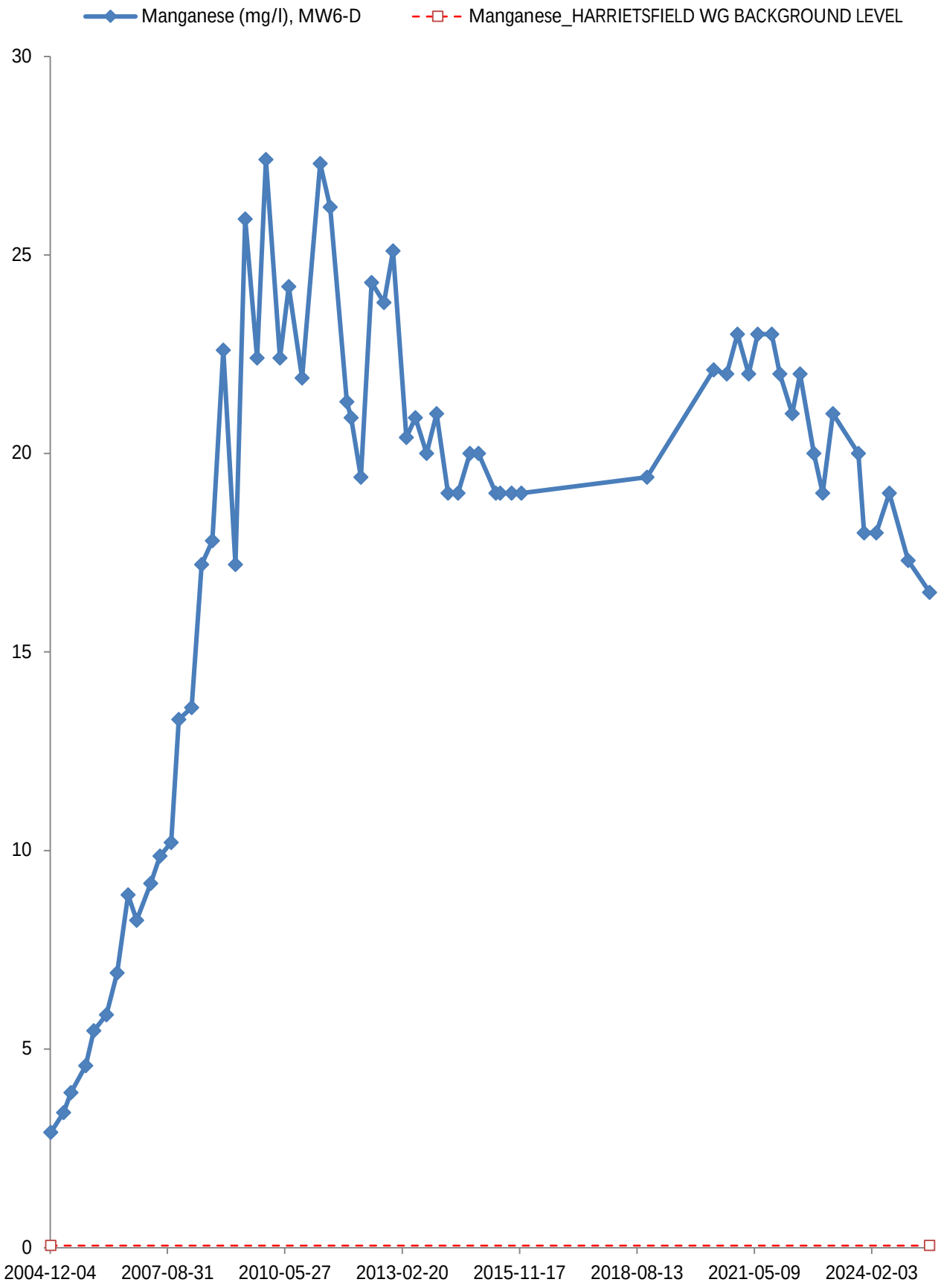

Iron (mg/l), MW6-D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Lead


Lead (mg/l), MW6-D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

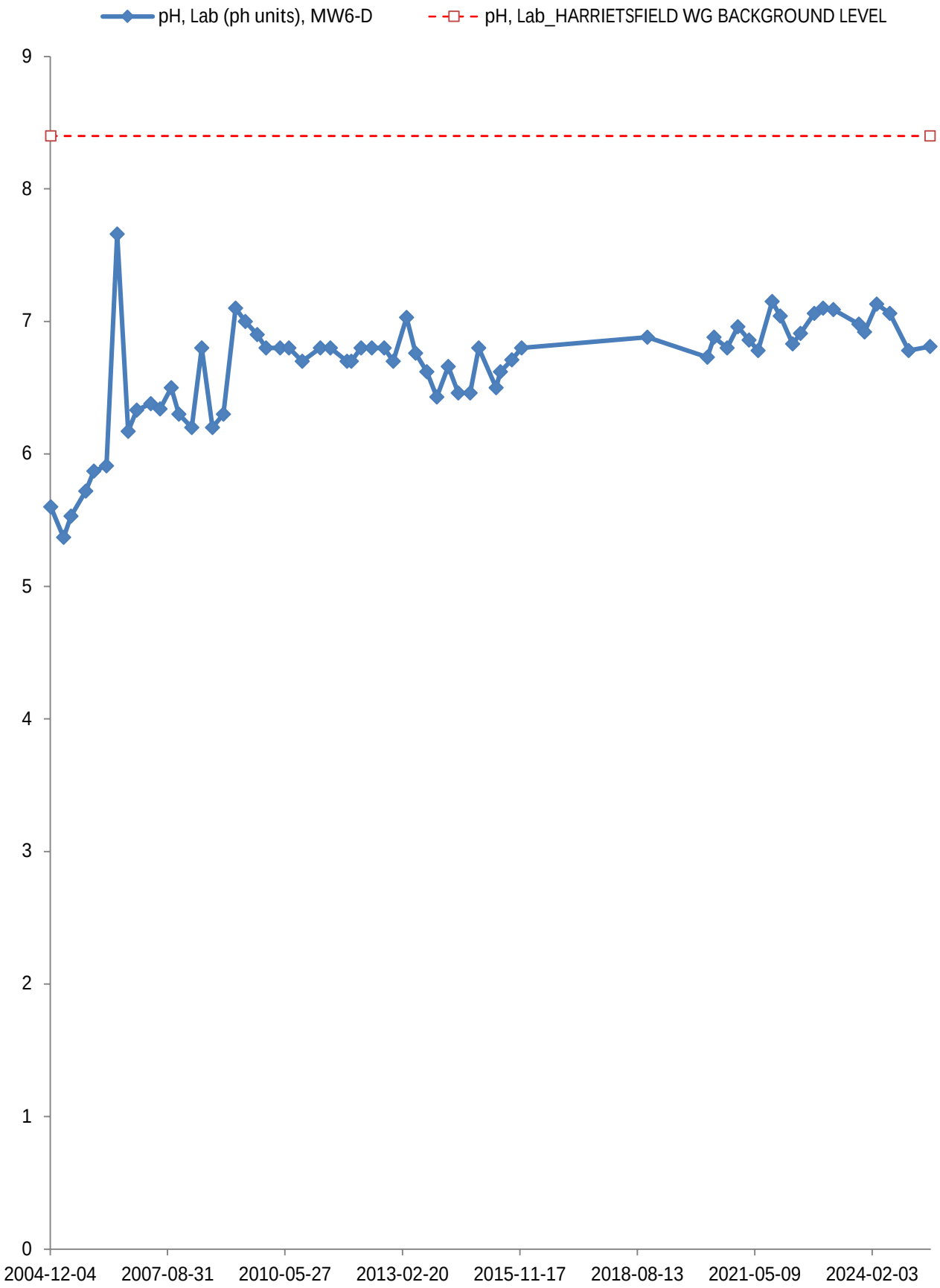
# Manganese



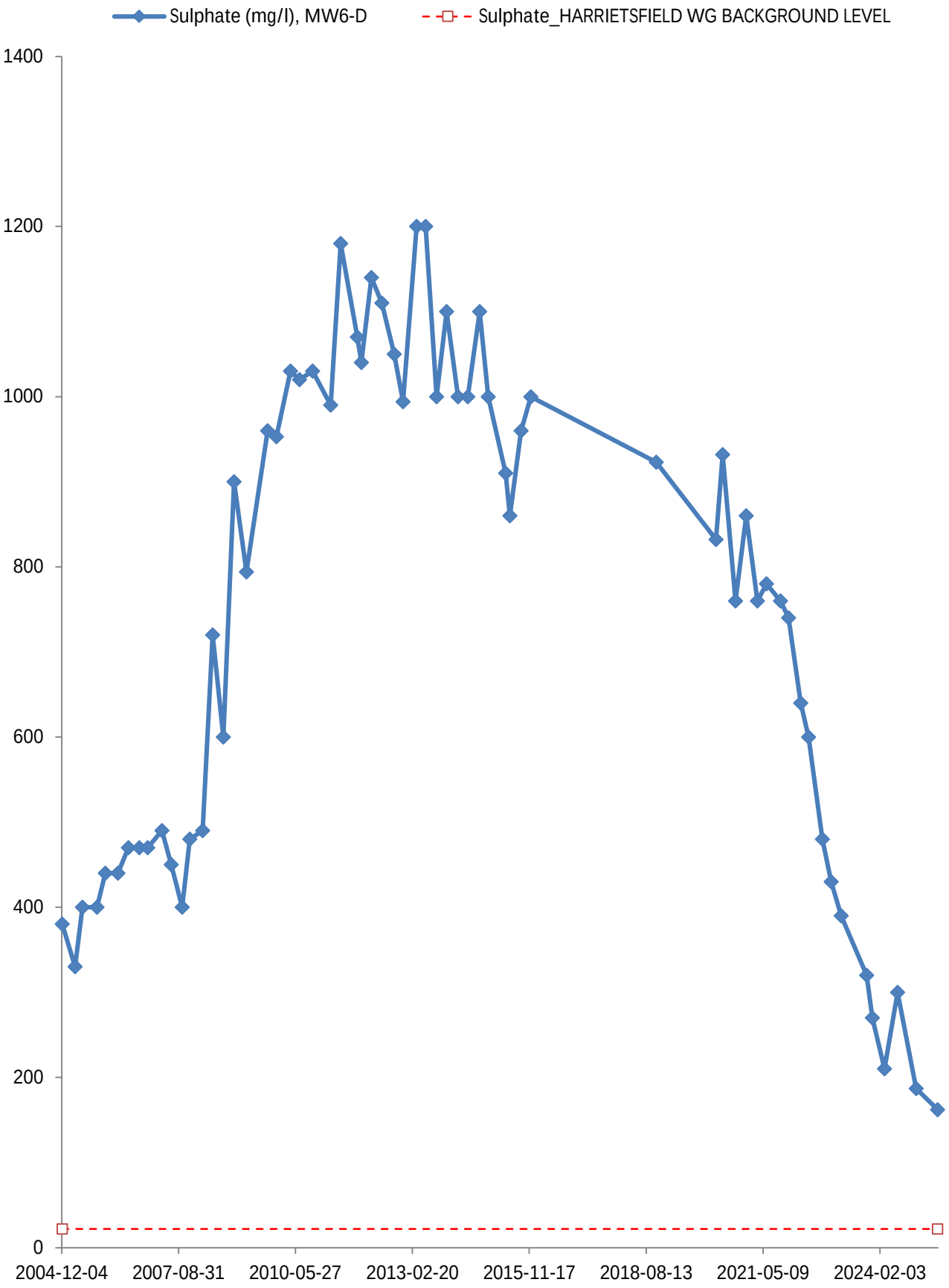

Manganese (mg/l), MW6-D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# pH, Lab



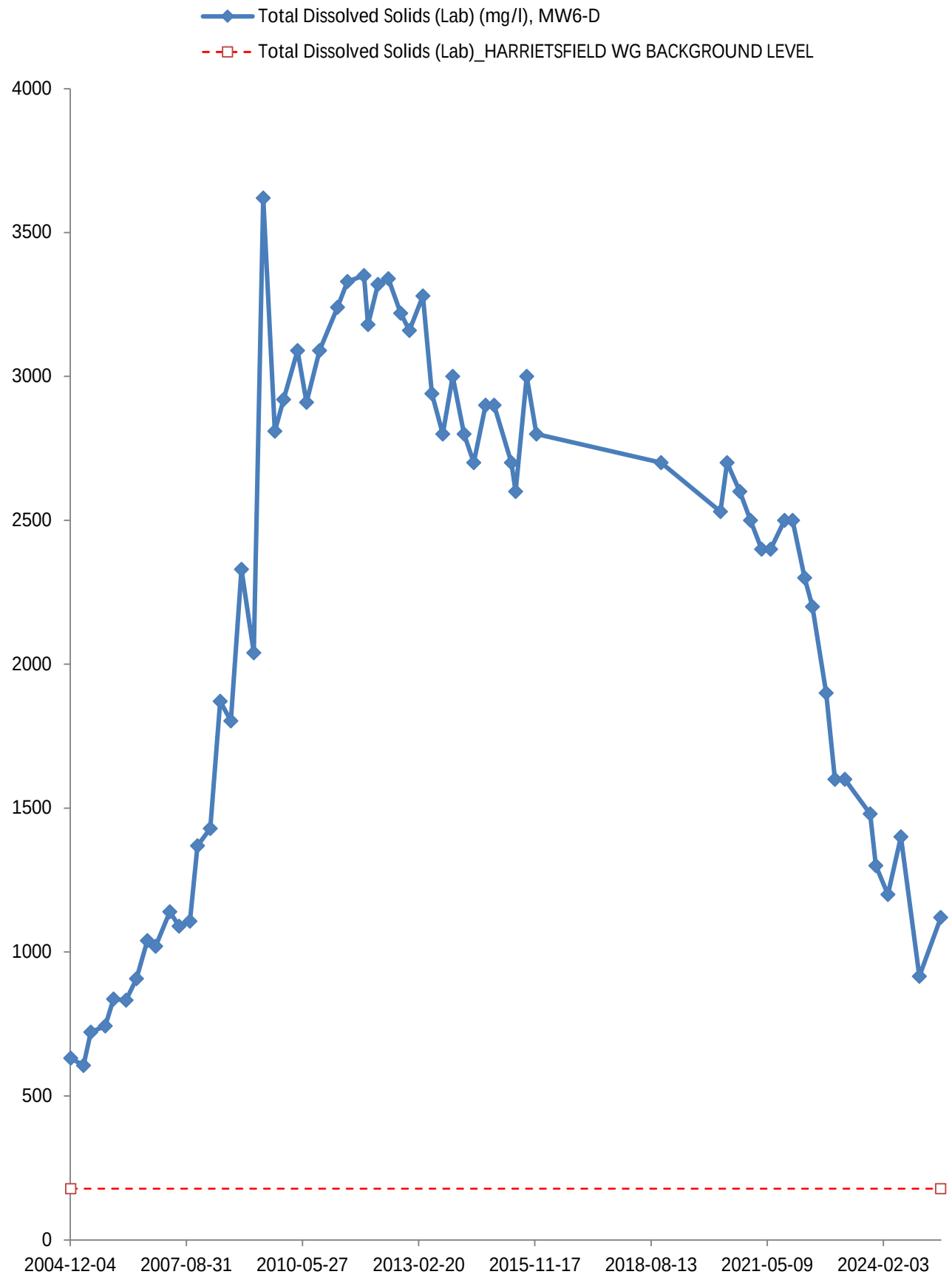

pH, Lab (ph units), MW6-D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Sulphate

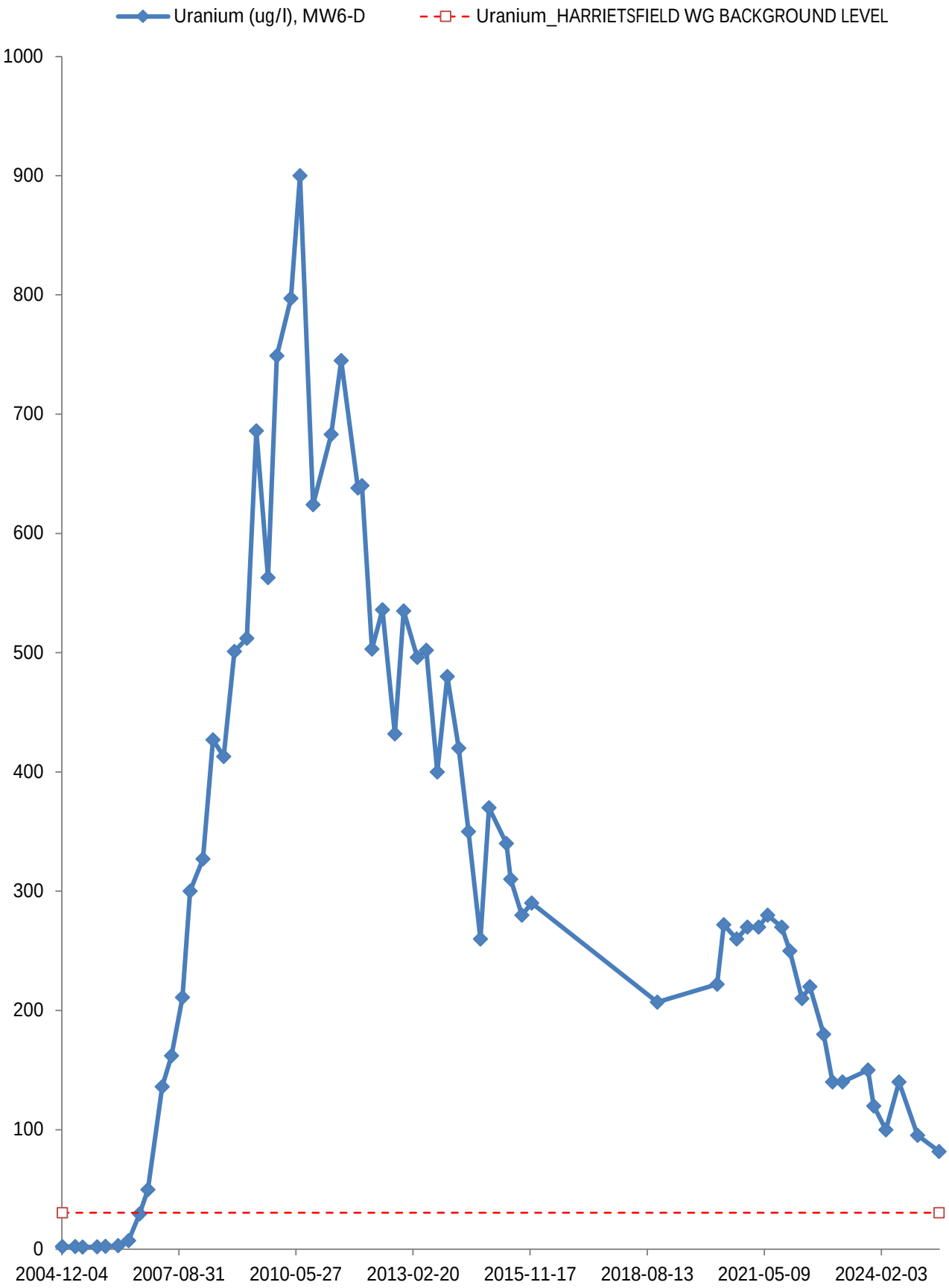

Sulphate (mg/l), MW6-D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
1400
1200
1000
800
600
400
200
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Total Dissolved Solids (3



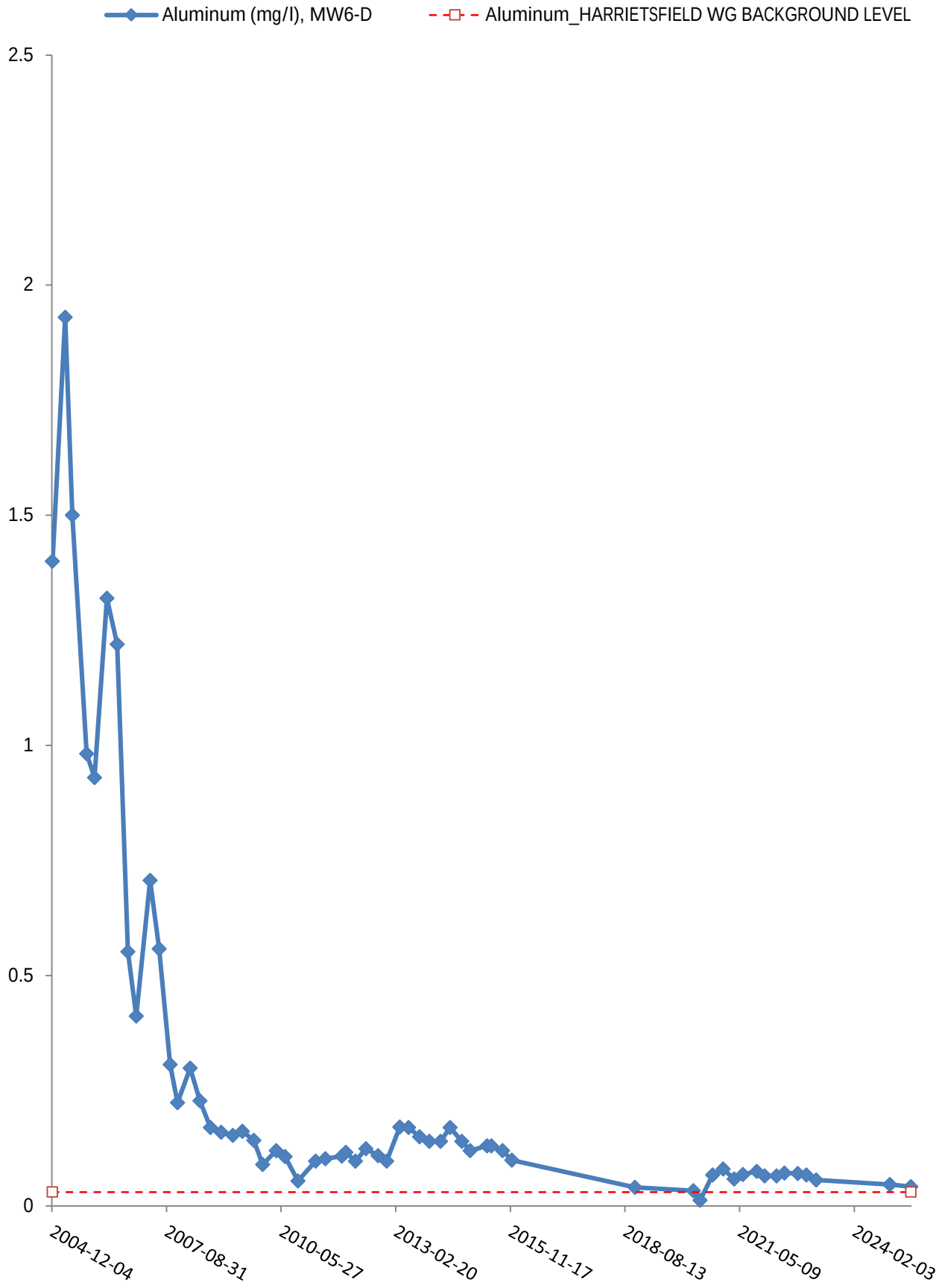


# Uranium


Uranium (ug/l), MW6-D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
1000
900
800
700
600
500
400
300
200
100
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

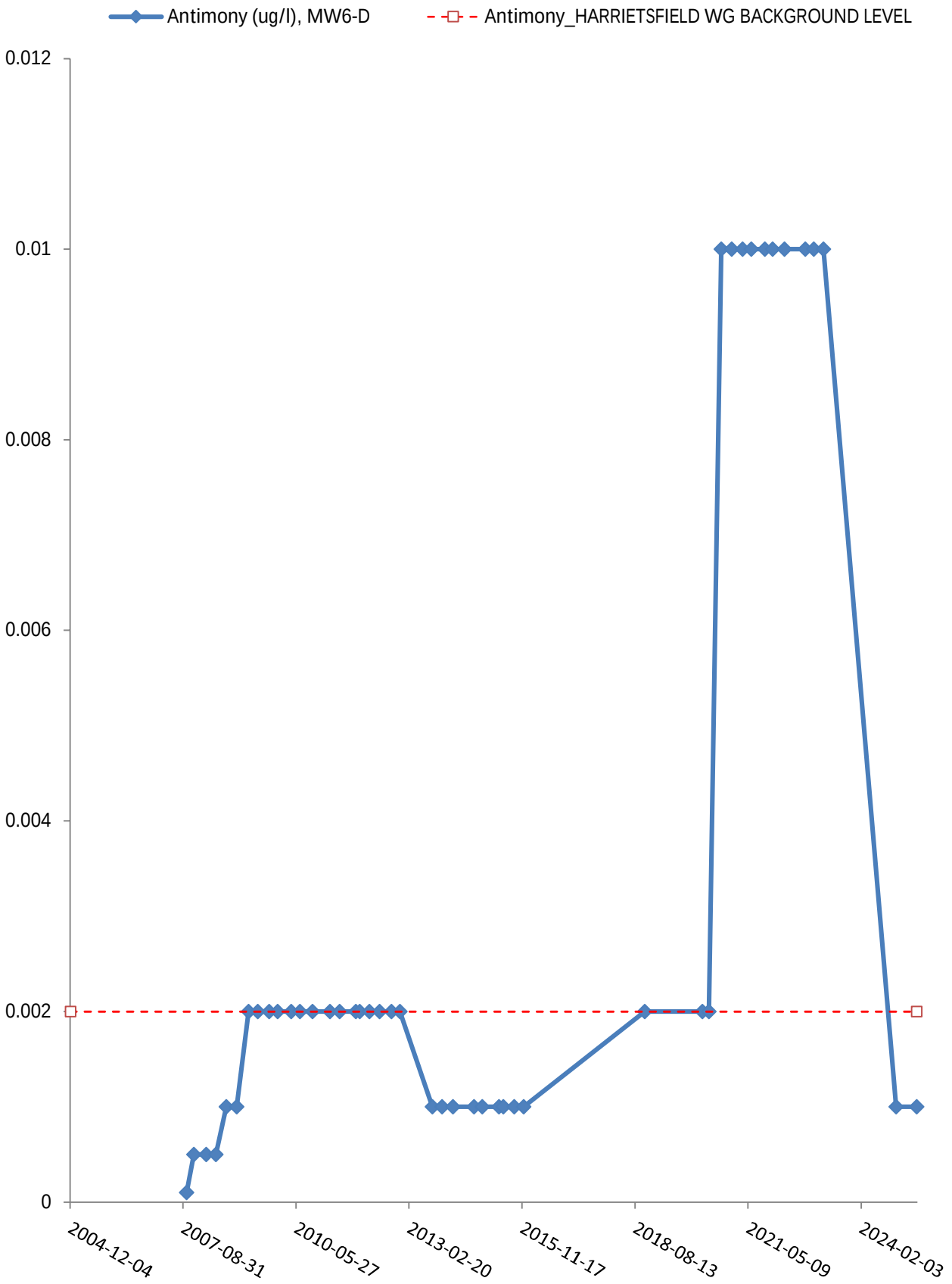
# Aluminum




Aluminum (mg/l), MW6-D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
2.5
2
1.5
1
0.5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

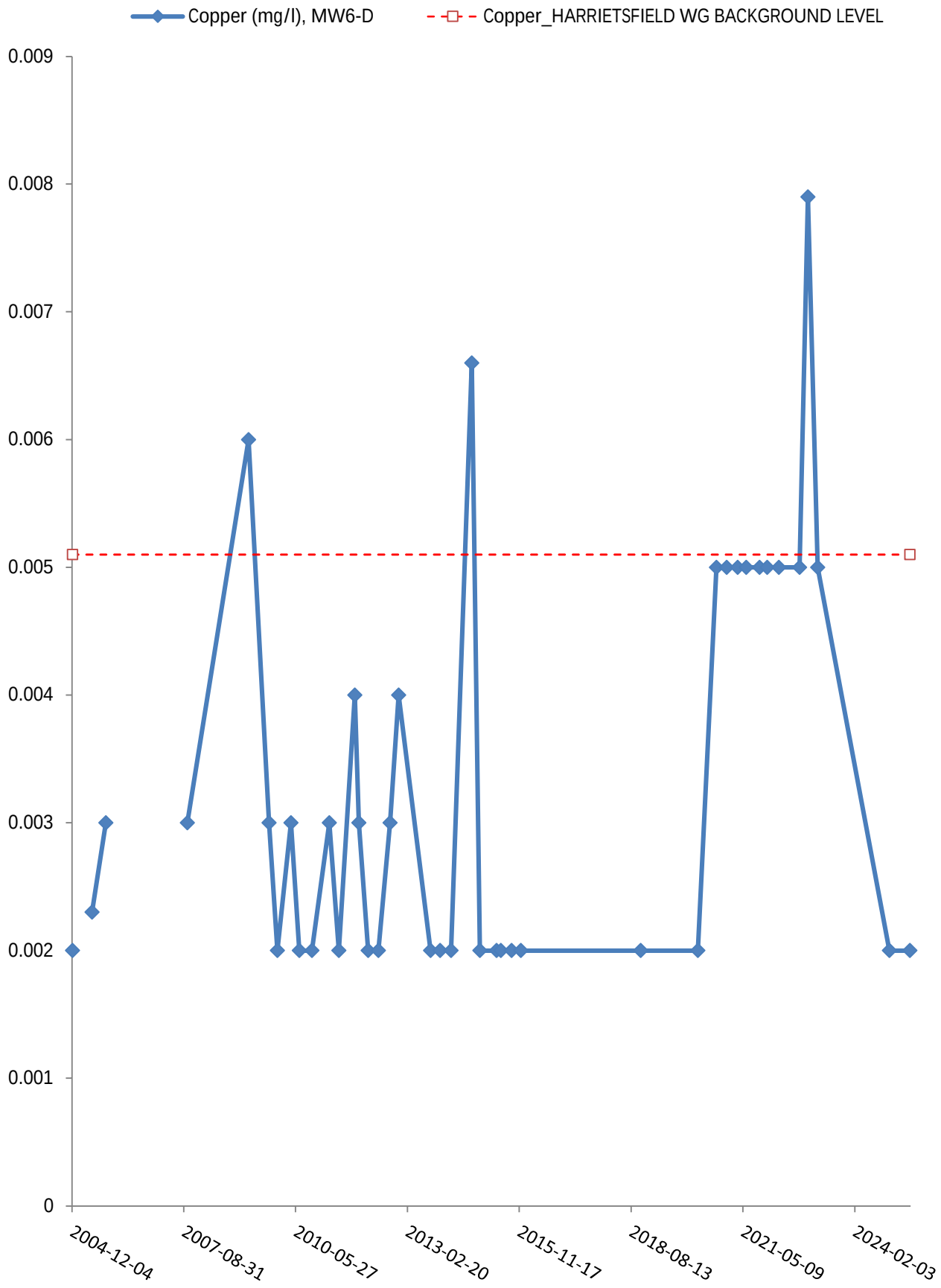
# Antimony




Antimony (ug/l), MW6-D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

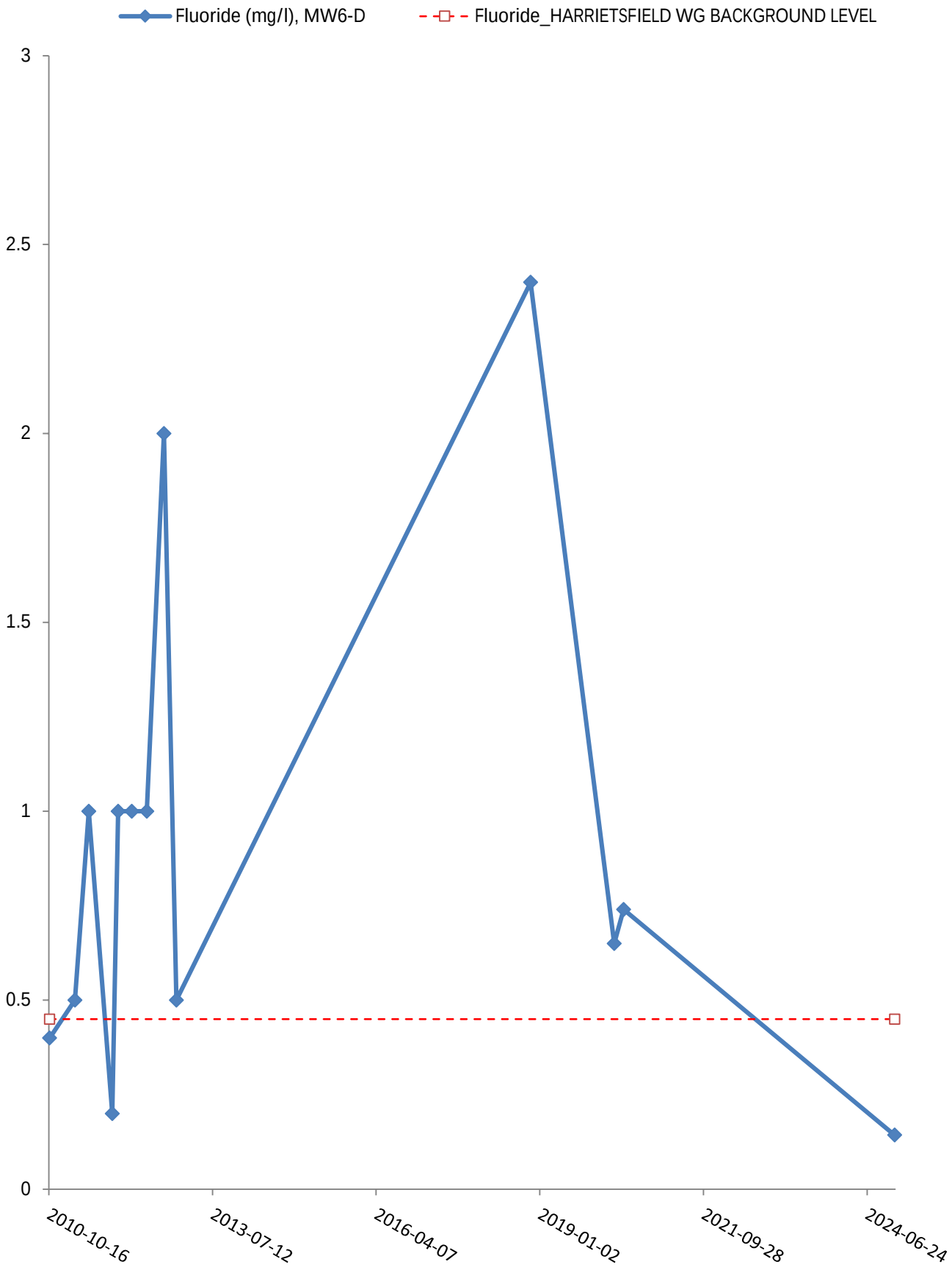
# Copper



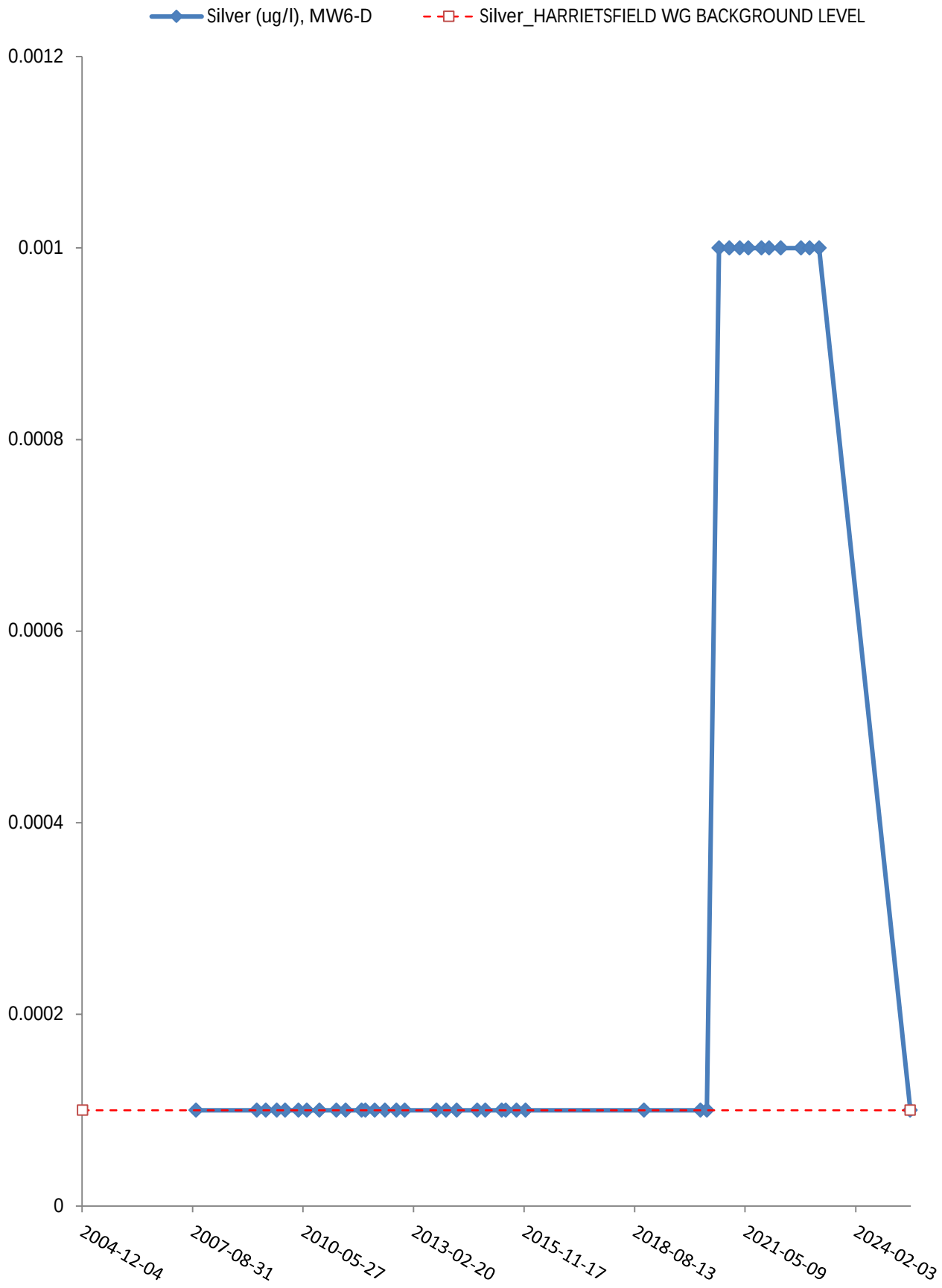

Copper (mg/l), MW6-D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Fluoride

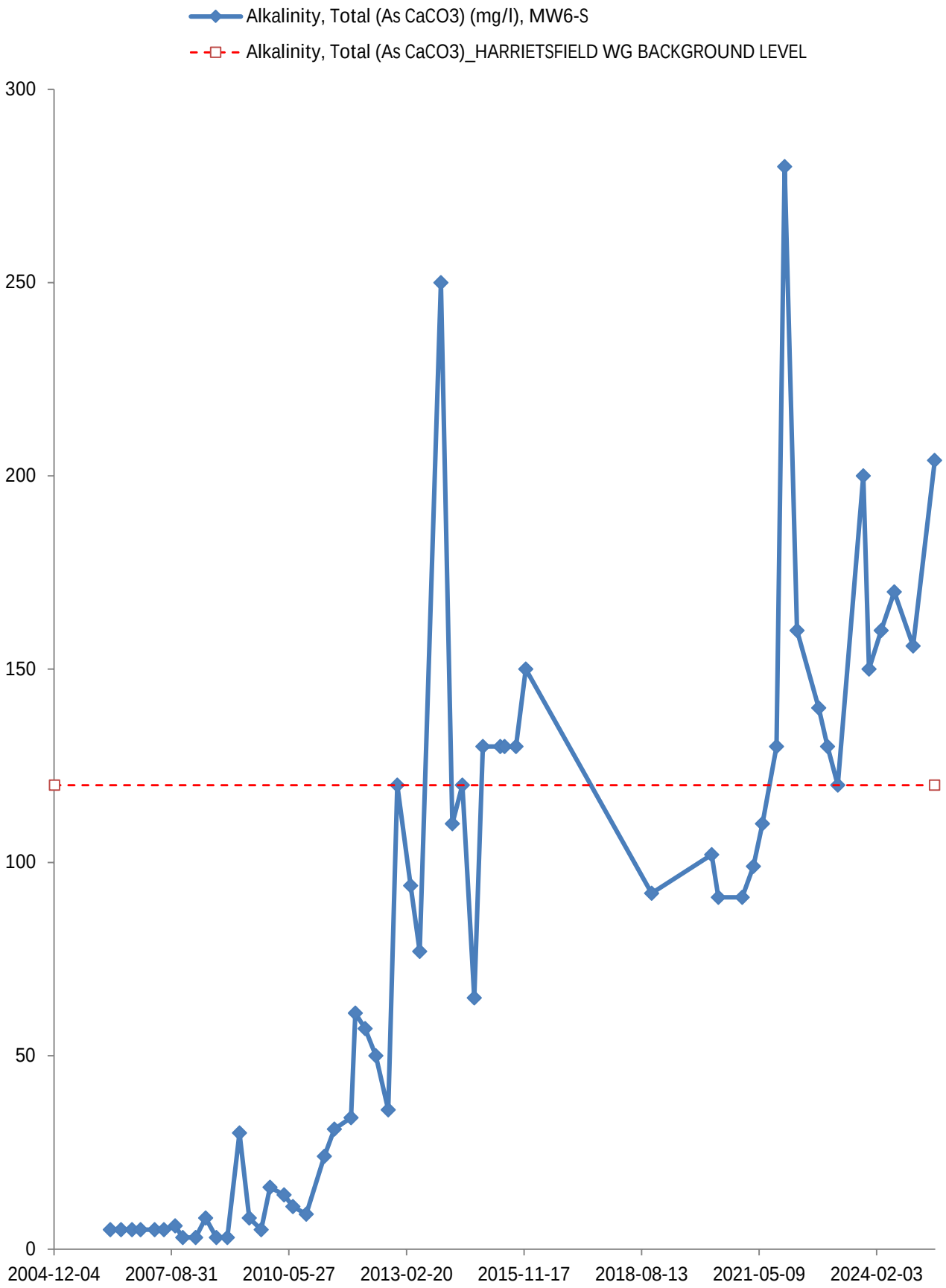



Fluoride (mg/l), MW6-D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
3
2.5
2
1.5
1
0.5
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver

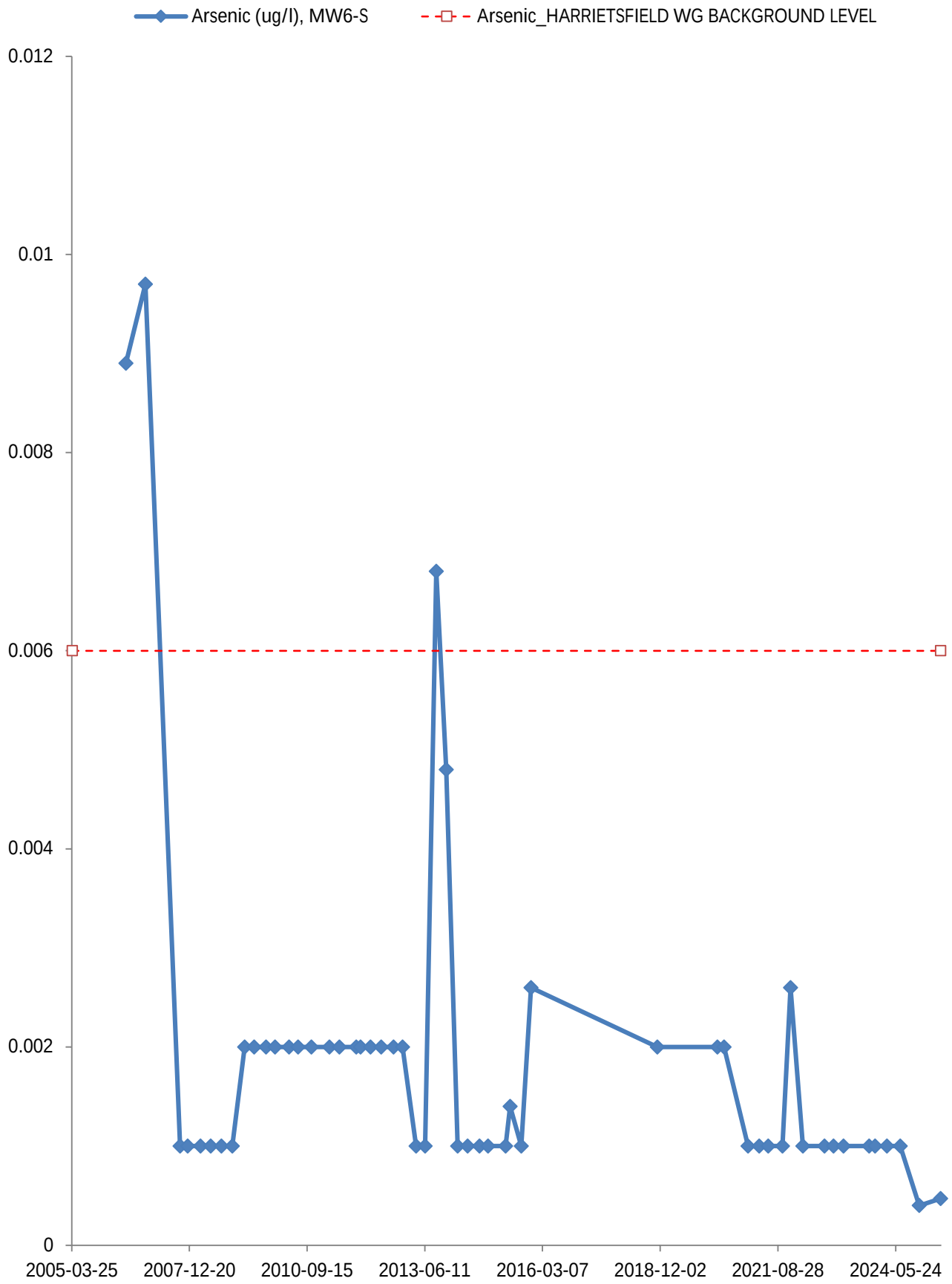

Silver (ug/l), MW6-D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Alkalinity, Total

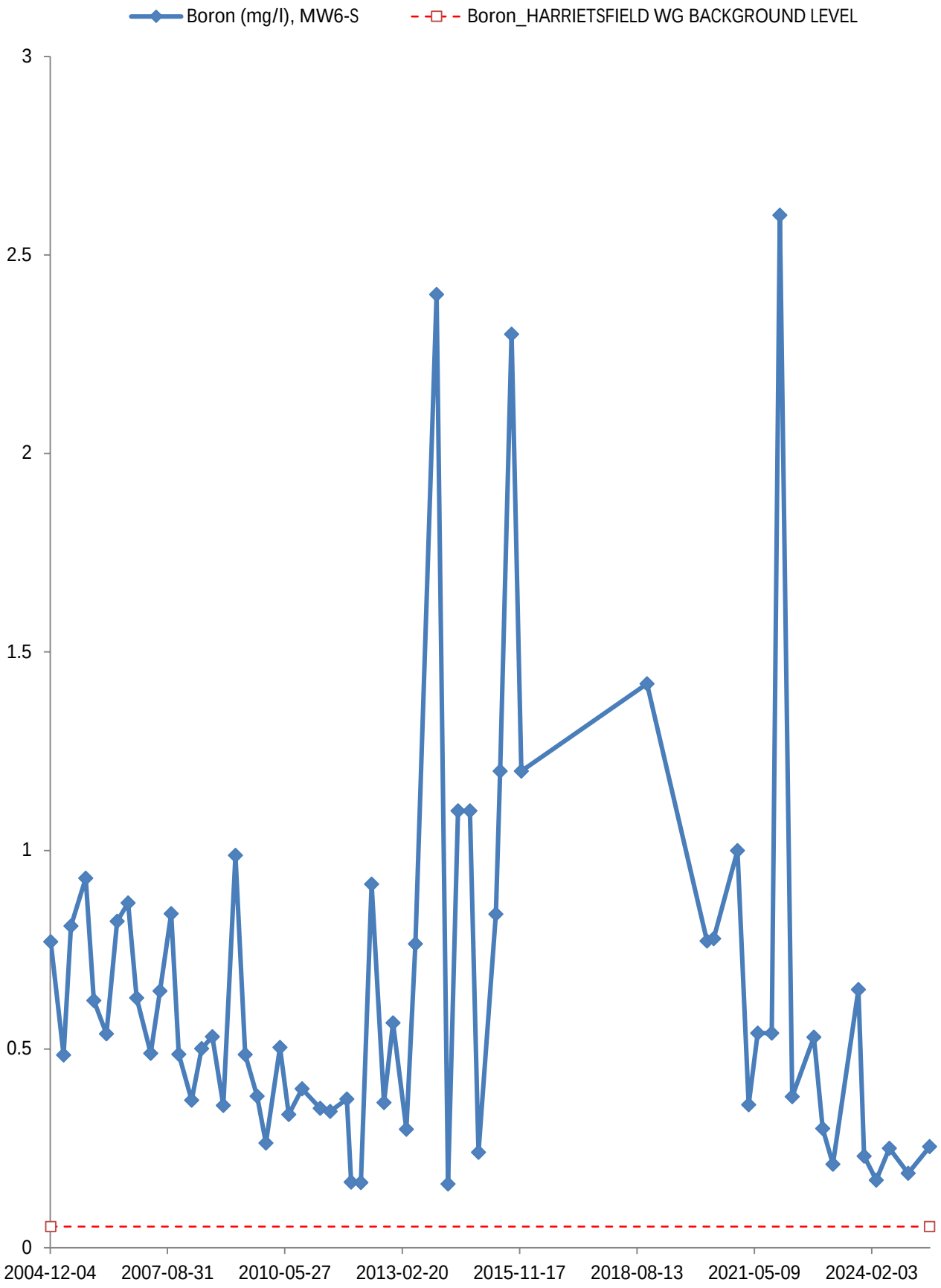


# Arsenic



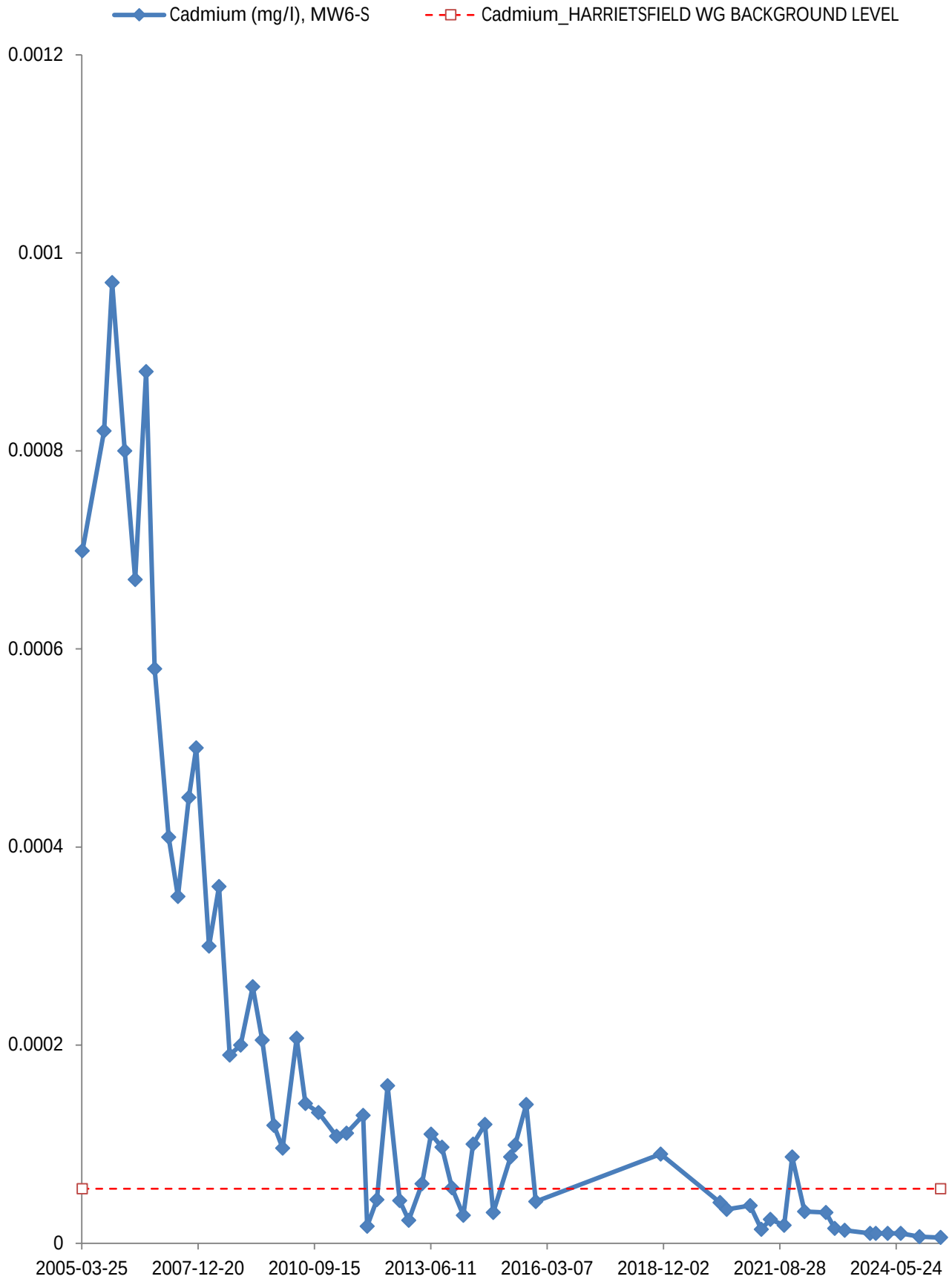

Arsenic (ug/l), MW6-S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Boron

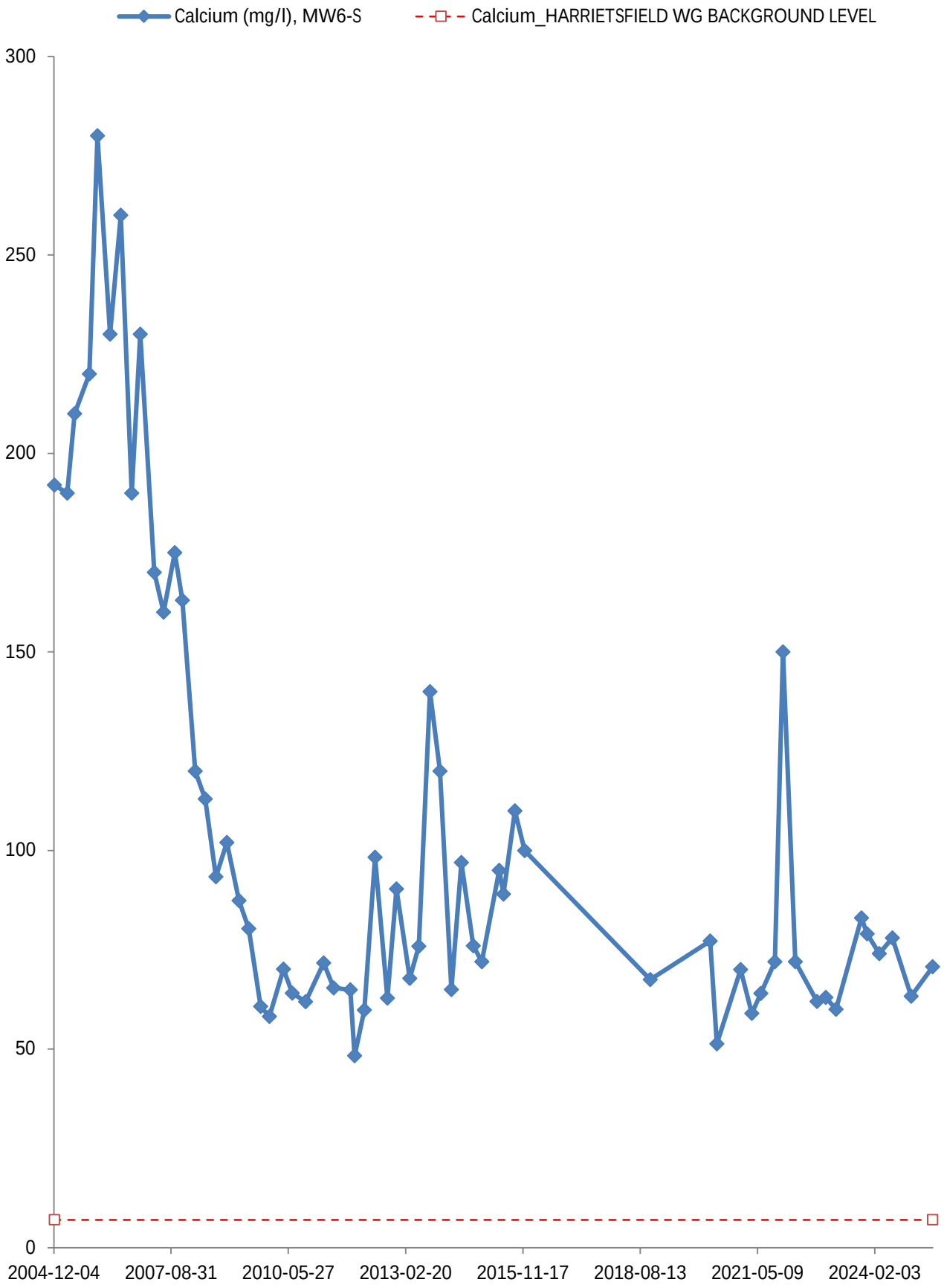

Boron (mg/l), MW6-S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
3
2.5
2
1.5
1
0.5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Cadmium

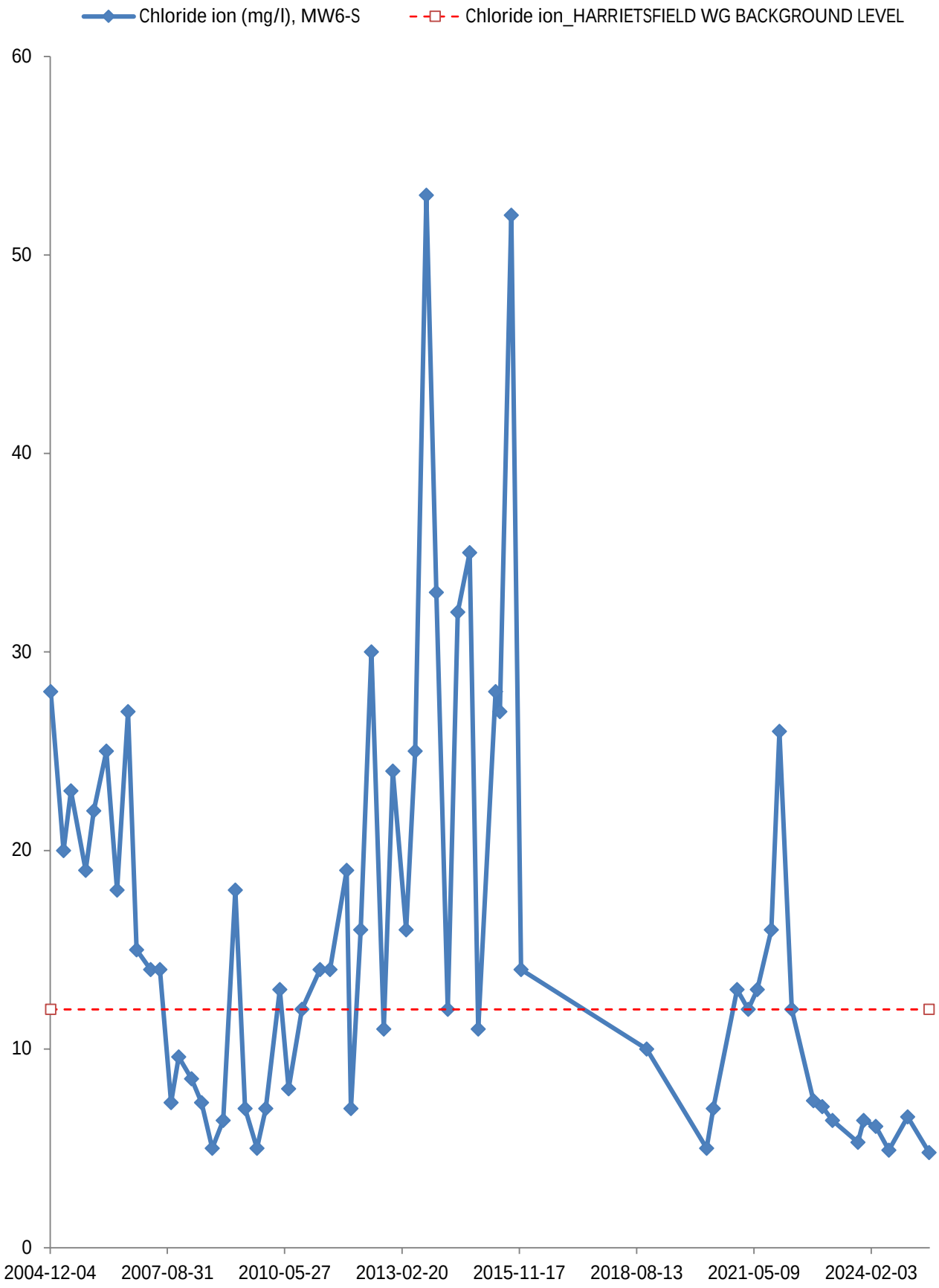



Cadmium (mg/l), MW6-S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

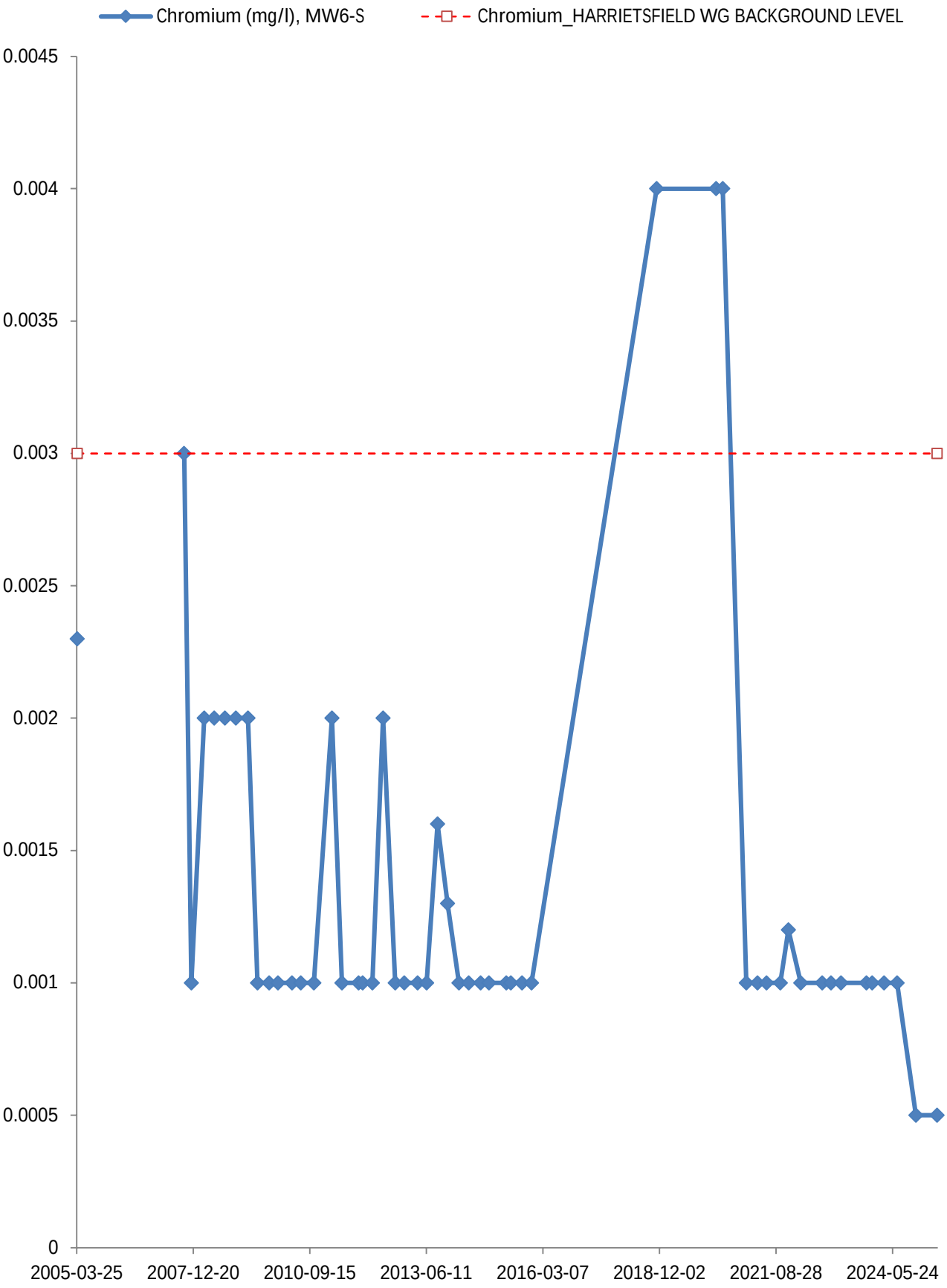
# Calcium


Calcium (mg/l), MW6-S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
300
250
200
150
100
50
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Chloride ion

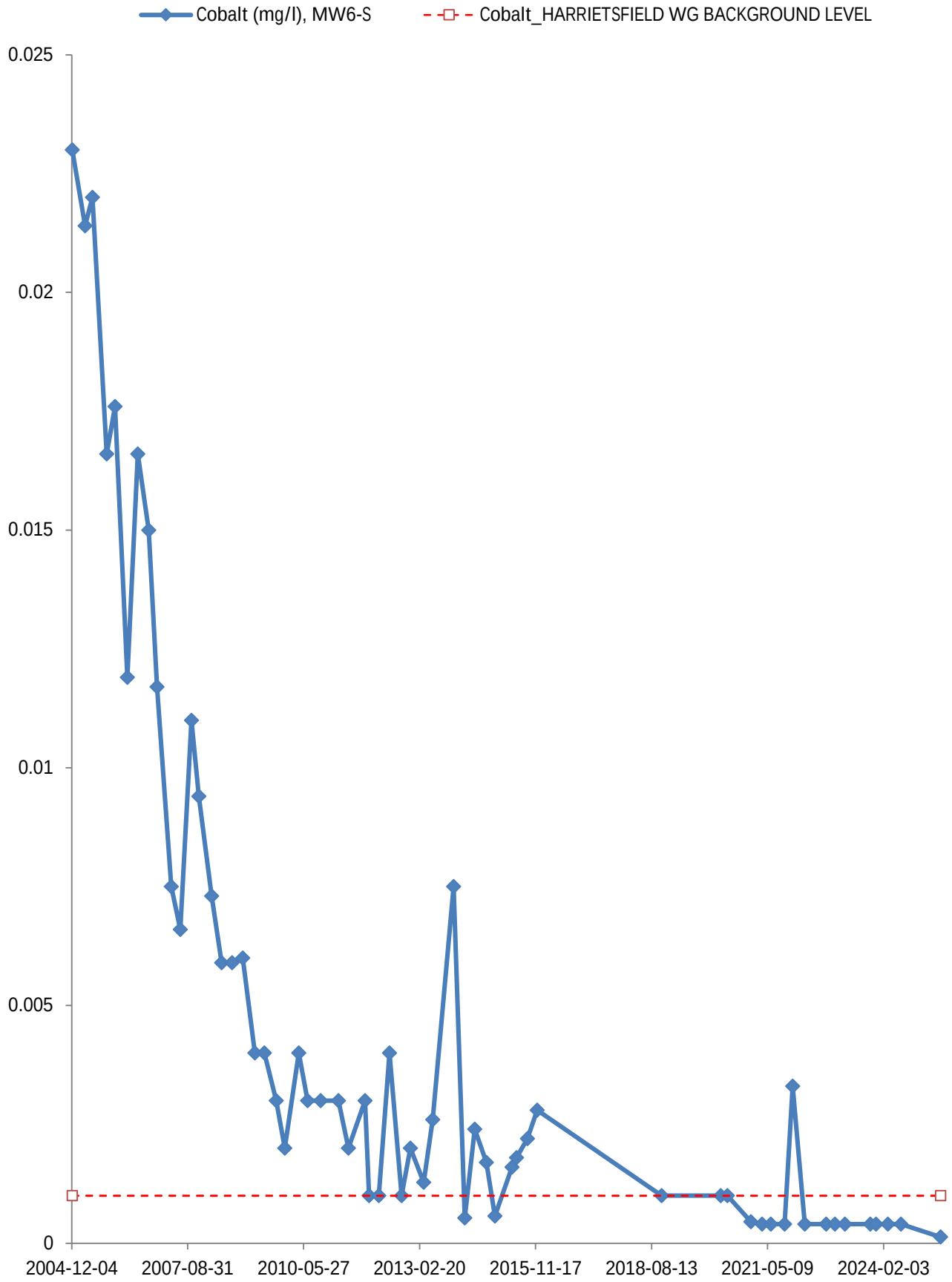


# Chromium


Chromium (mg/l), MW6-S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

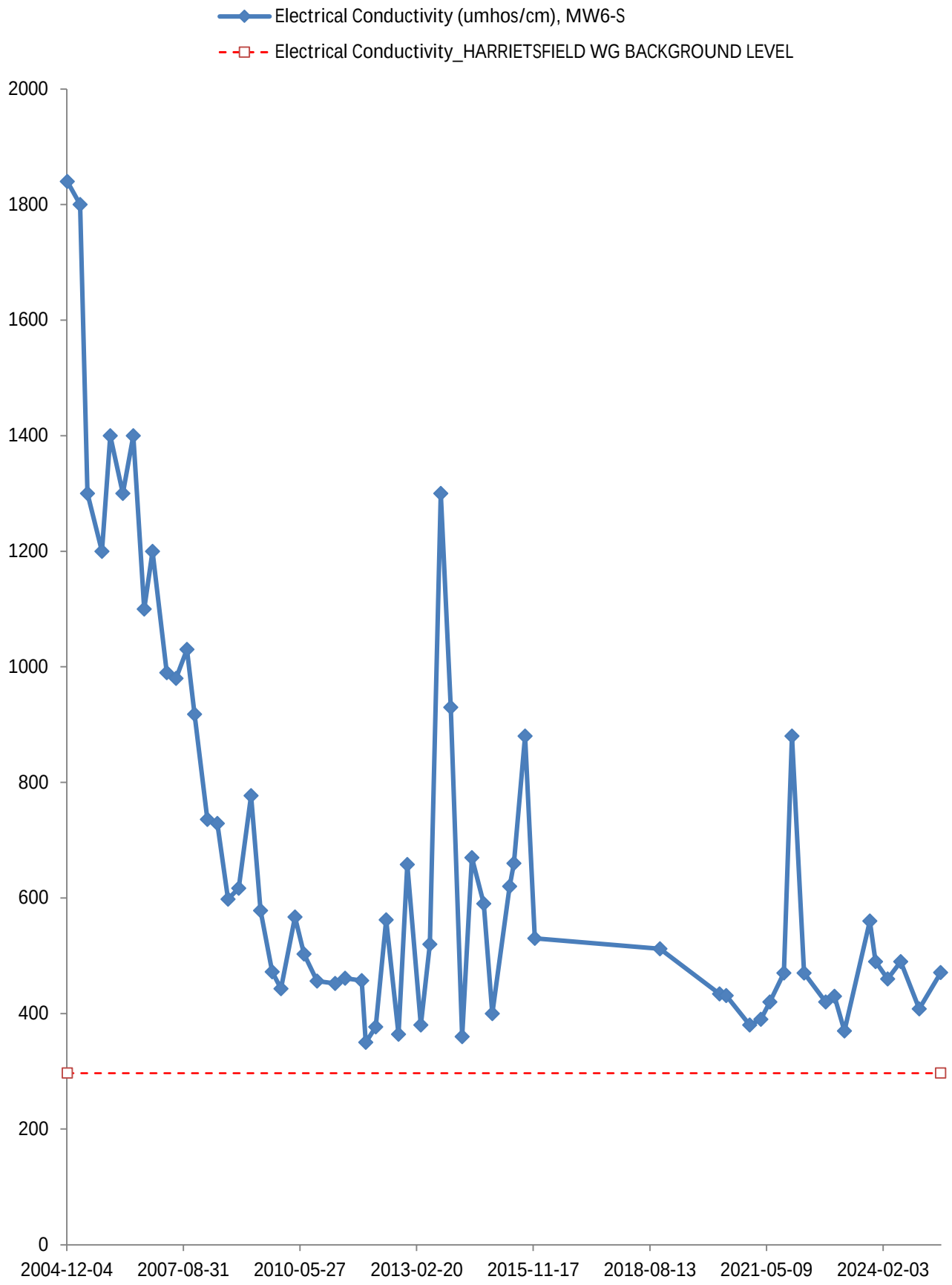
# Cobalt




Cobalt (mg/l), MW6-S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

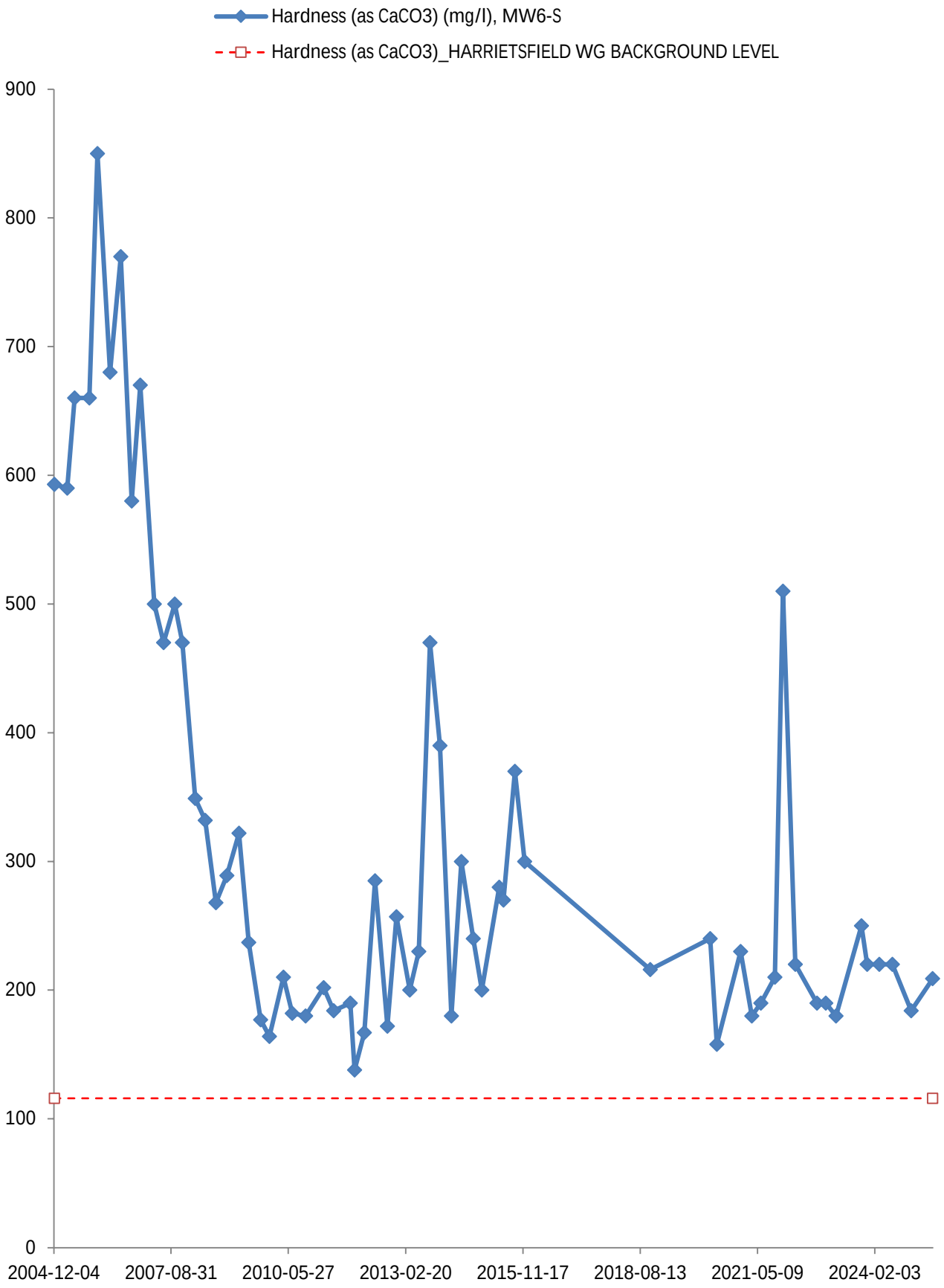
# Electrical Conductivity





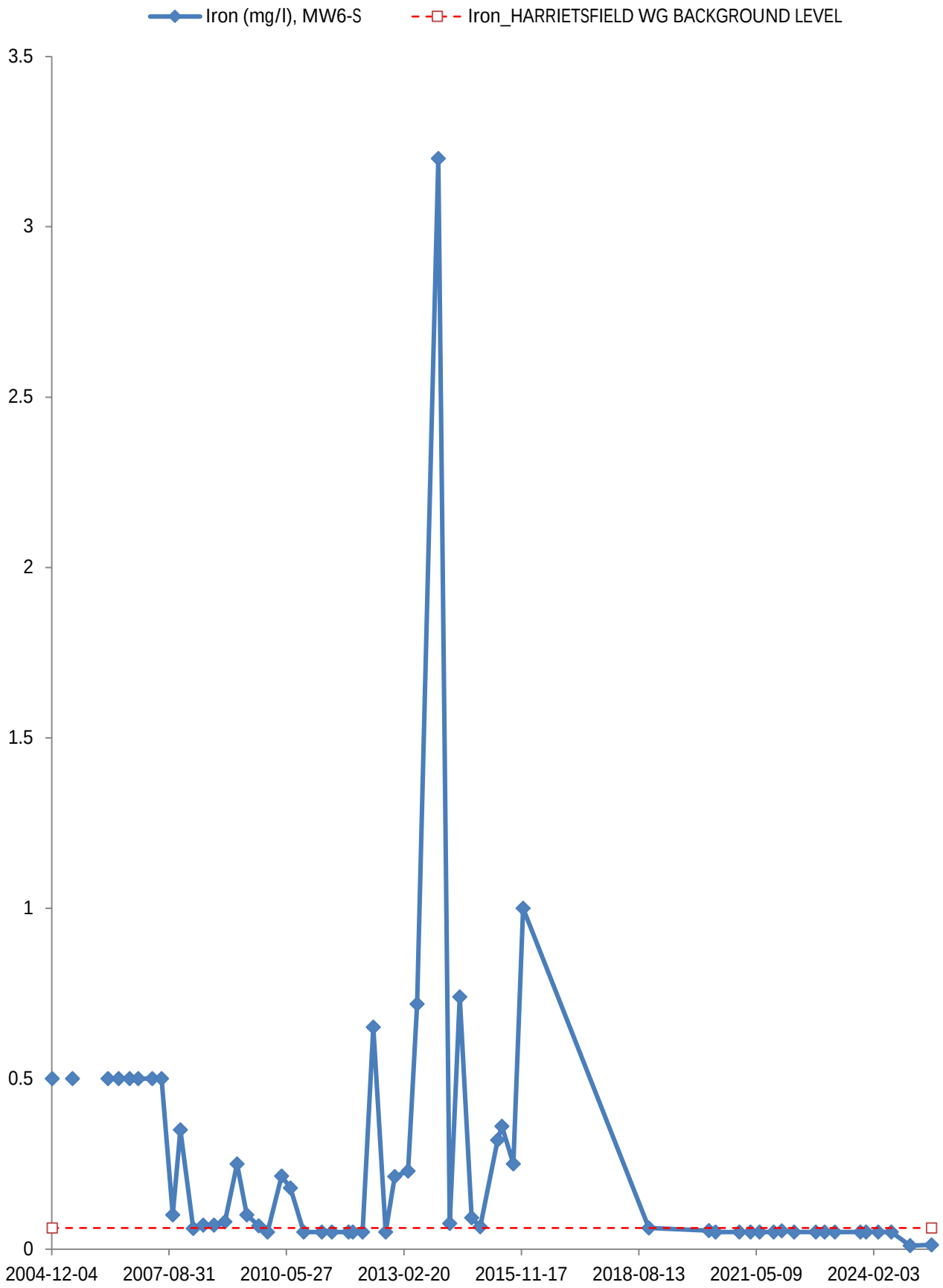
# Hardness (as CaCO3)



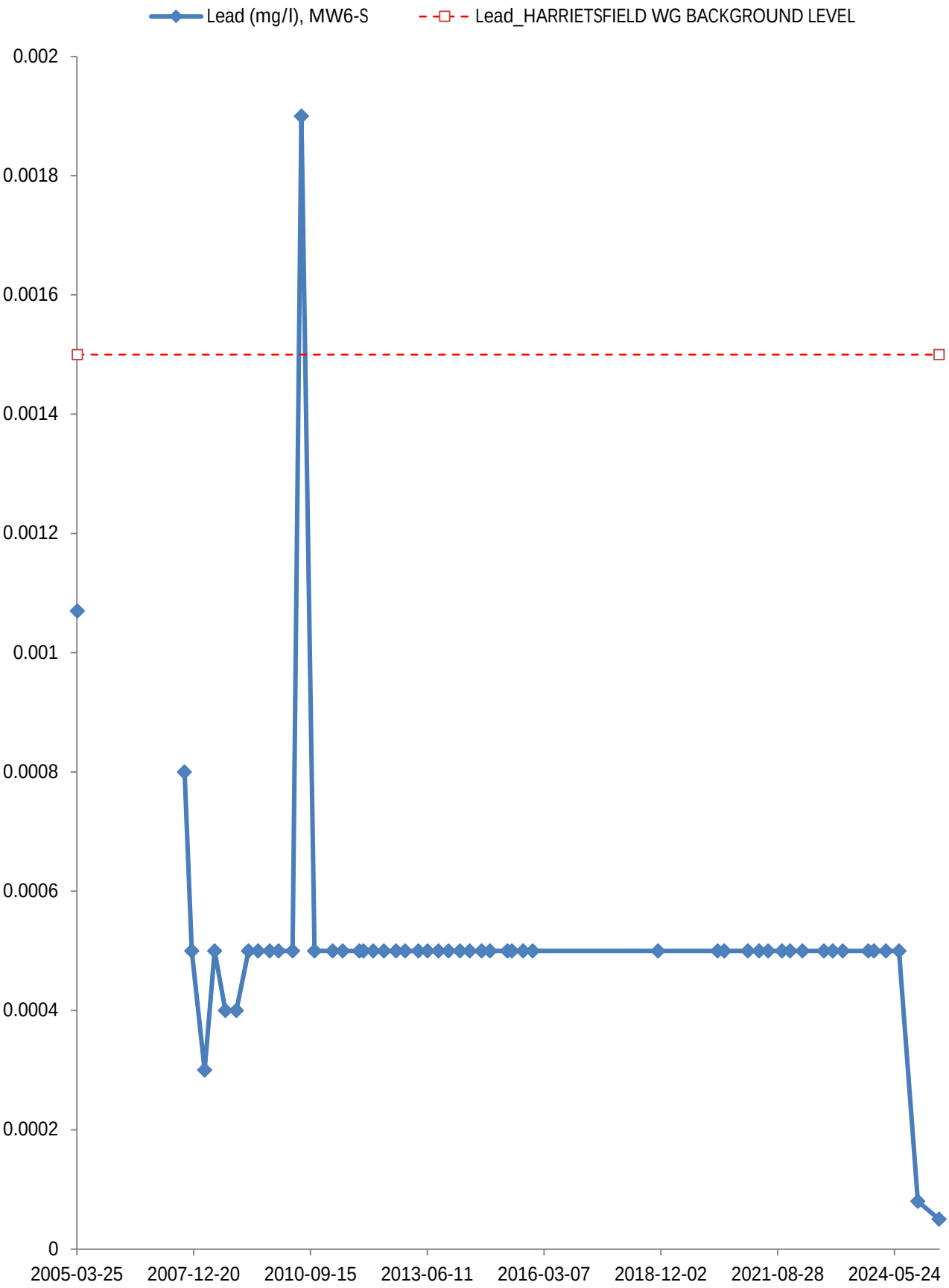


# Iron



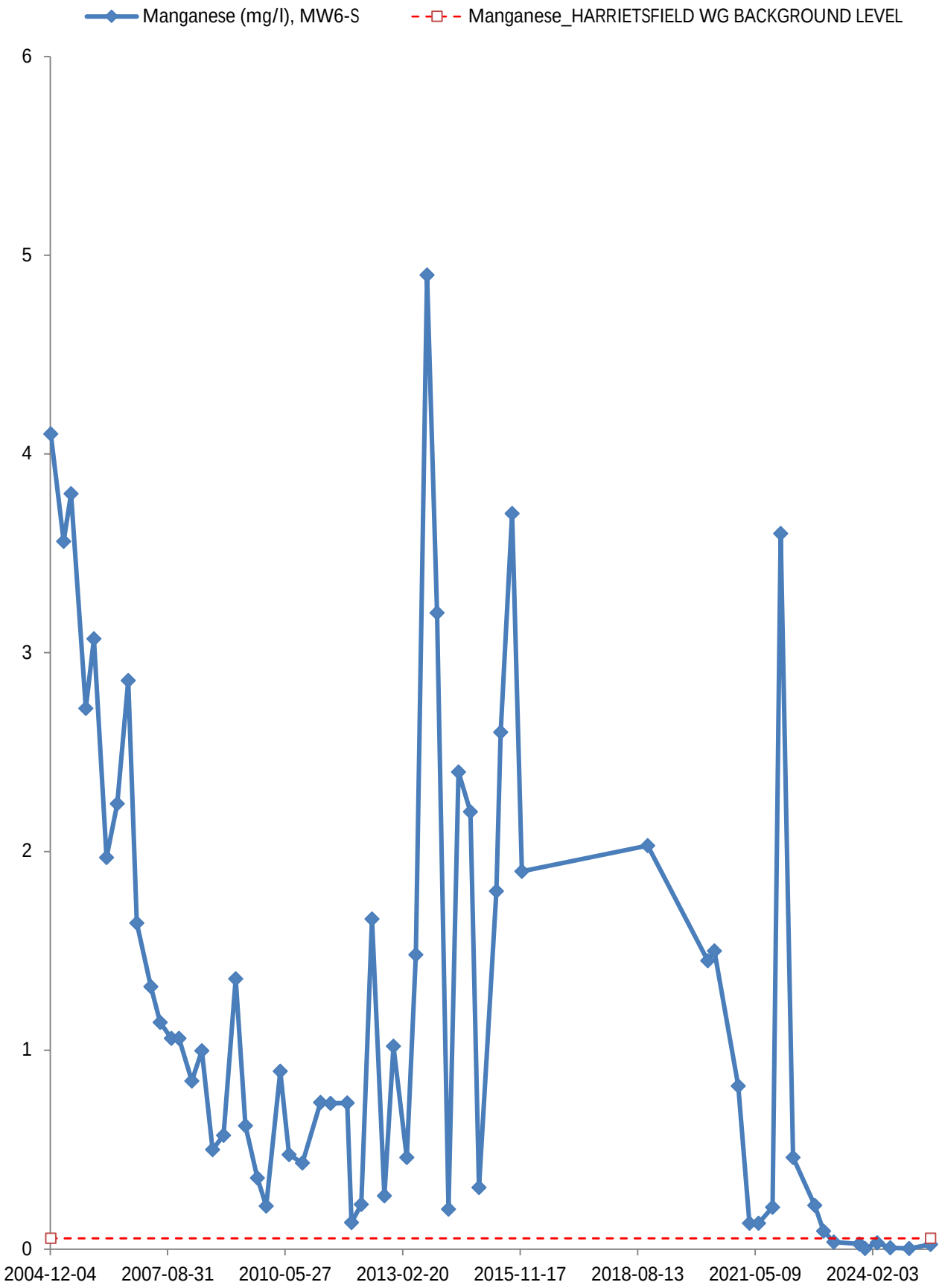

Iron (mg/l), MW6-S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
3.5
3
2.5
2
1.5
1
0.5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Lead


Lead (mg/l), MW6-S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.002
0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

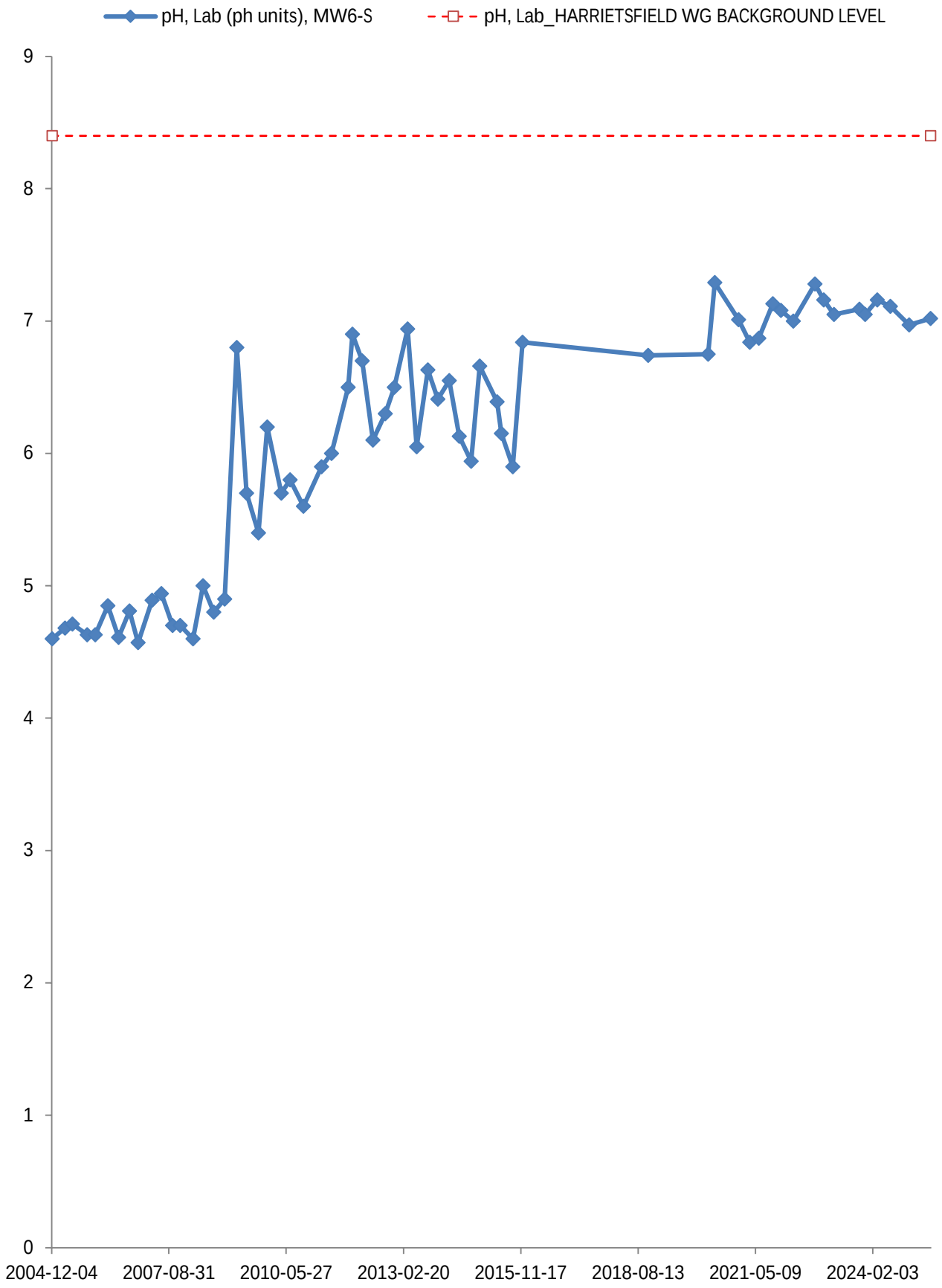
# Manganese




Manganese (mg/l), MW6-S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

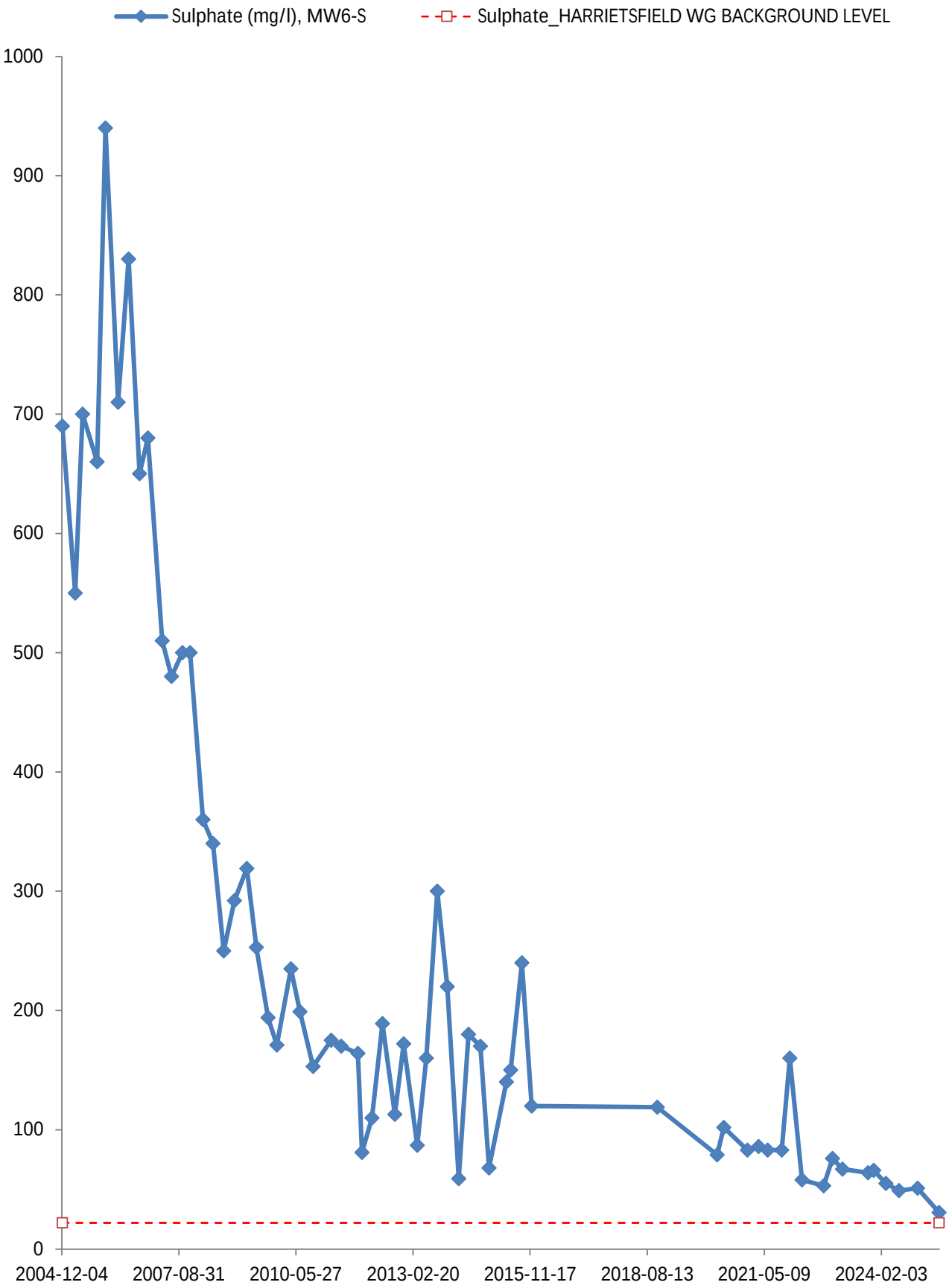
# pH, Lab



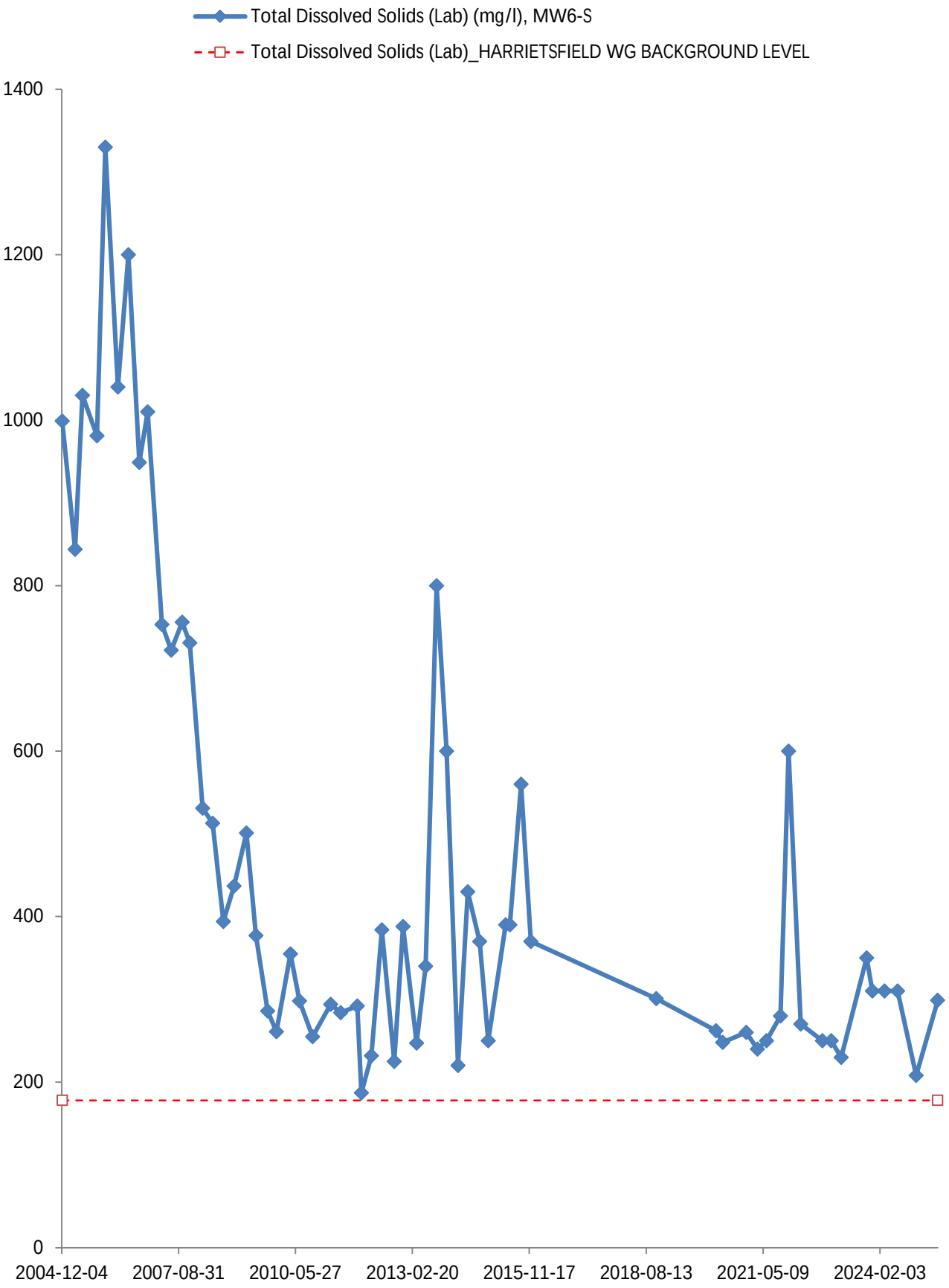

pH, Lab (ph units), MW6-S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Sulphate

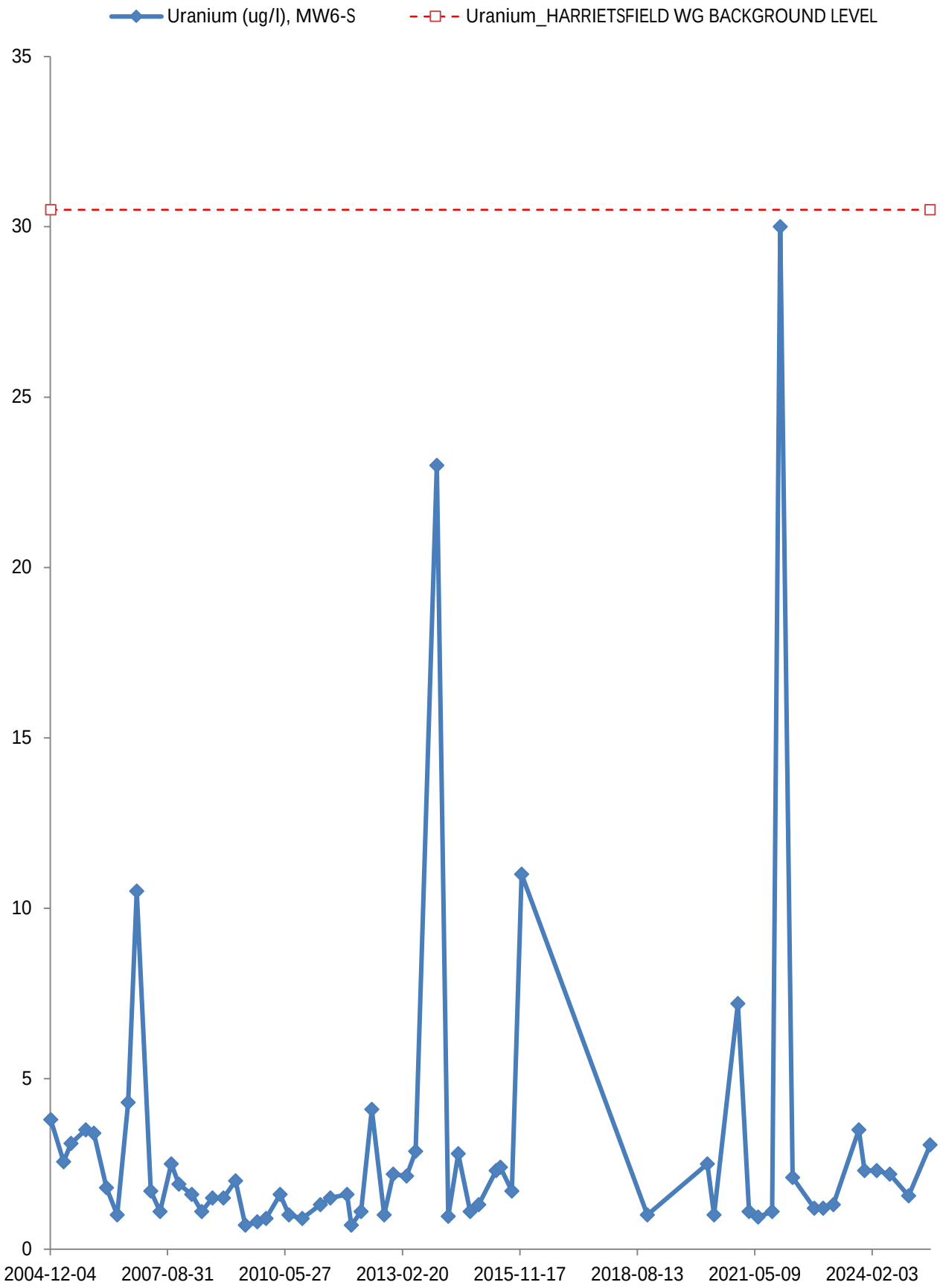



Sulphate (mg/l), MW6-S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
1000
900
800
700
600
500
400
300
200
100
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

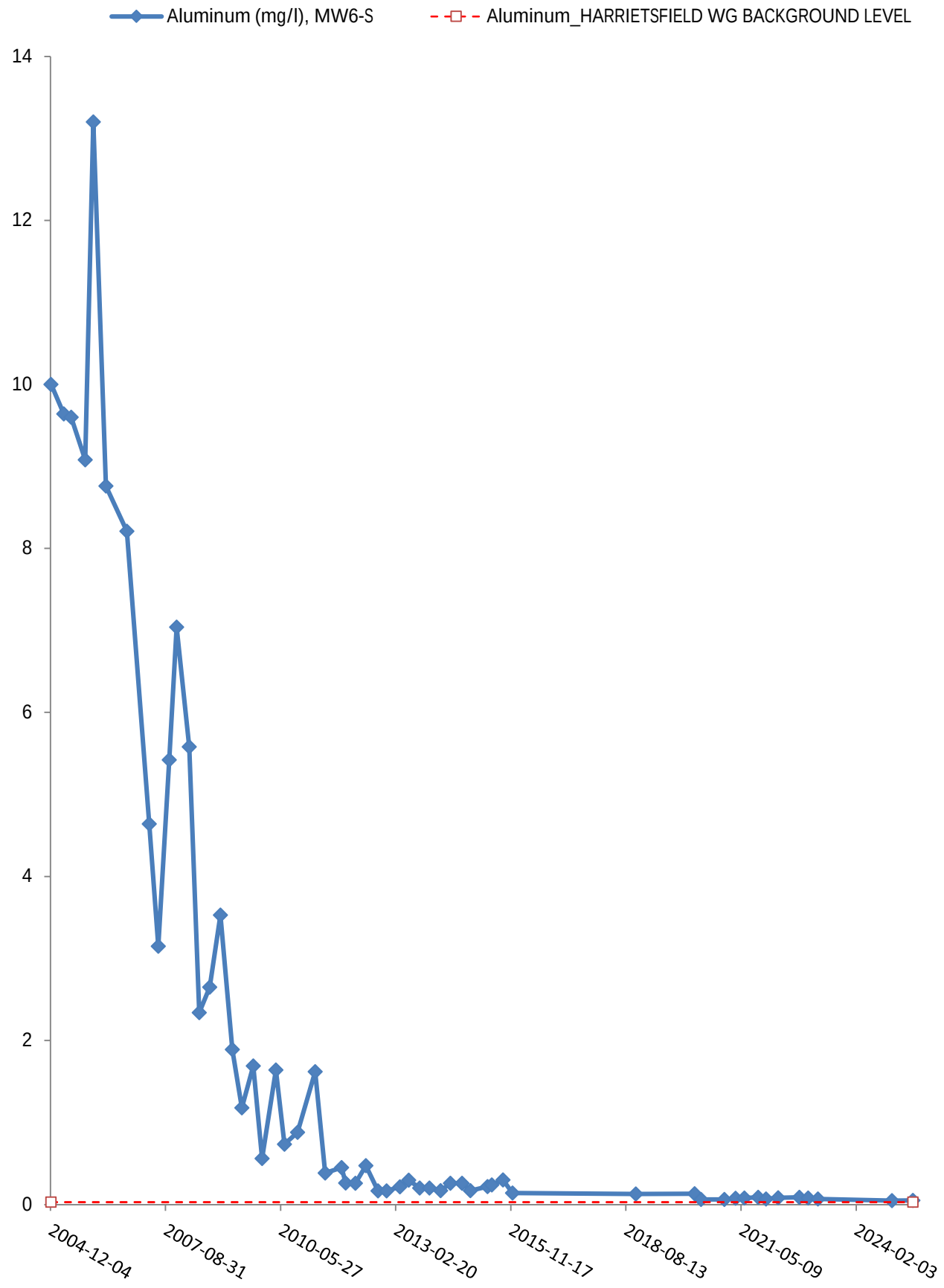
# Total Dissolved Solids (5



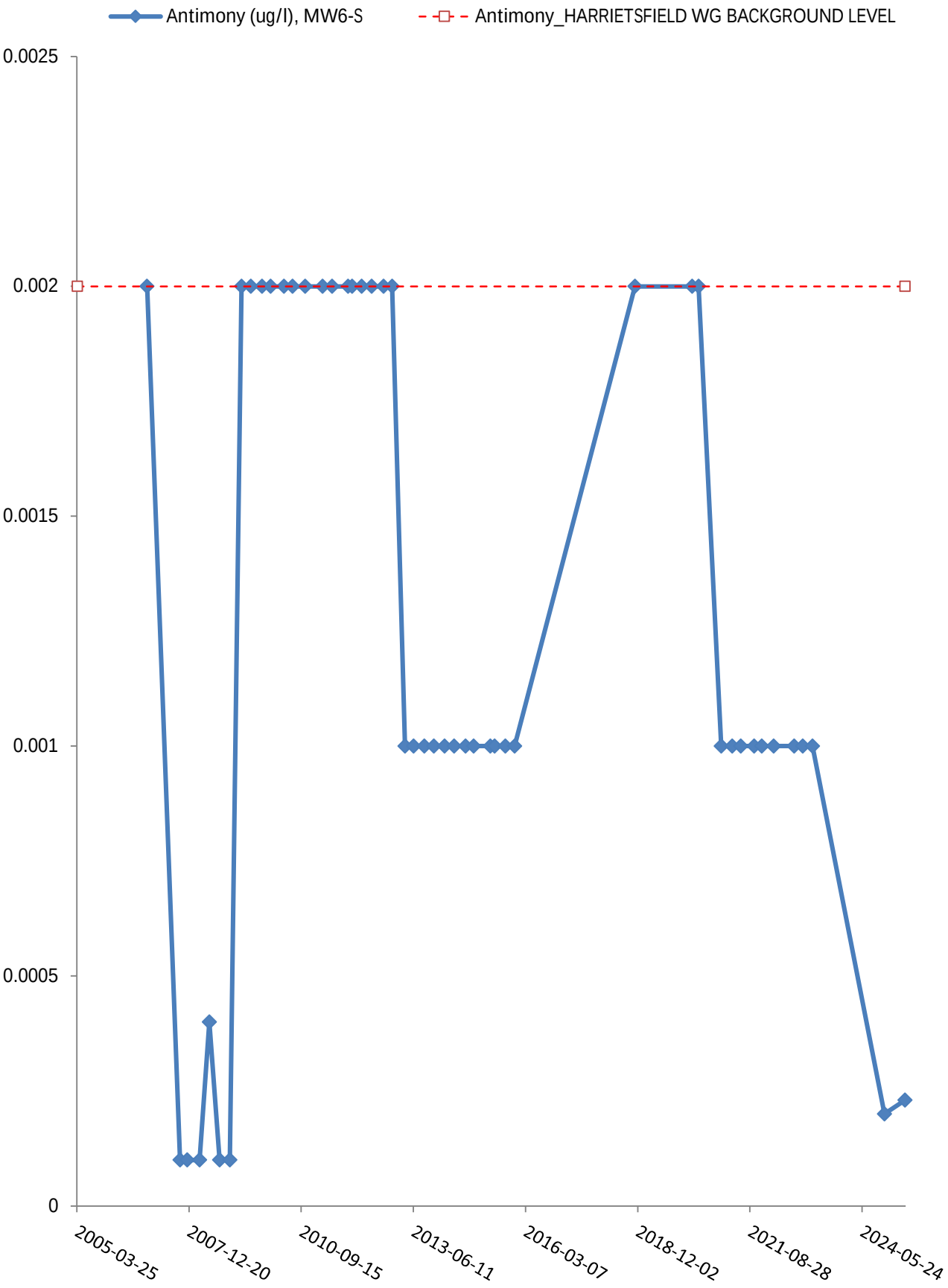
# Uranium


Uranium (ug/l), MW6-S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

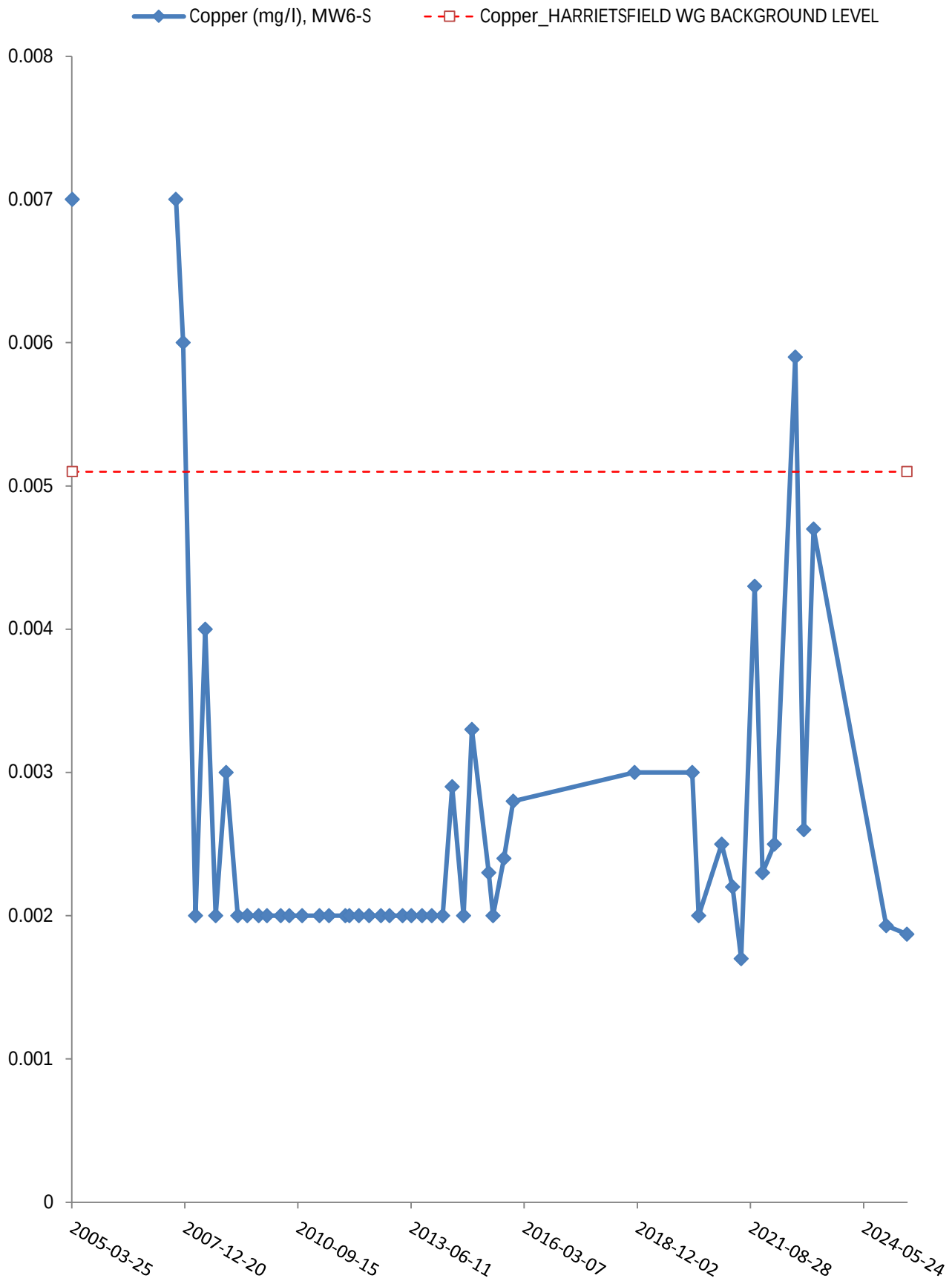
# Aluminum


Aluminum (mg/l), MW6-S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
14
12
10
8
6
4
2
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Antimony

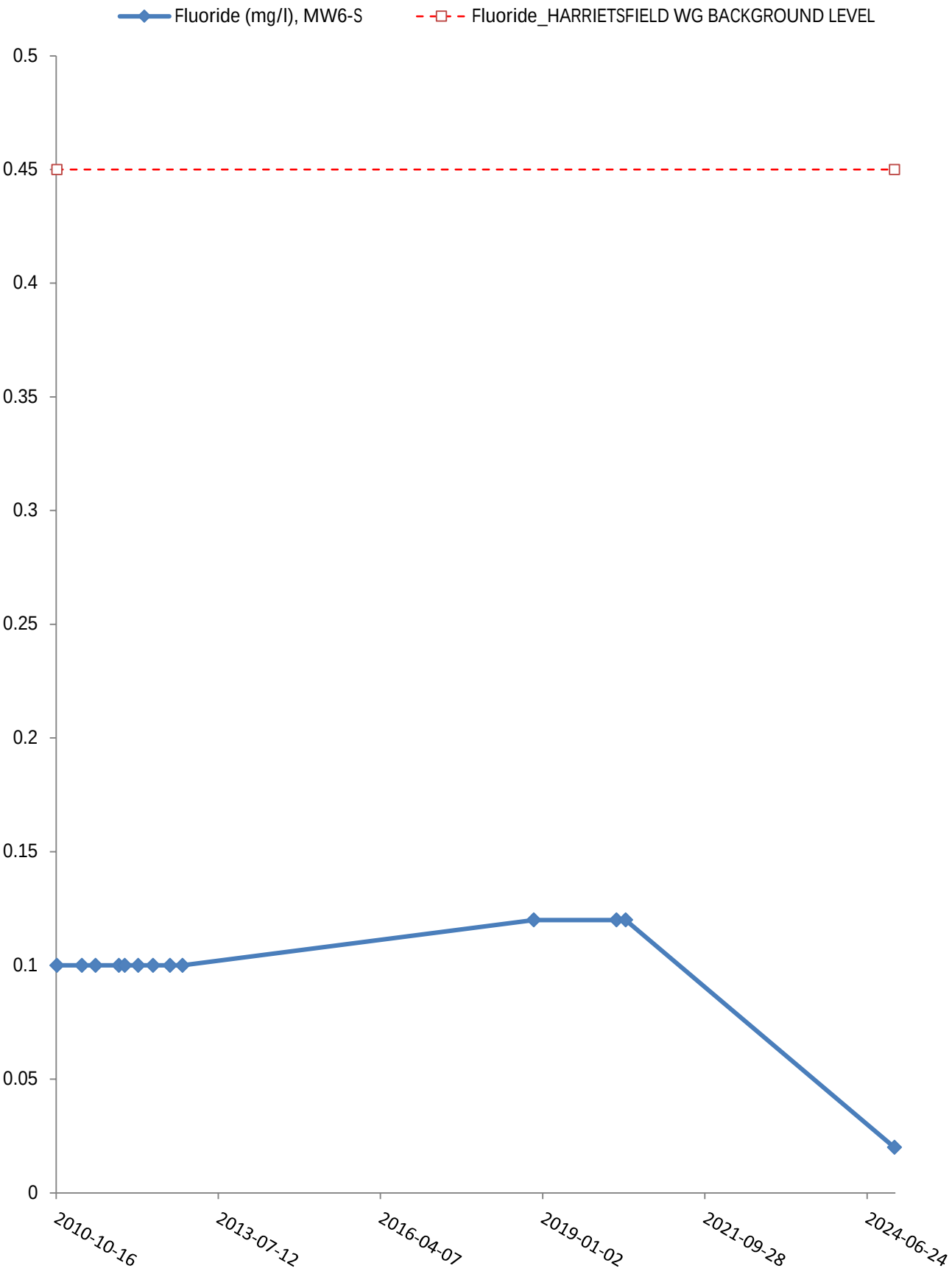

Antimony (ug/l), MW6-S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Copper

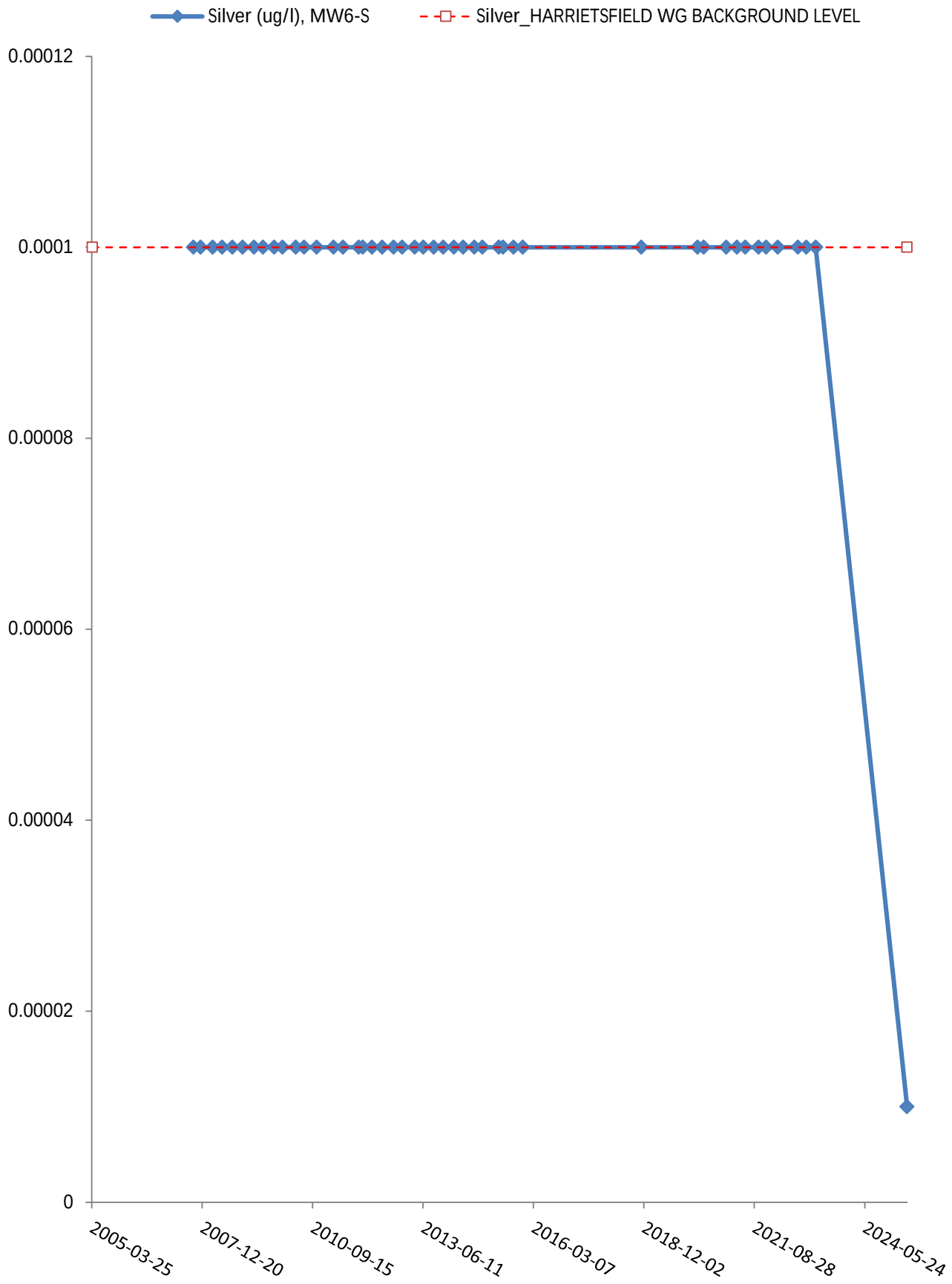

Copper (mg/l), MW6-S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Fluoride

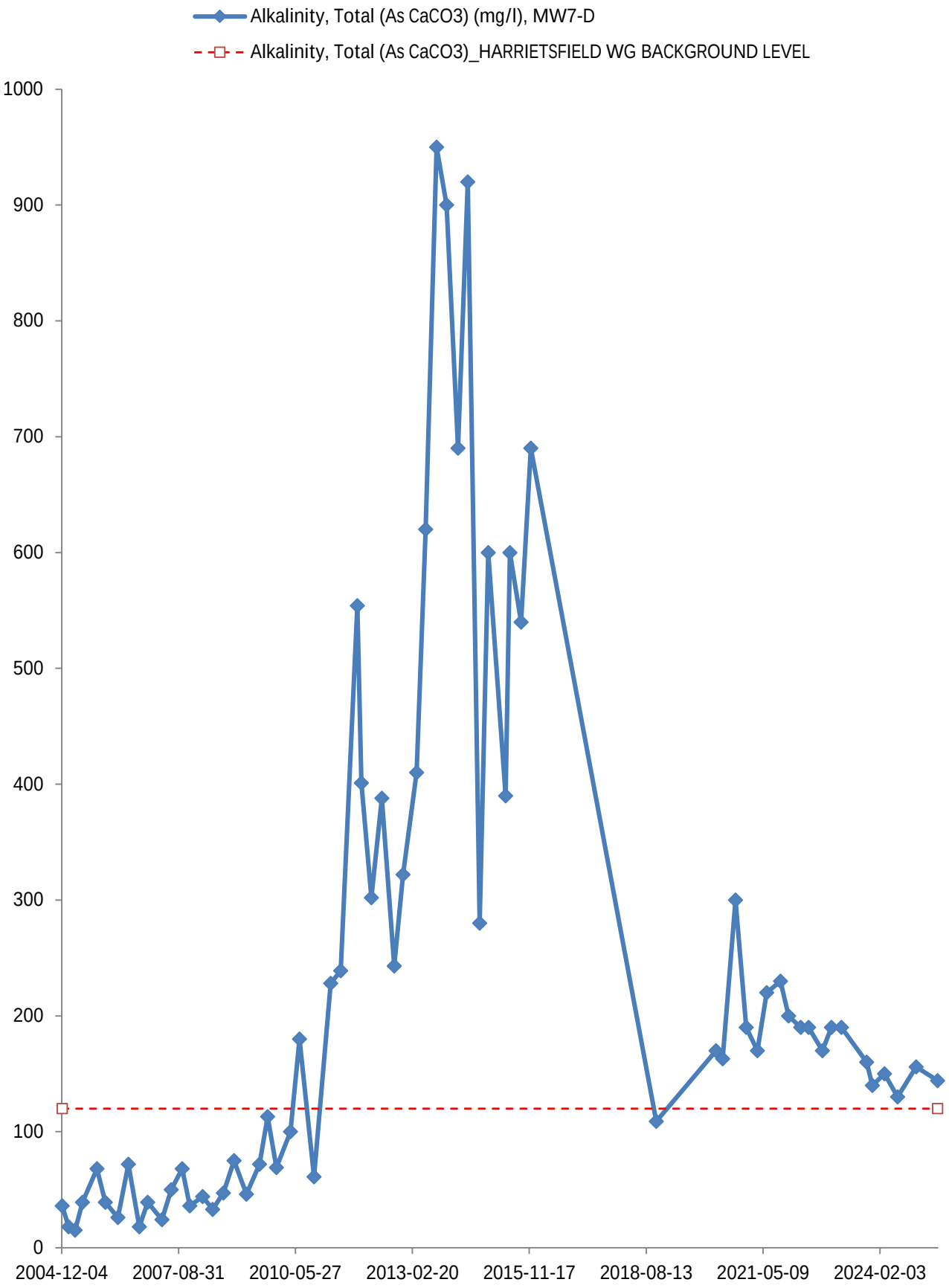



Fluoride (mg/l), MW6-S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2013-07-12
2016-04-07
2019-01-02
2021-09-28
2024-06-24

# Silver

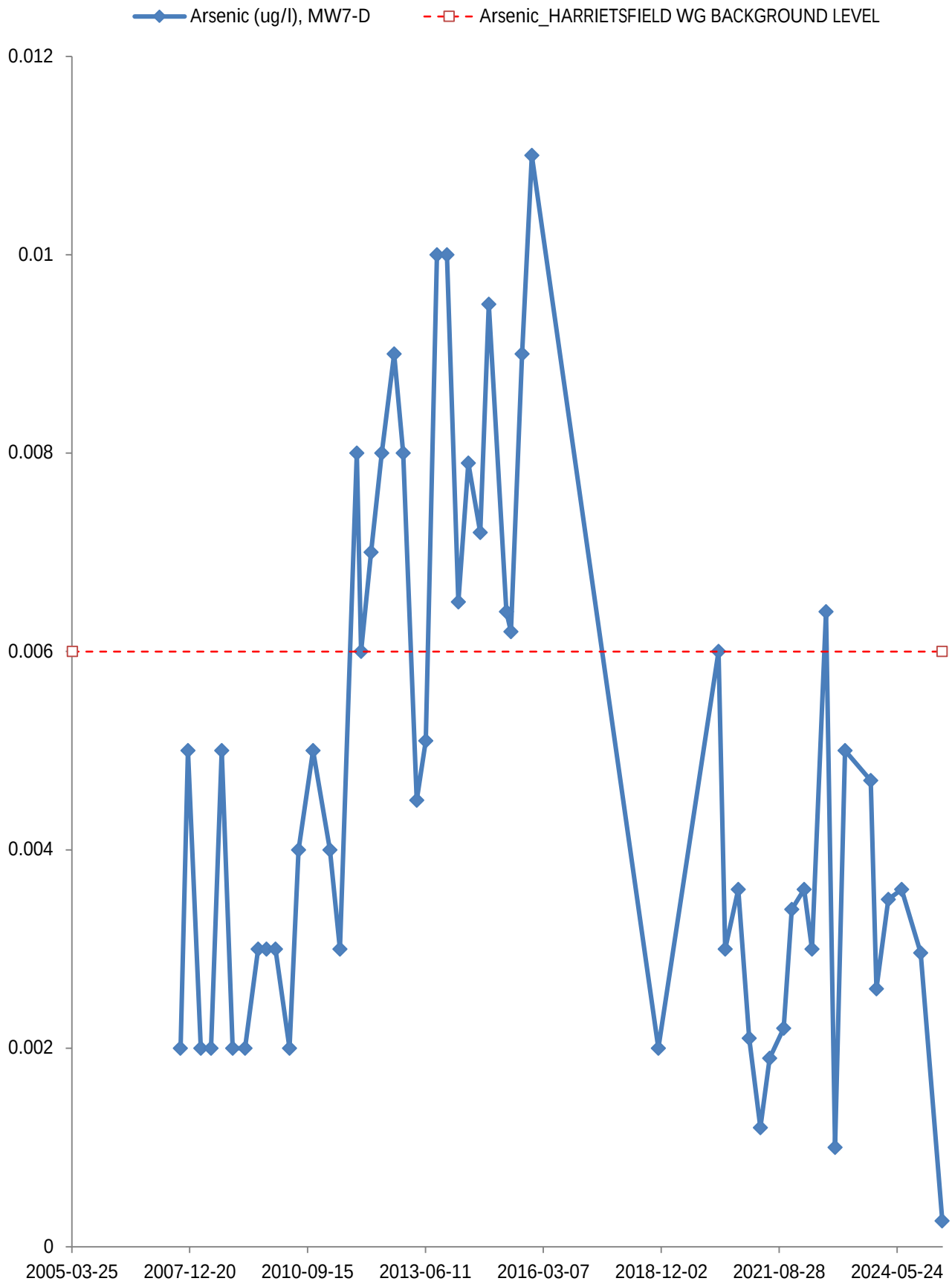

Silver (ug/l), MW6-S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Alkalinity, Total



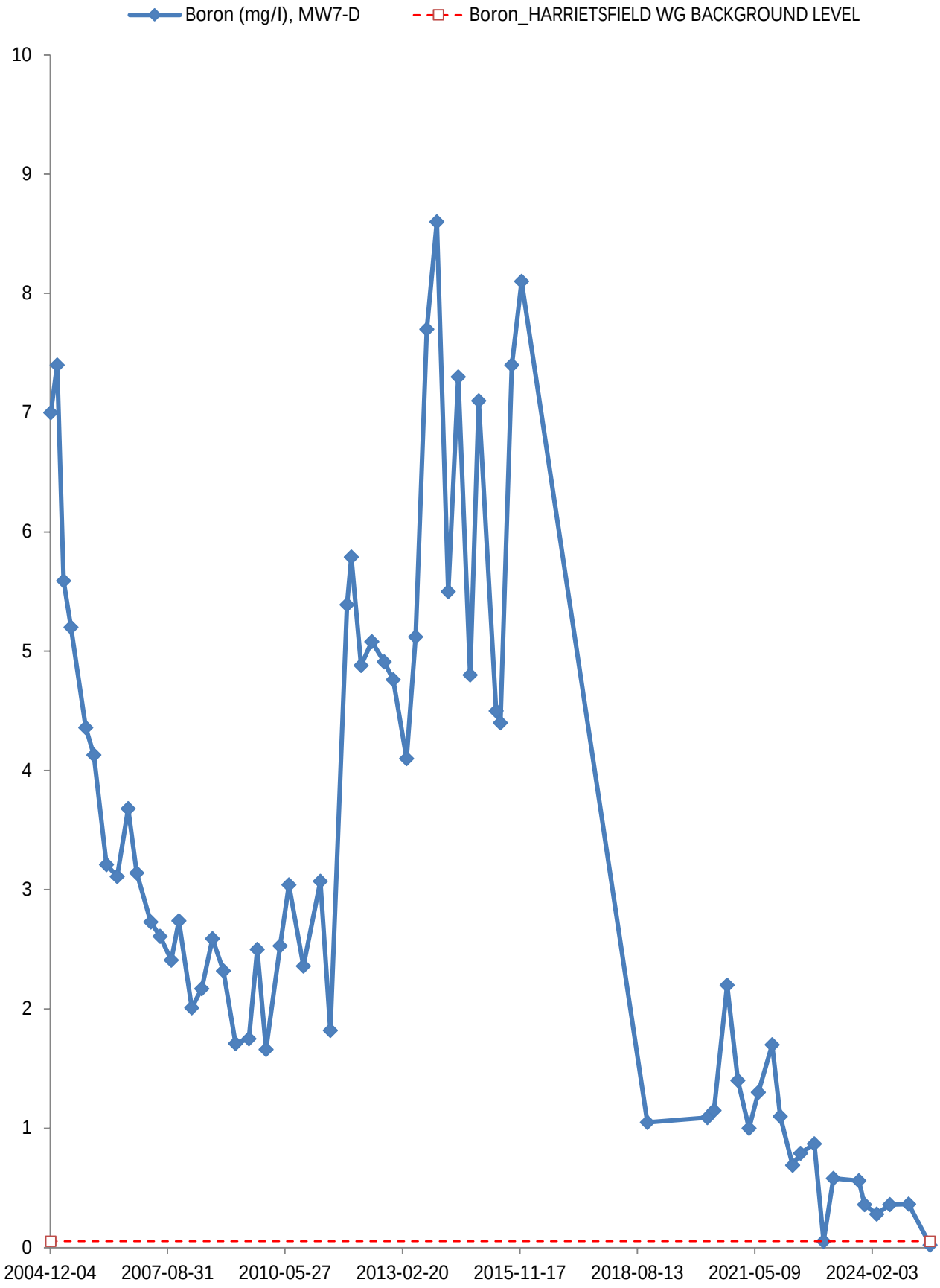
# Arsenic



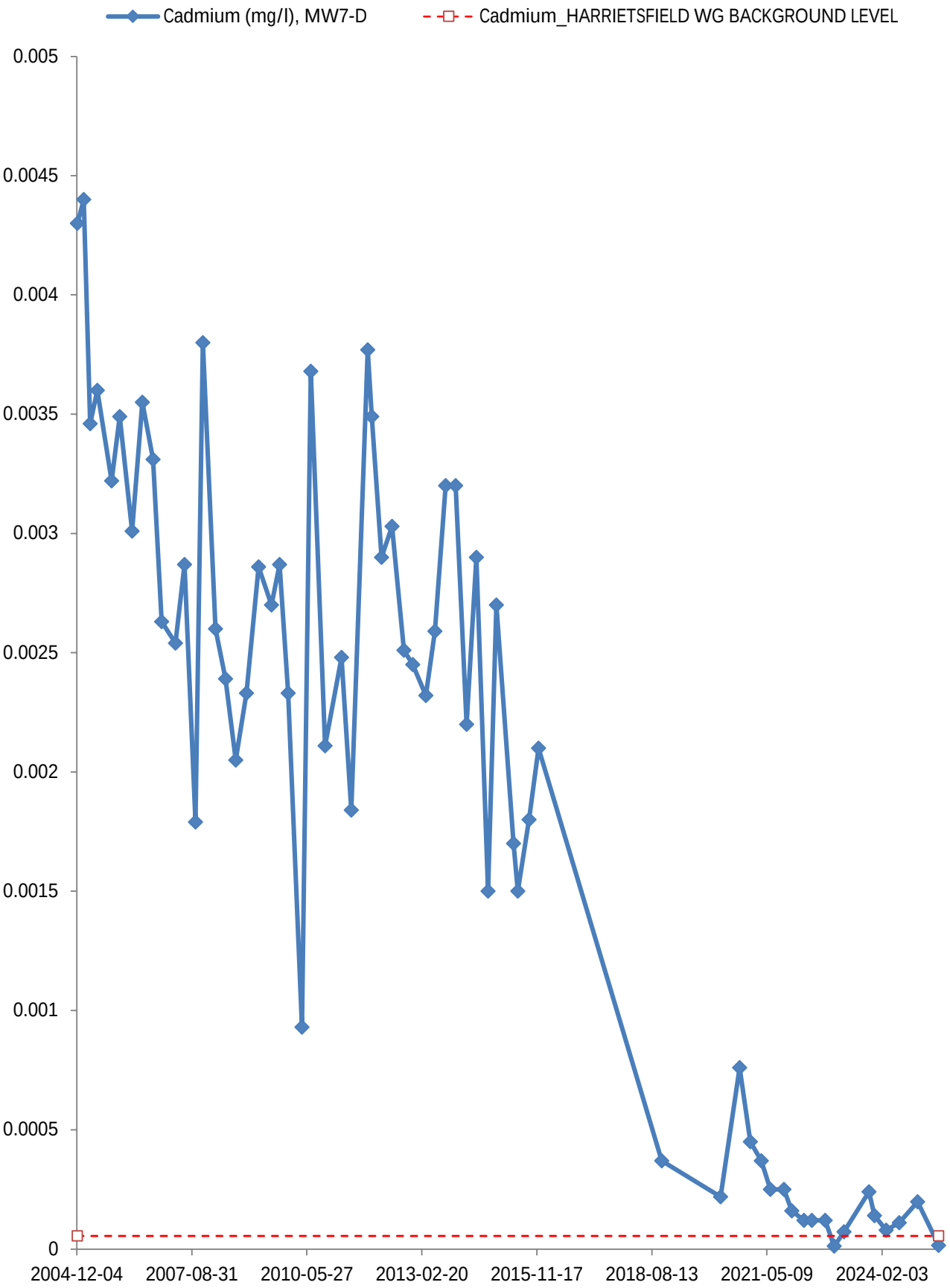

Arsenic (ug/l), MW7-D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Boron

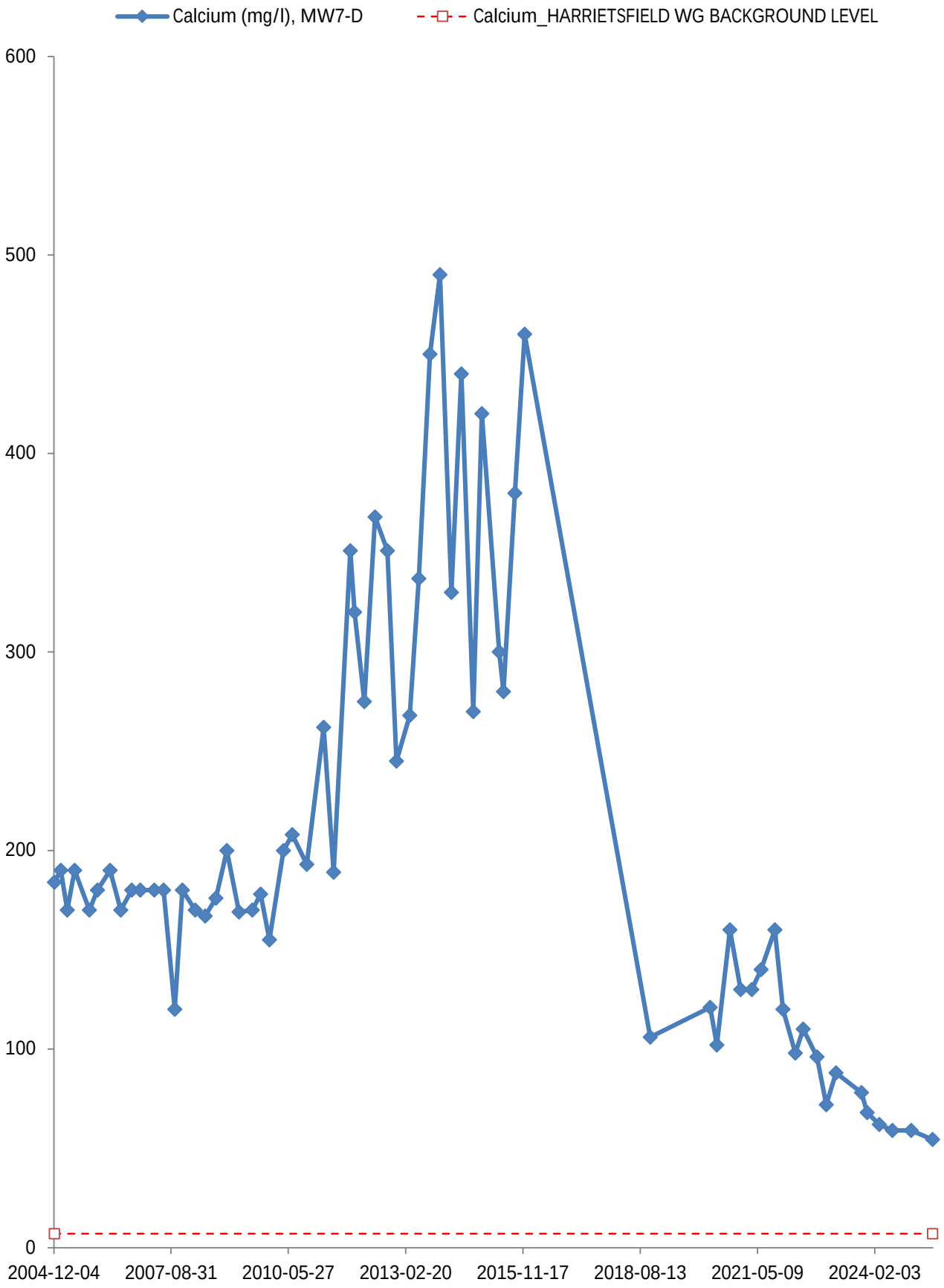



Boron (mg/l), MW7-D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
10
9
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Cadmium

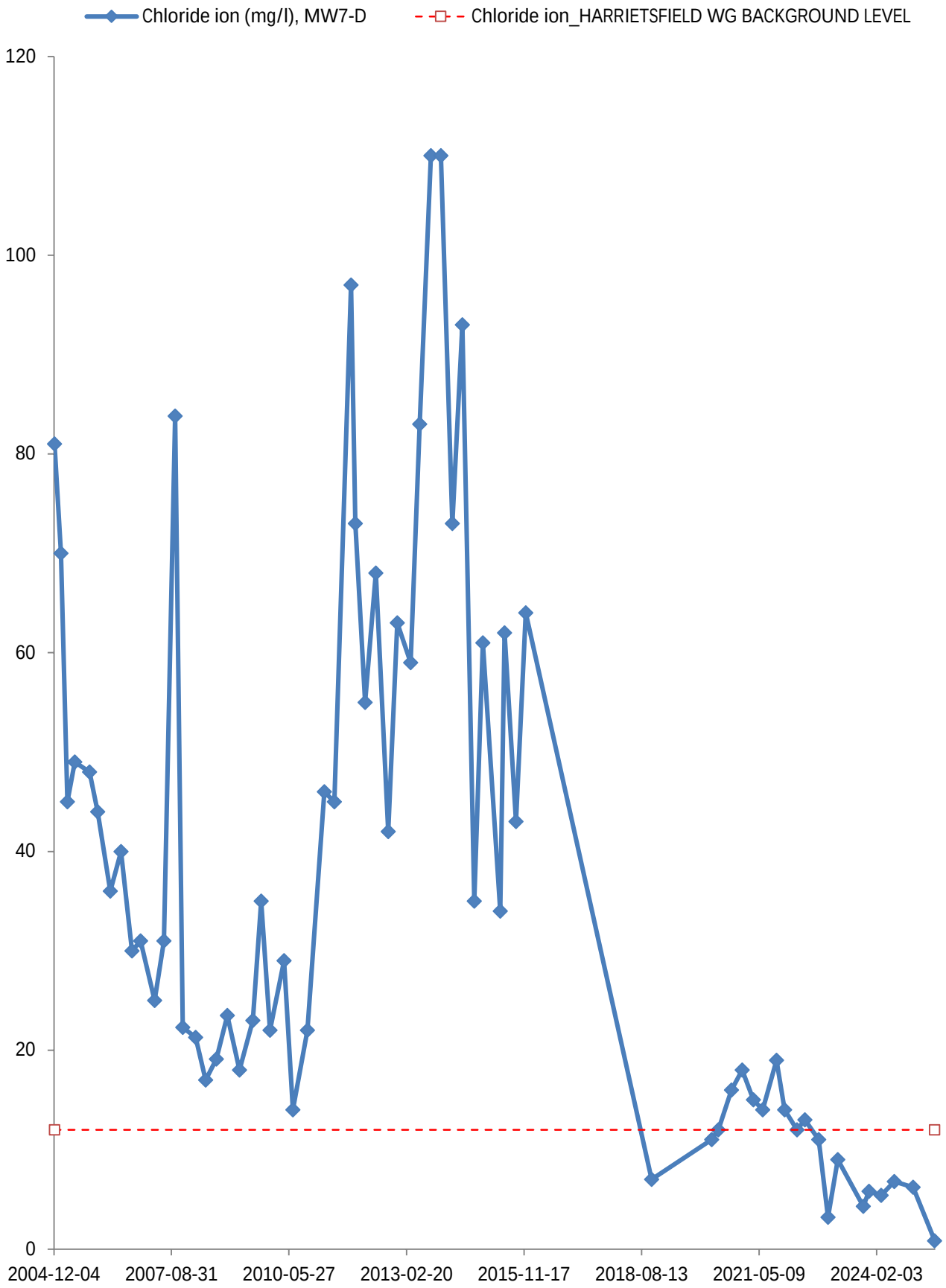

Cadmium (mg/l), MW7-D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Calcium

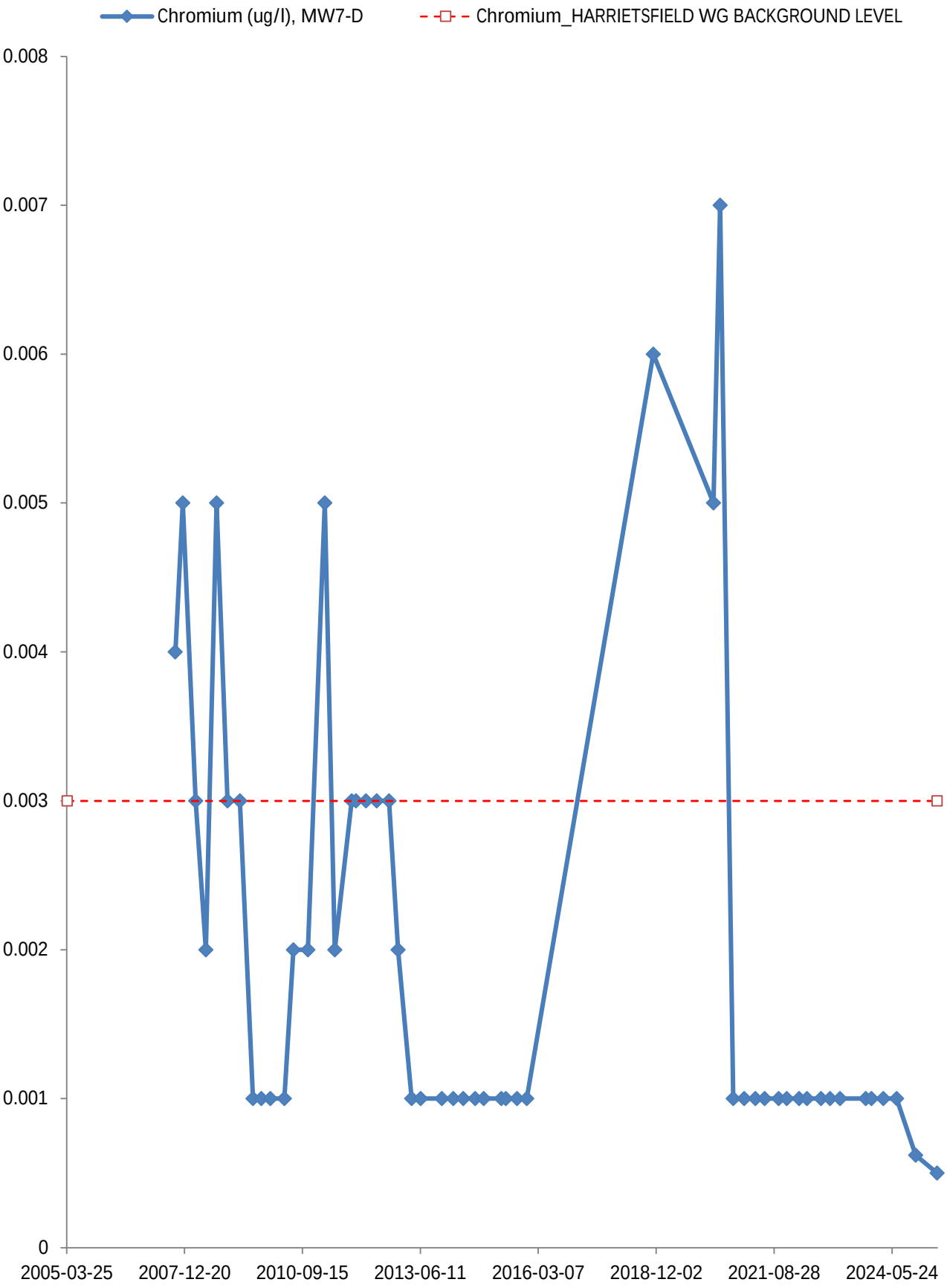

Calcium (mg/l), MW7-D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Chloride ion

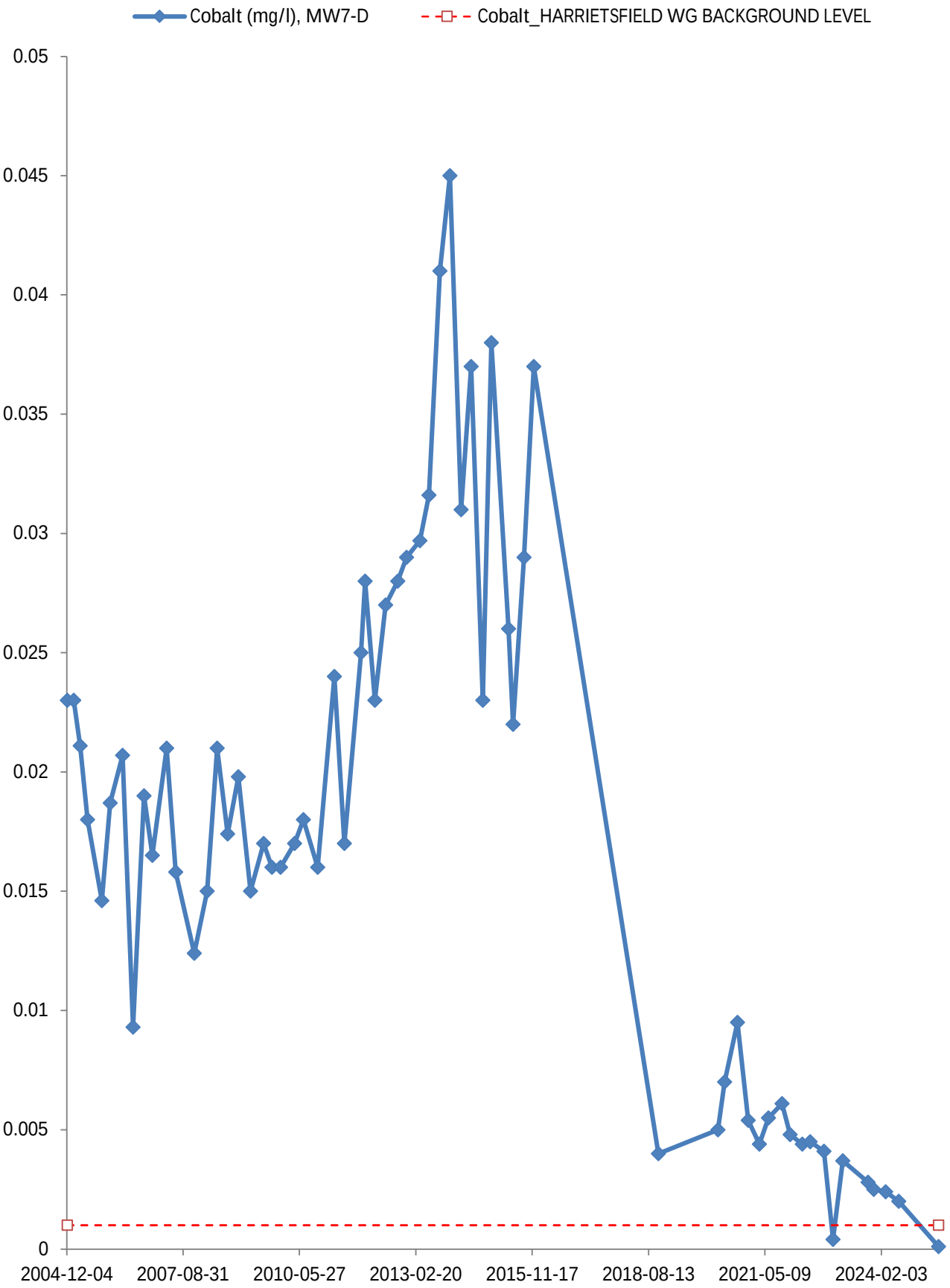




# Chromium

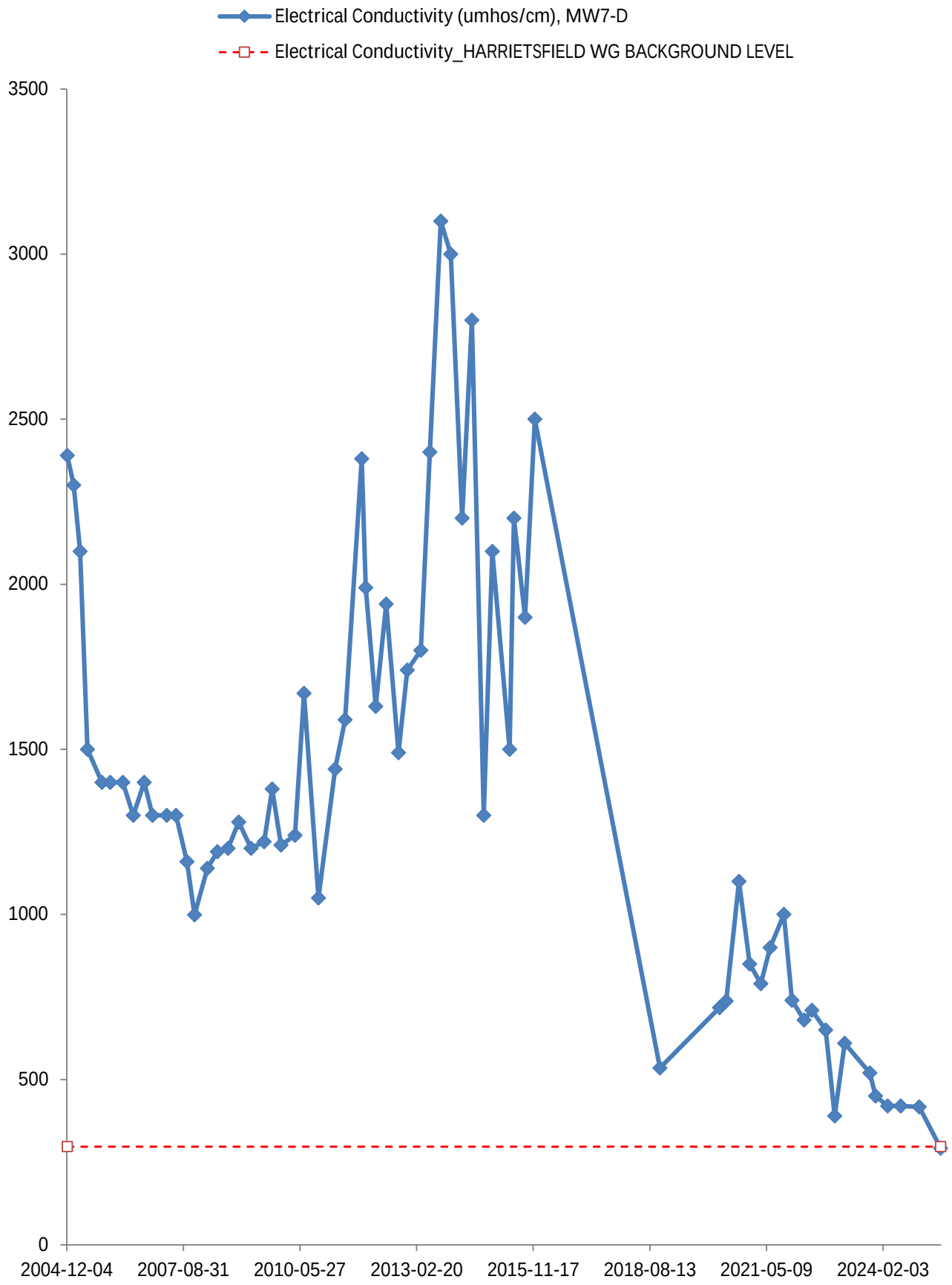

Chromium (ug/l), MW7-D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Cobalt


Cobalt (mg/l), MW7-D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

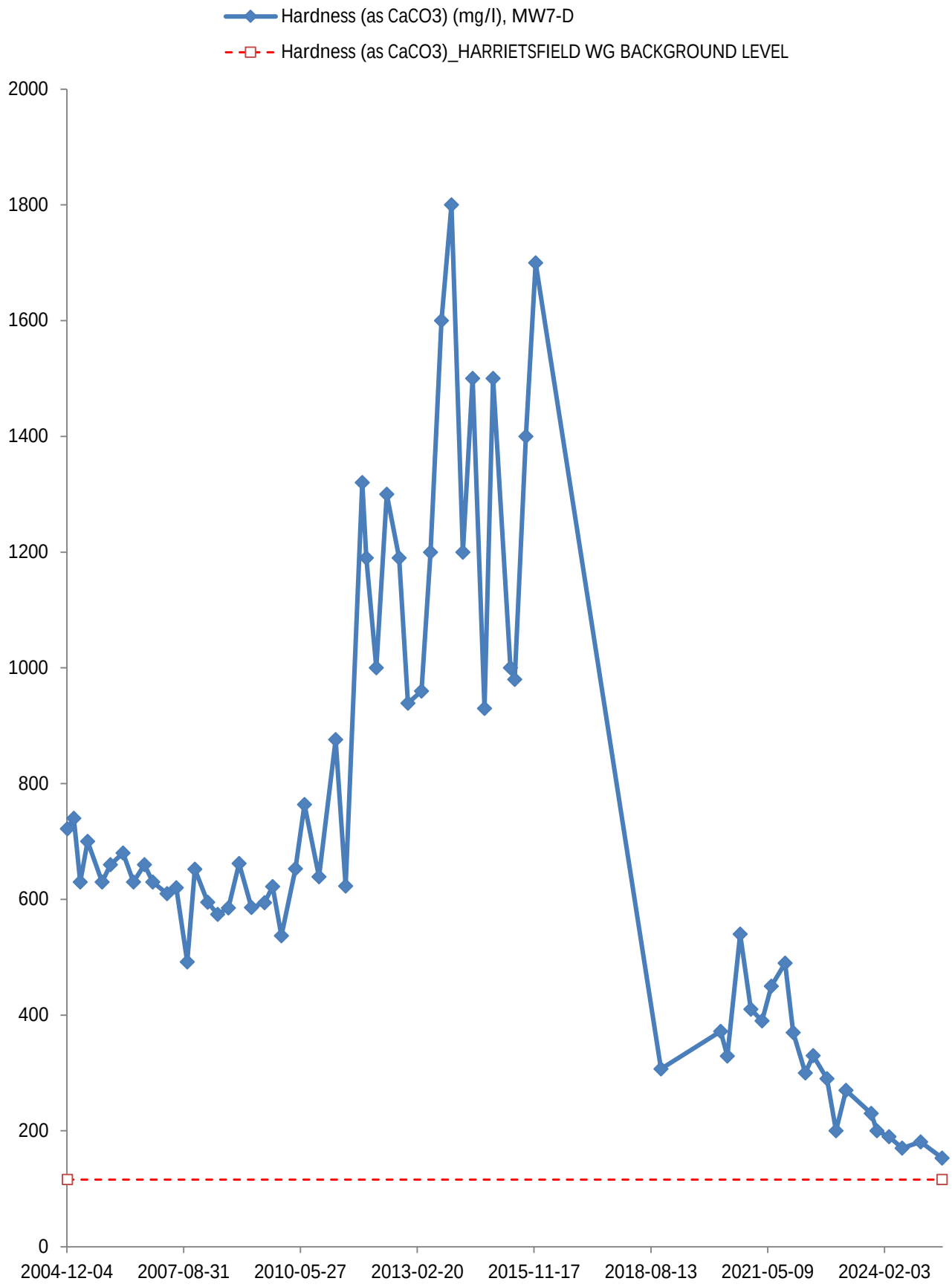
# Electrical Conductivity





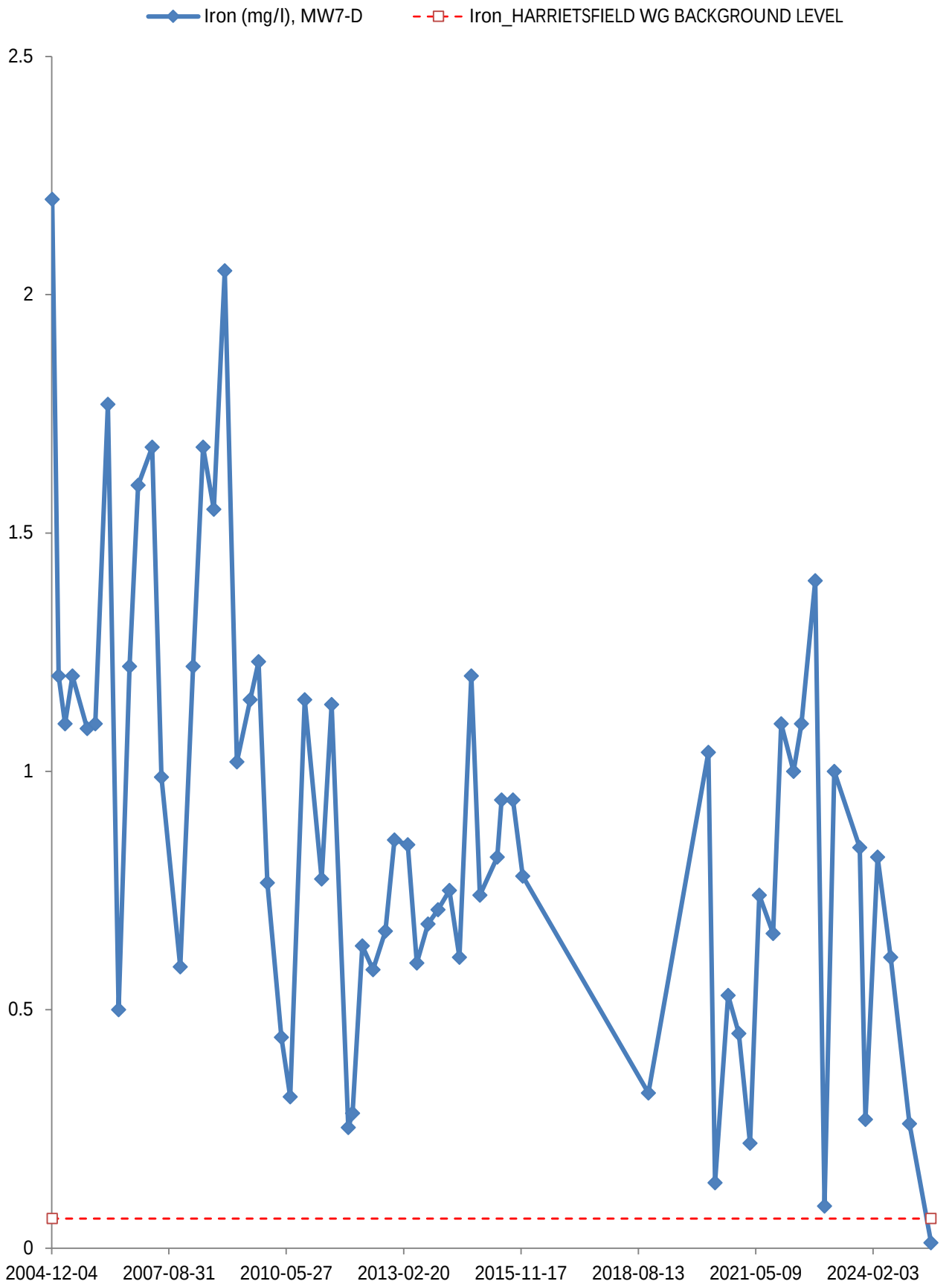
# Hardness (as CaCO3)





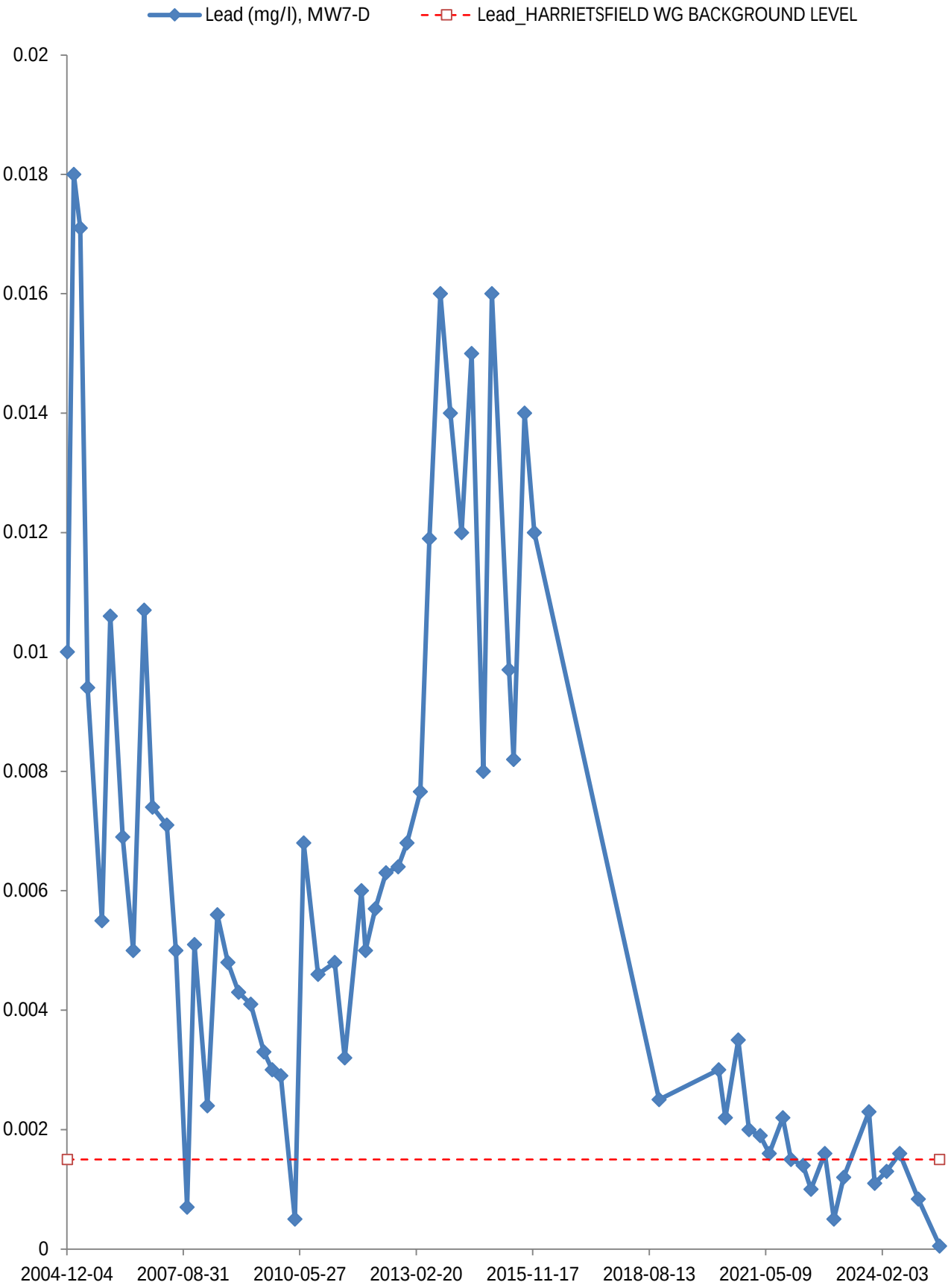
# Iron




Iron (mg/l), MW7-D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
2.5
2
1.5
1
0.5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

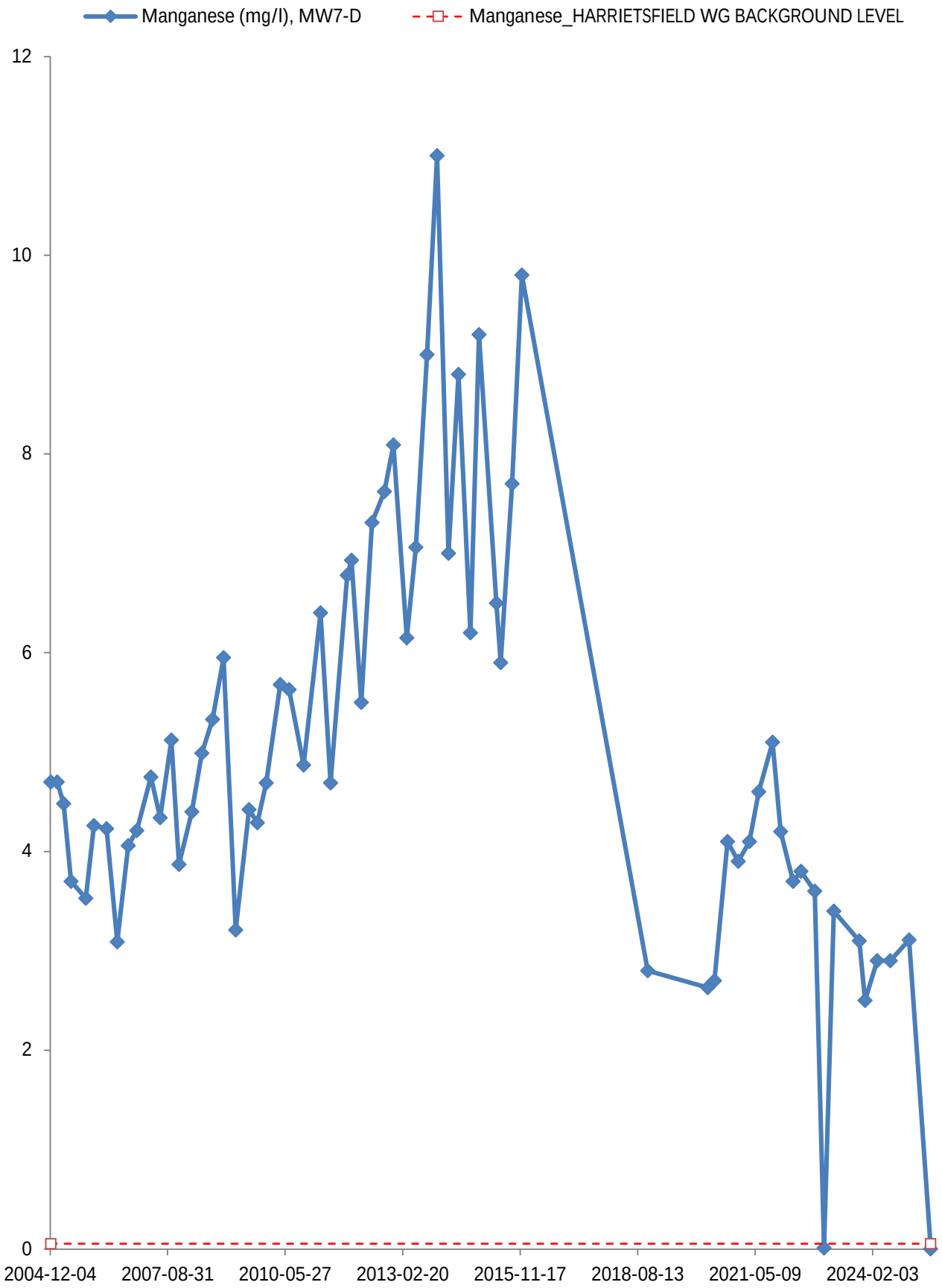
# Lead




Lead (mg/l), MW7-D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

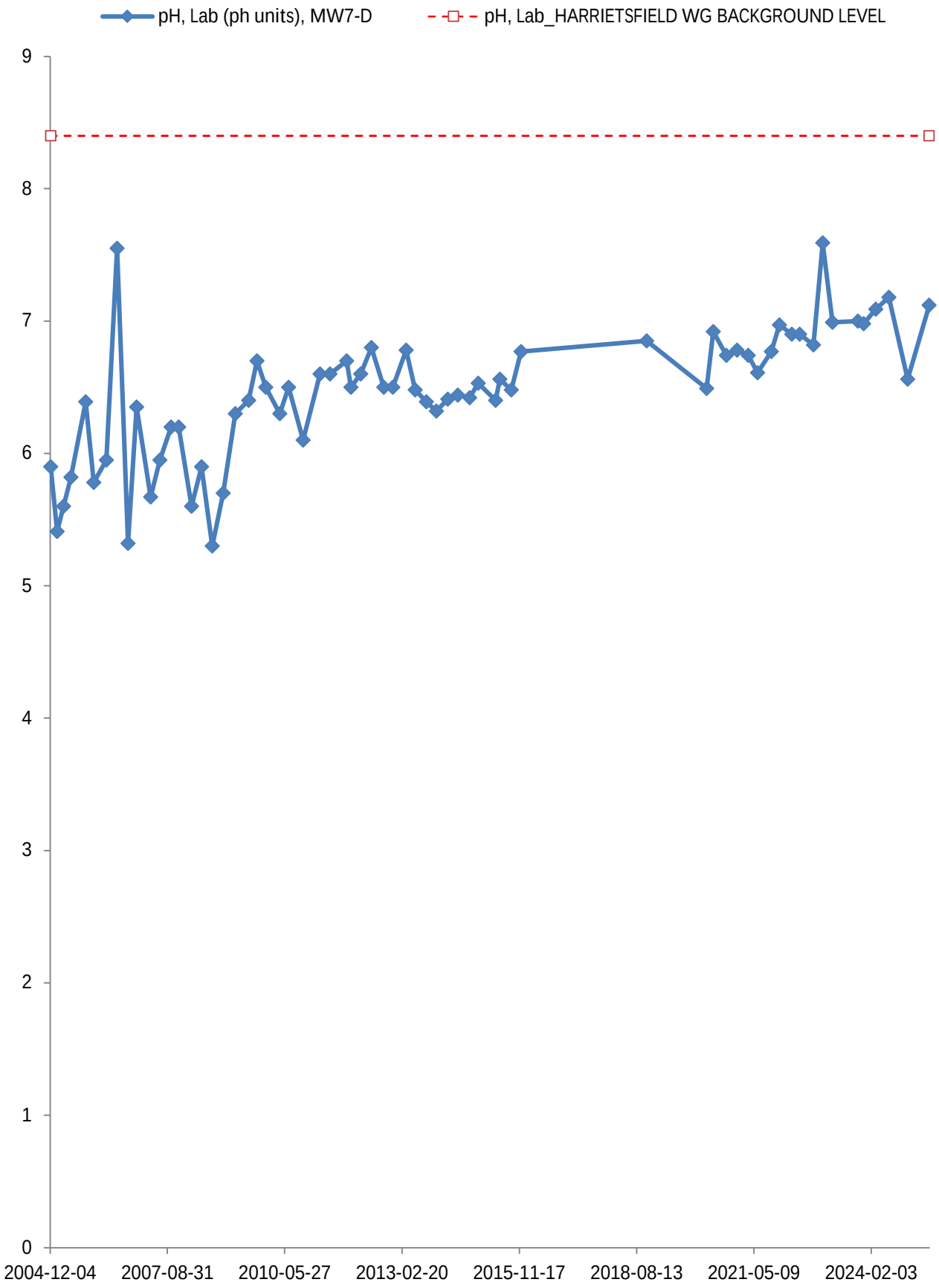
# Manganese



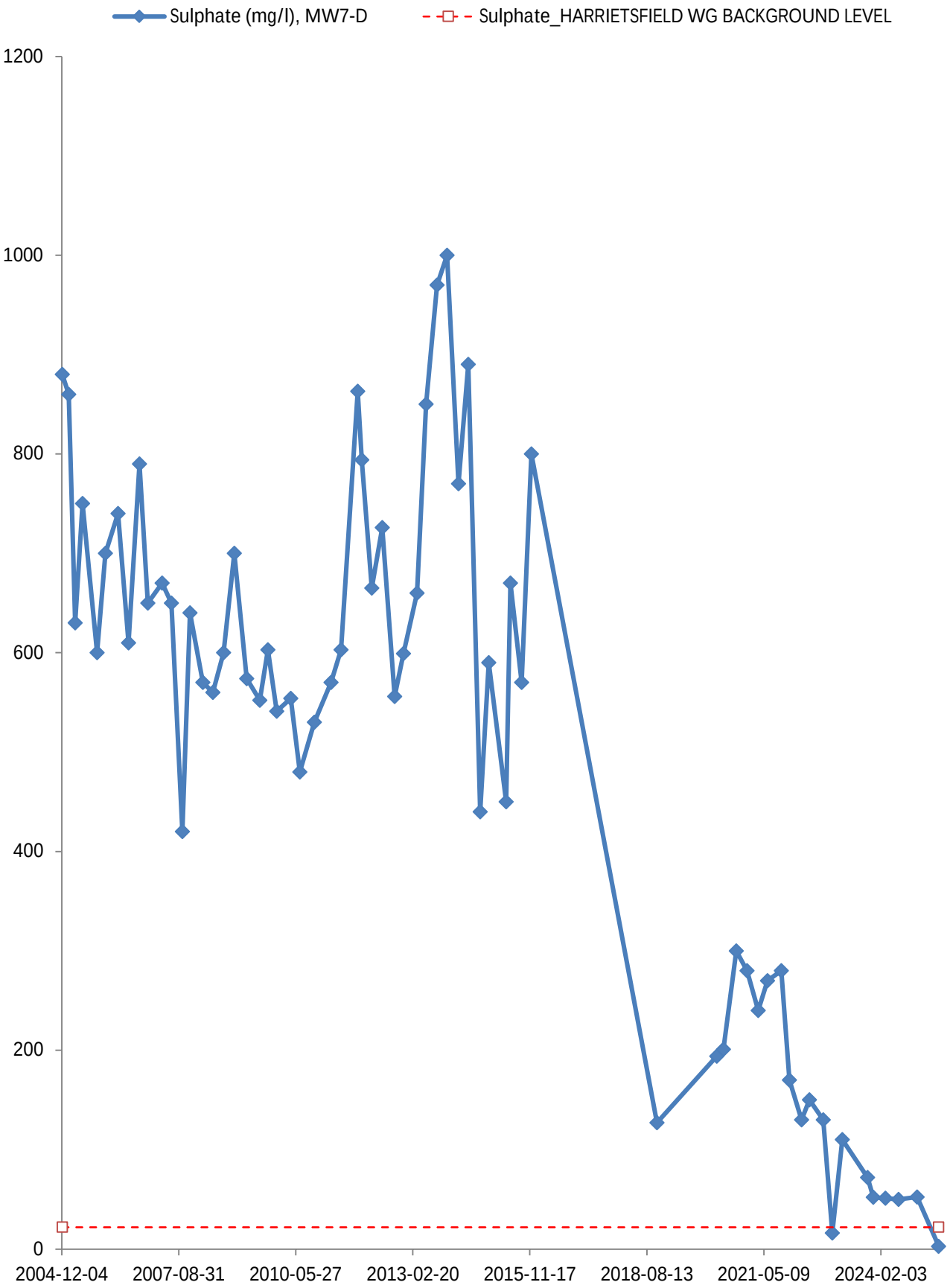

Manganese (mg/l), MW7-D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
12
10
8
6
4
2
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# pH, Lab

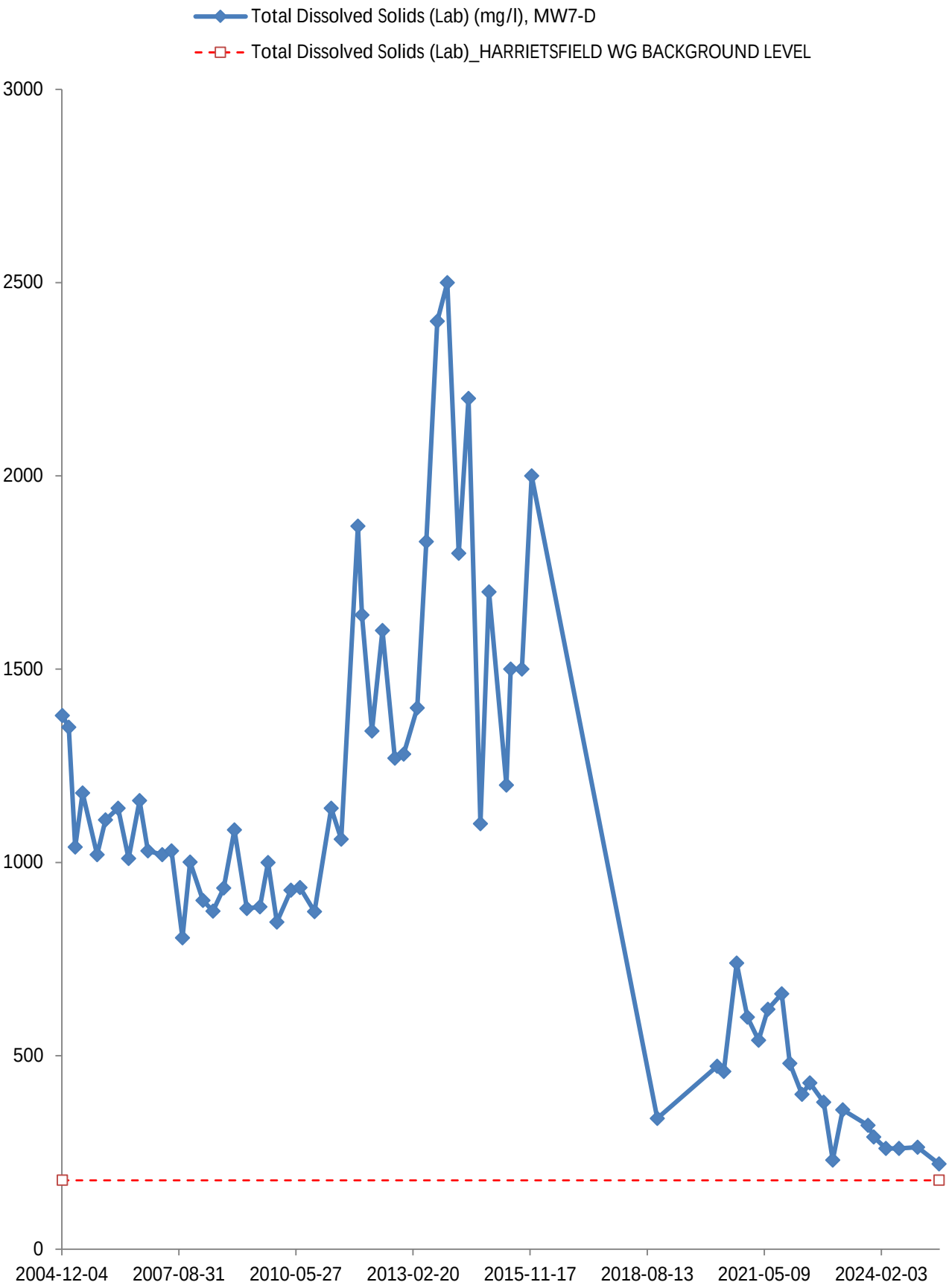



pH, Lab (ph units), MW7-D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

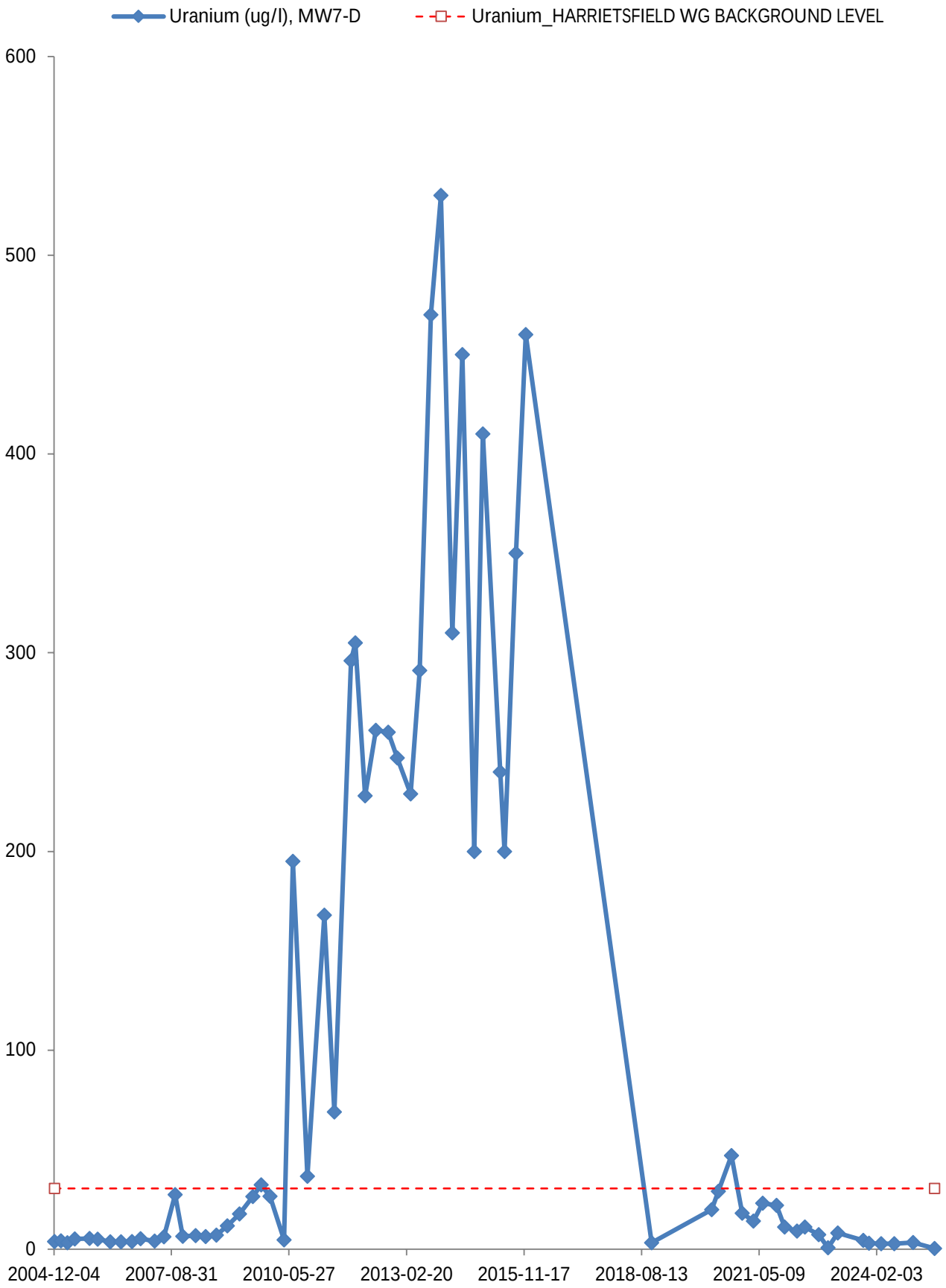
# Sulphate


Sulphate (mg/l), MW7-D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
1200
1000
800
600
400
200
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Total Dissolved Solids (5

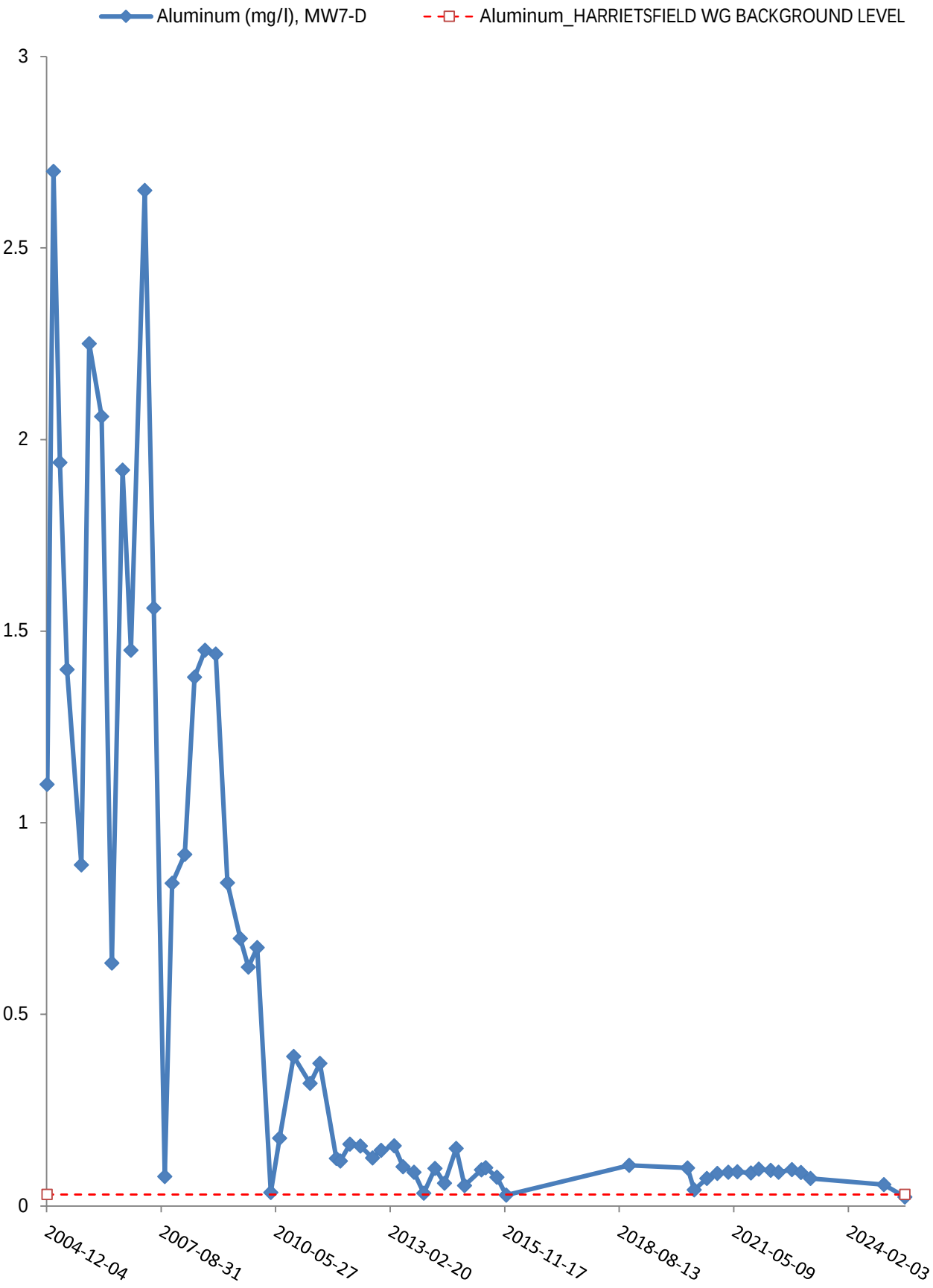


# Uranium

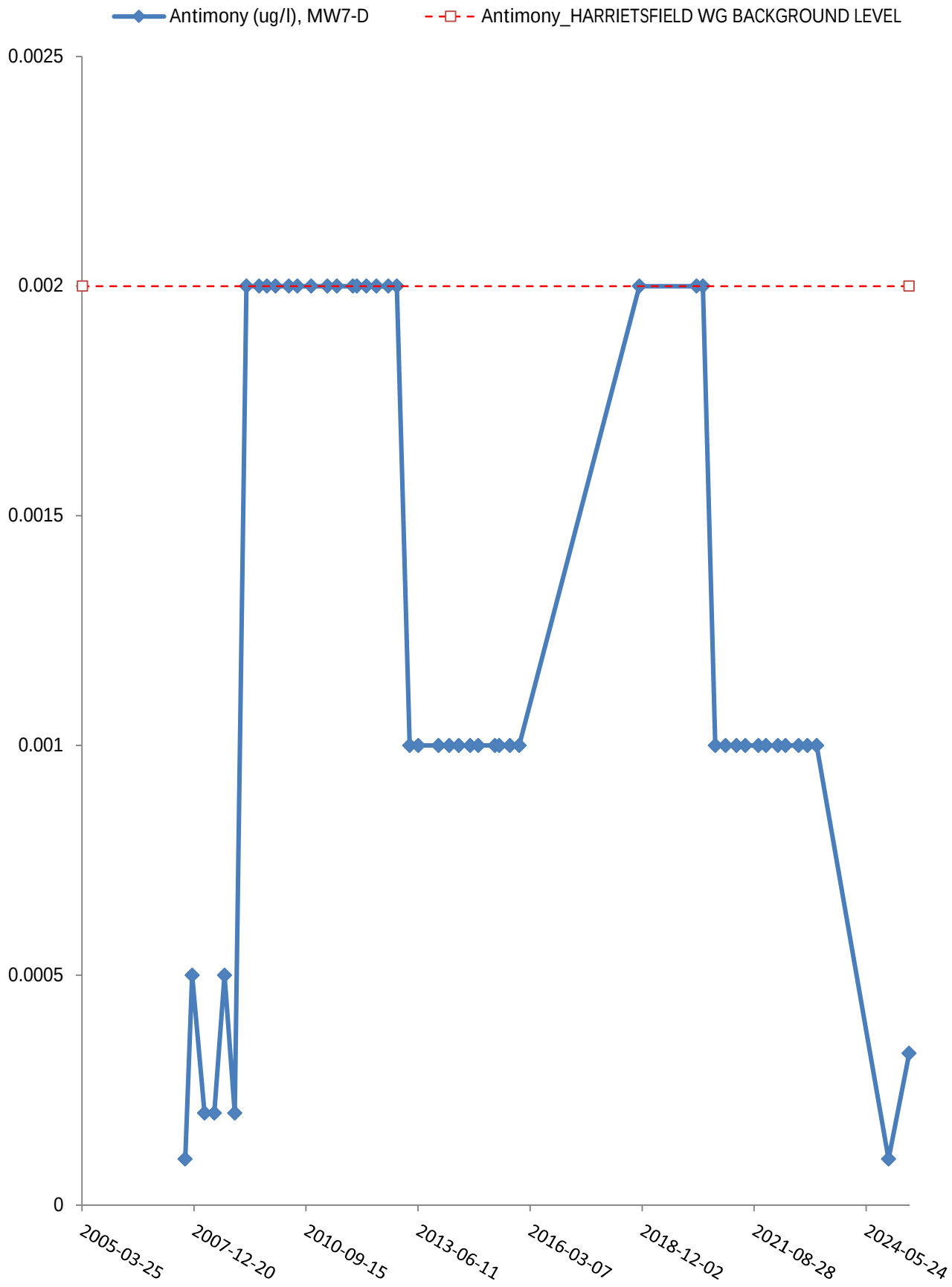

Uranium (ug/l), MW7-D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Aluminum



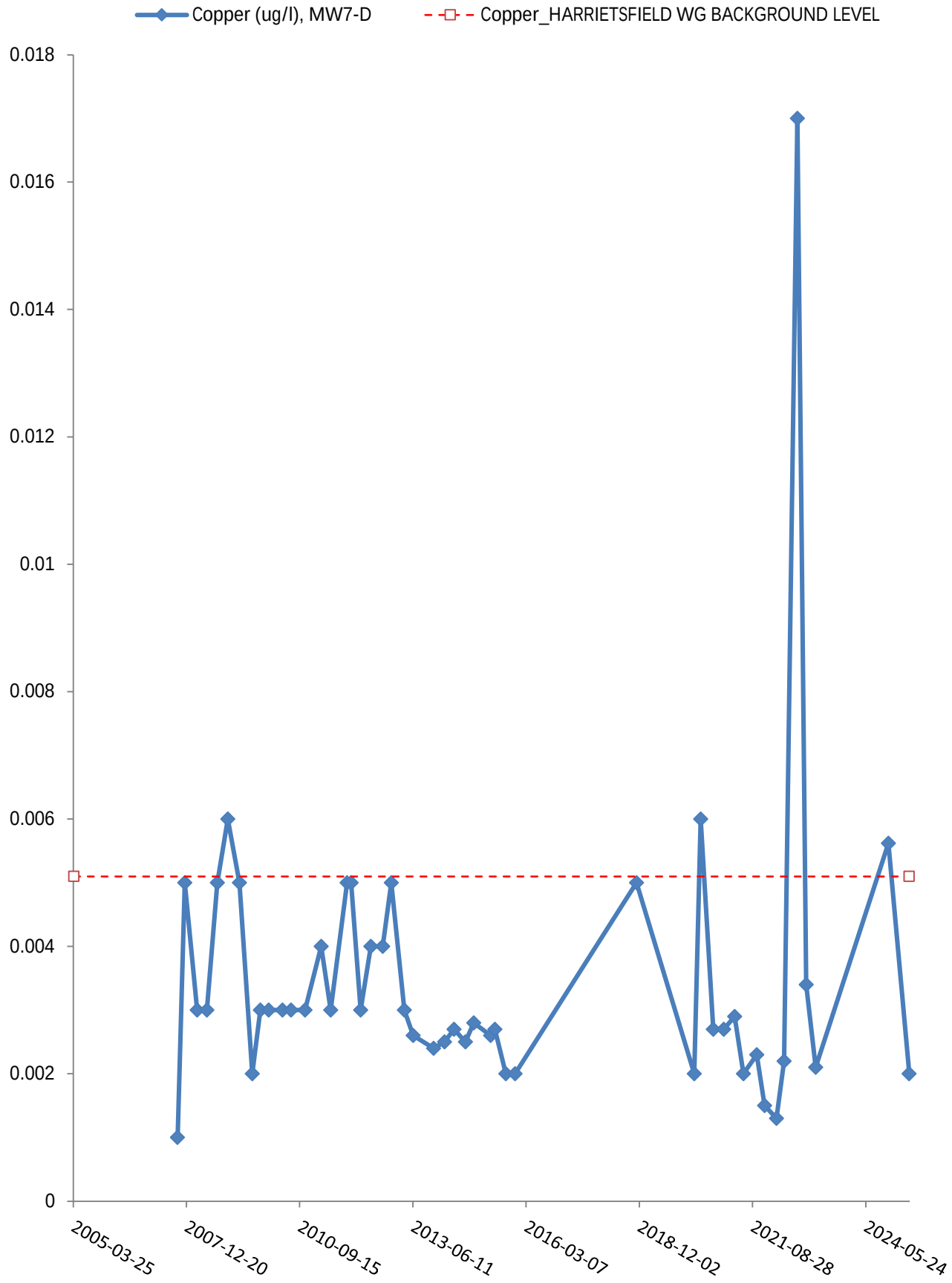

Aluminum (mg/l), MW7-D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
3
2.5
2
1.5
1
0.5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Antimony


Antimony (ug/l), MW7-D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

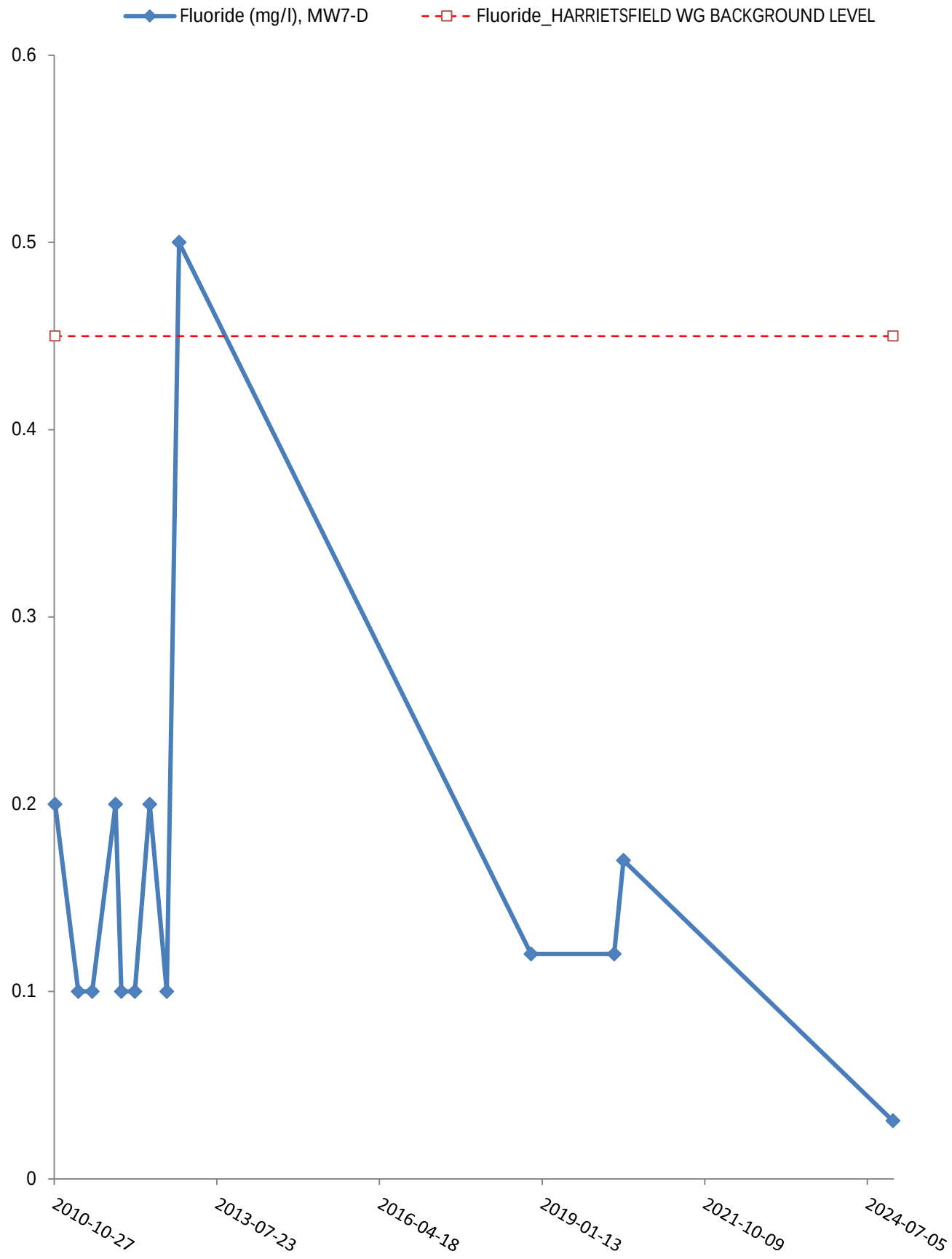
# Copper




Copper (ug/l), MW7-D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

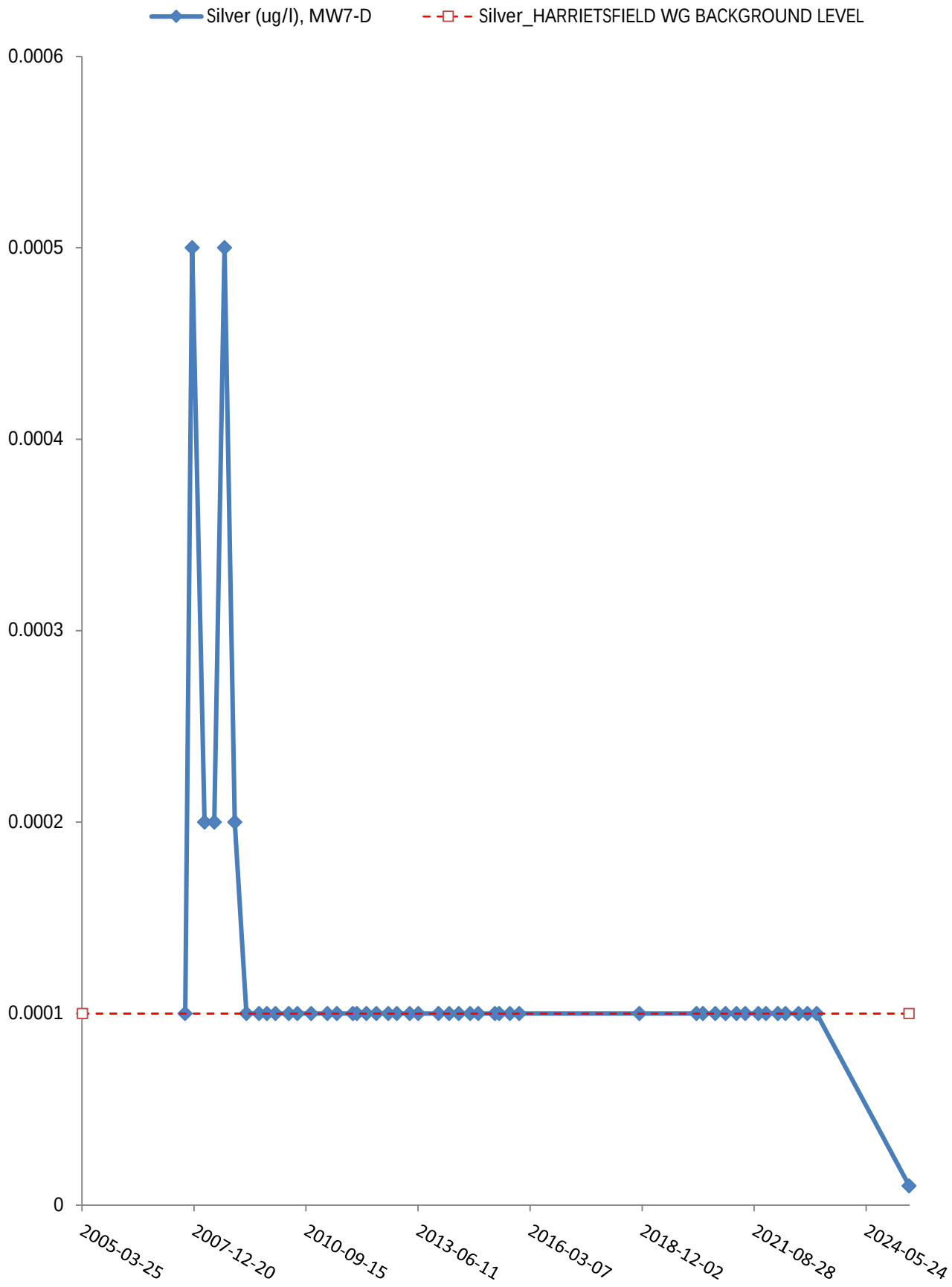
# Fluoride



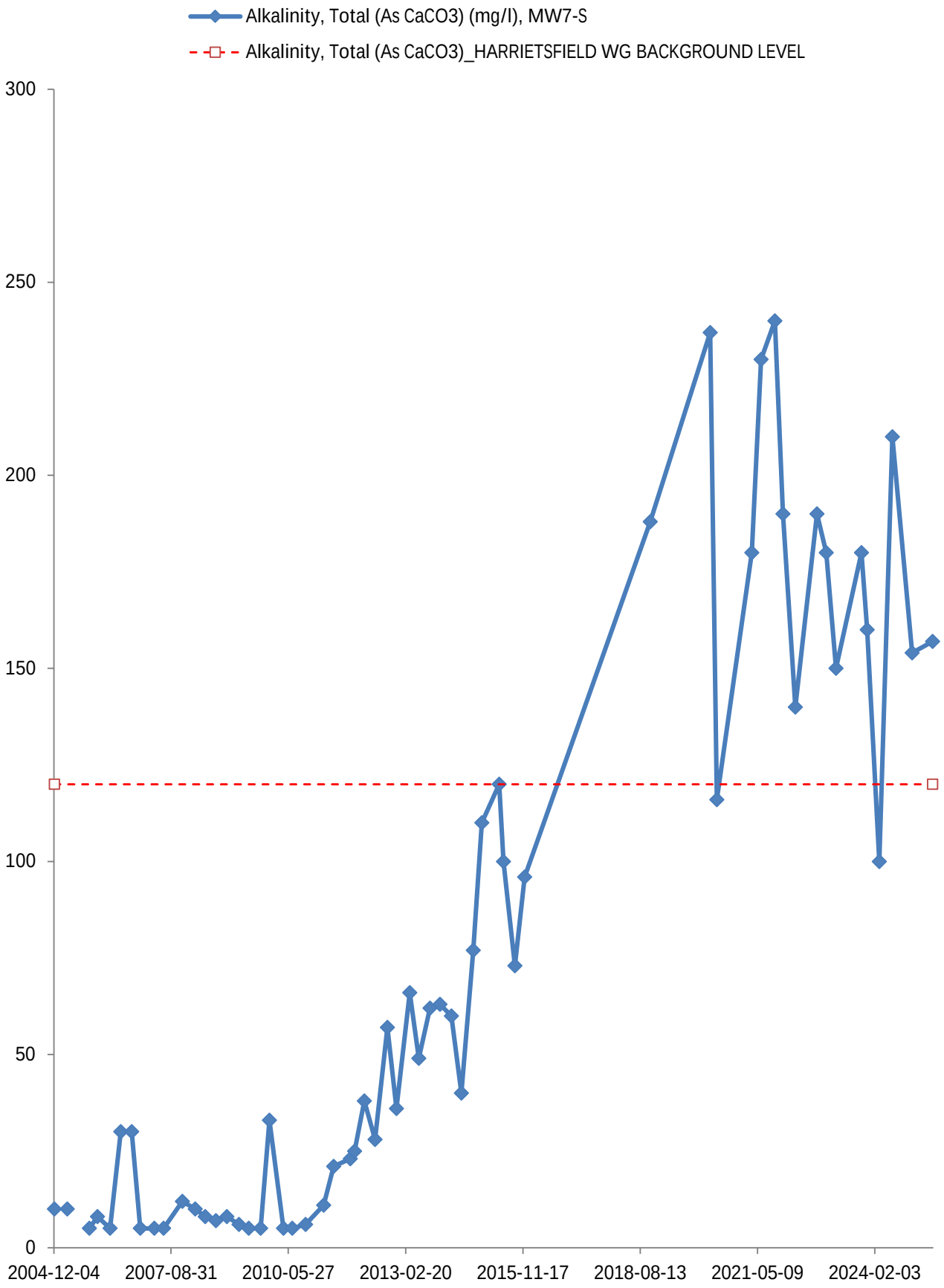

Fluoride (mg/l), MW7-D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.6
0.5
0.4
0.3
0.2
0.1
0
2010-10-27
2013-07-23
2016-04-18
2019-01-13
2021-10-09
2024-07-05

# Silver



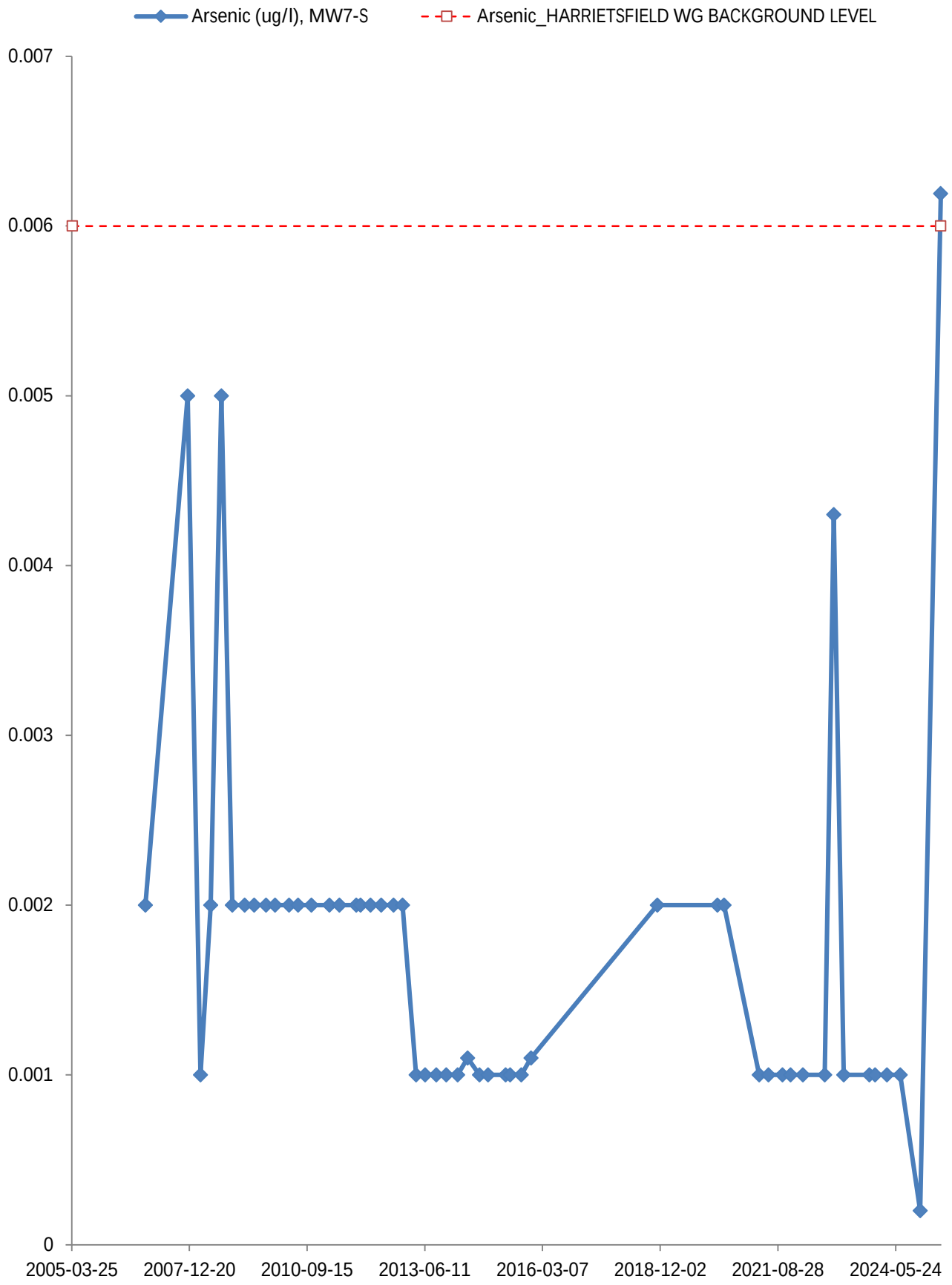

Silver (ug/l), MW7-D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Alkalinity, Total



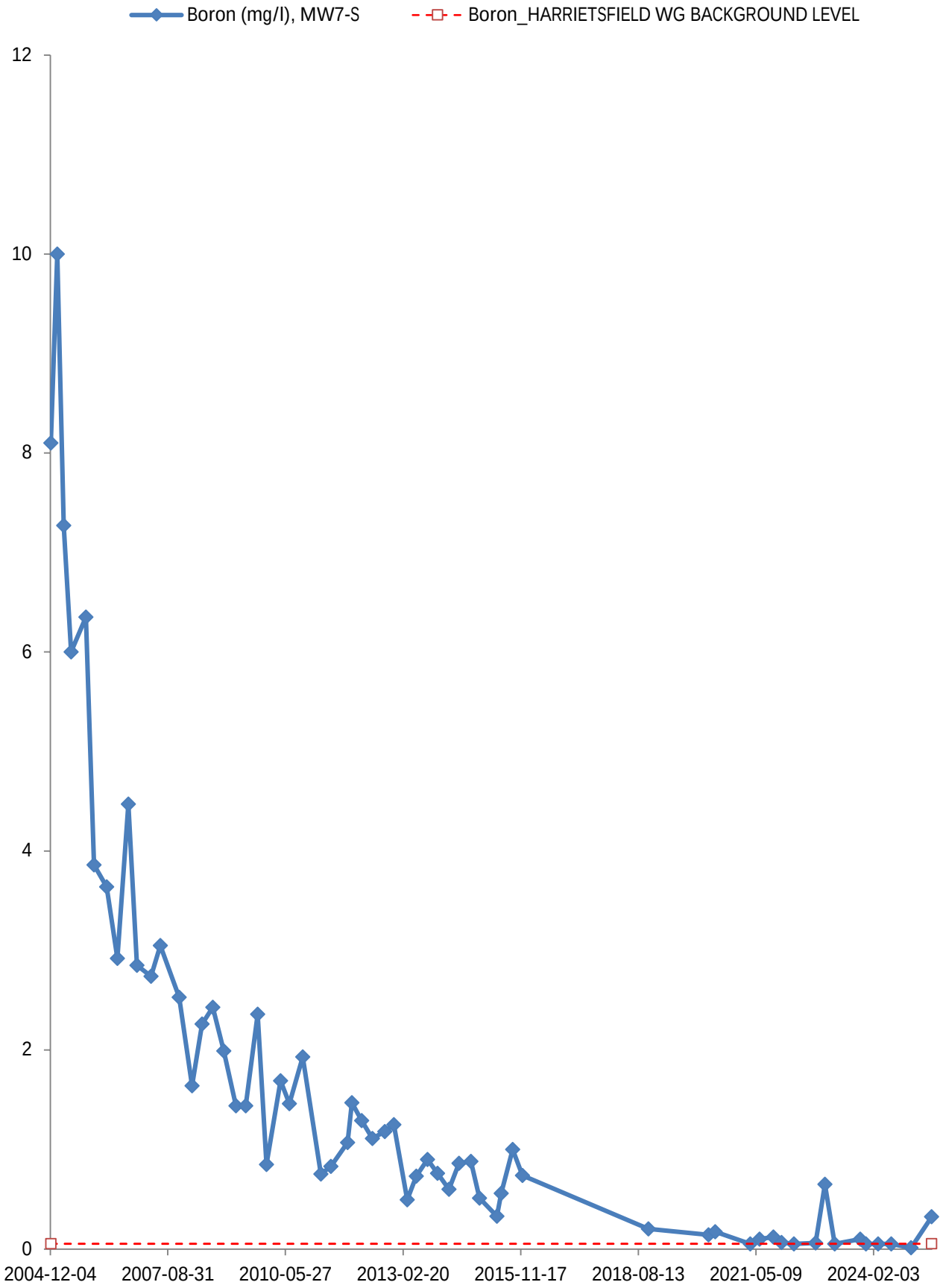
# Arsenic




Arsenic (ug/l), MW7-S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

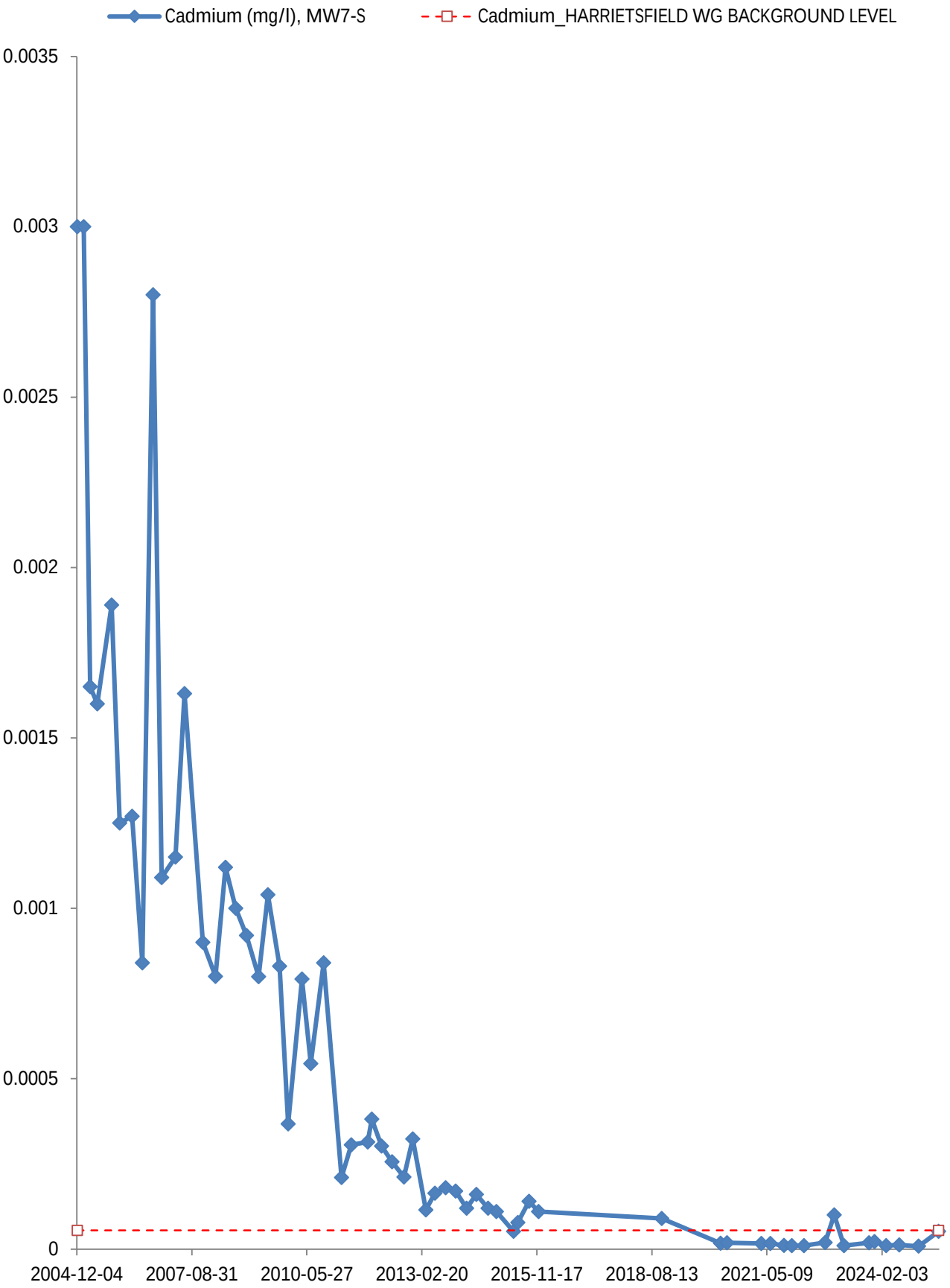
# Boron



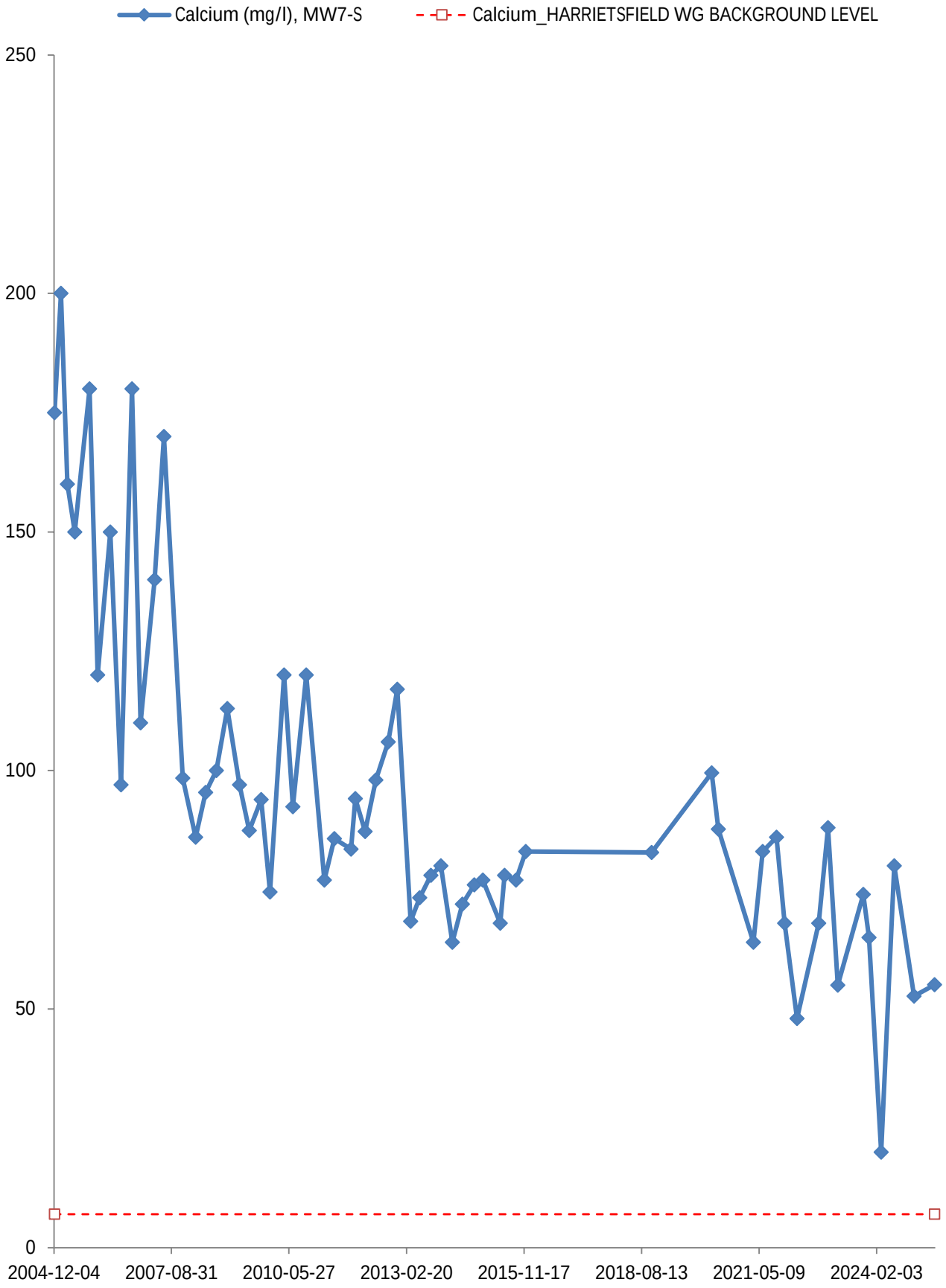

Boron (mg/l), MW7-S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
12
10
8
6
4
2
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Cadmium



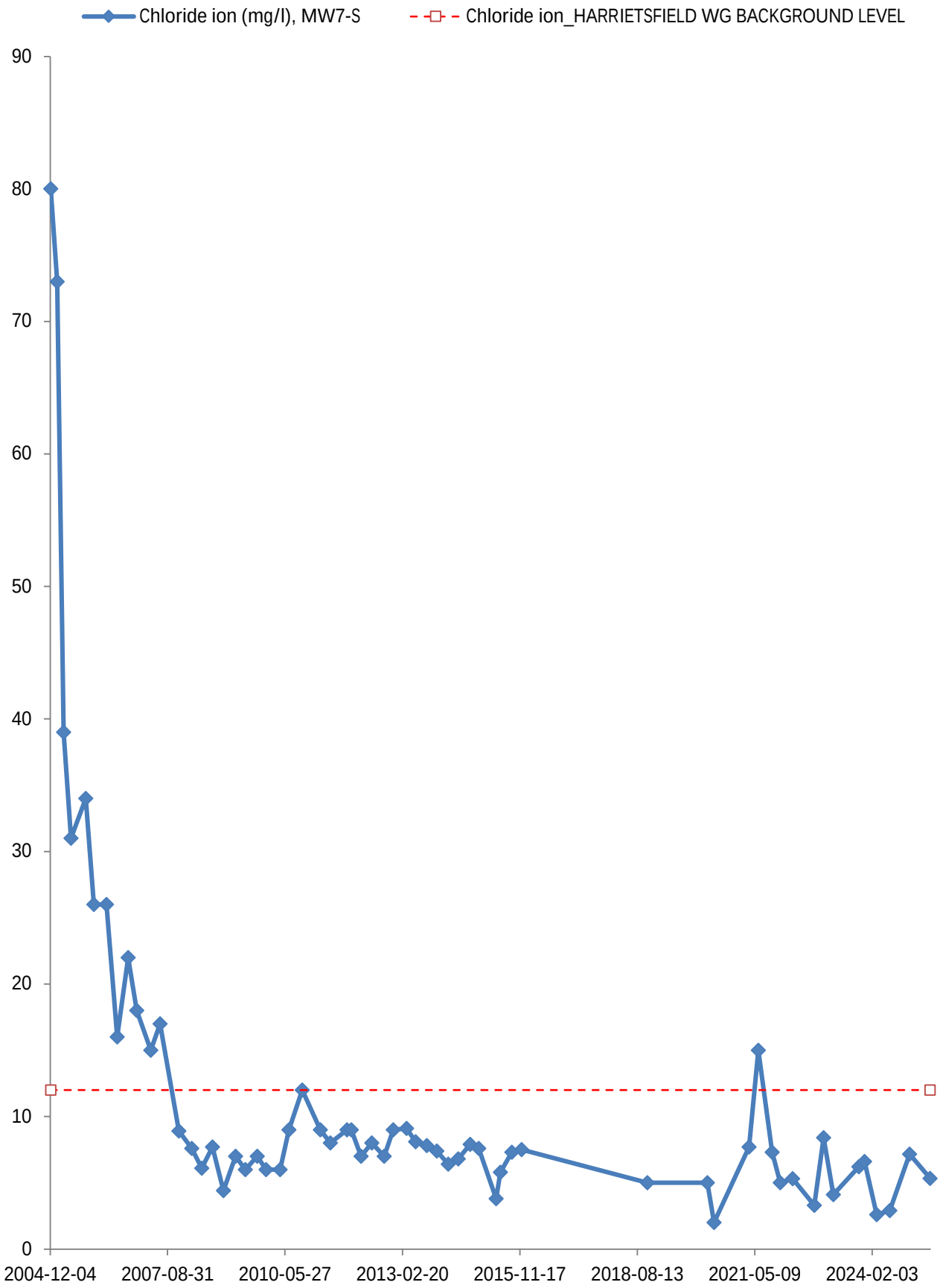

Cadmium (mg/l), MW7-S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Calcium

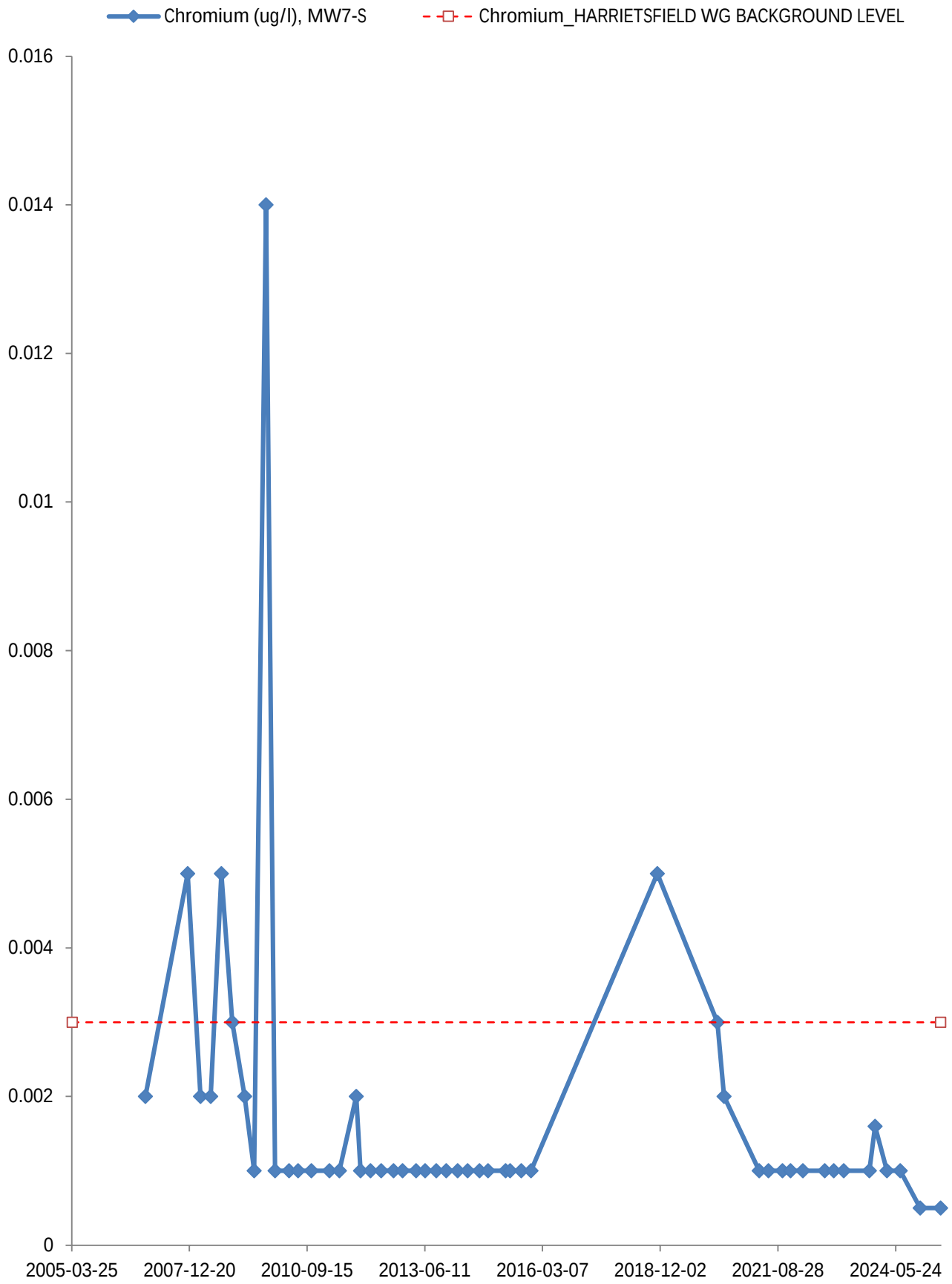

Calcium (mg/l), MW7-S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
250
200
150
100
50
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Chloride ion



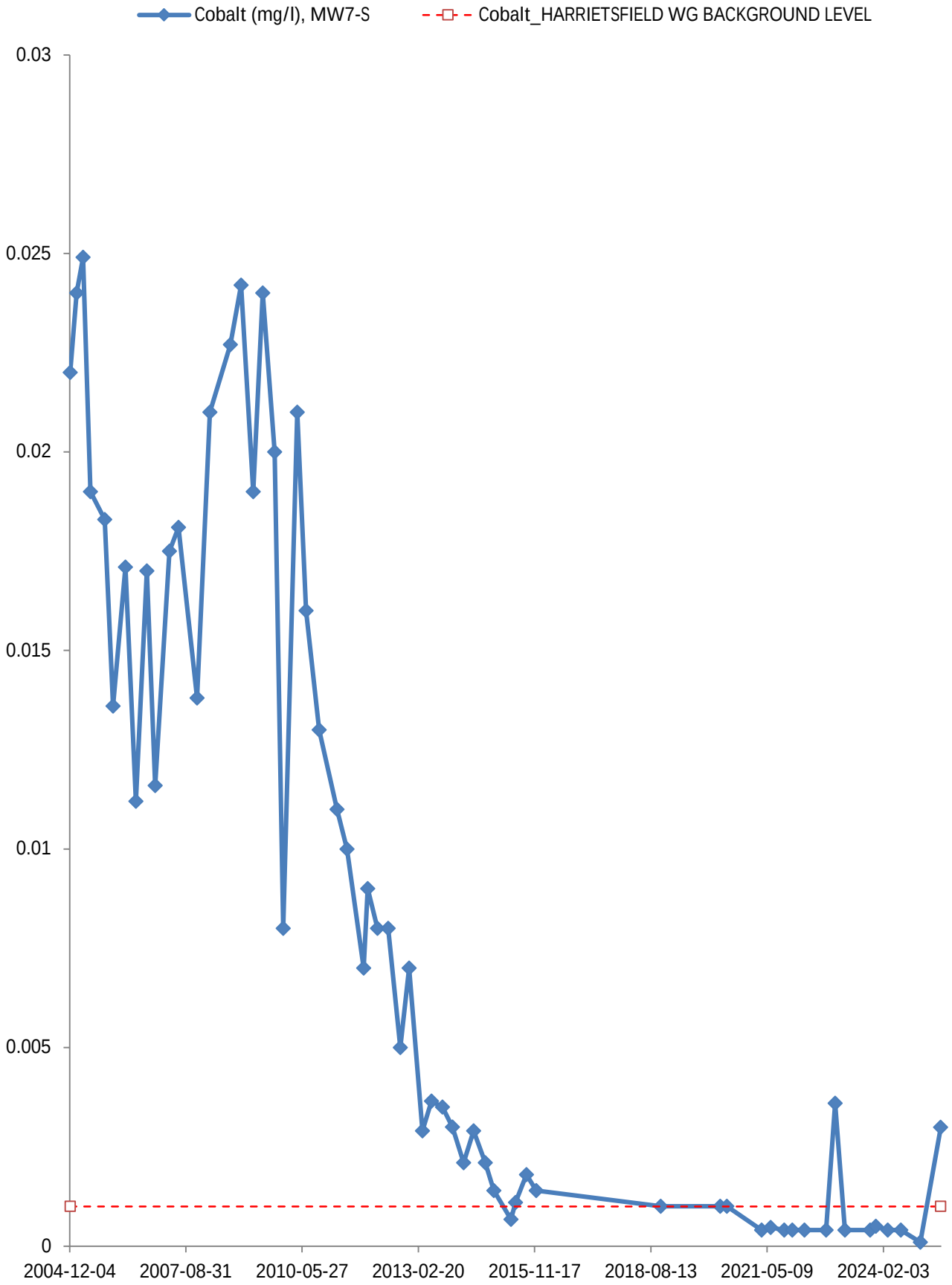


# Chromium


Chromium (ug/l), MW7-S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

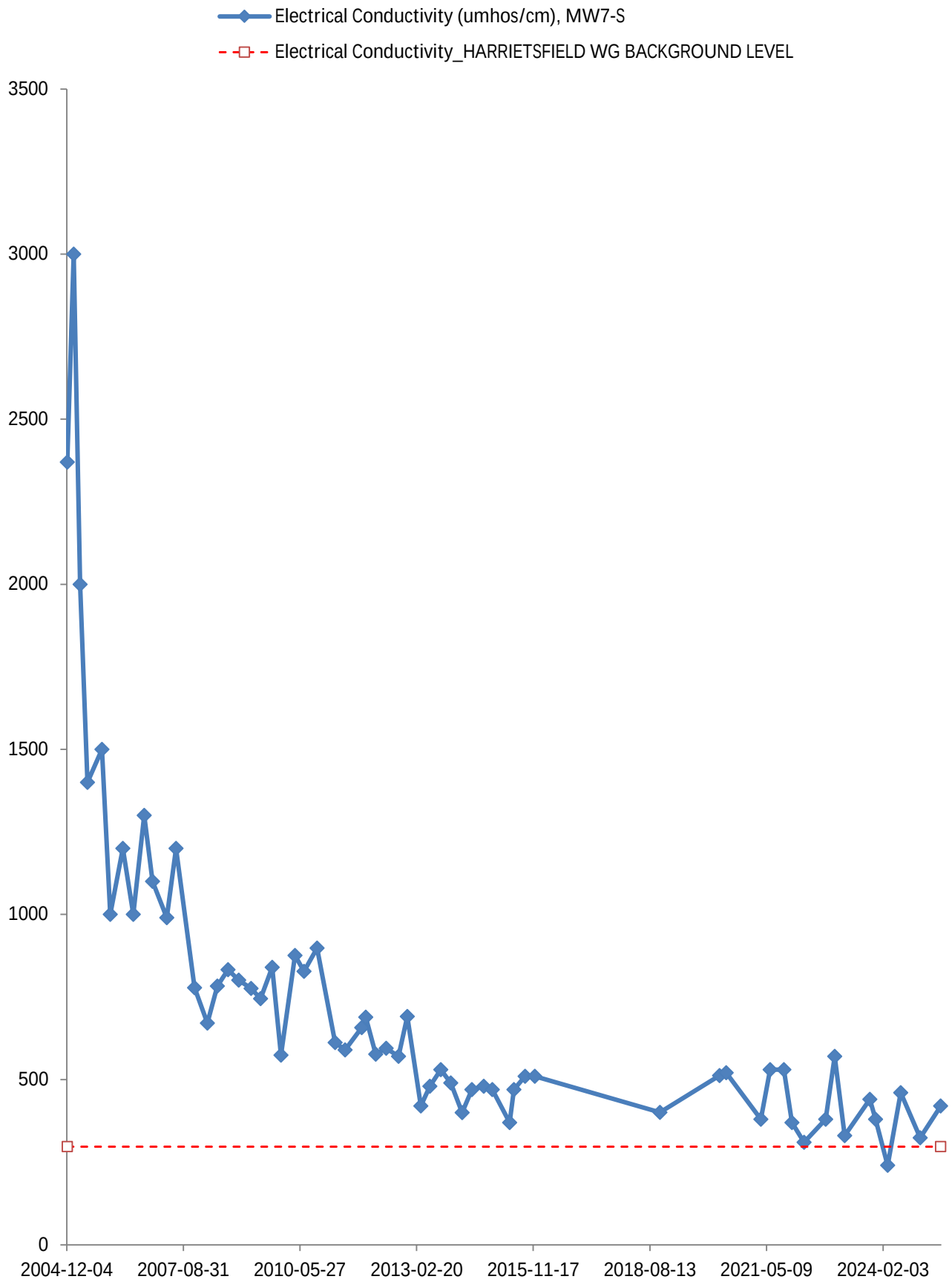
# Cobalt




Cobalt (mg/l), MW7-S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.03
0.025
0.02
0.015
0.01
0.005
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

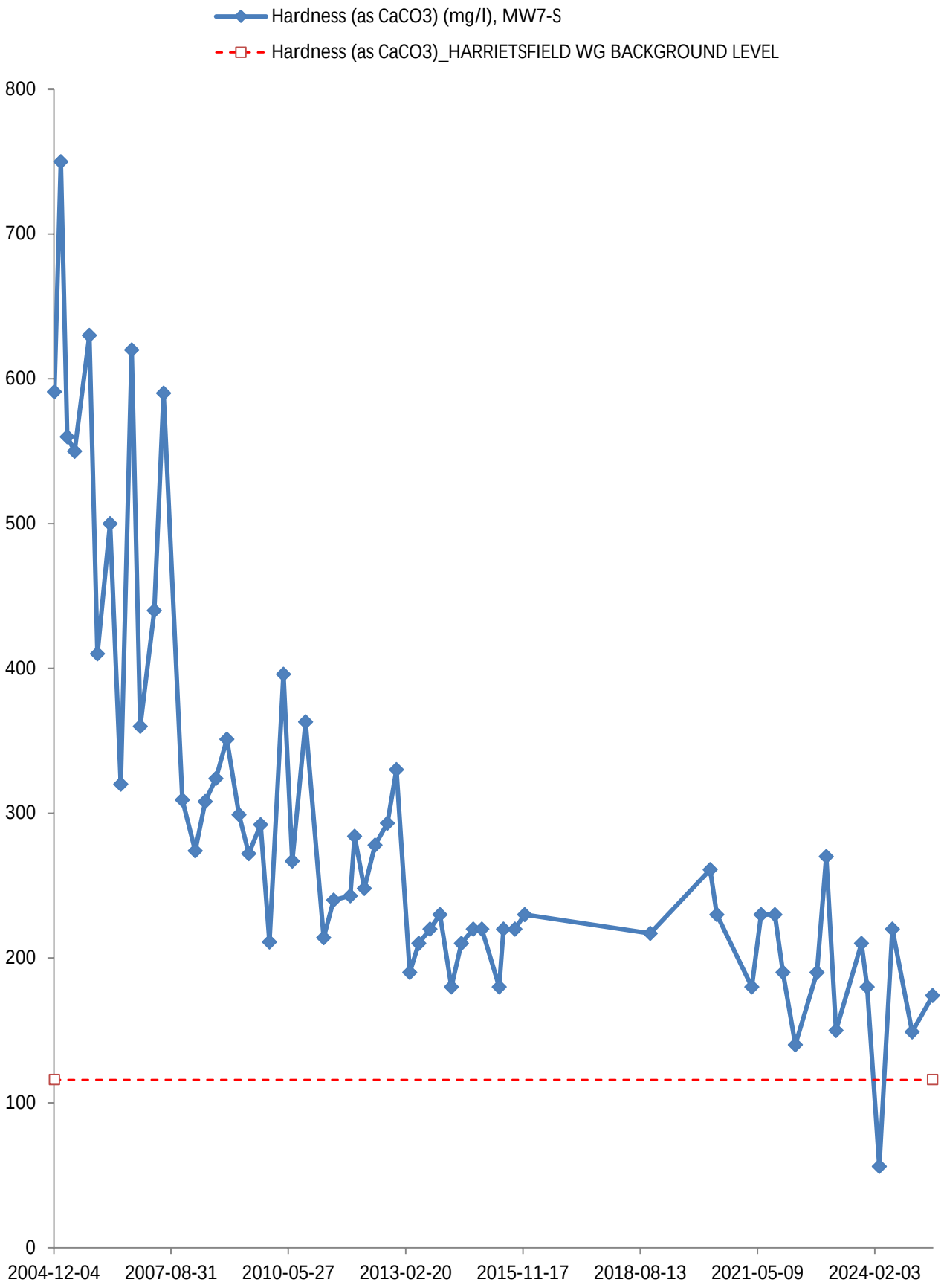
# Electrical Conductivity





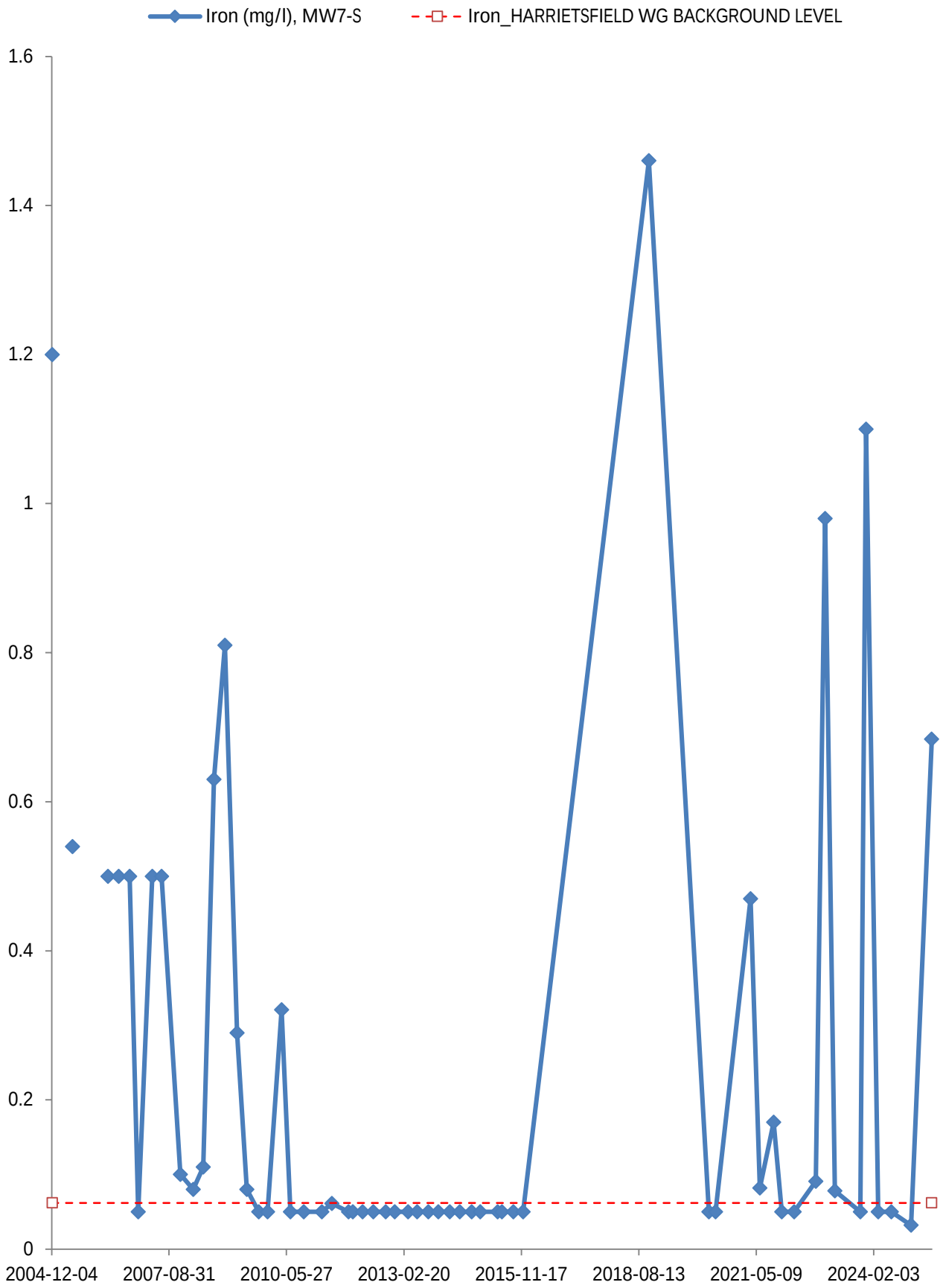
# Hardness (as CaCO3)





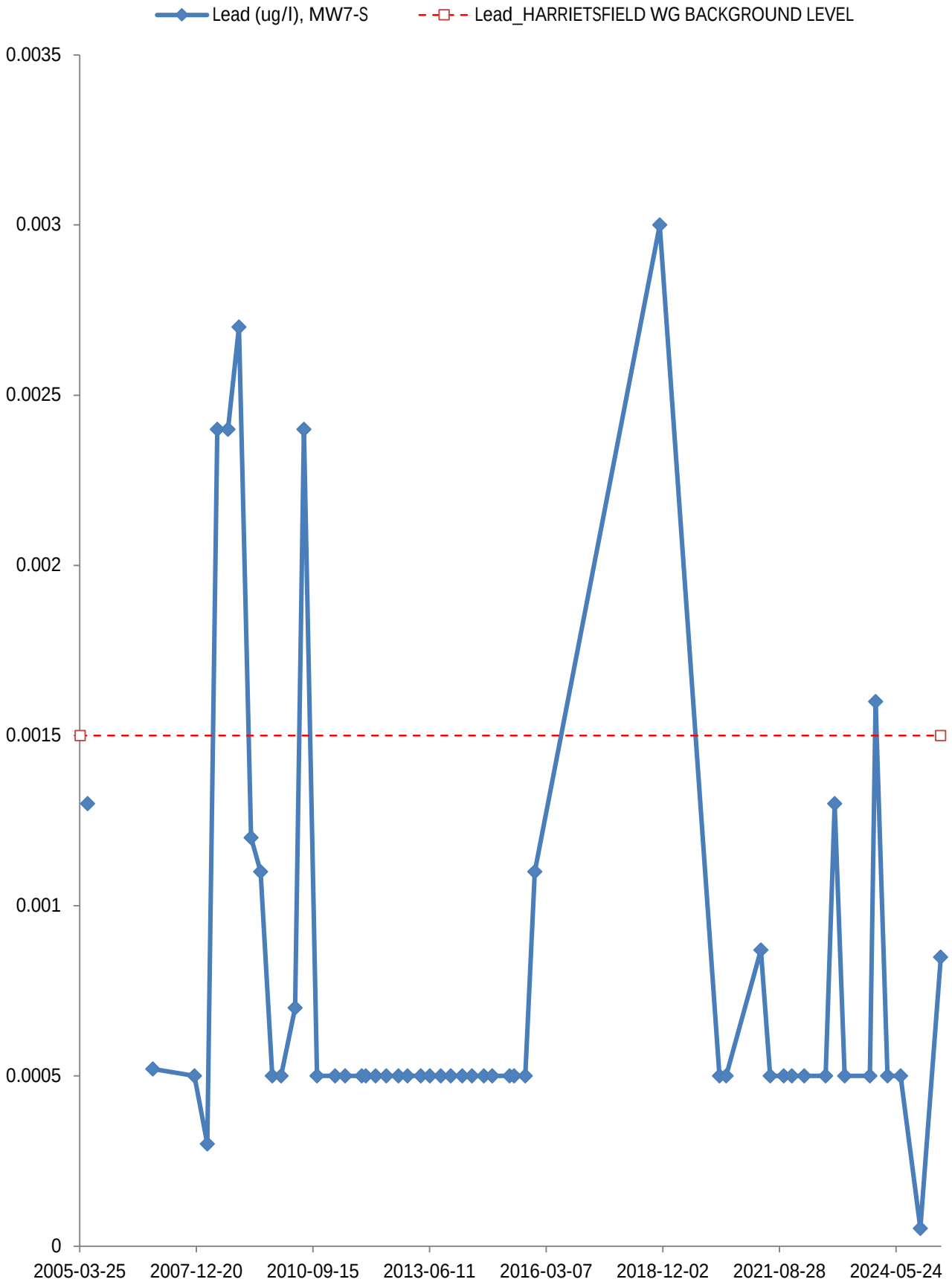
# Iron




Iron (mg/l), MW7-S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

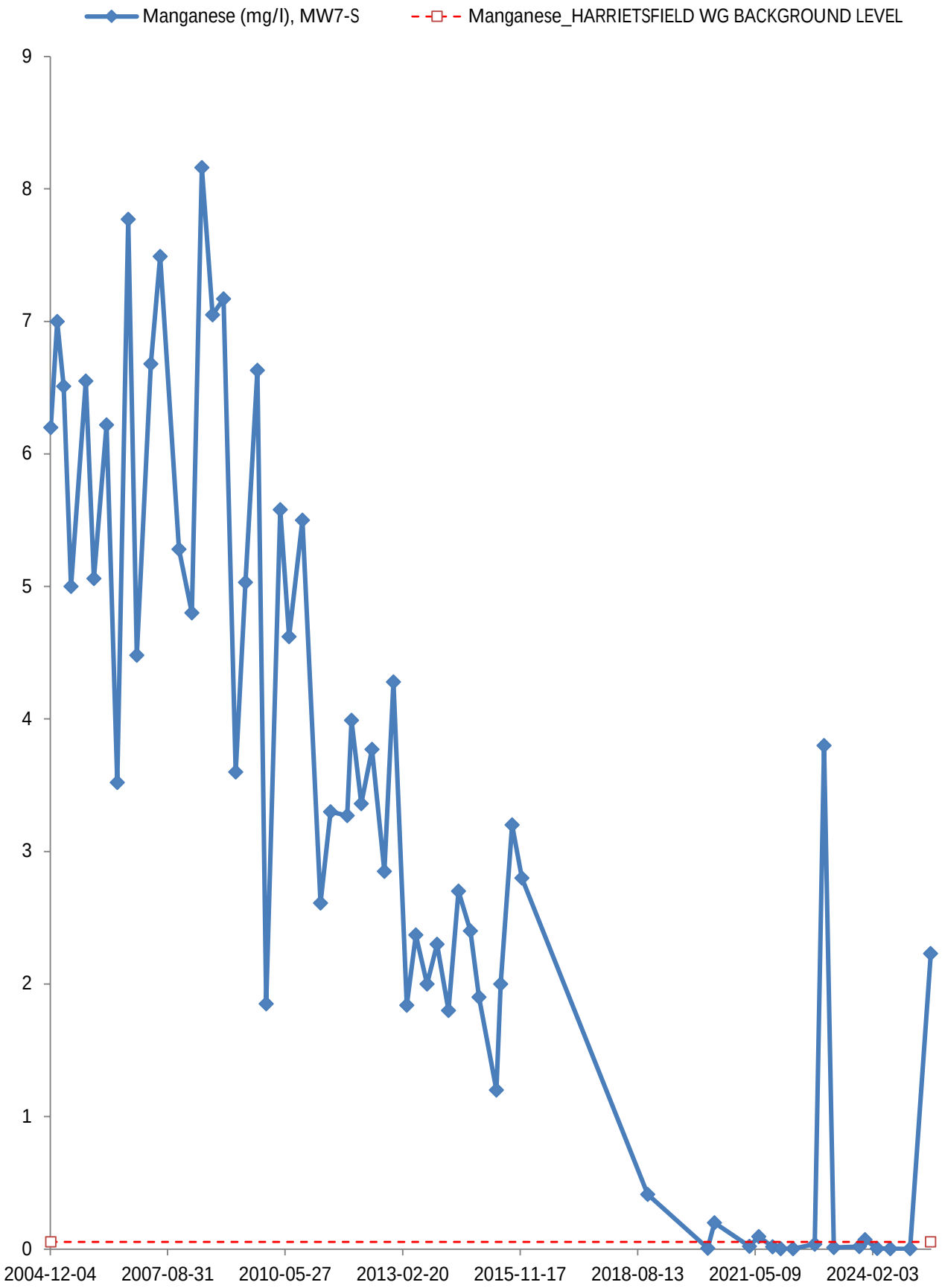
# Lead




Lead (ug/l), MW7-S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

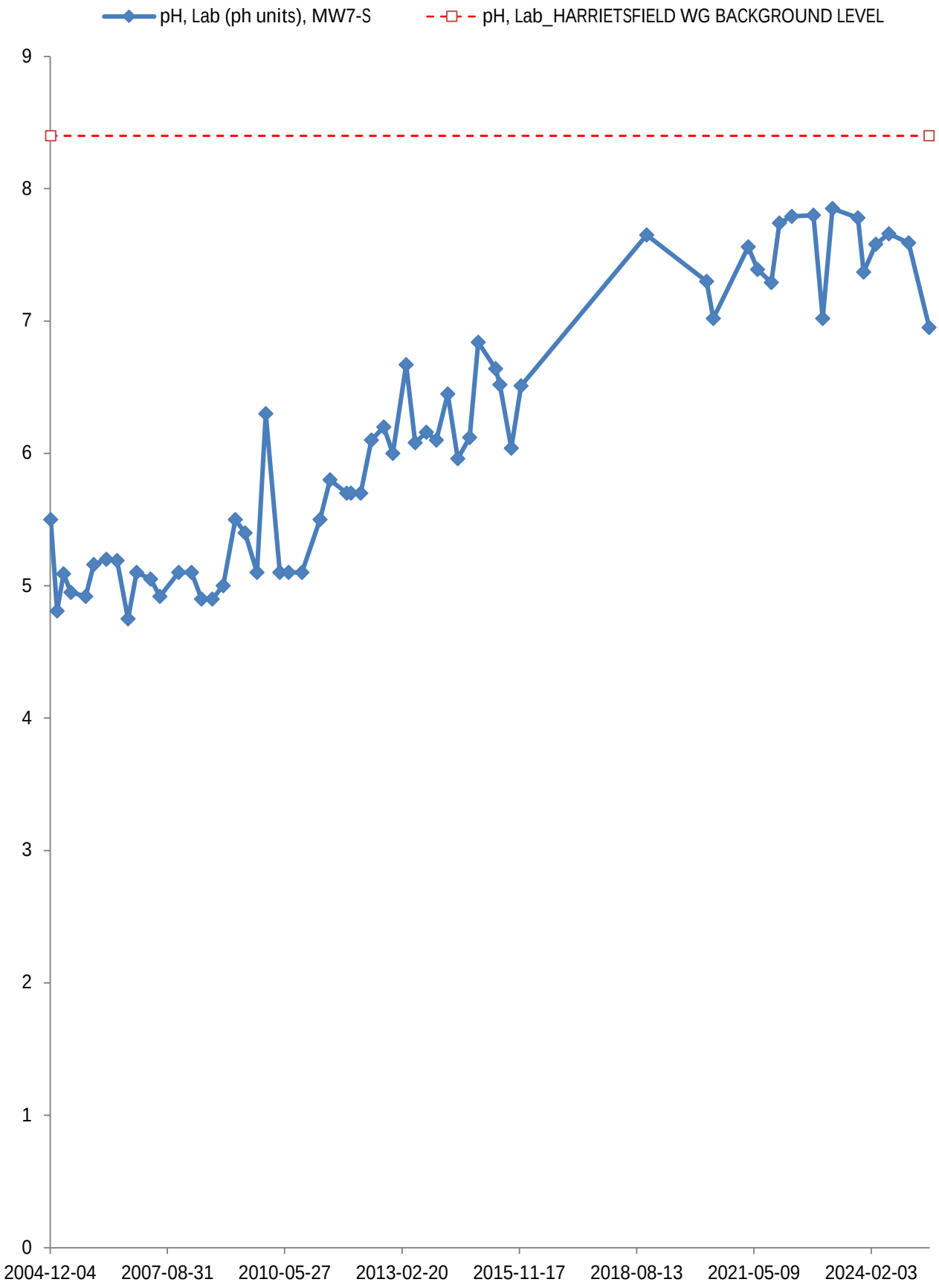
# Manganese




Manganese (mg/l), MW7-S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

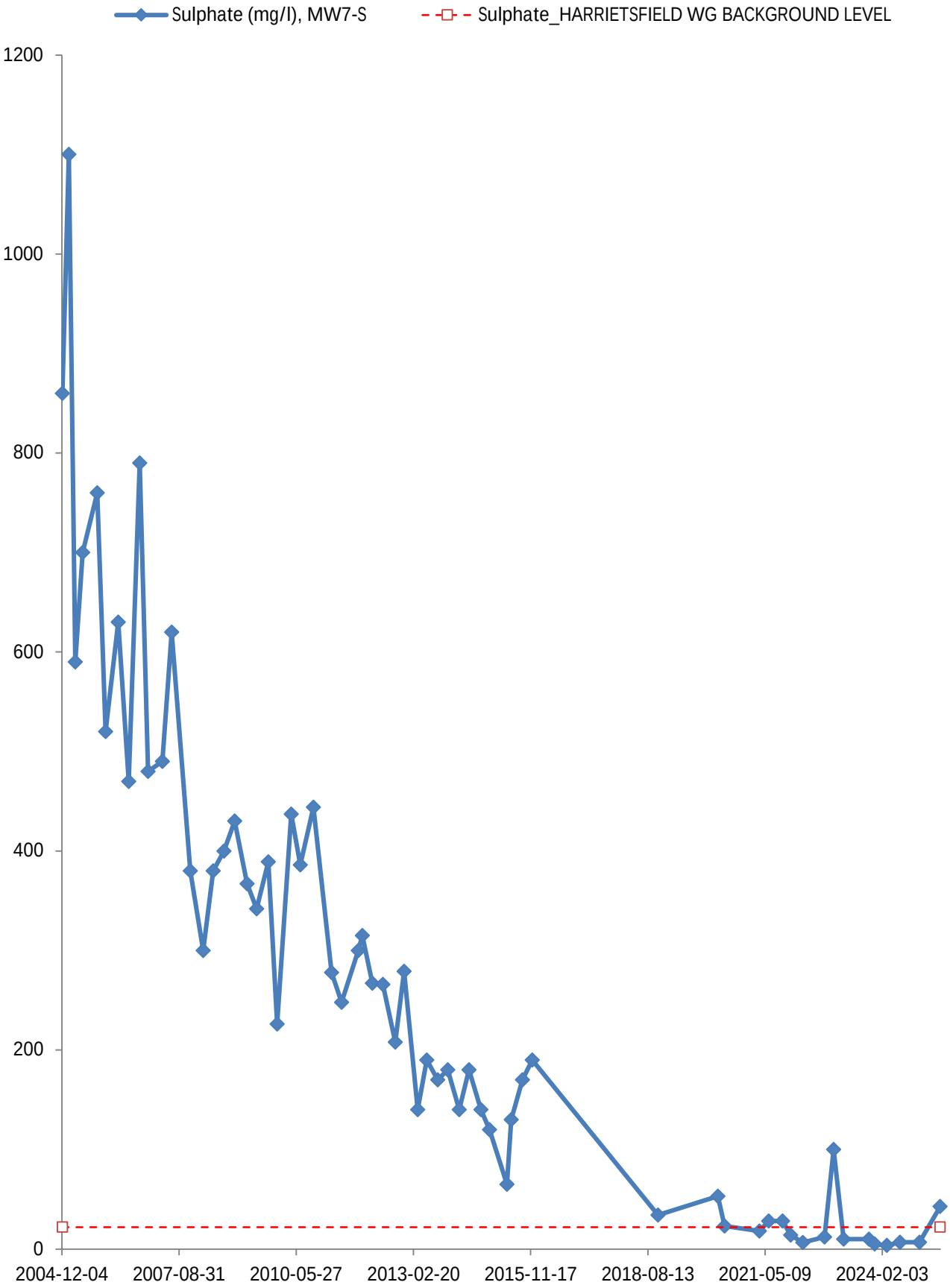
# pH, Lab



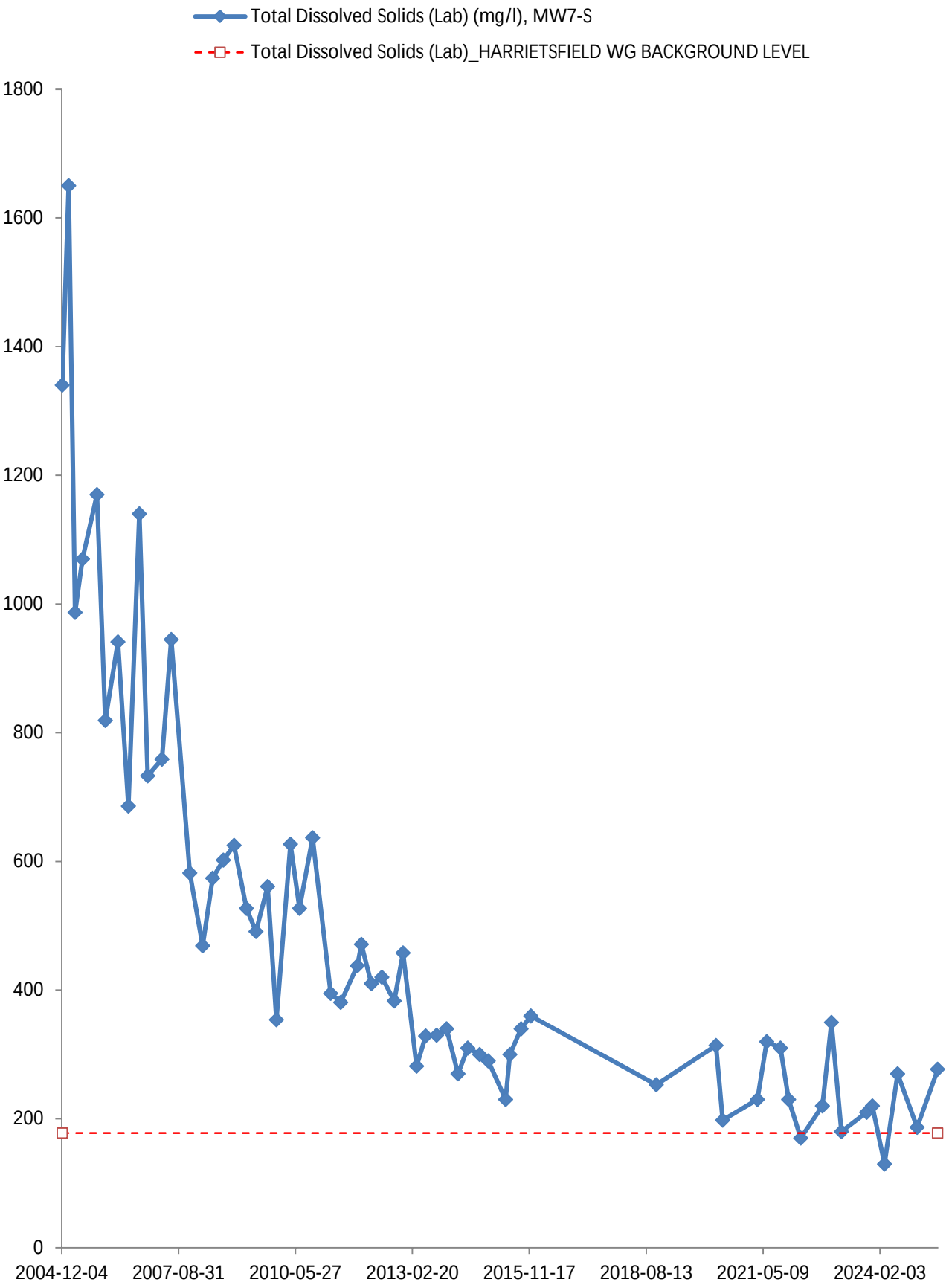

pH, Lab (ph units), MW7-S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Sulphate

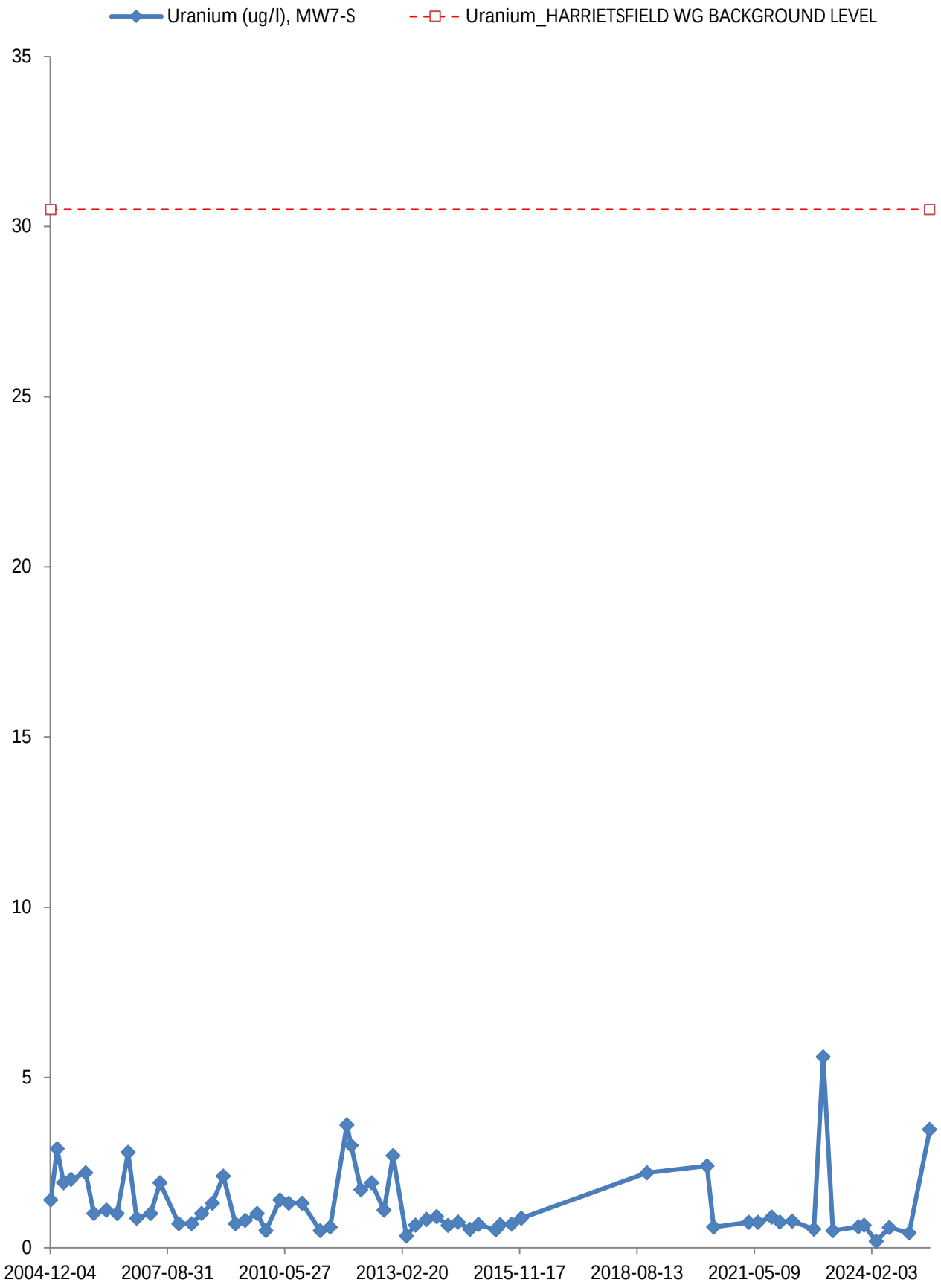



Sulphate (mg/l), MW7-S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
1200
1000
800
600
400
200
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

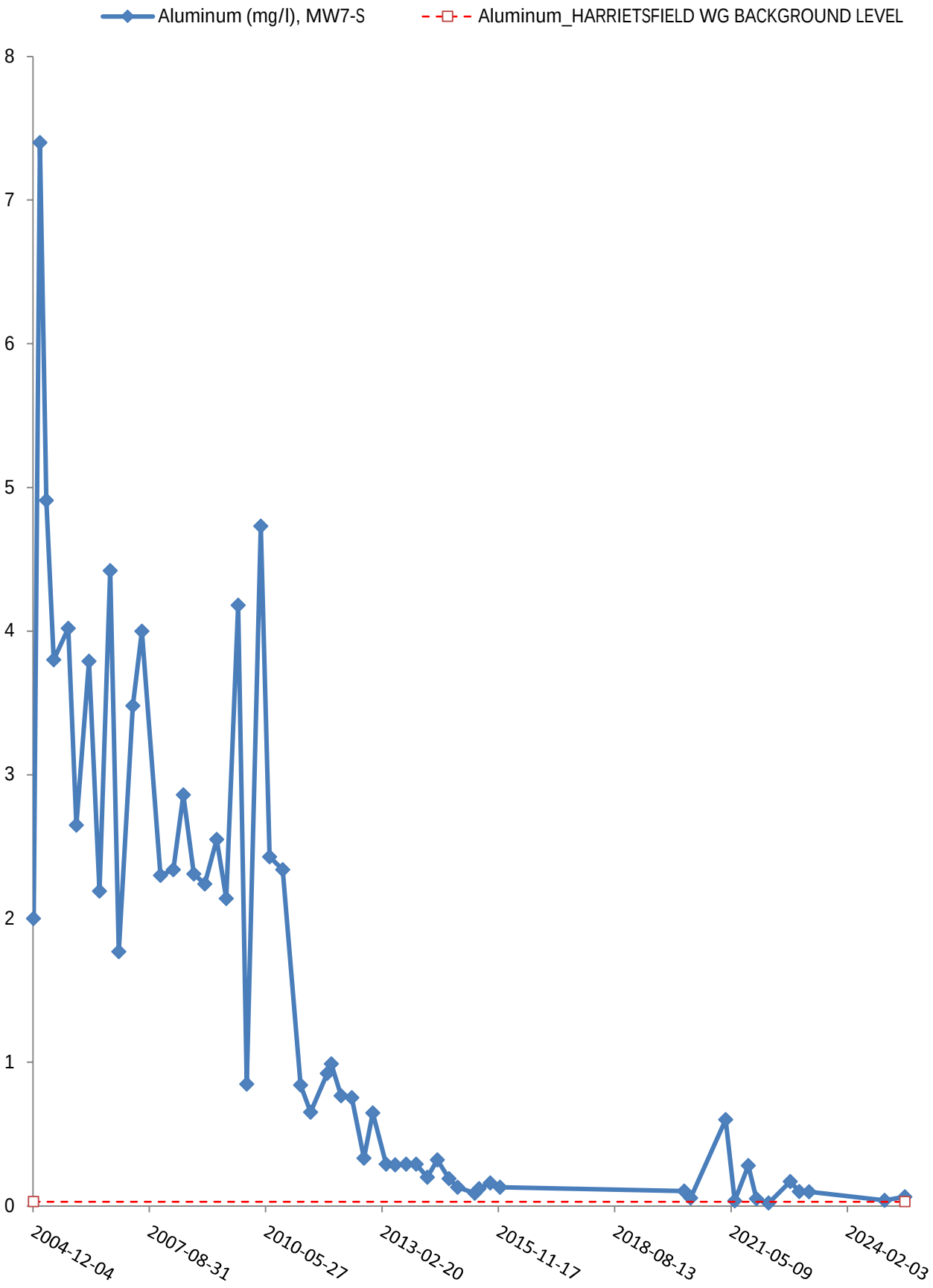
# Total Dissolved Solids (5



# Uranium

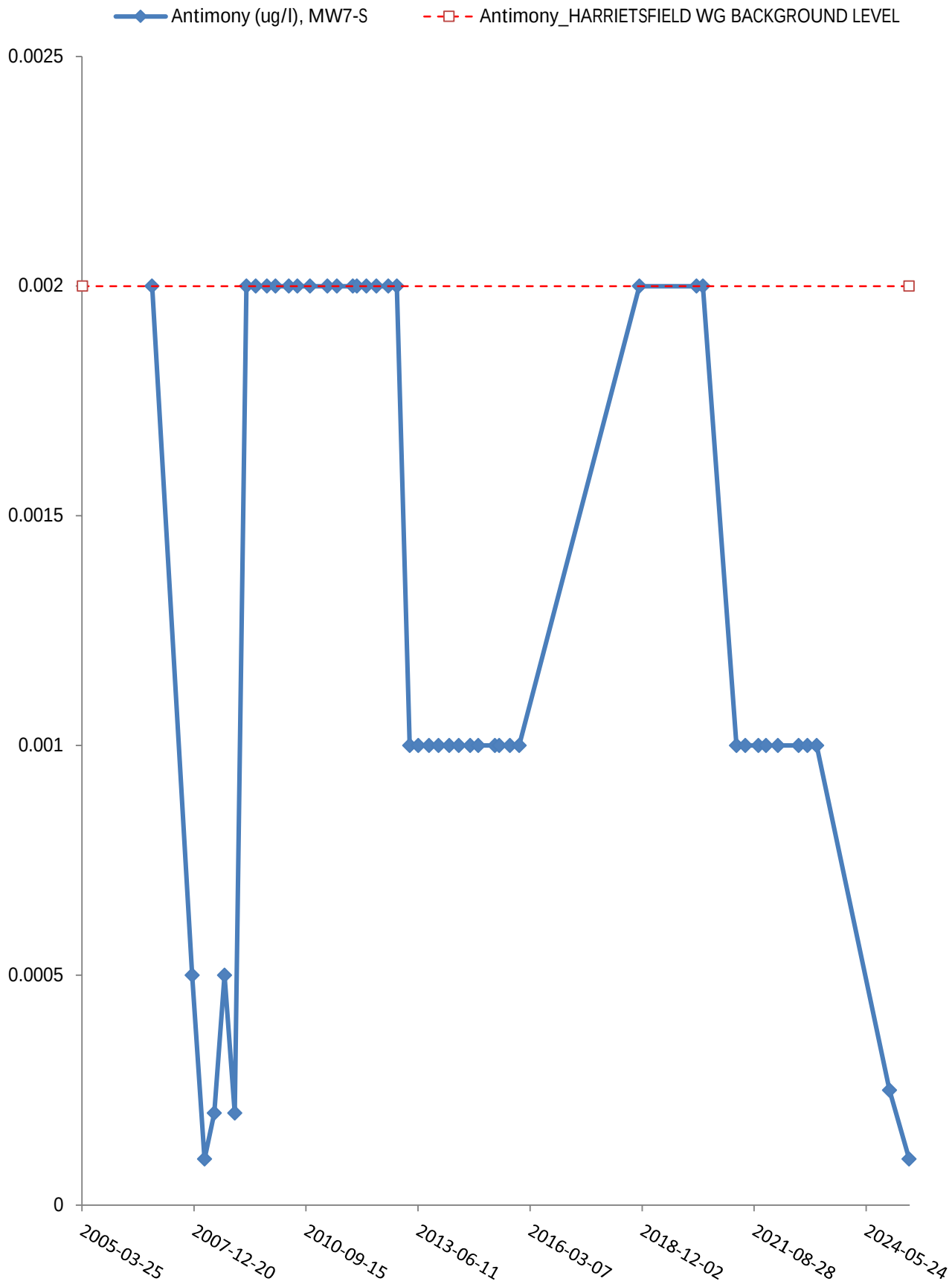

Uranium (ug/l), MW7-S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

# Aluminum


Aluminum (mg/l), MW7-S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
8
7
6
5
4
3
2
1
0
2004-12-04
2007-08-31
2010-05-27
2013-02-20
2015-11-17
2018-08-13
2021-05-09
2024-02-03

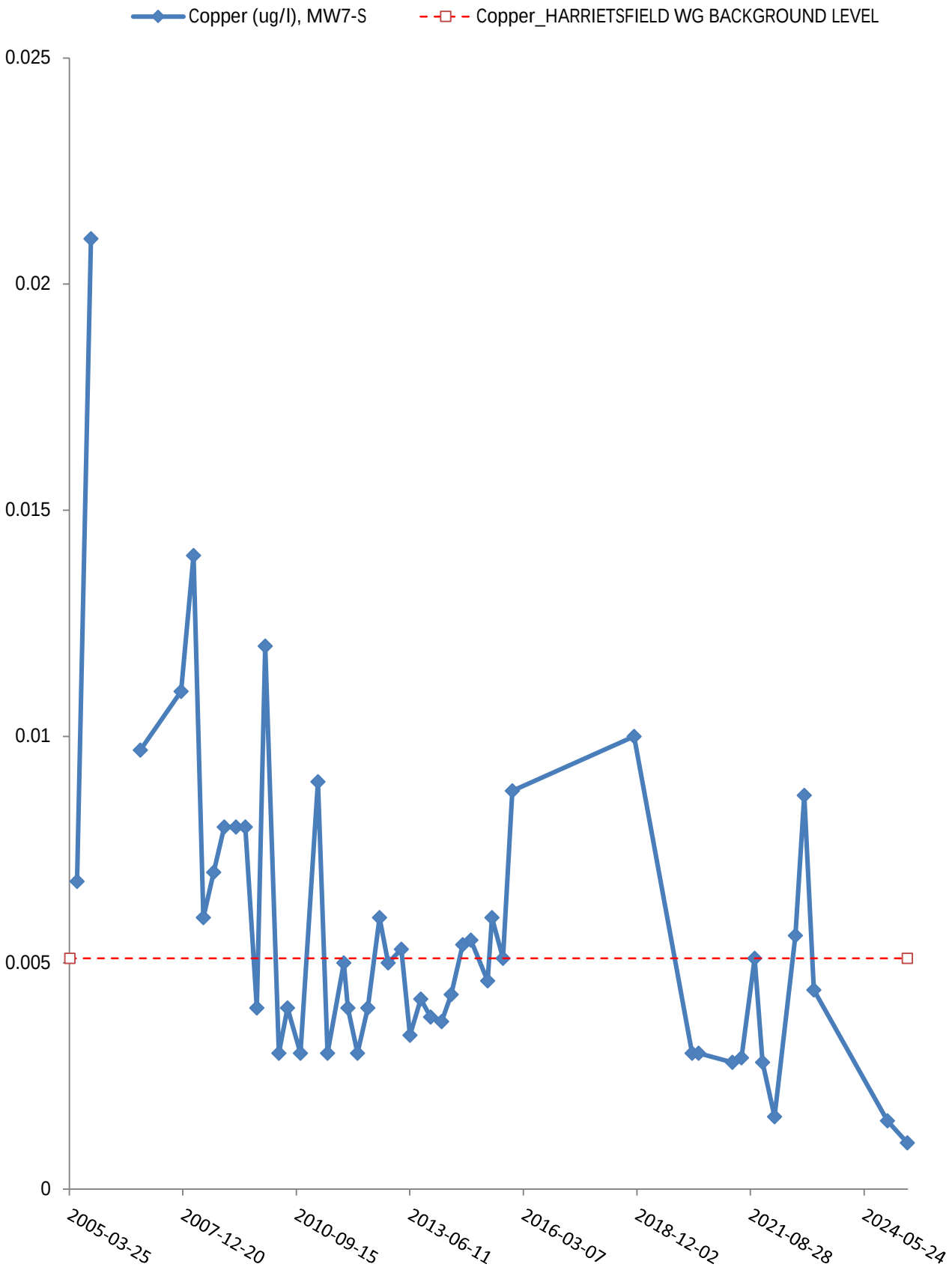
# Antimony




Antimony (ug/l), MW7-S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

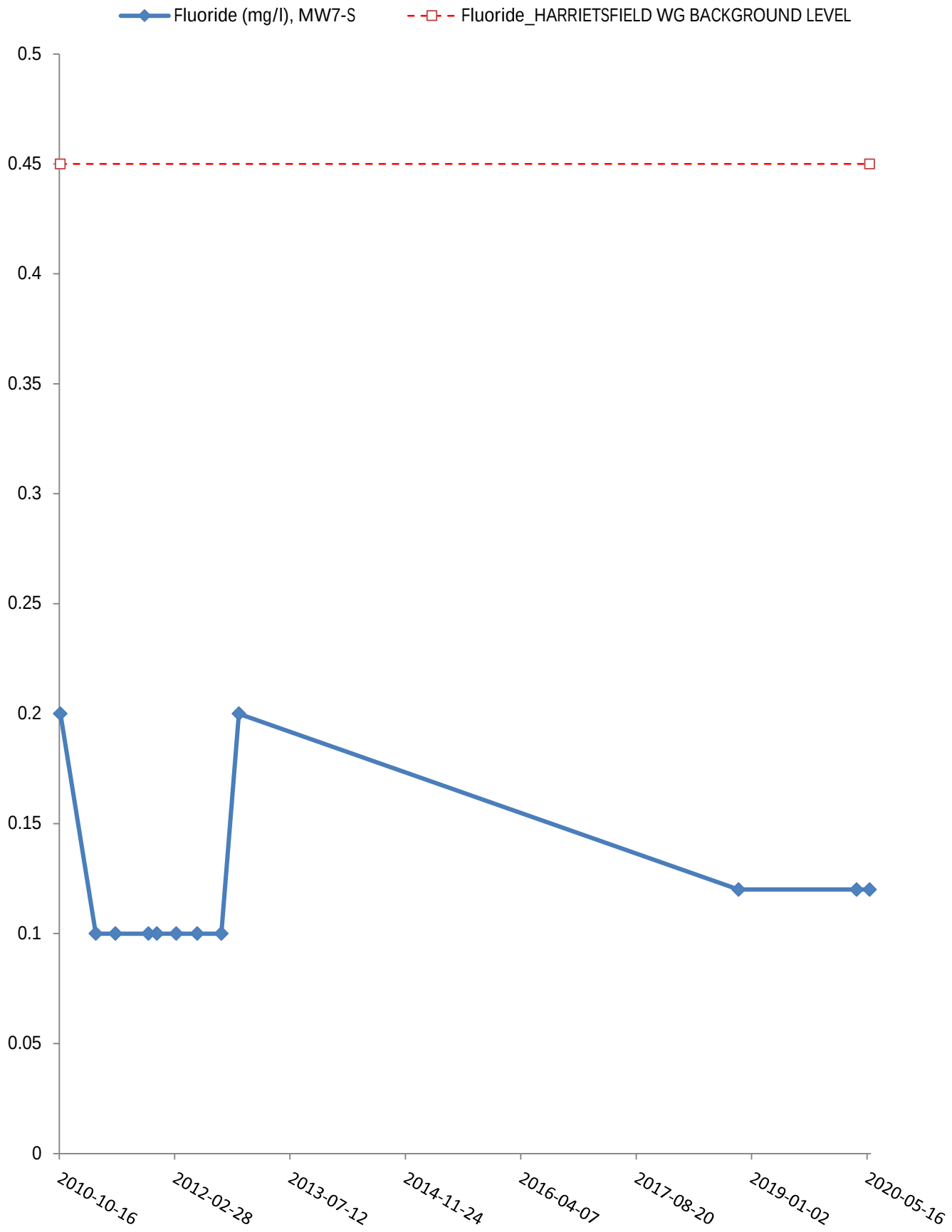
# Copper




Copper (ug/l), MW7-S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

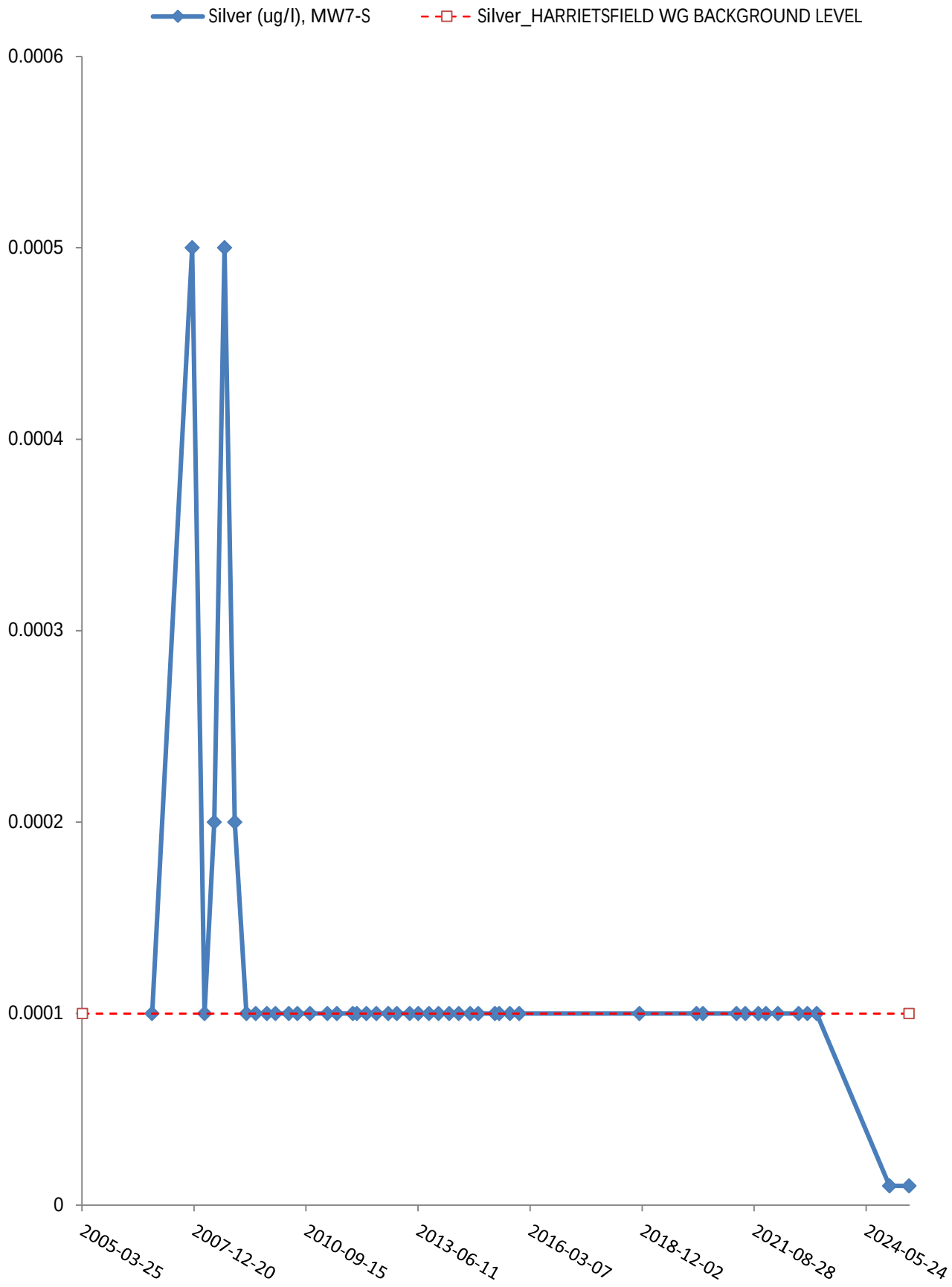
# Fluoride



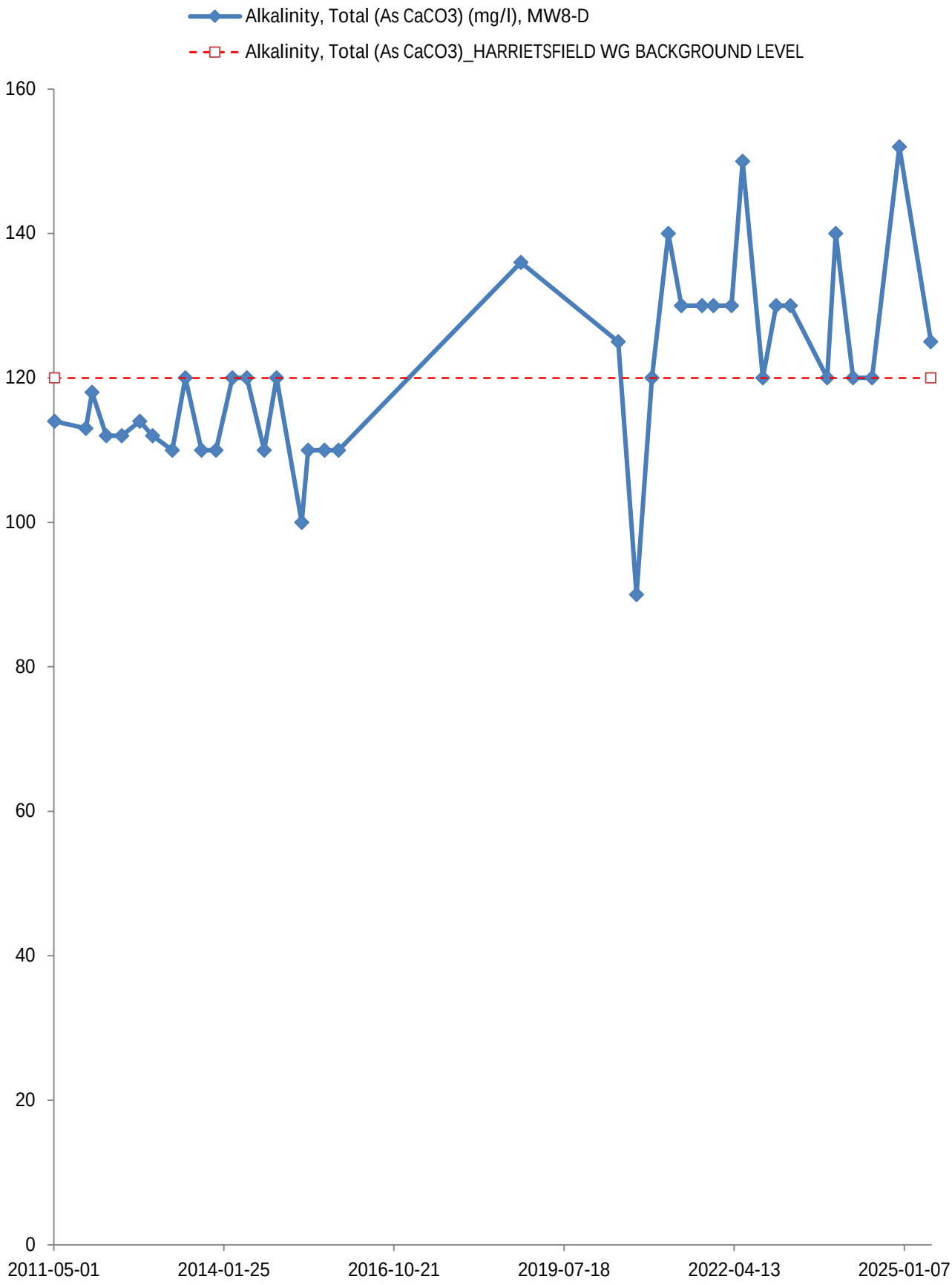

Fluoride (mg/l), MW7-S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2010-10-16
2012-02-28
2013-07-12
2014-11-24
2016-04-07
2017-08-20
2019-01-02
2020-05-16

# Silver

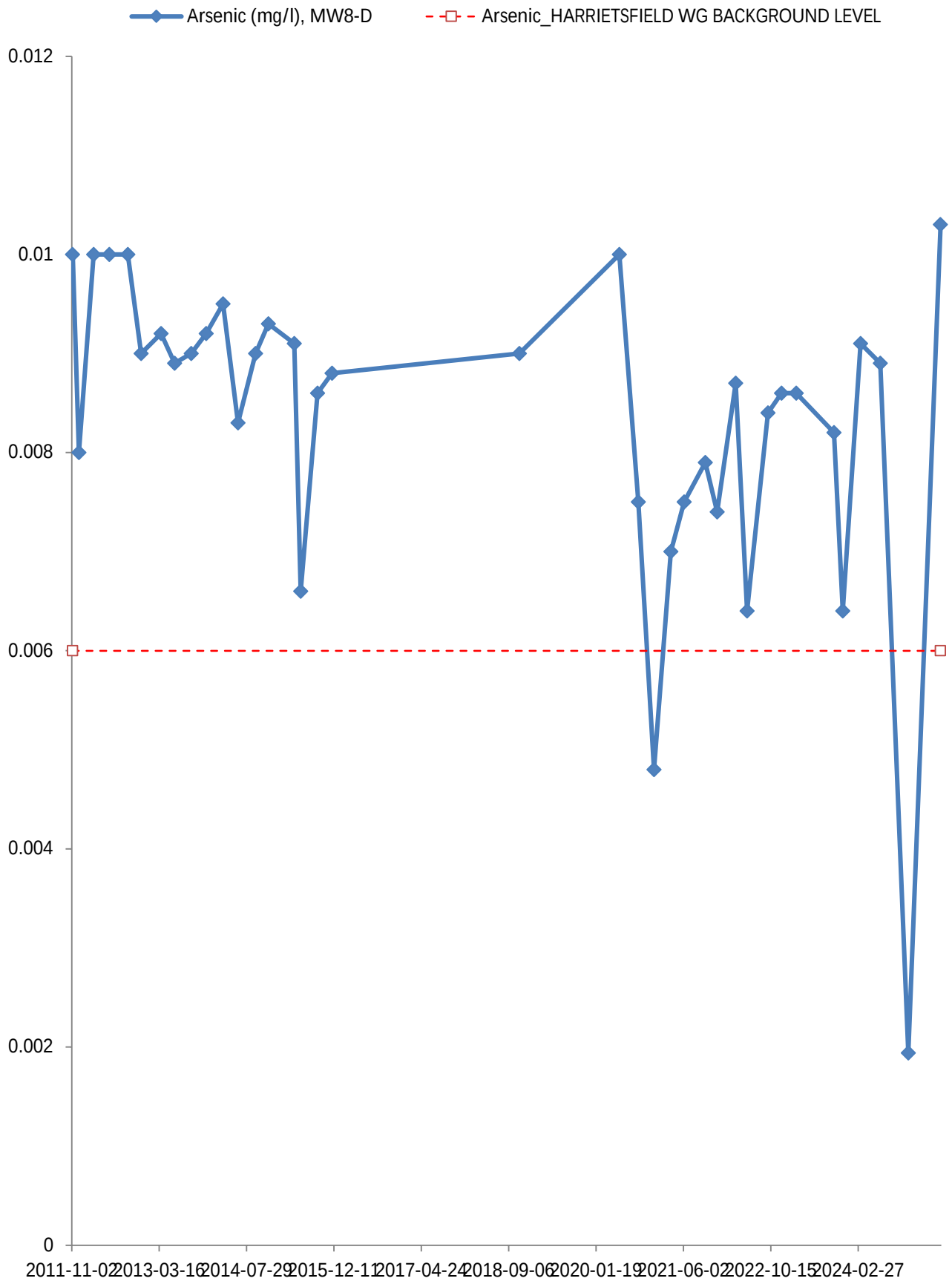



Silver (ug/l), MW7-S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
2005-03-25
2007-12-20
2010-09-15
2013-06-11
2016-03-07
2018-12-02
2021-08-28
2024-05-24

# Alkalinity, Total

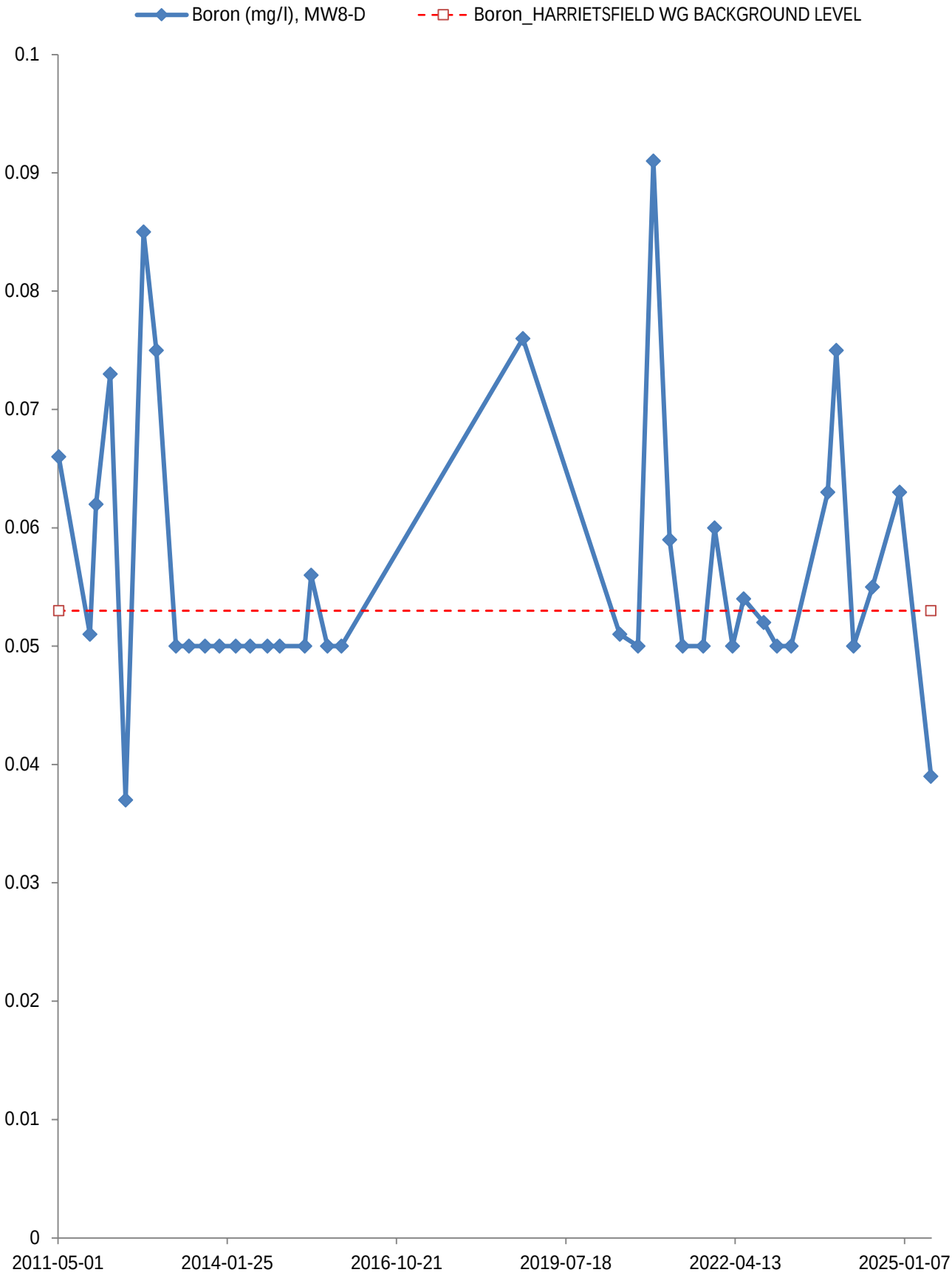


# Arsenic

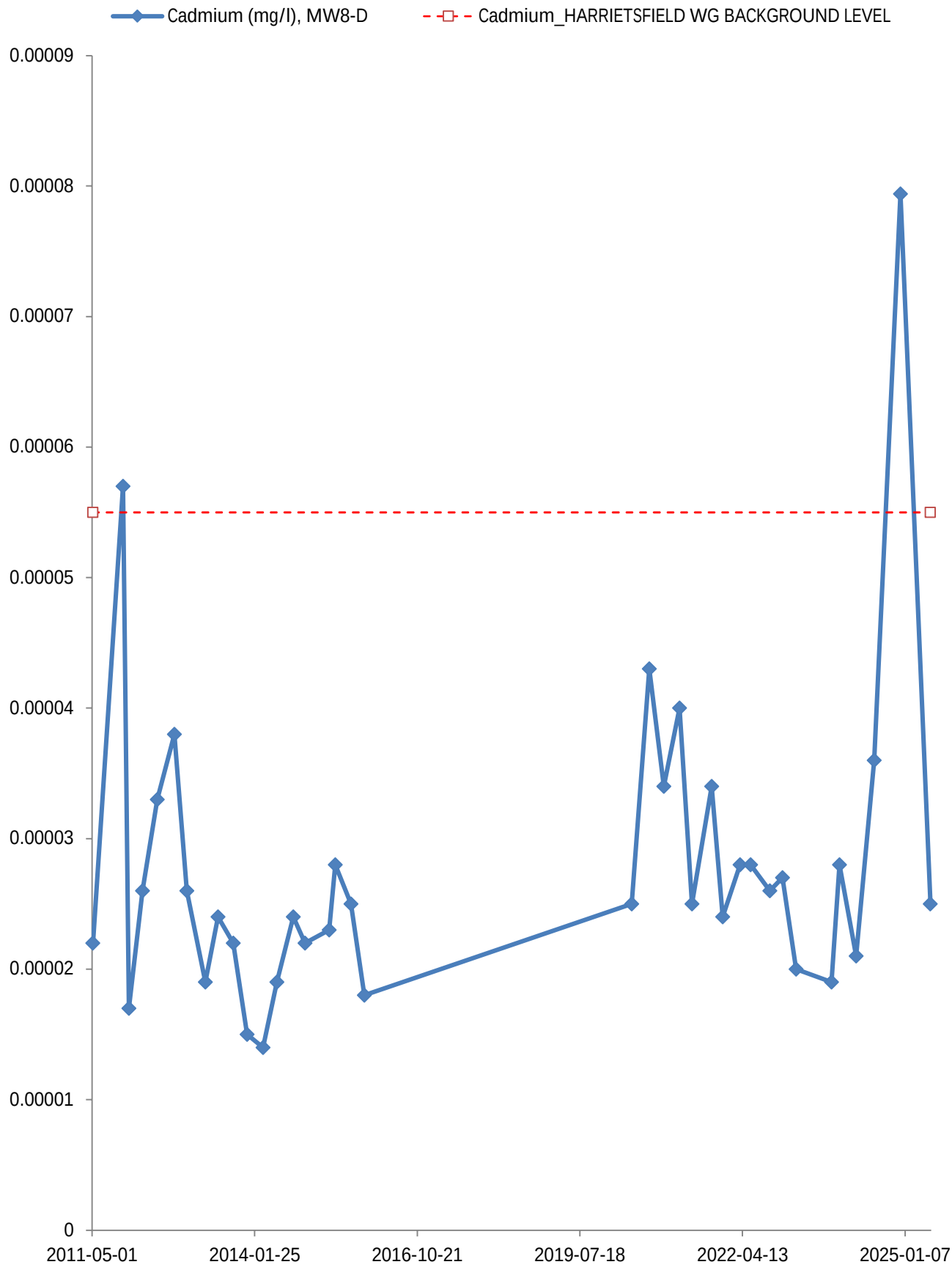

Arsenic (mg/l), MW8-D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2011-11-02
2013-03-16
2014-07-29
2015-12-11
2017-04-24
2018-09-06
2020-01-19
2021-06-02
2022-10-15
2024-02-27

# Boron

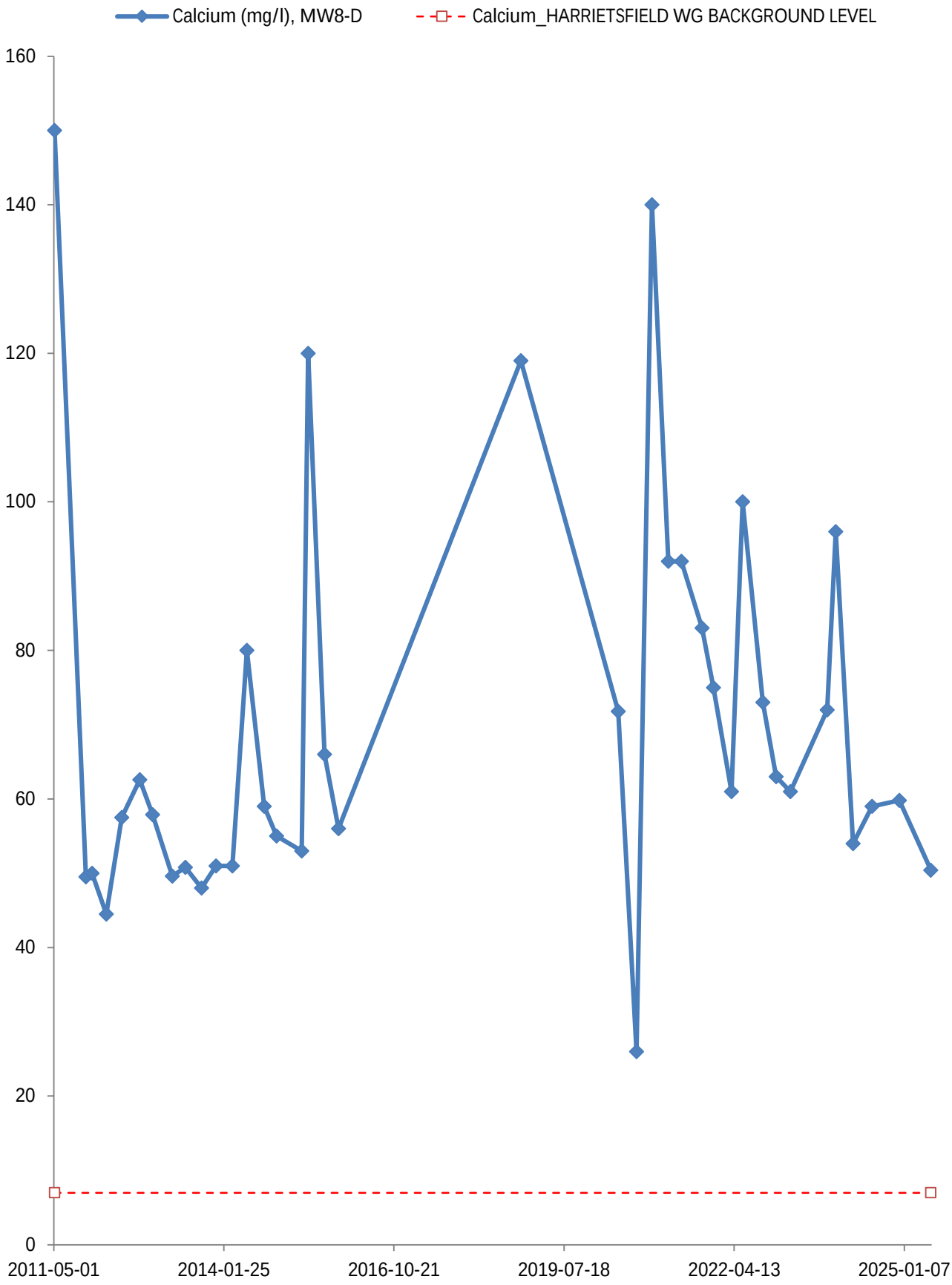



Boron (mg/l), MW8-D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

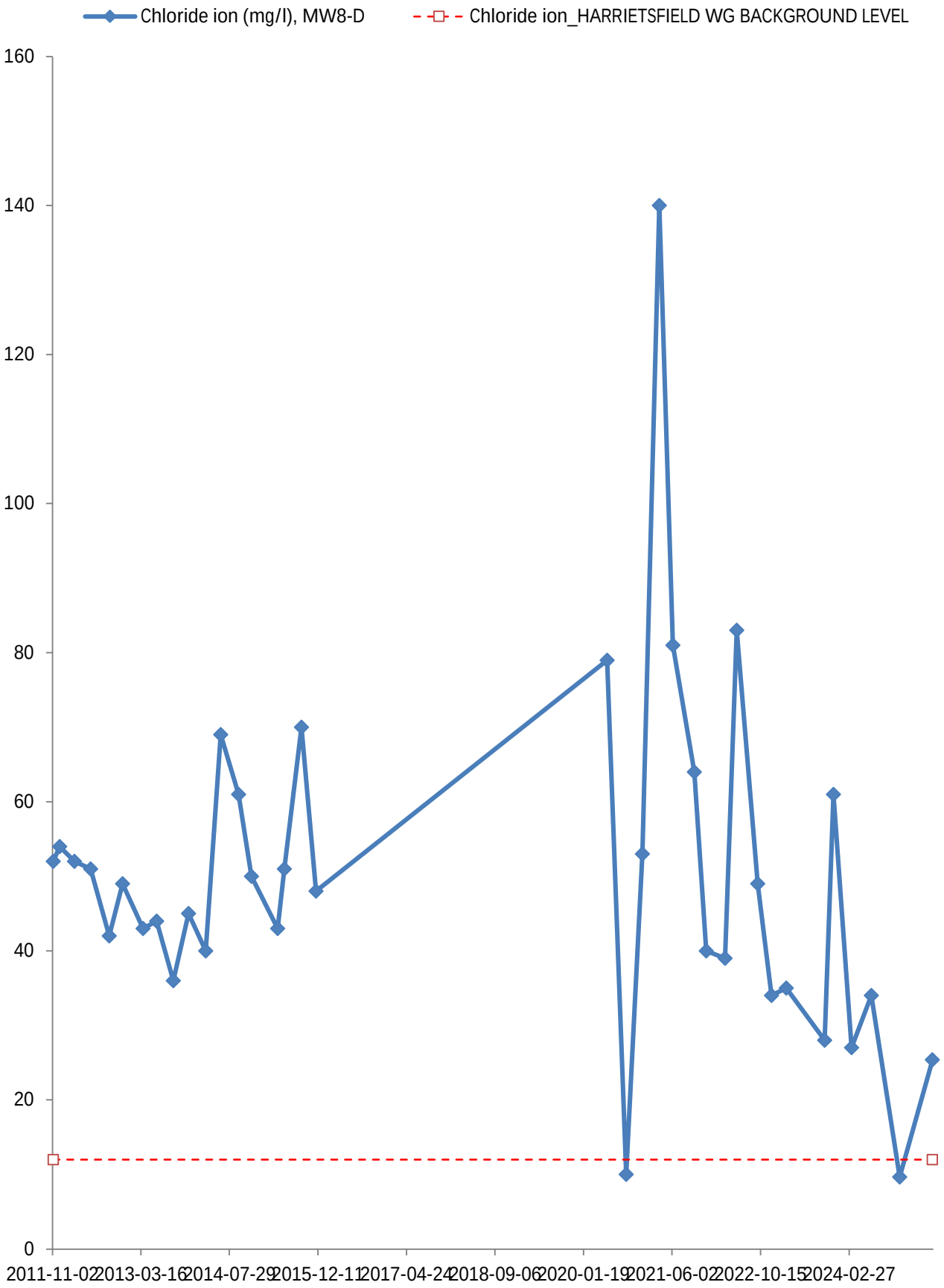
# Cadmium


Cadmium (mg/l), MW8-D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Calcium

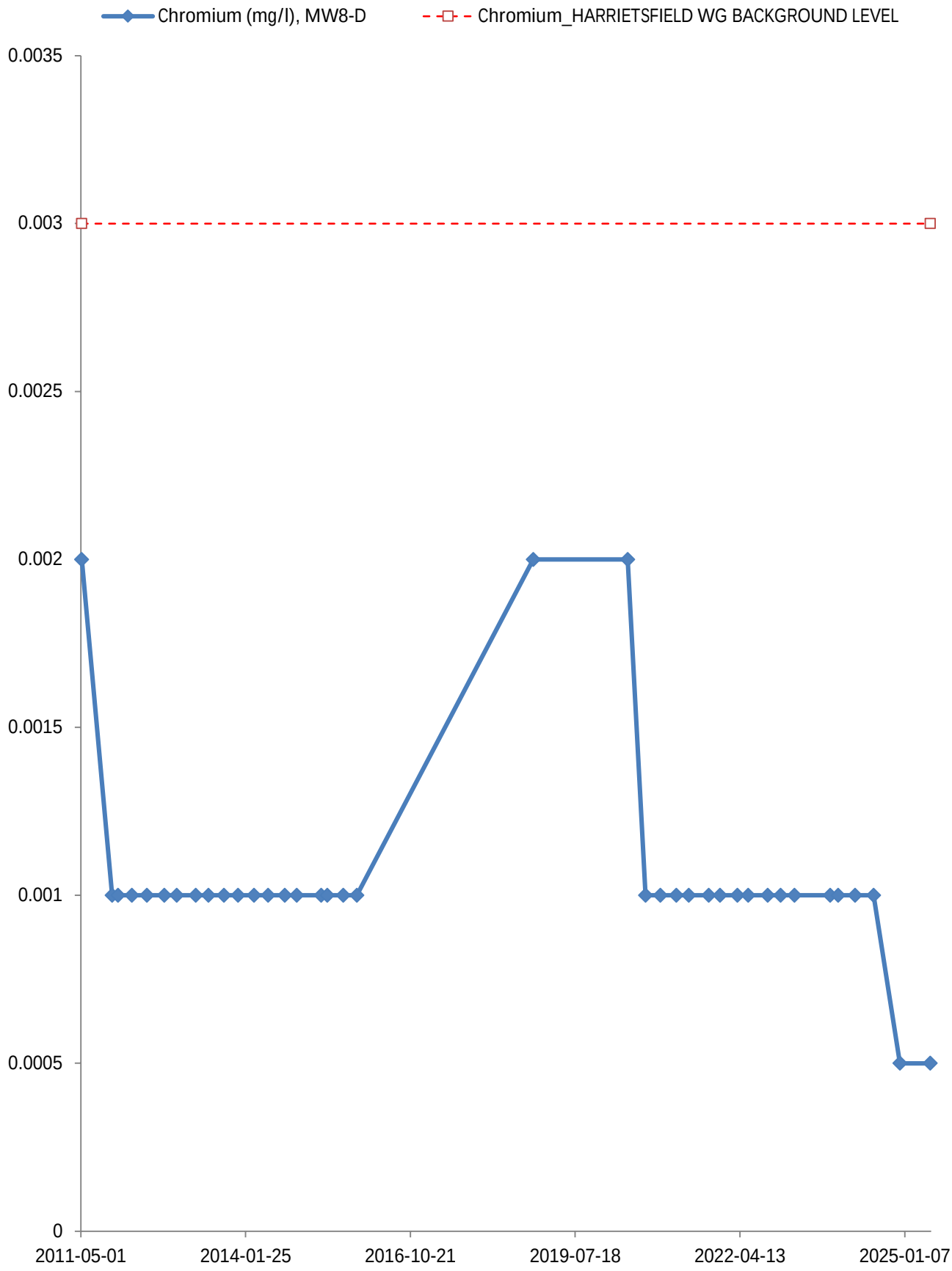

Calcium (mg/l), MW8-D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
160
140
120
100
80
60
40
20
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Chloride ion

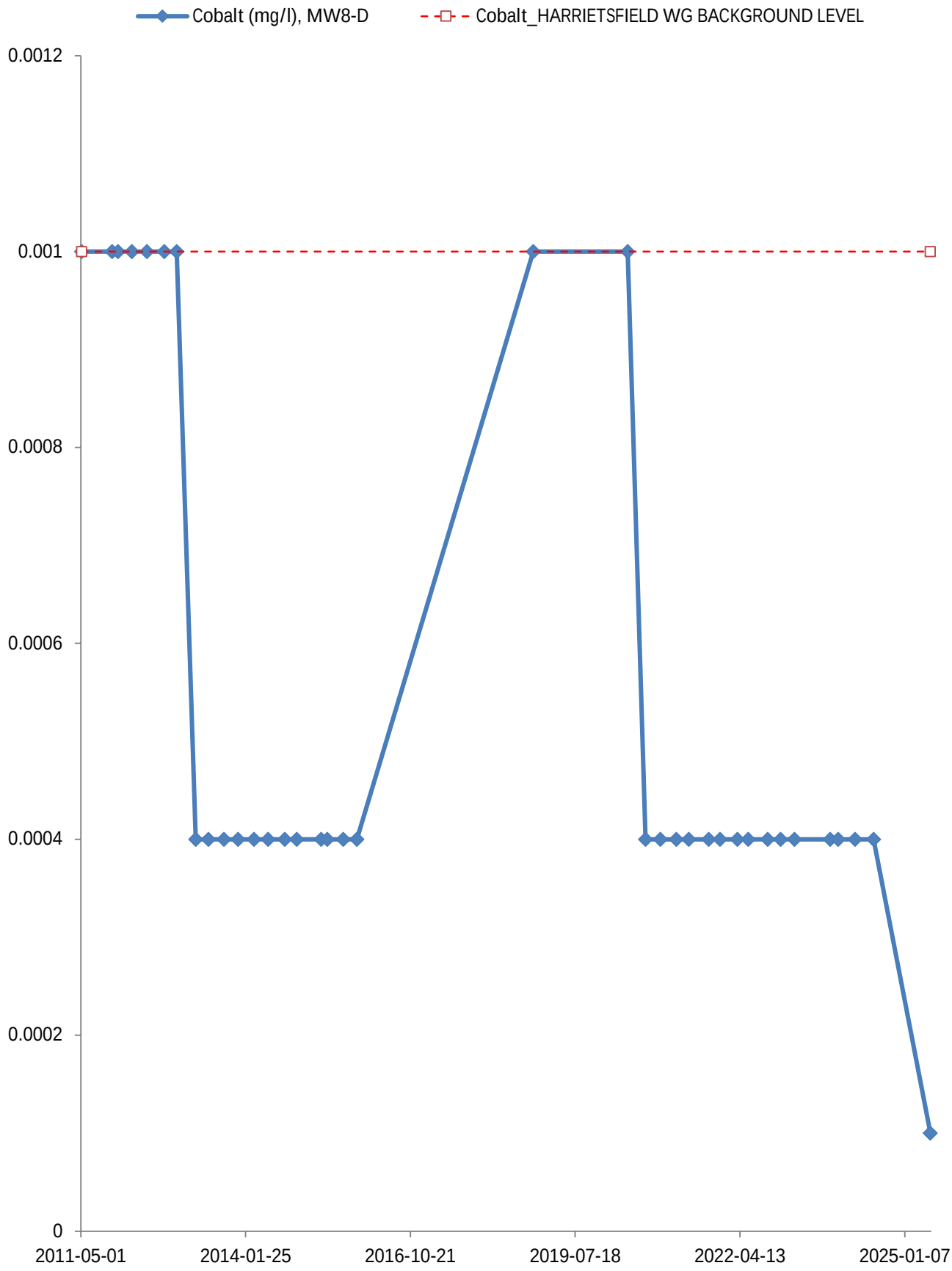


# Chromium



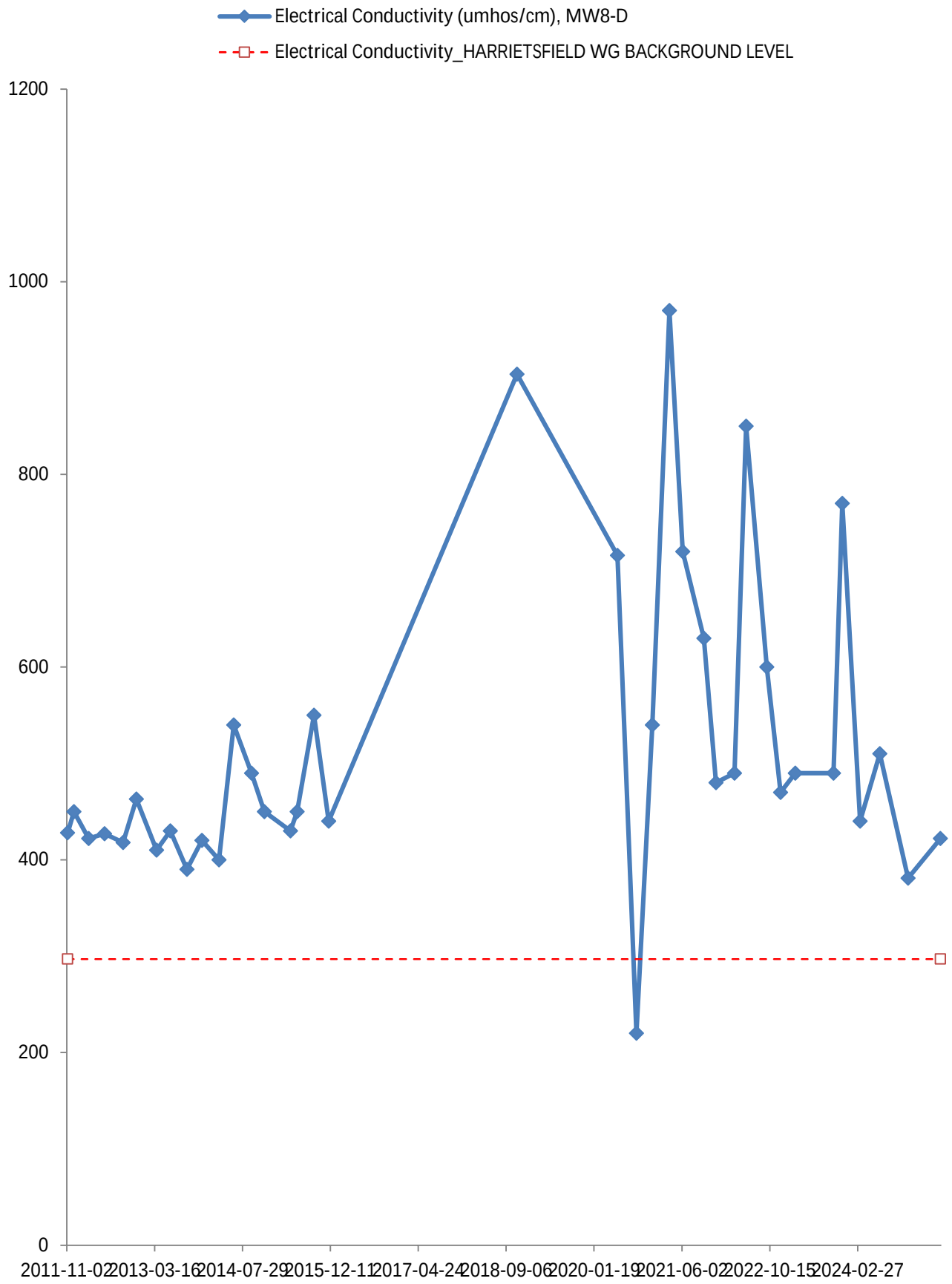

Chromium (mg/l), MW8-D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Cobalt


Cobalt (mg/l), MW8-D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

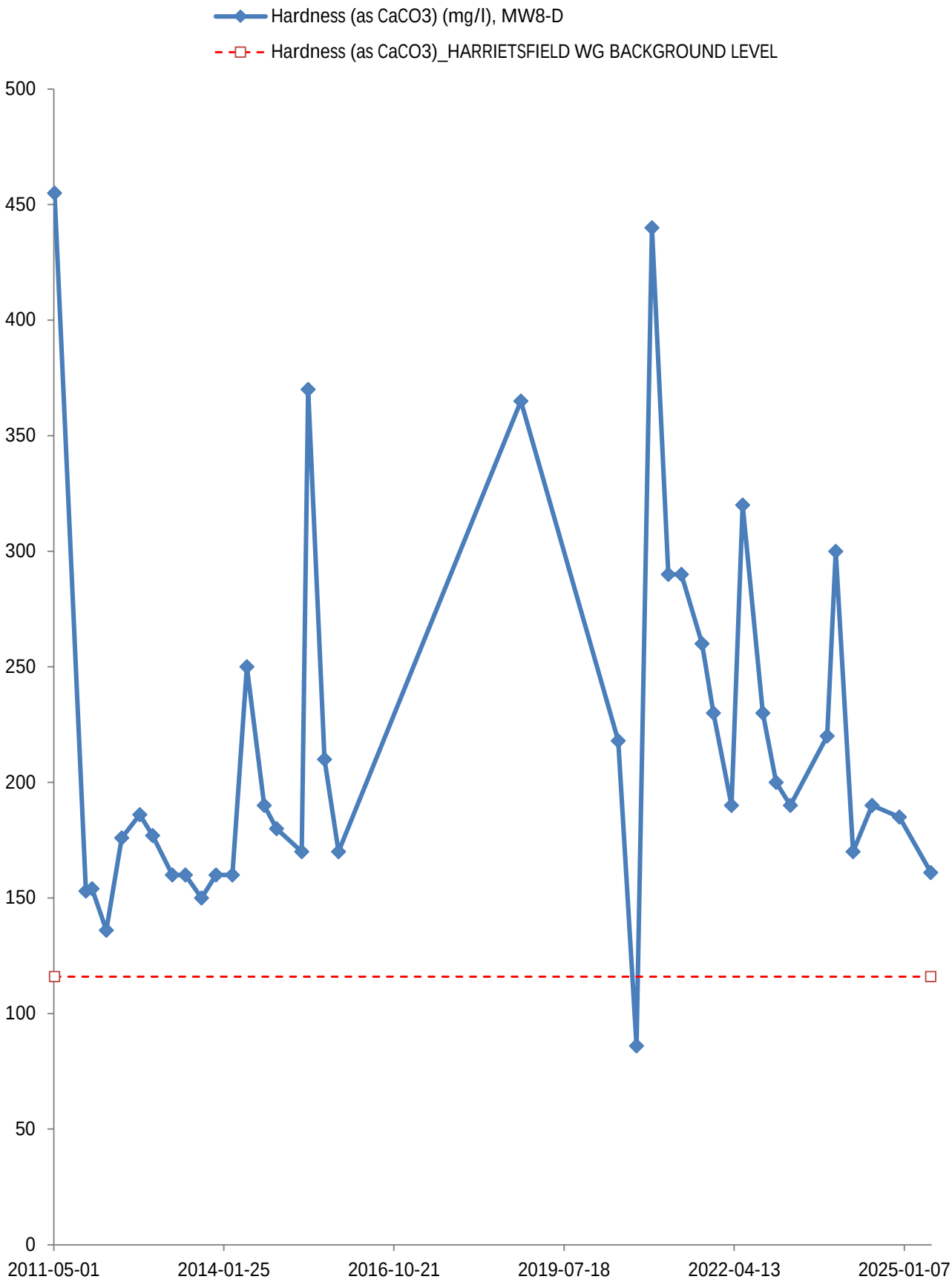
# Electrical Conductivity





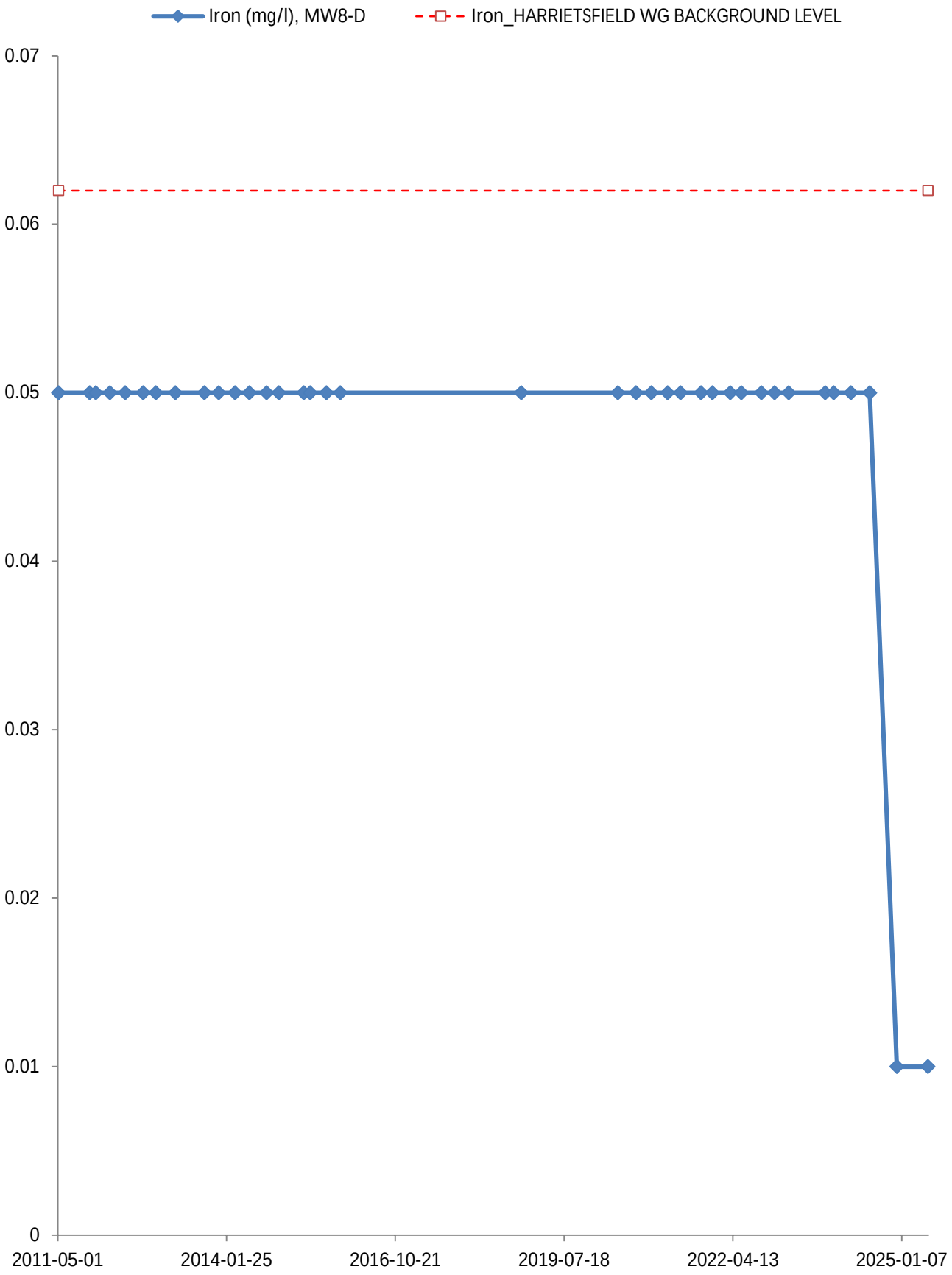
# Hardness (as CaCO3)





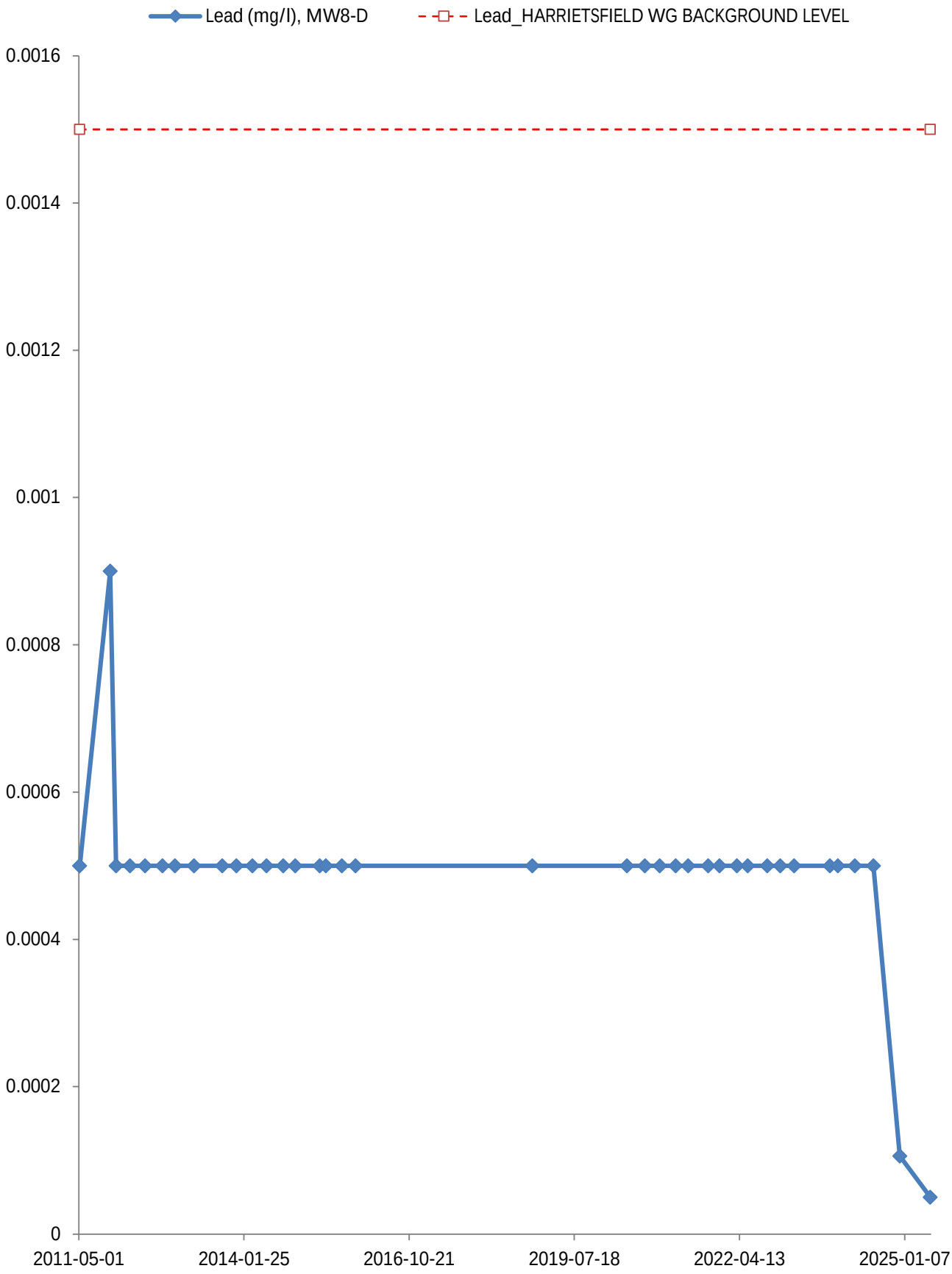
# Iron



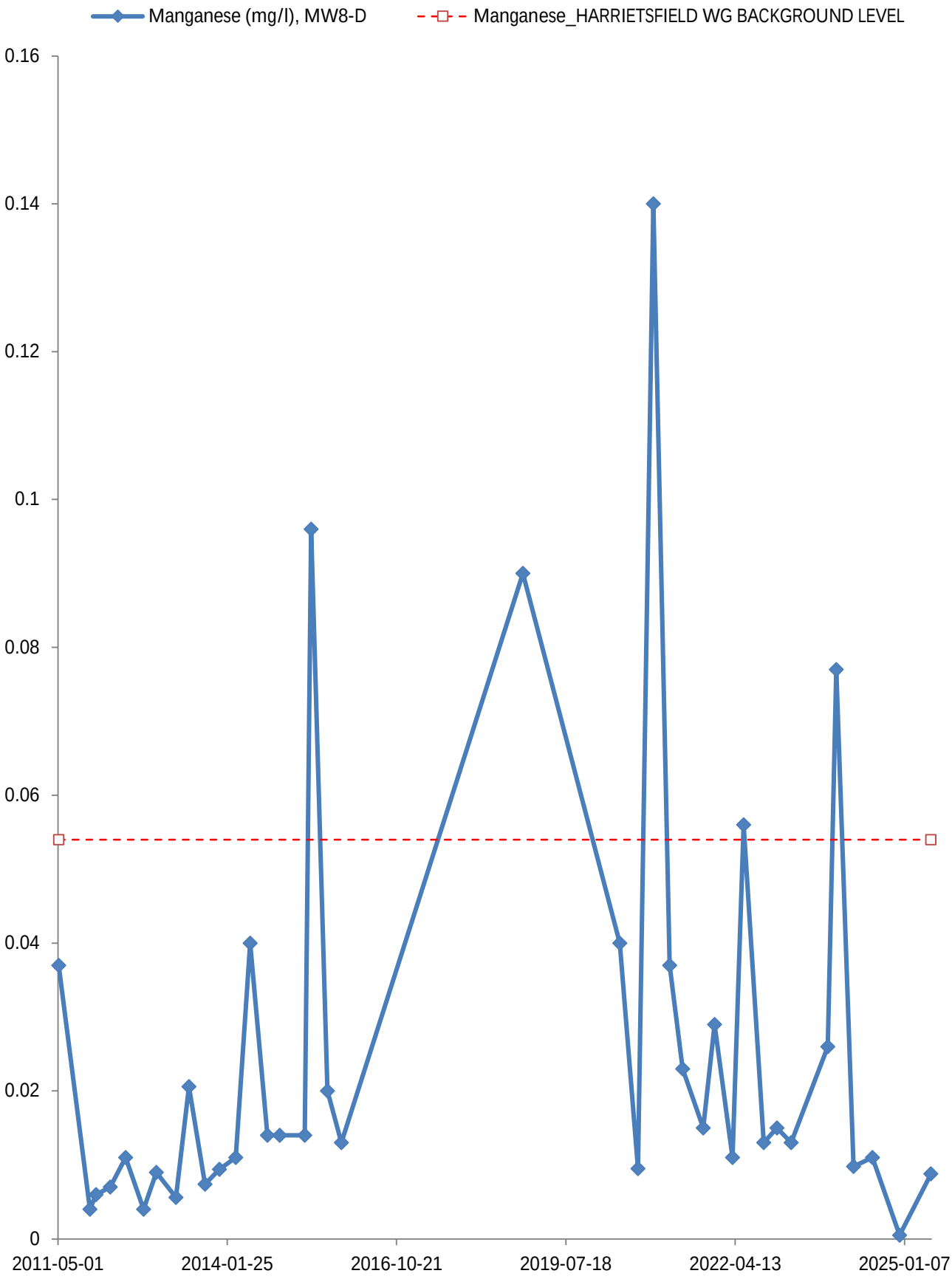

Iron (mg/l), MW8-D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Lead



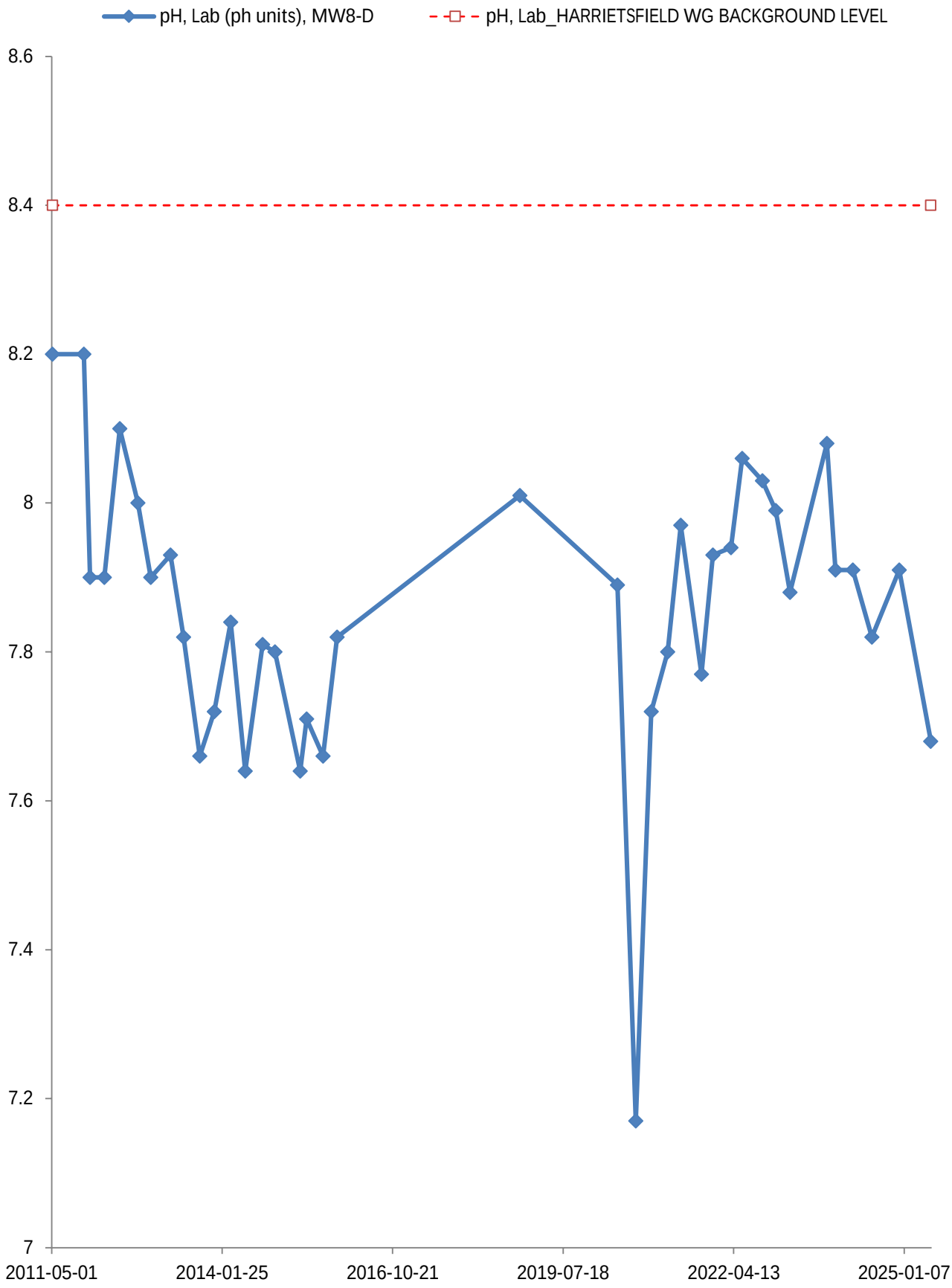

Lead (mg/l), MW8-D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Manganese

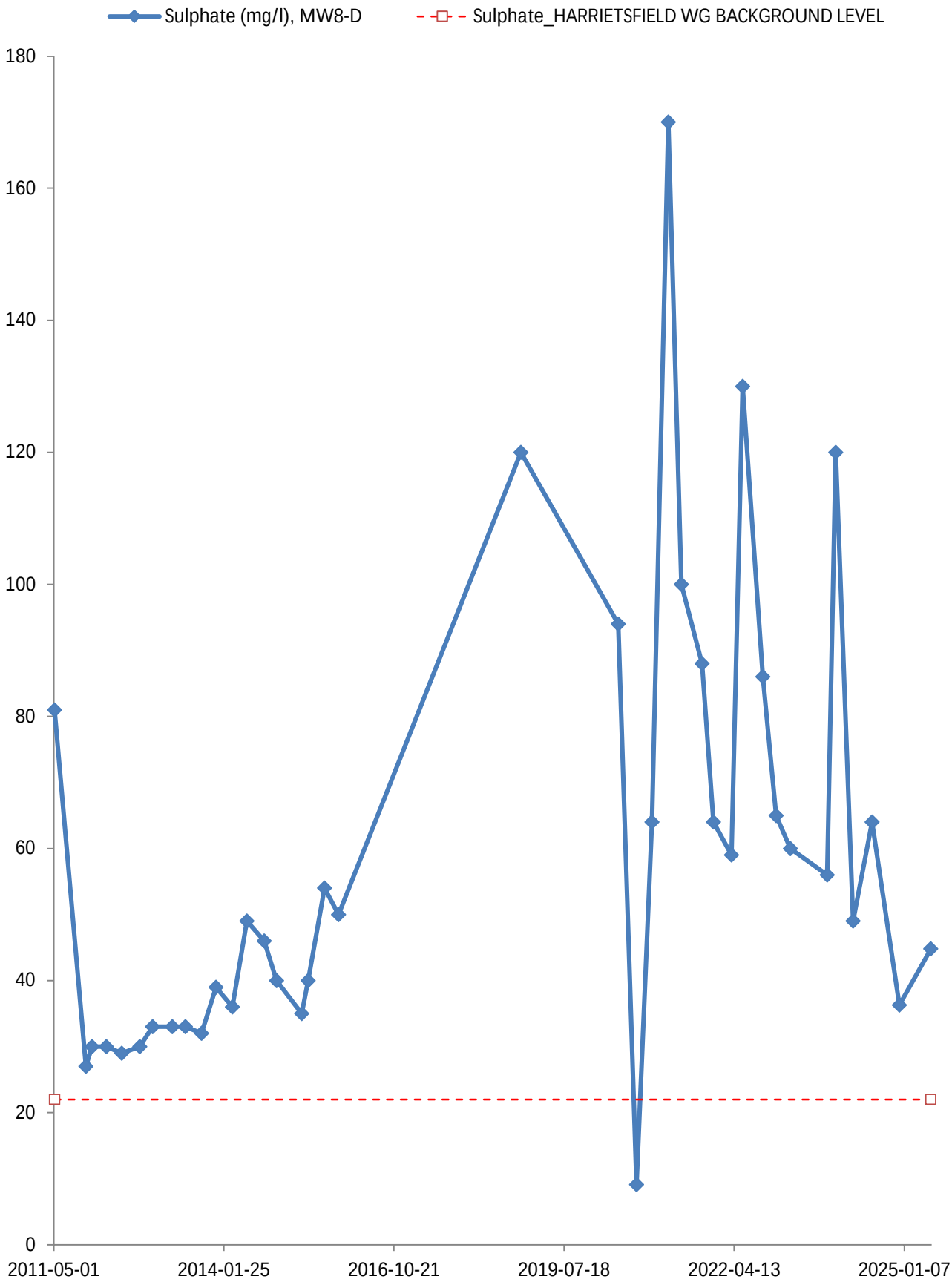

Manganese (mg/l), MW8-D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# pH, Lab

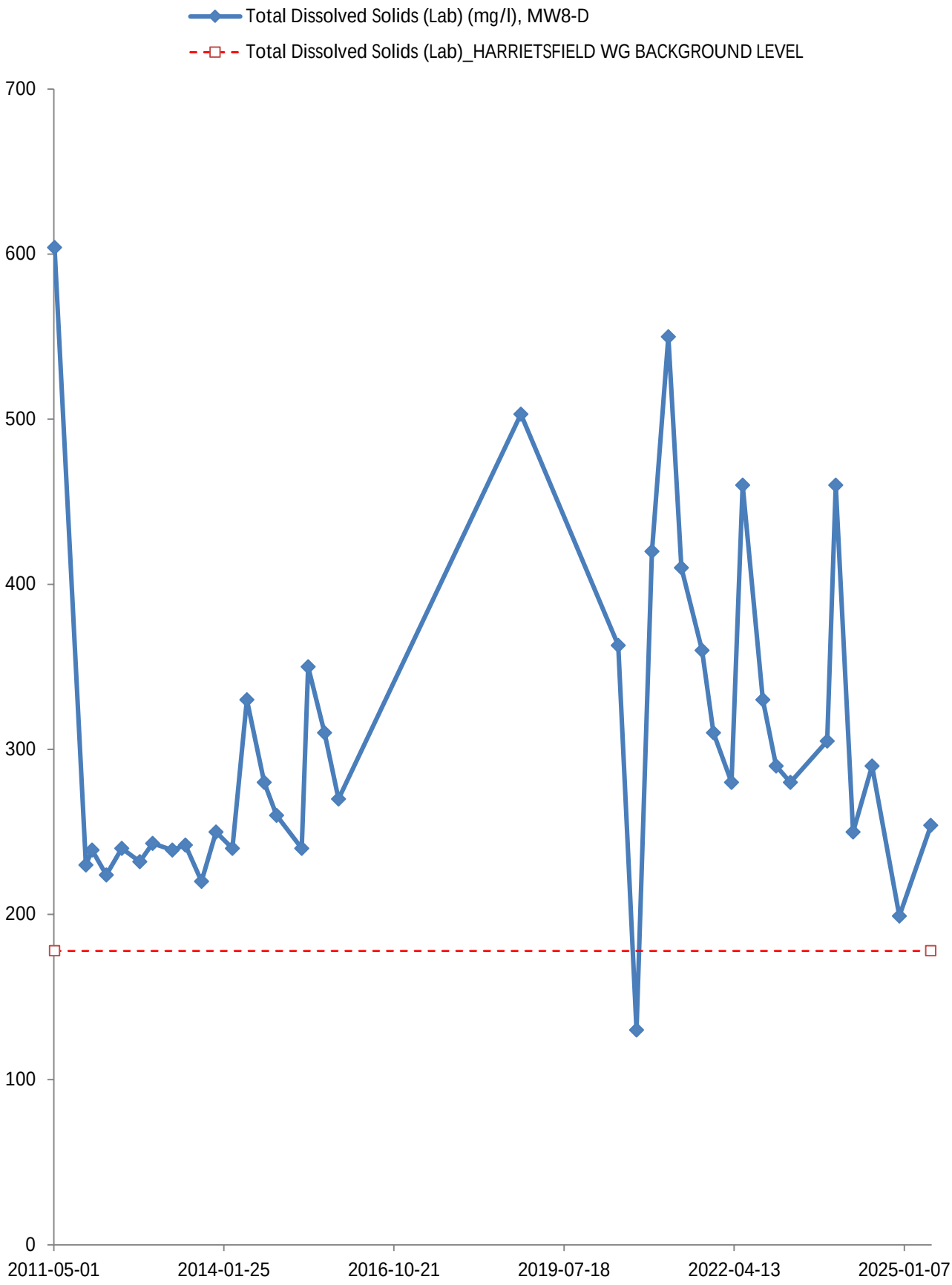



pH, Lab (ph units), MW8-D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
7
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

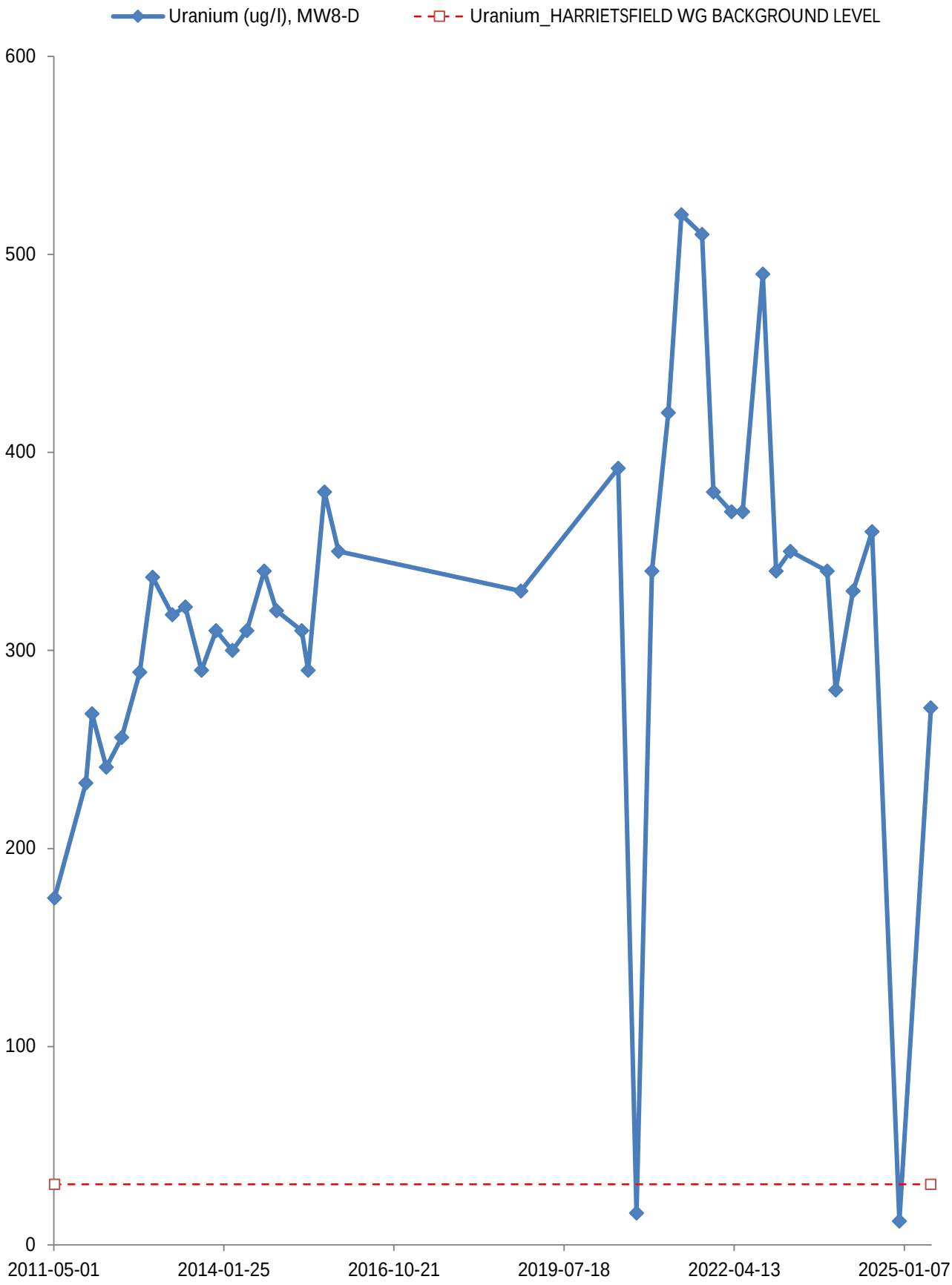
# Sulphate


Sulphate (mg/l), MW8-D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
180
160
140
120
100
80
60
40
20
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

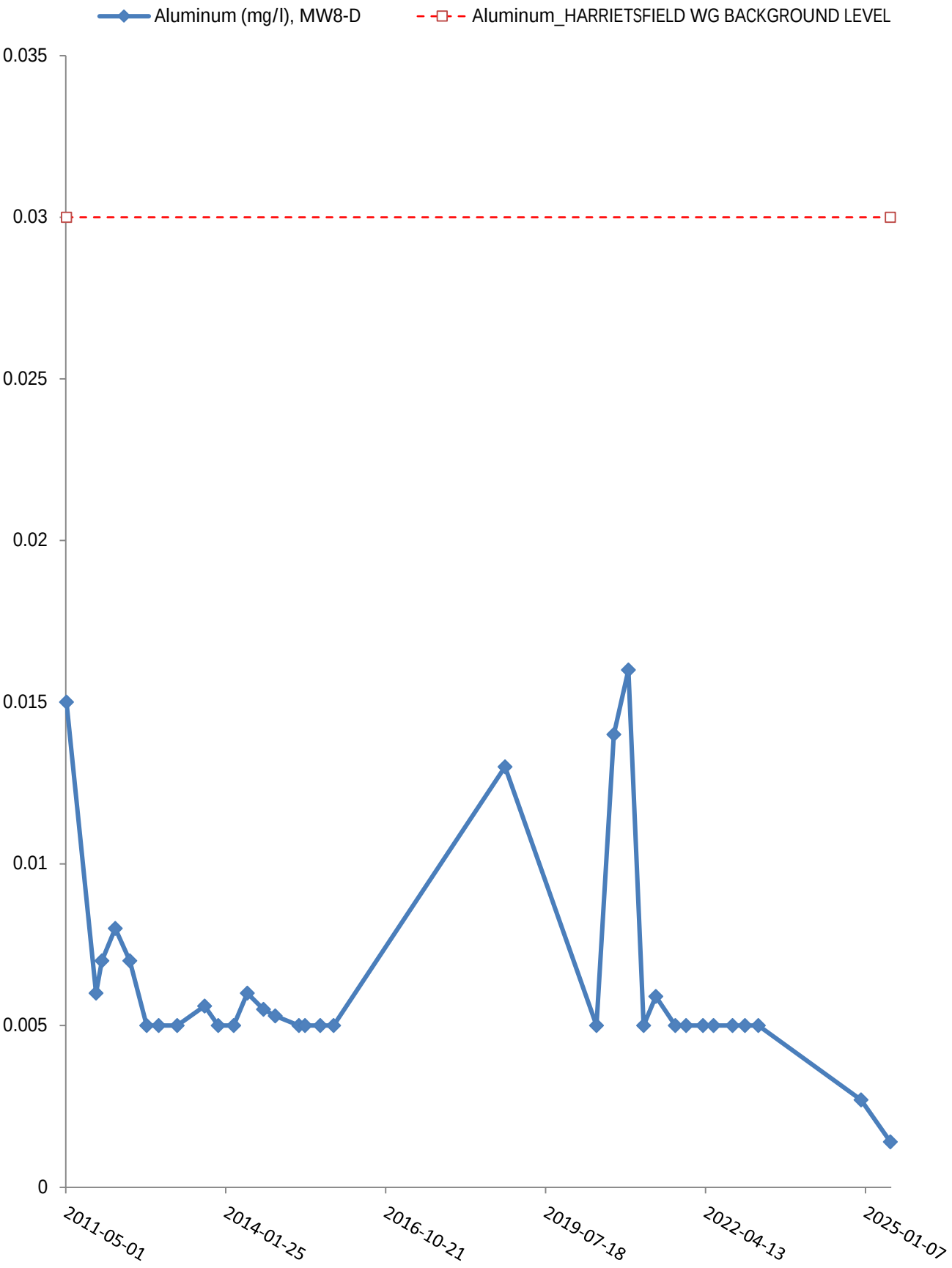
# Total Dissolved Solids (5



# Uranium

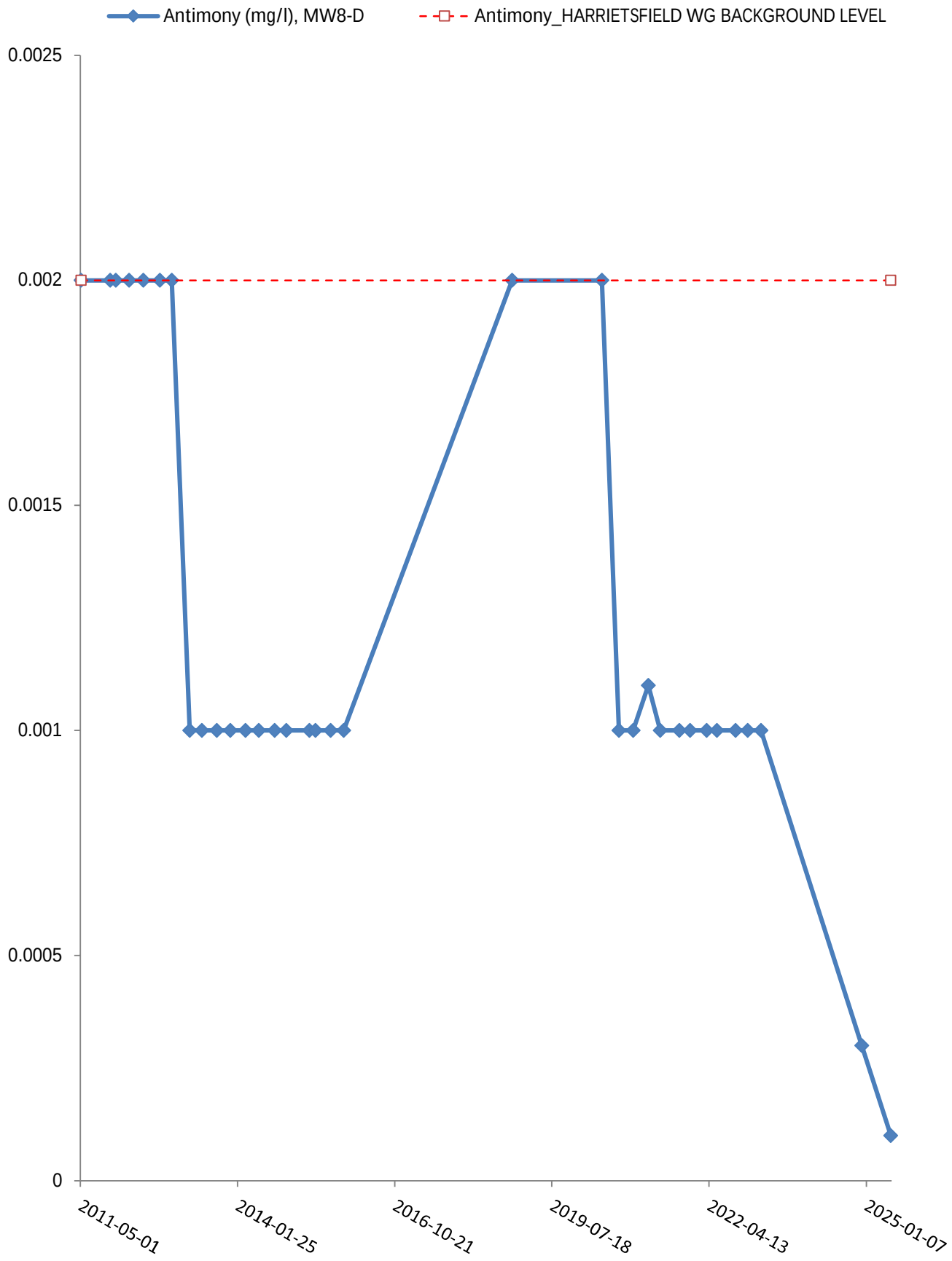

Uranium (ug/l), MW8-D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Aluminum

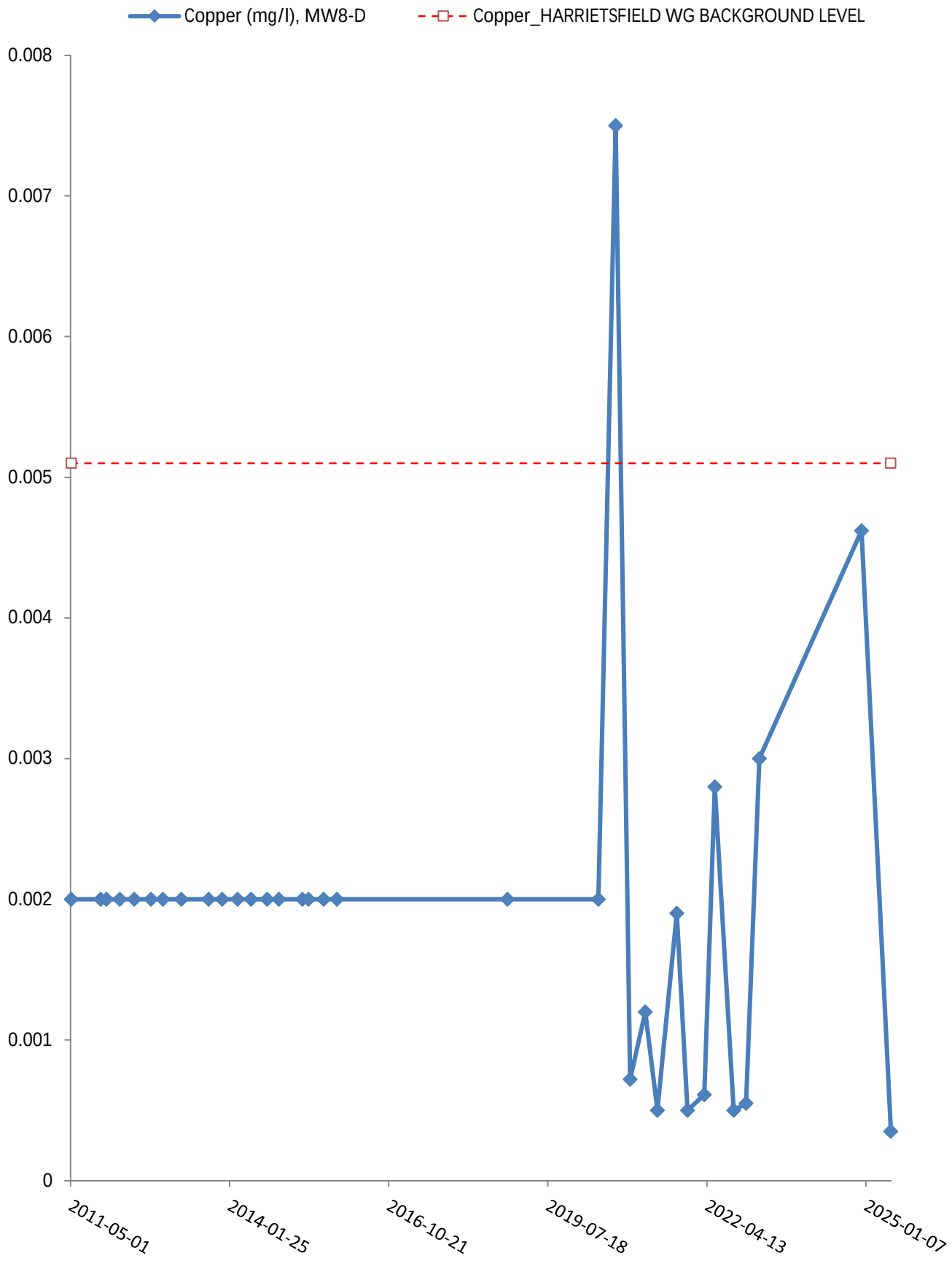

Aluminum (mg/l), MW8-D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Antimony



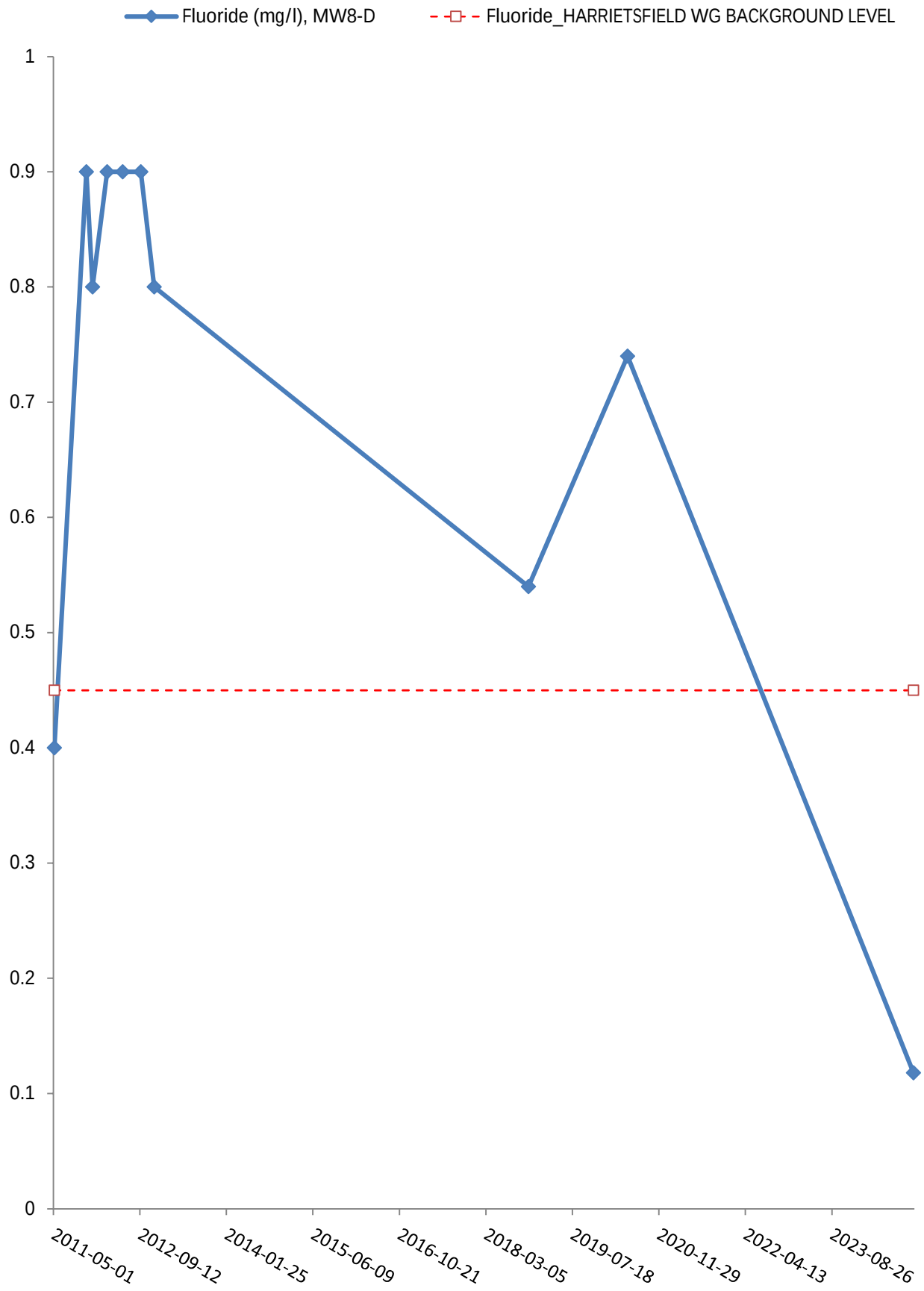

Antimony (mg/l), MW8-D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Copper

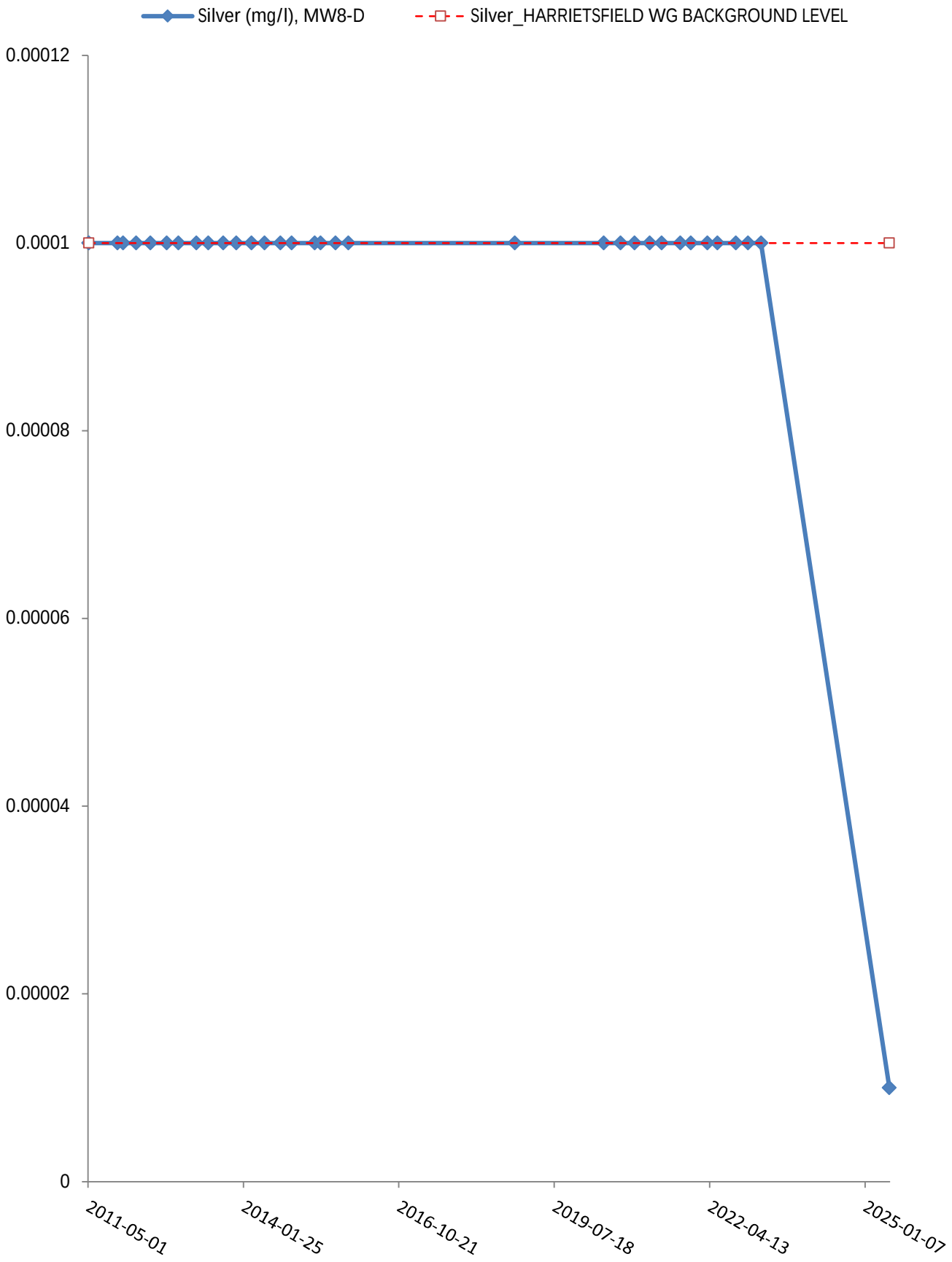

Copper (mg/l), MW8-D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Fluoride



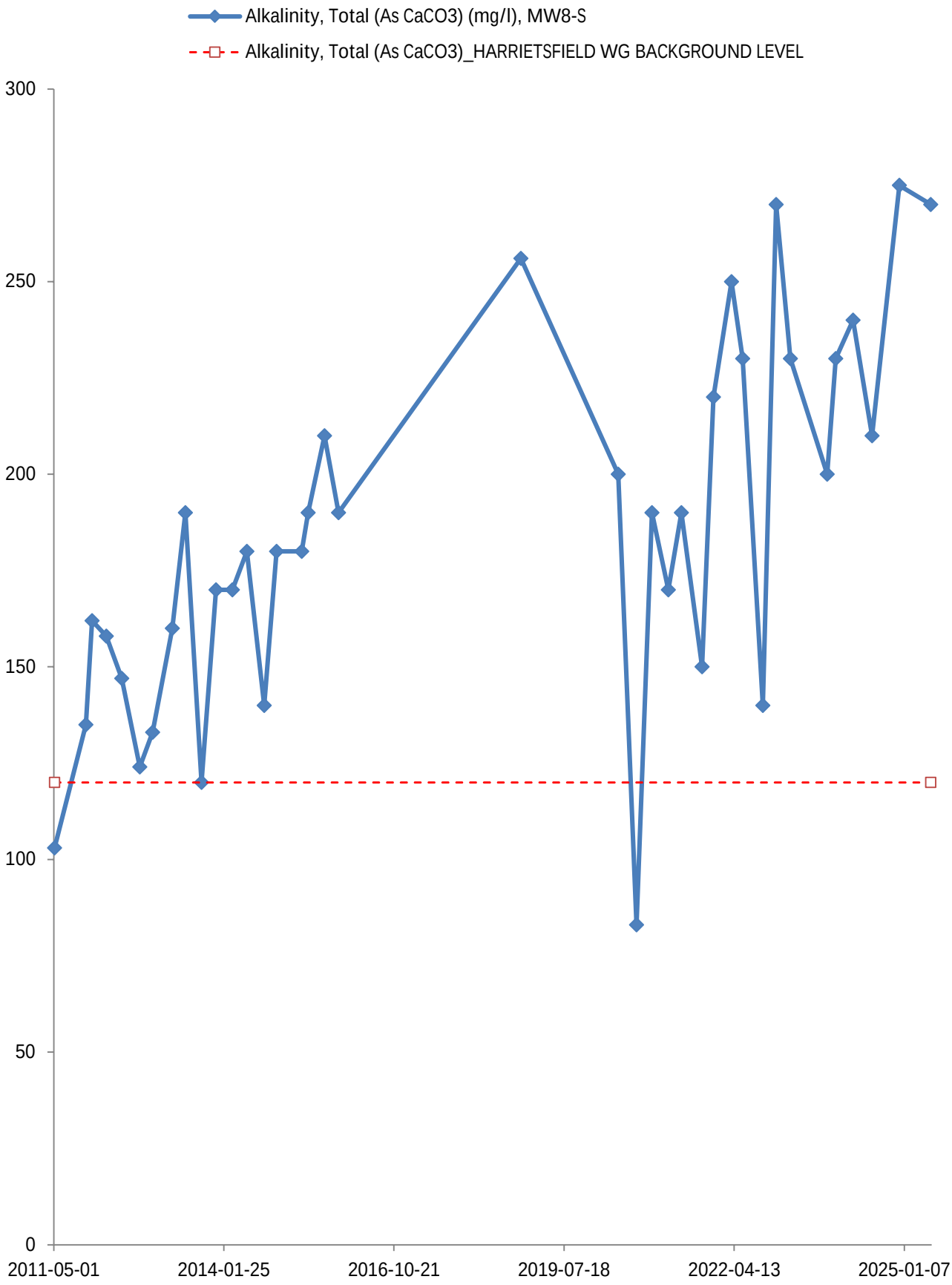

Fluoride (mg/l), MW8-D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2011-05-01
2012-09-12
2014-01-25
2015-06-09
2016-10-21
2018-03-05
2019-07-18
2020-11-29
2022-04-13
2023-08-26

# Silver


Silver (mg/l), MW8-D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

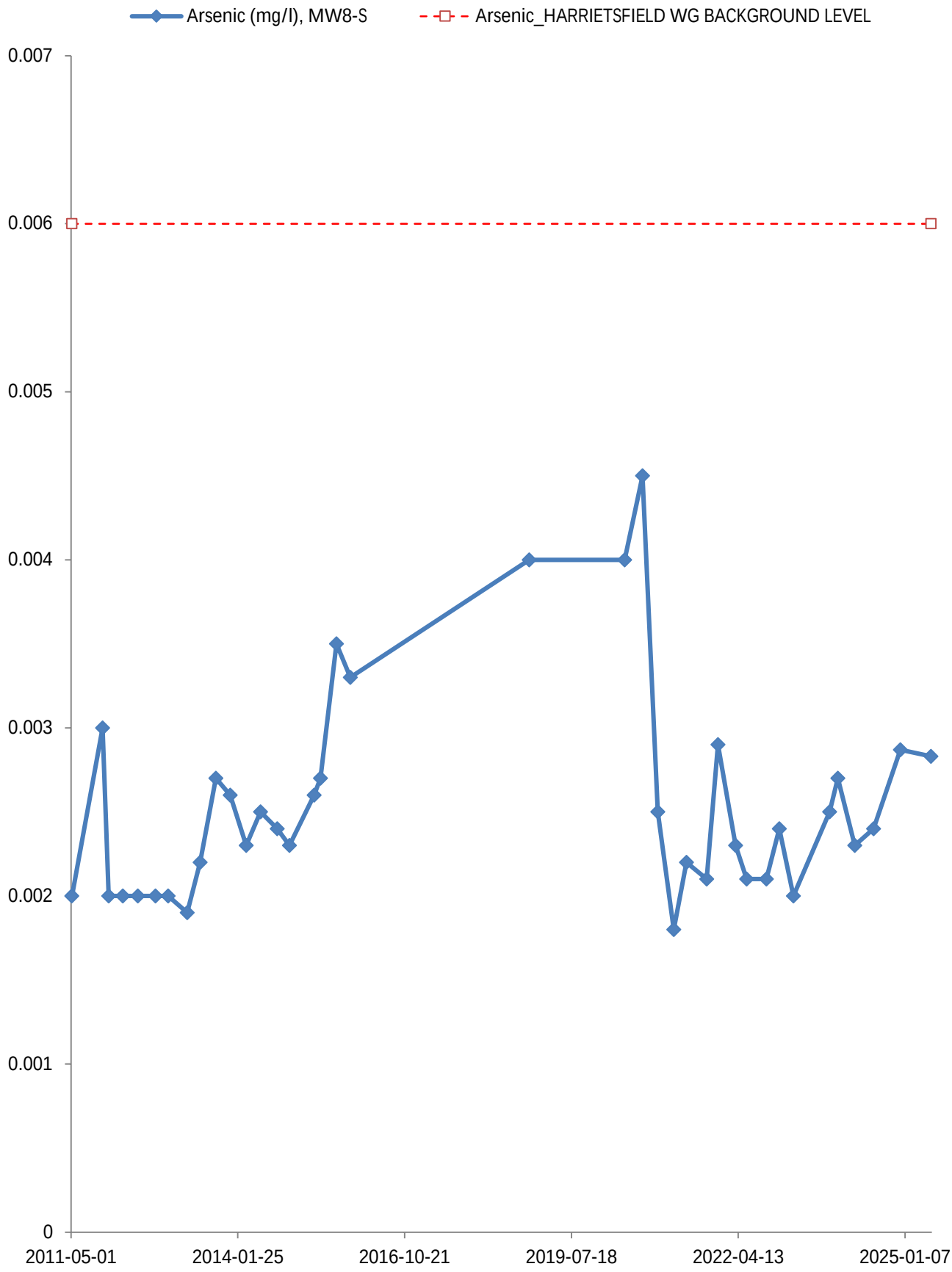
# Alkalinity, Total





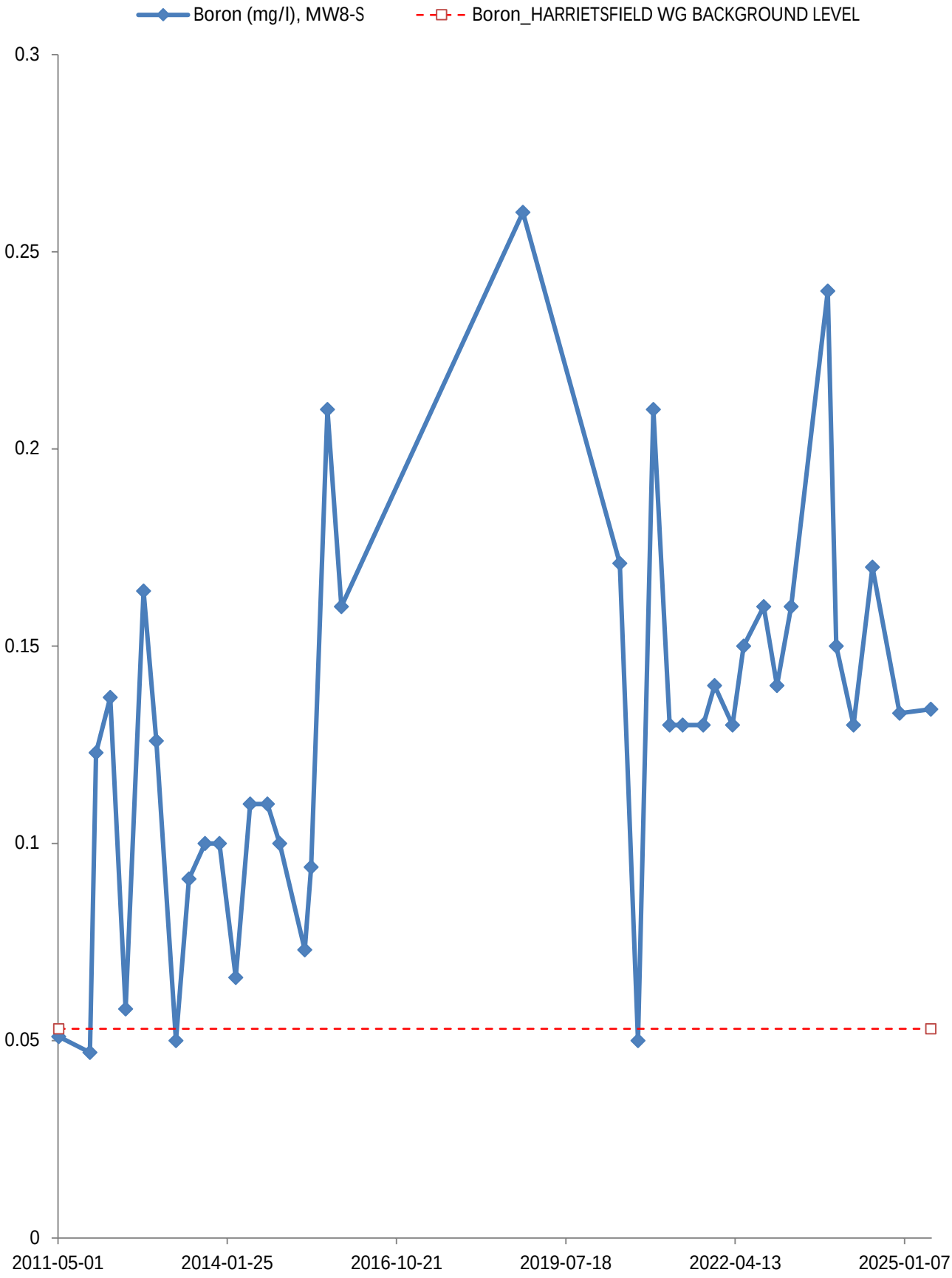
# Arsenic



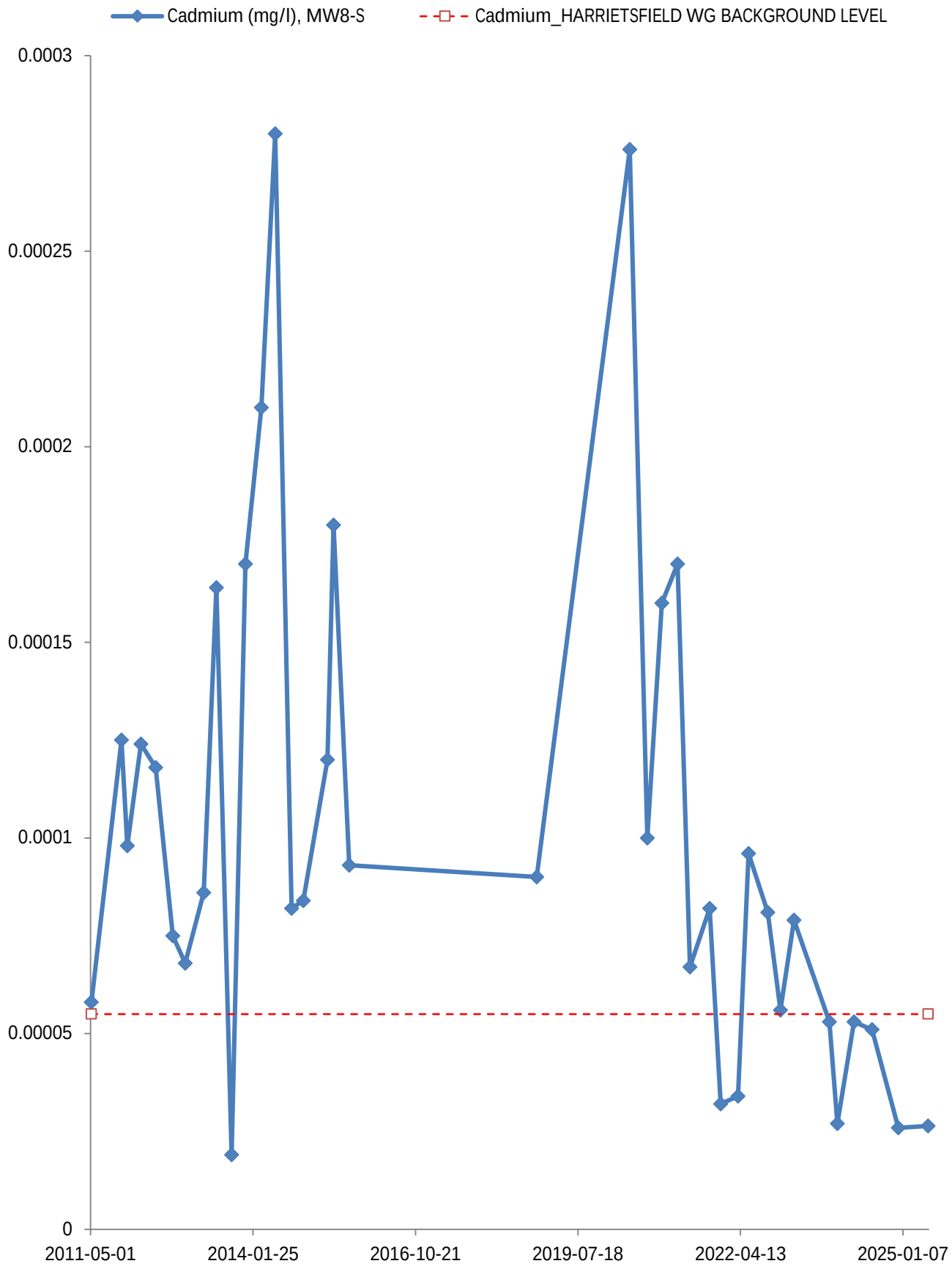

Arsenic (mg/l), MW8-S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Boron

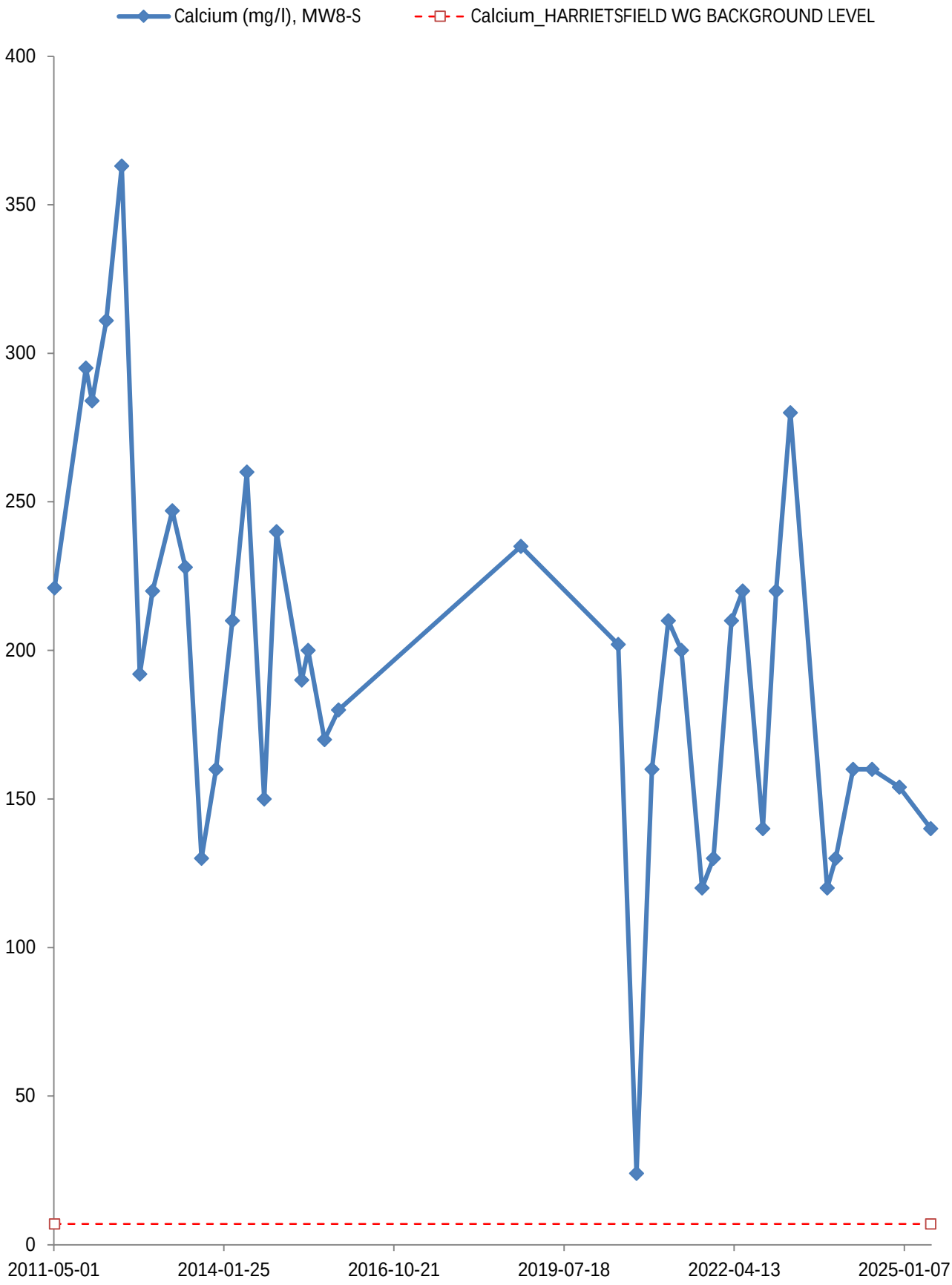



Boron (mg/l), MW8-S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

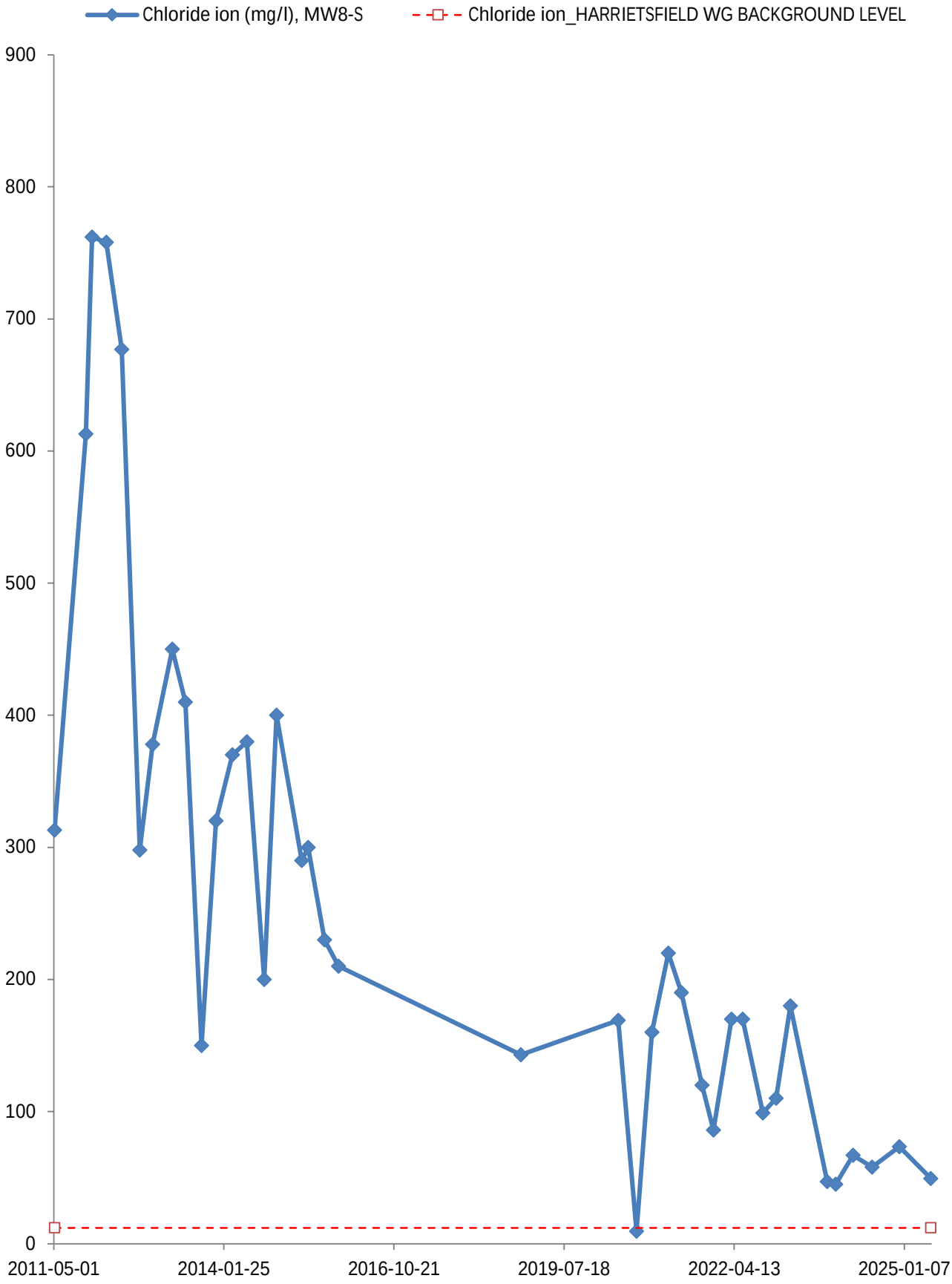
# Cadmium


Cadmium (mg/l), MW8-S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

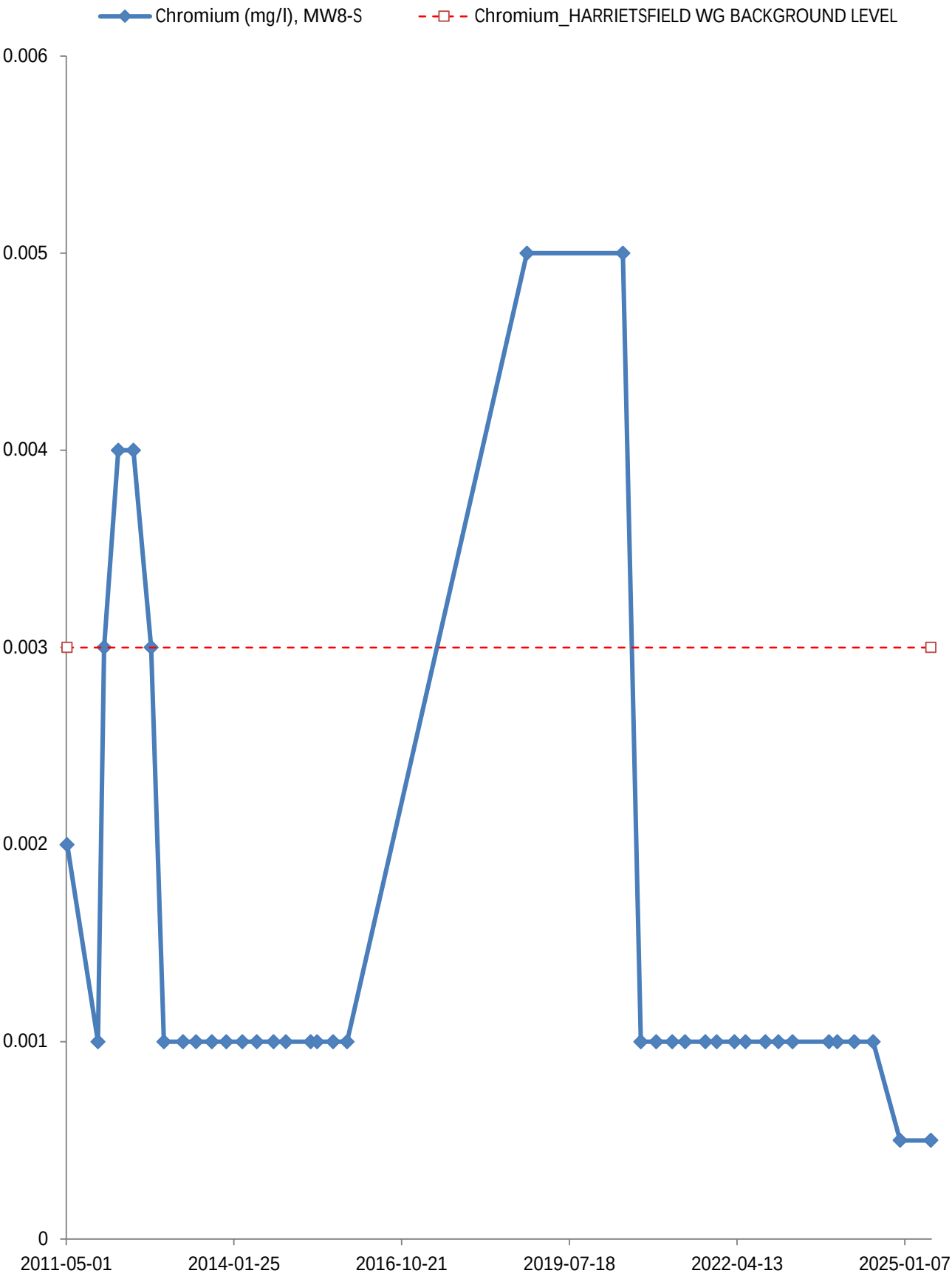
# Calcium


Calcium (mg/l), MW8-S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
400
350
300
250
200
150
100
50
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

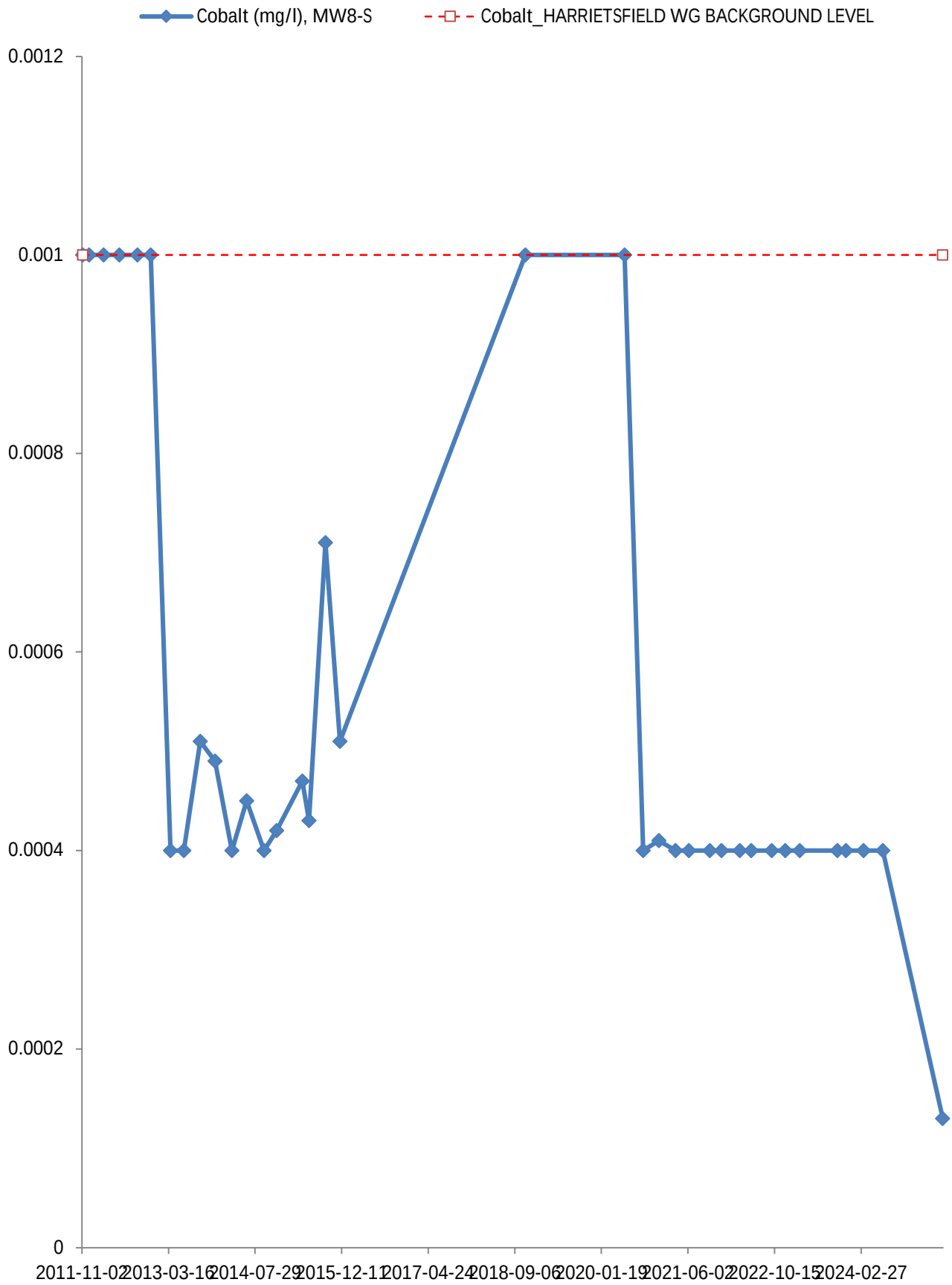
# Chloride ion



# Chromium

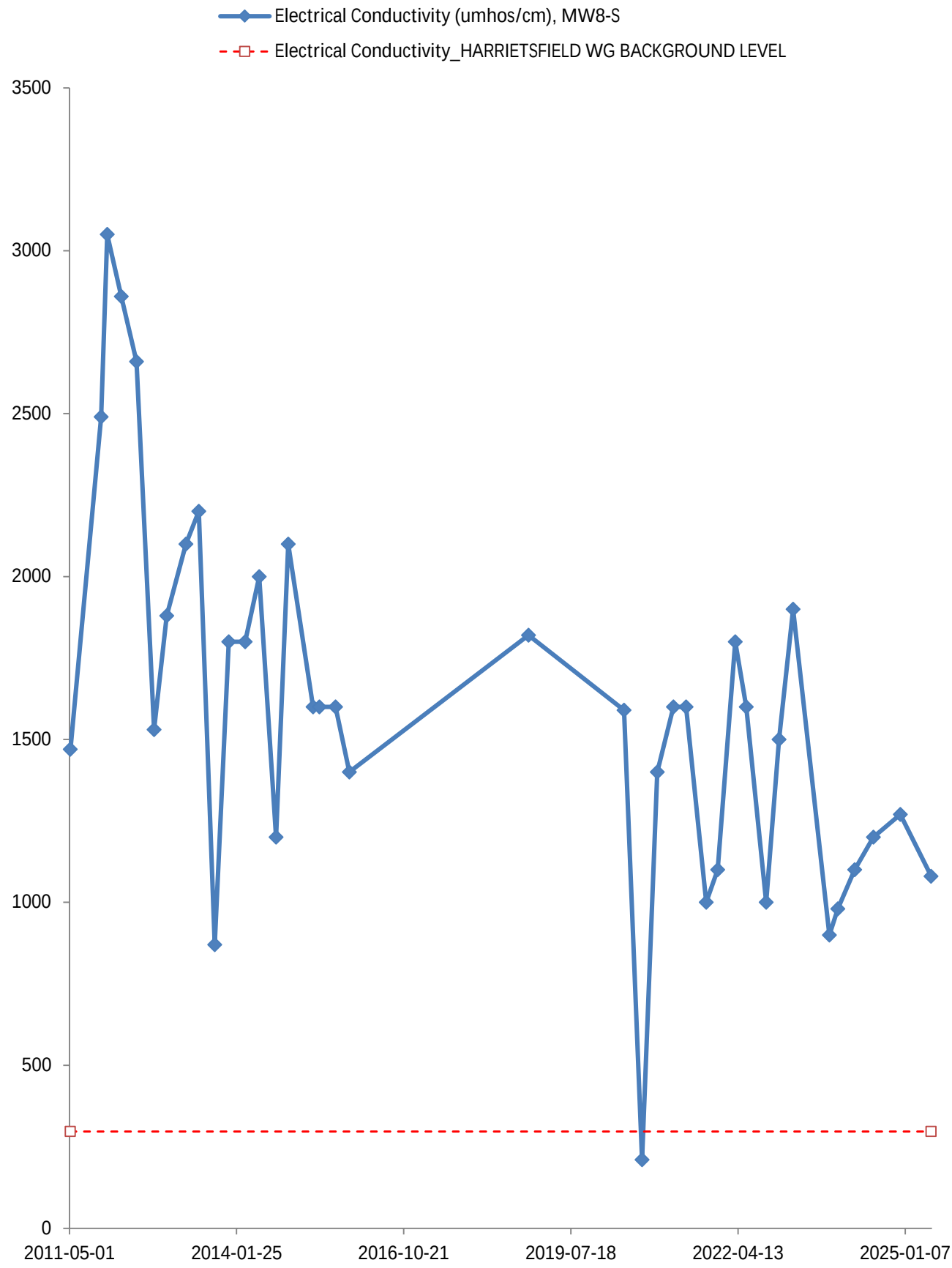

Chromium (mg/l), MW8-S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Cobalt


Cobalt (mg/l), MW8-S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2011-11-02
2013-03-16
2014-07-29
2015-12-11
2017-04-24
2018-09-06
2020-01-19
2021-06-02
2022-10-15
2024-02-27

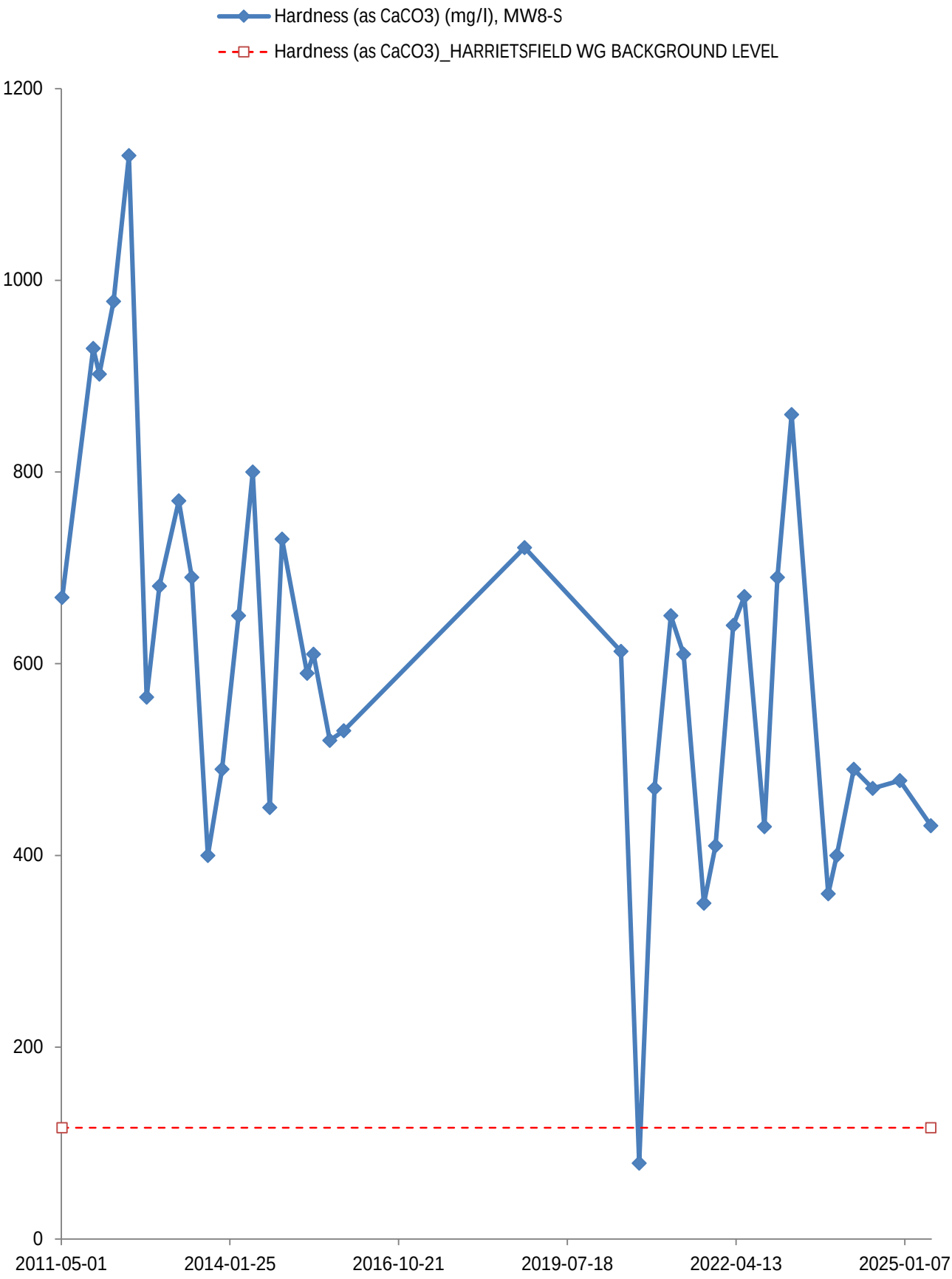
# Electrical Conductivity





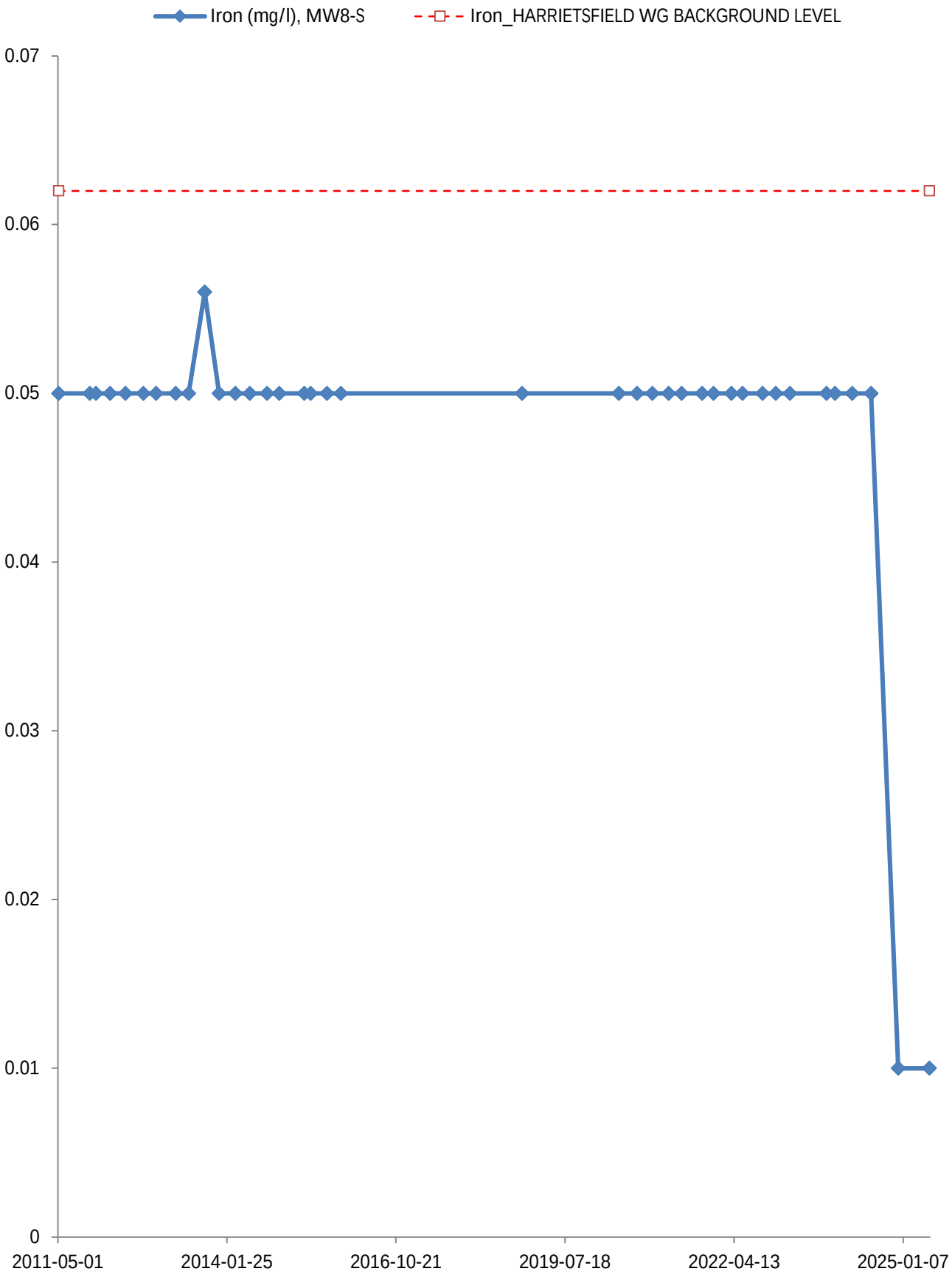
# Hardness (as CaCO3)





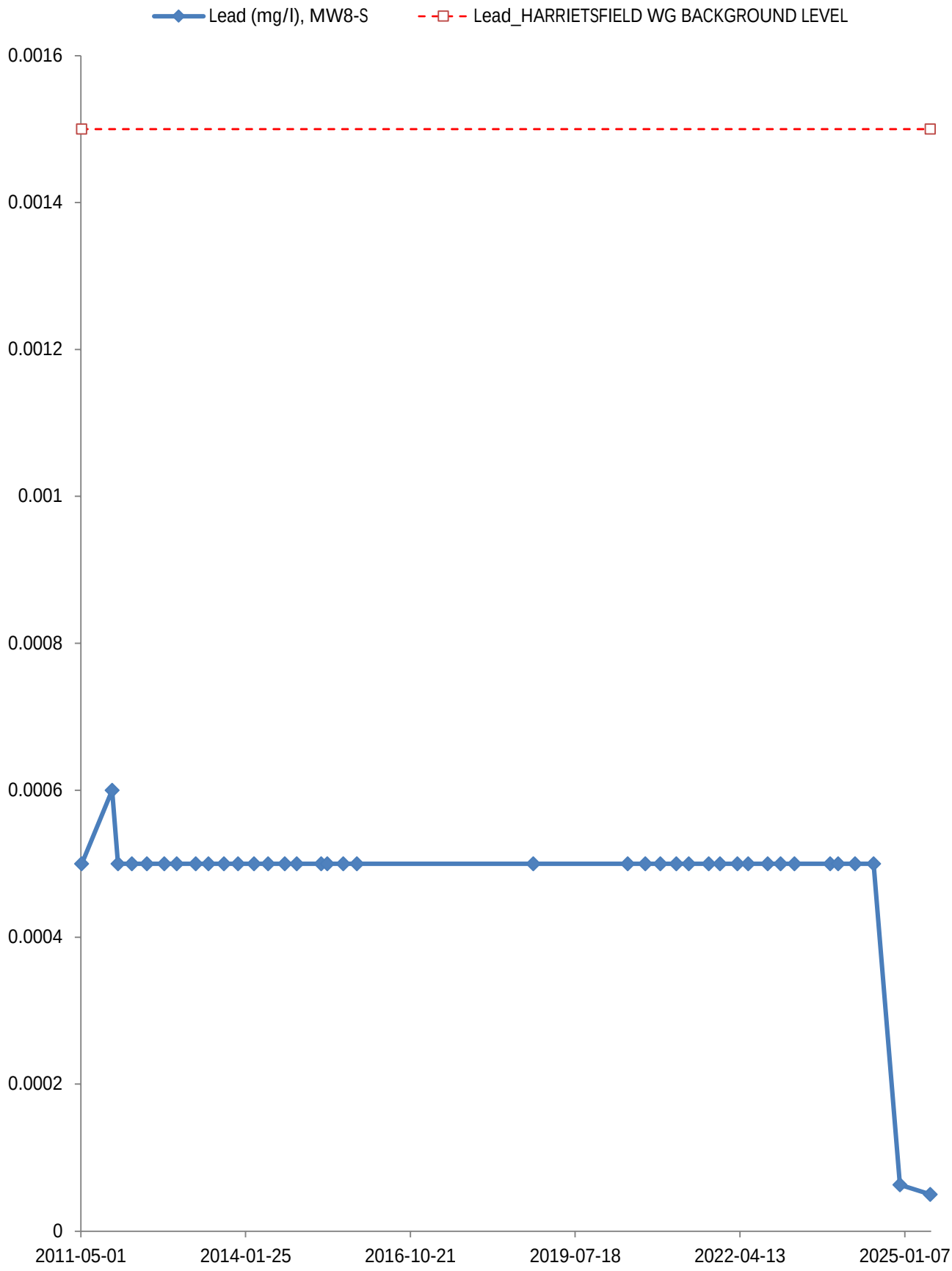
# Iron




Iron (mg/l), MW8-S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

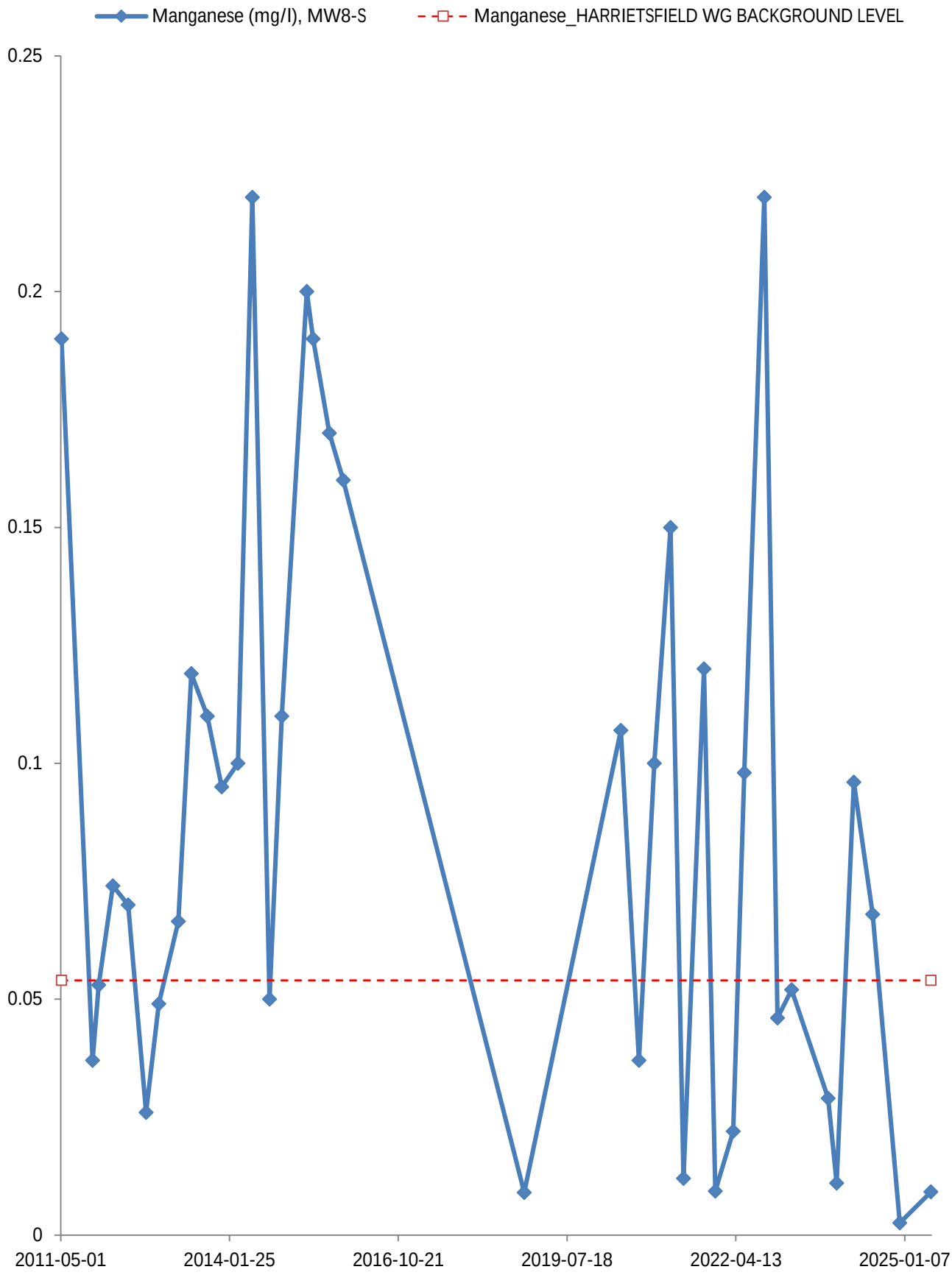
# Lead




Lead (mg/l), MW8-S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

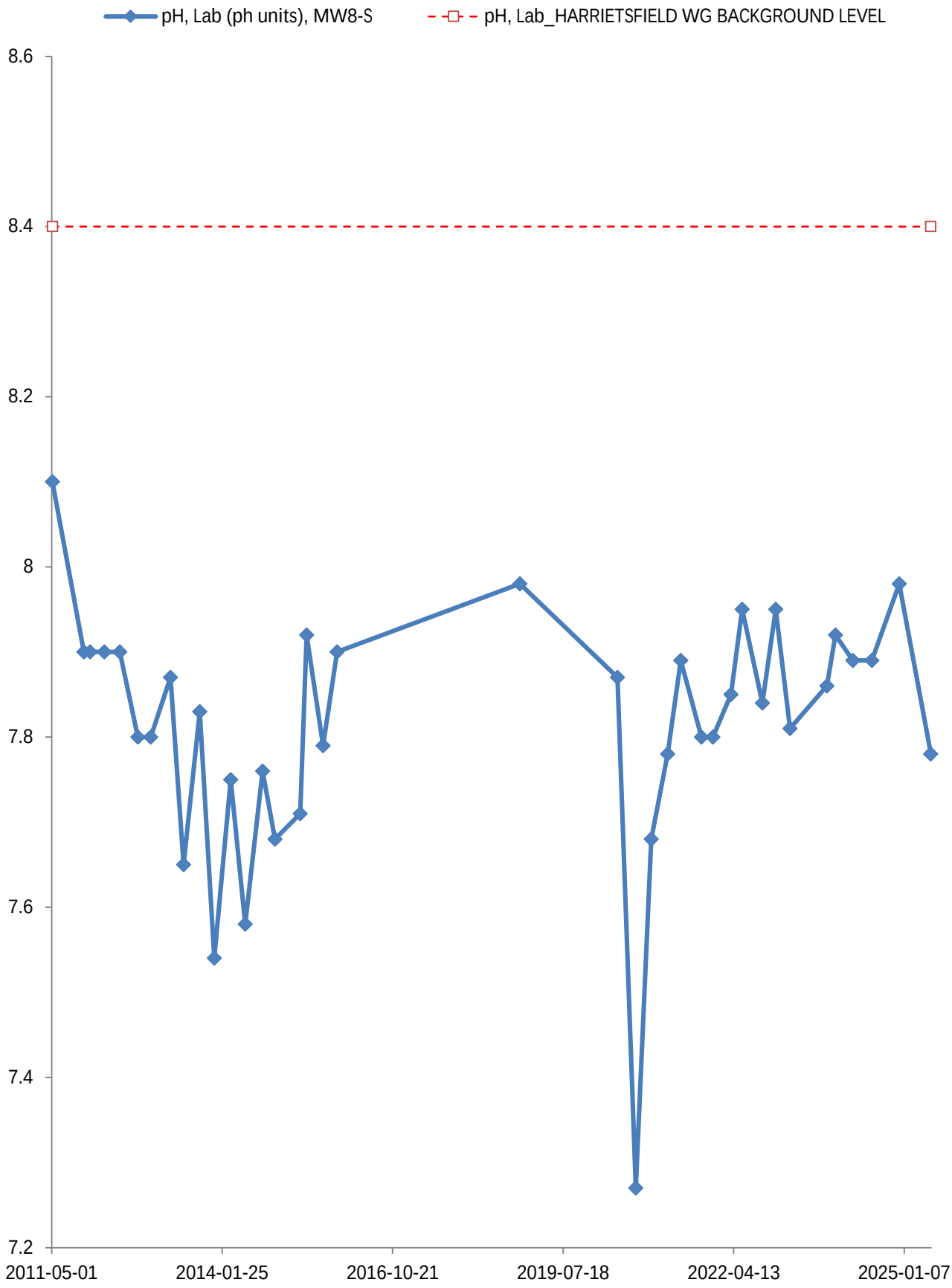
# Manganese



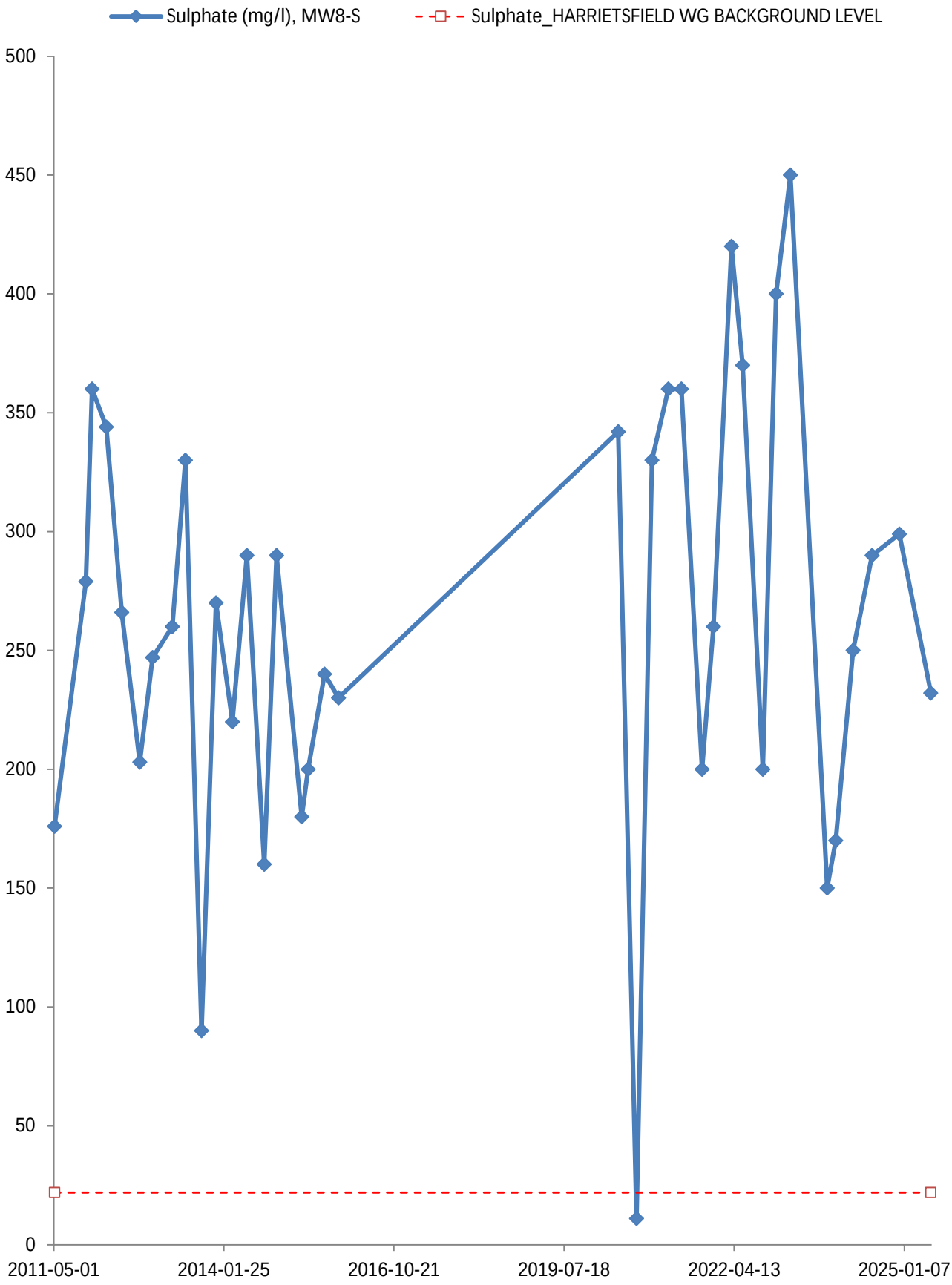

Manganese (mg/l), MW8-S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# pH, Lab



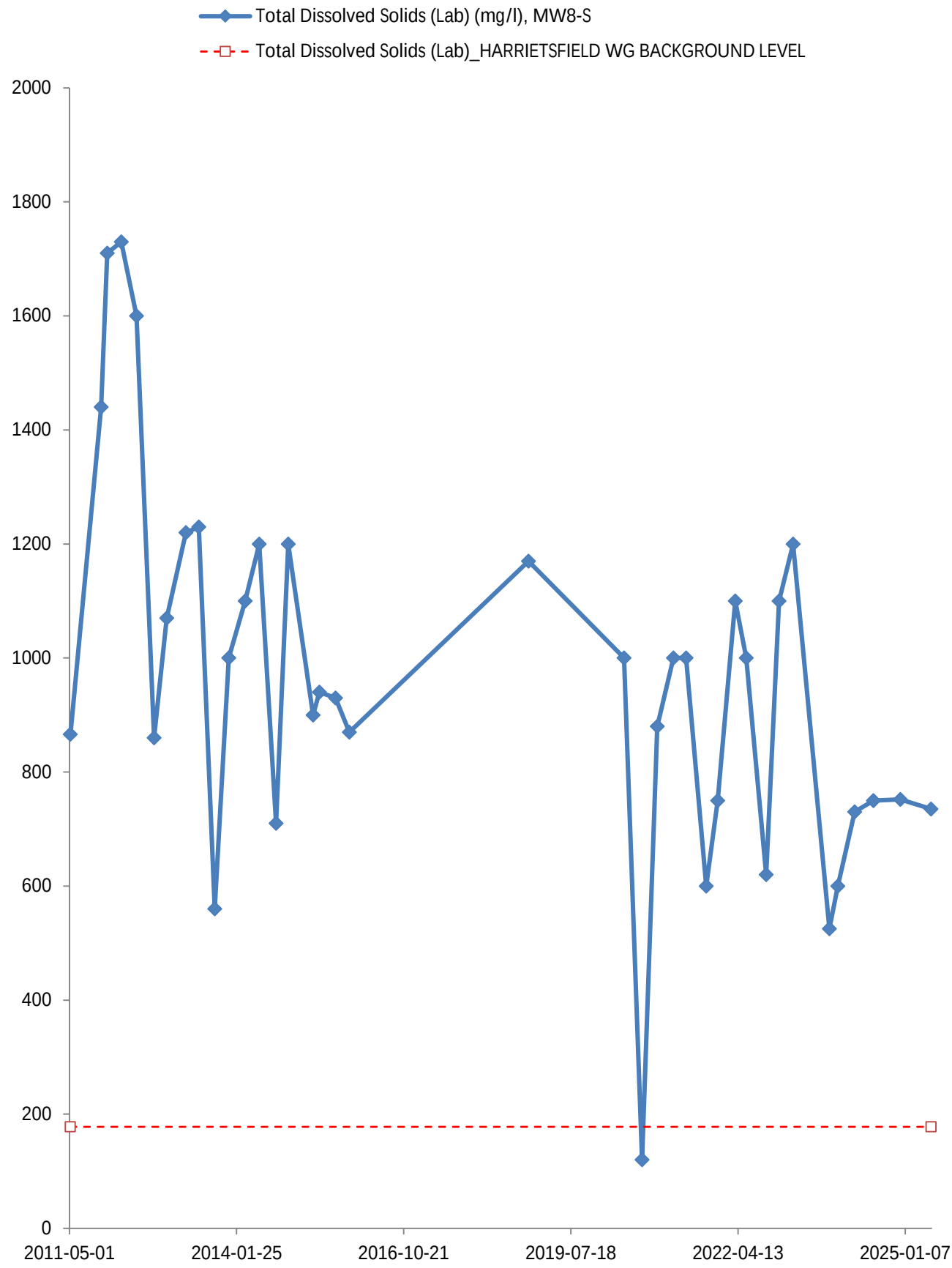

pH, Lab (ph units), MW8-S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Sulphate

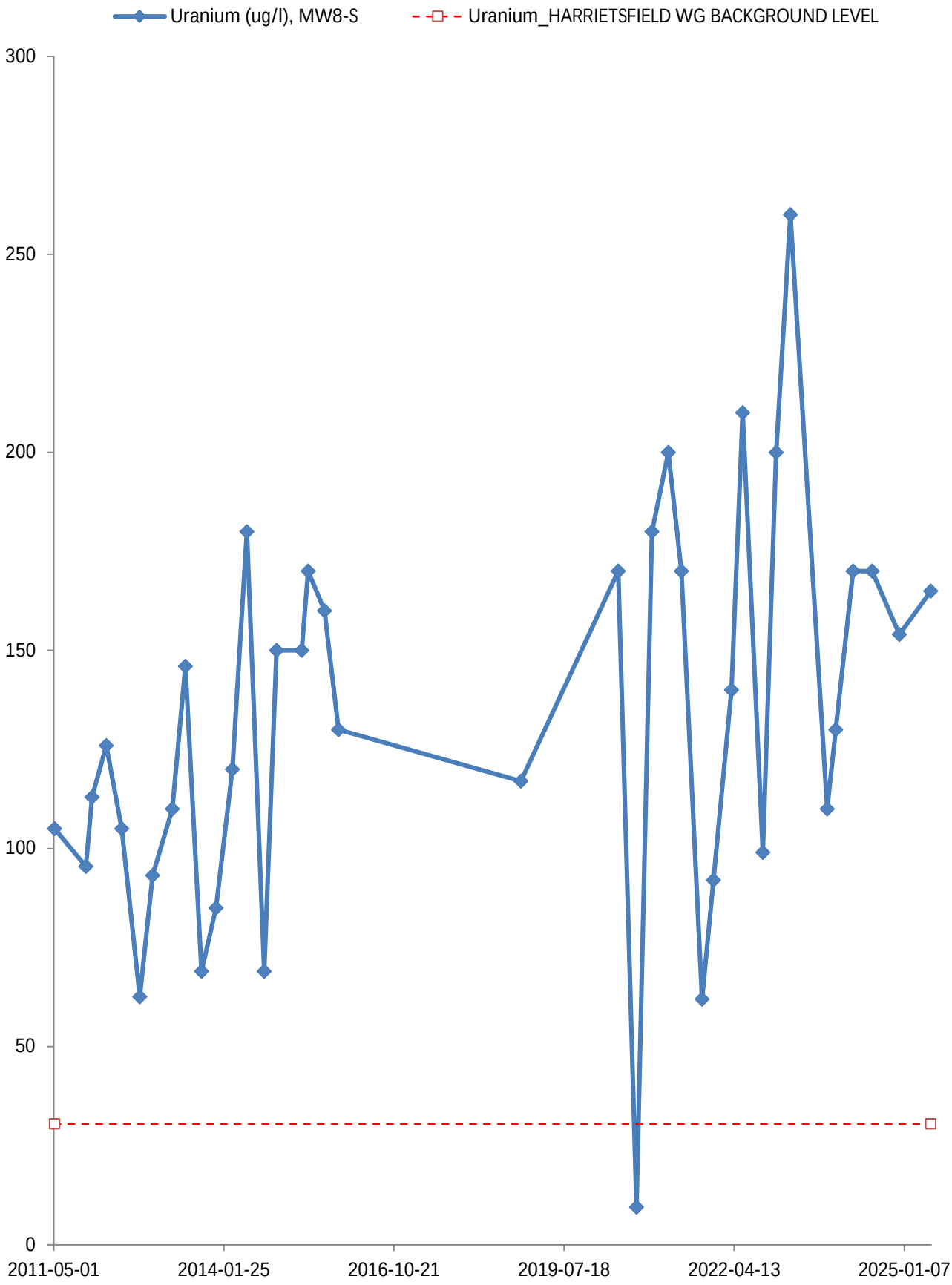

Sulphate (mg/l), MW8-S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
500
450
400
350
300
250
200
150
100
50
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Total Dissolved Solids (5



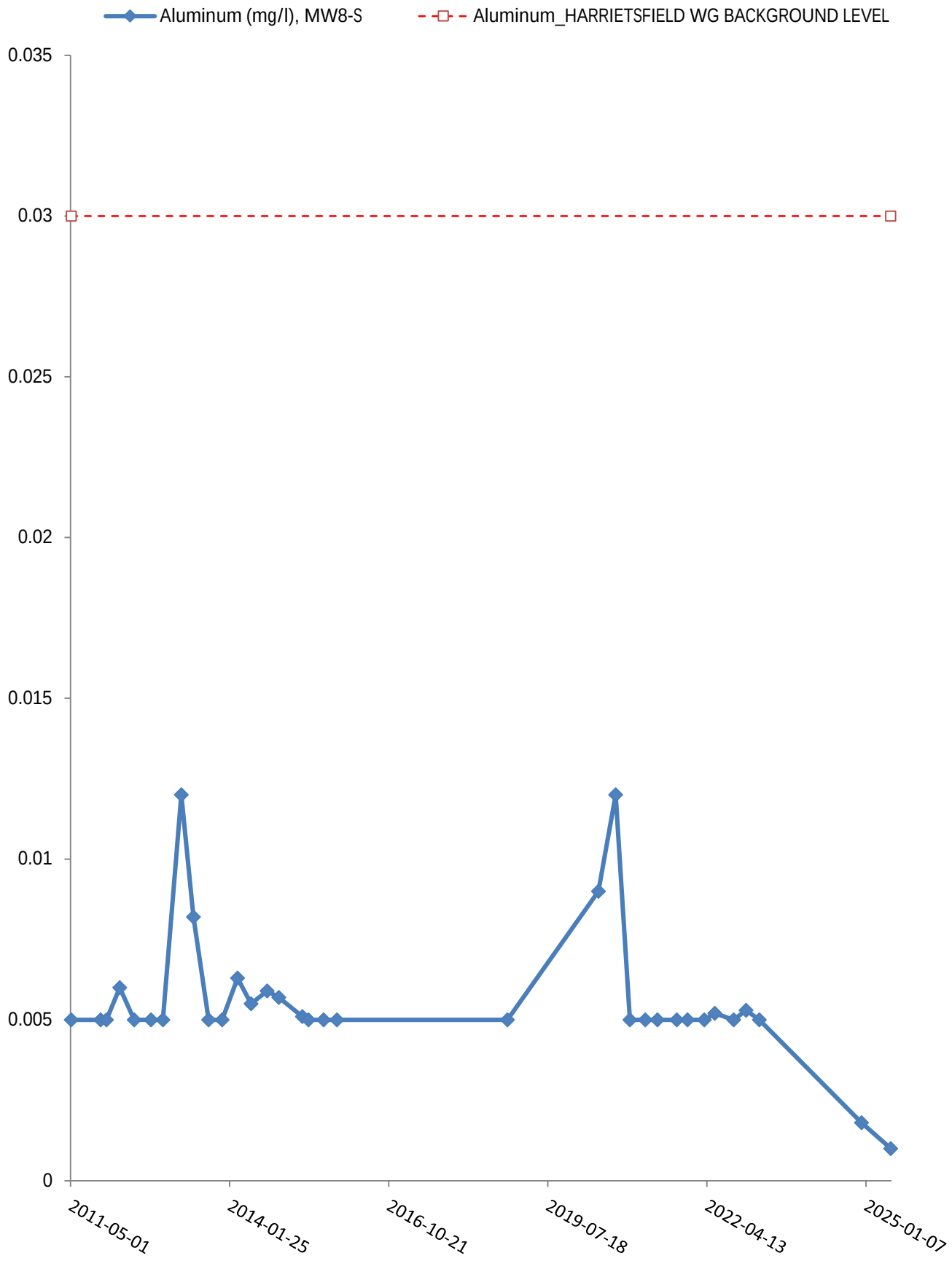


# Uranium


Uranium (ug/l), MW8-S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
300
250
200
150
100
50
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

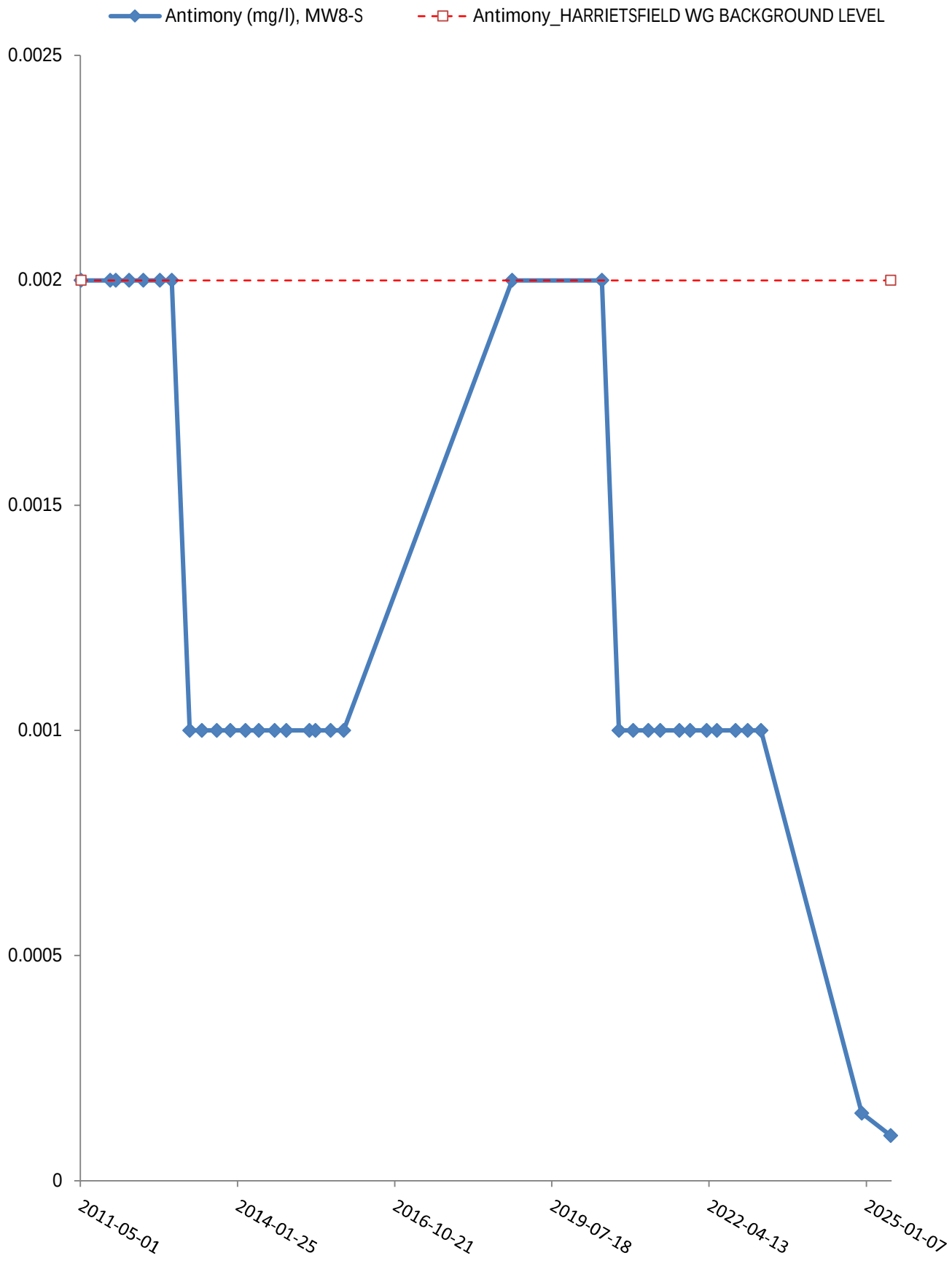
# Aluminum



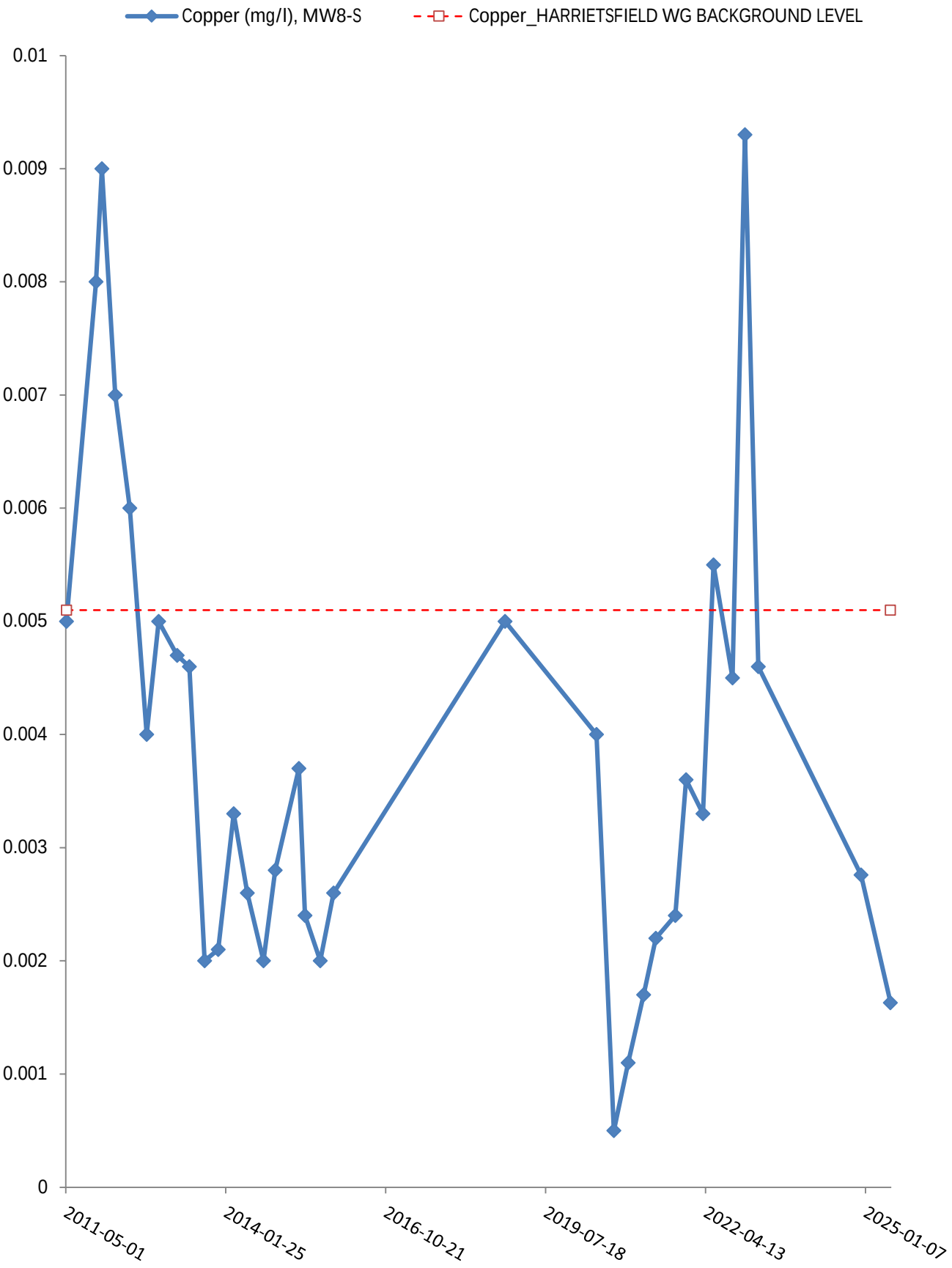

Aluminum (mg/l), MW8-S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Antimony

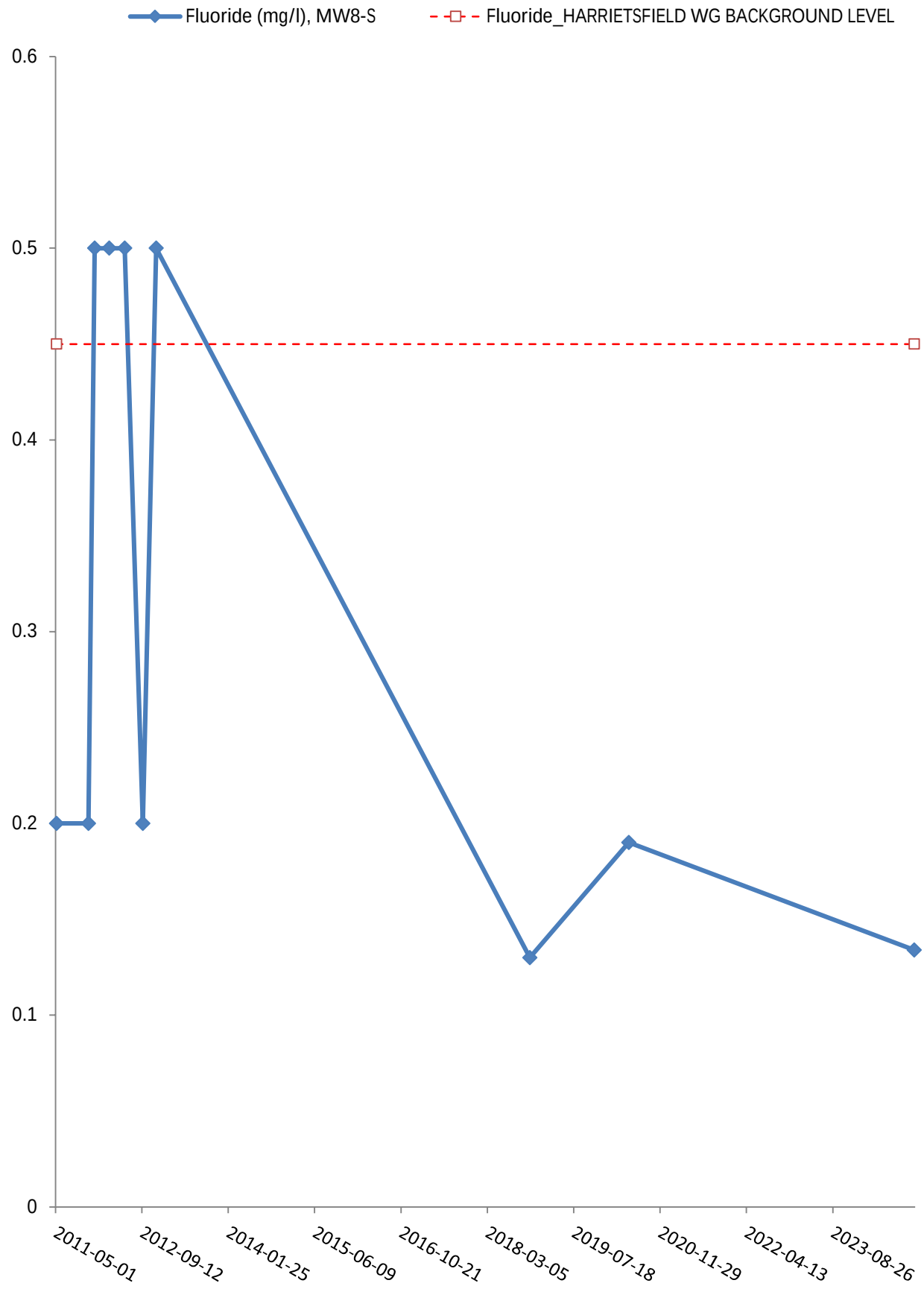



Antimony (mg/l), MW8-S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

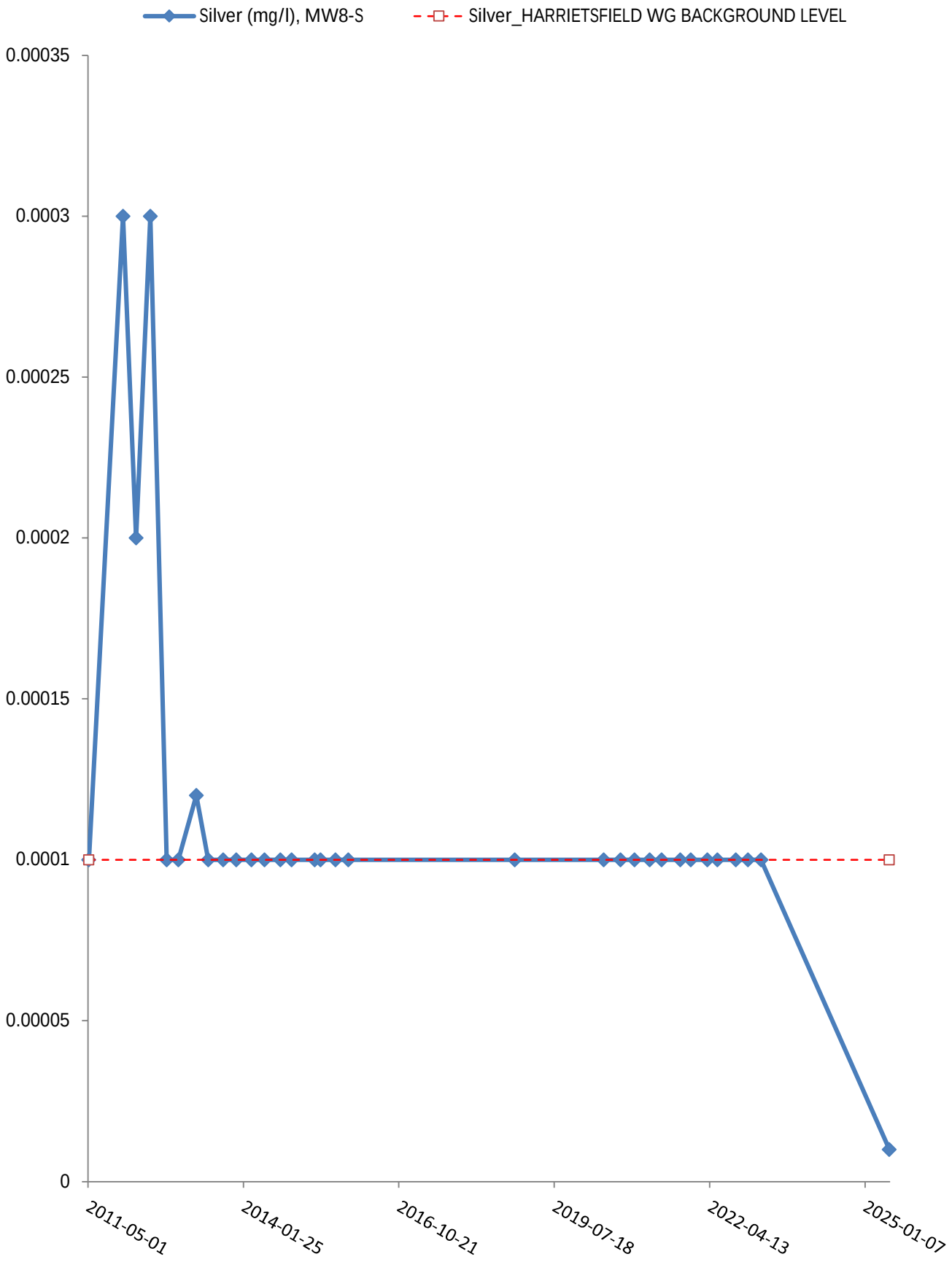
# Copper


Copper (mg/l), MW8-S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Fluoride

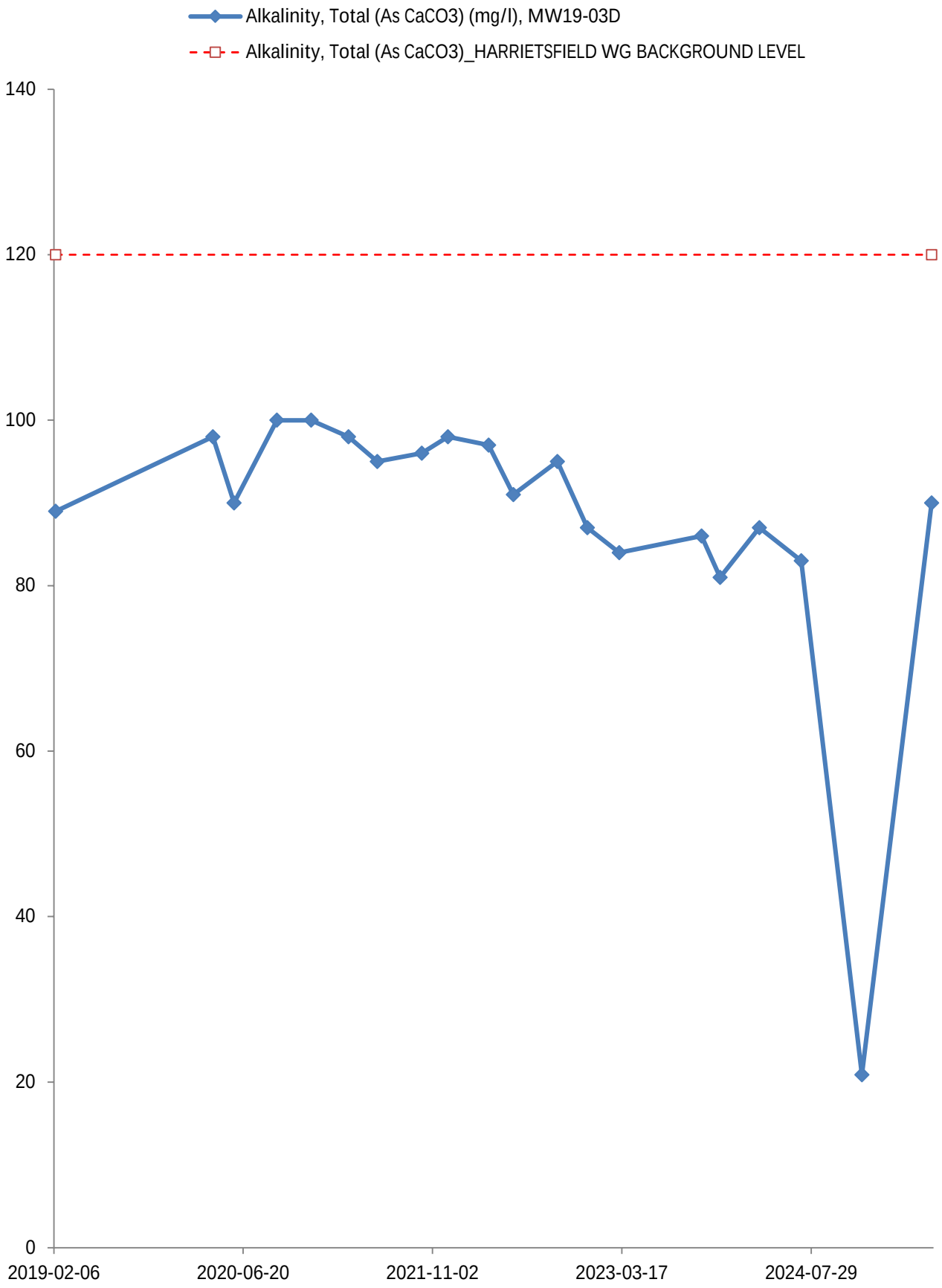

Fluoride (mg/l), MW8-S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.6
0.5
0.4
0.3
0.2
0.1
0
2011-05-01
2012-09-12
2014-01-25
2015-06-09
2016-10-21
2018-03-05
2019-07-18
2020-11-29
2022-04-13
2023-08-26

# Silver

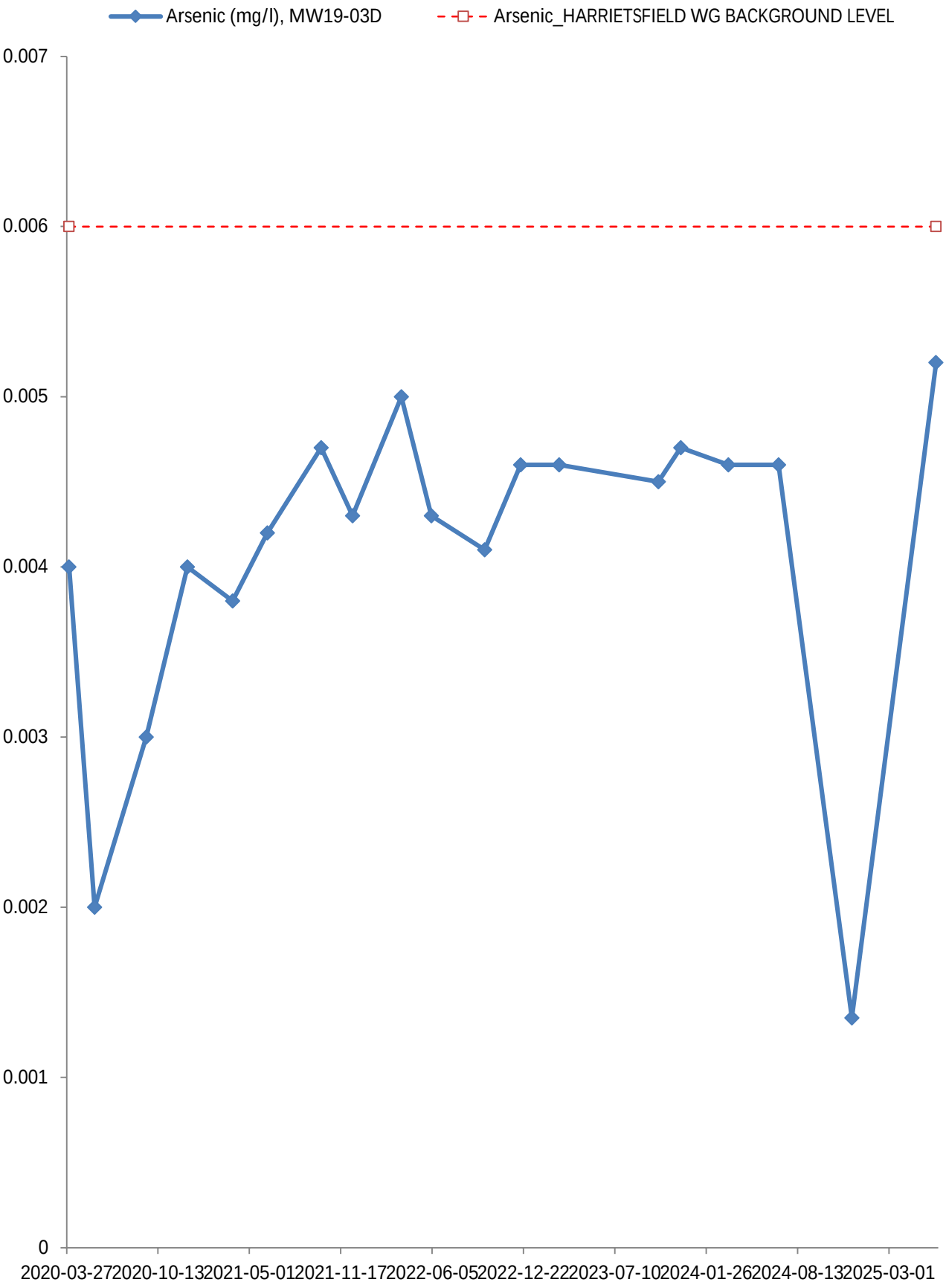

Silver (mg/l), MW8-S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2011-05-01
2014-01-25
2016-10-21
2019-07-18
2022-04-13
2025-01-07

# Alkalinity, Total

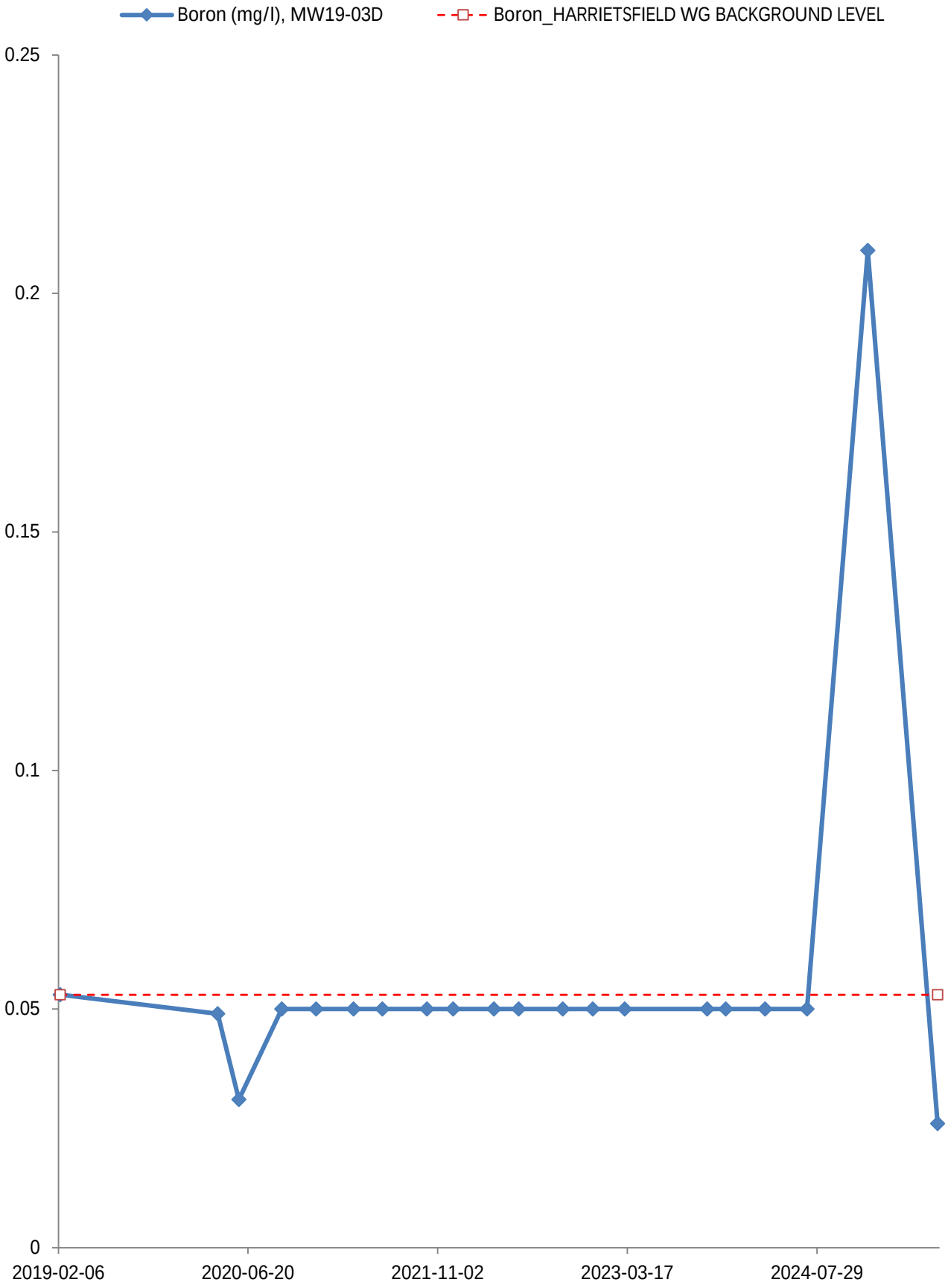




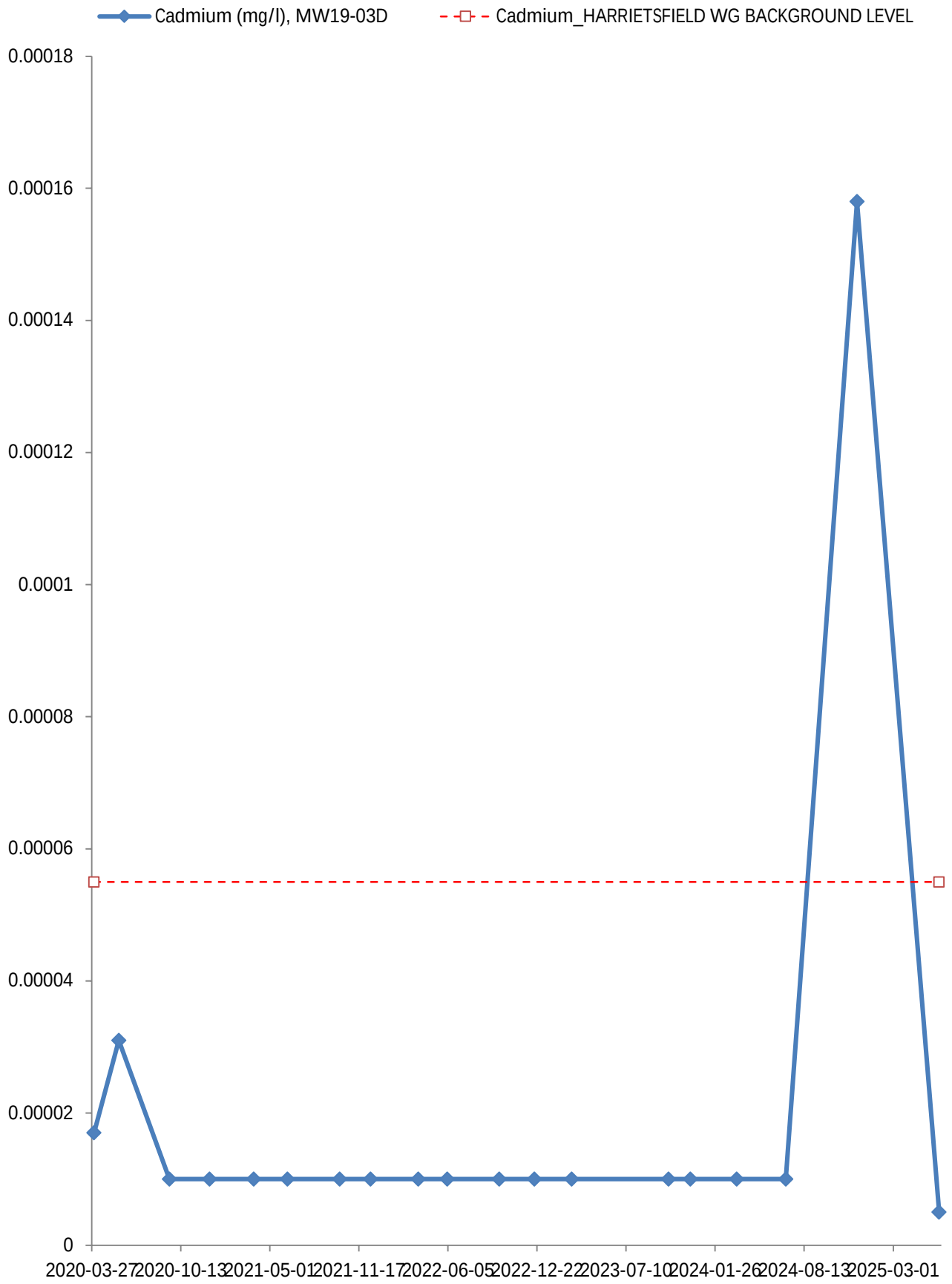
# Arsenic


Arsenic (mg/l), MW19-03D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-03-27
2020-10-13
2021-05-01
2021-11-17
2022-06-05
2022-12-22
2023-07-10
2024-01-26
2024-08-13
2025-03-01

# Boron

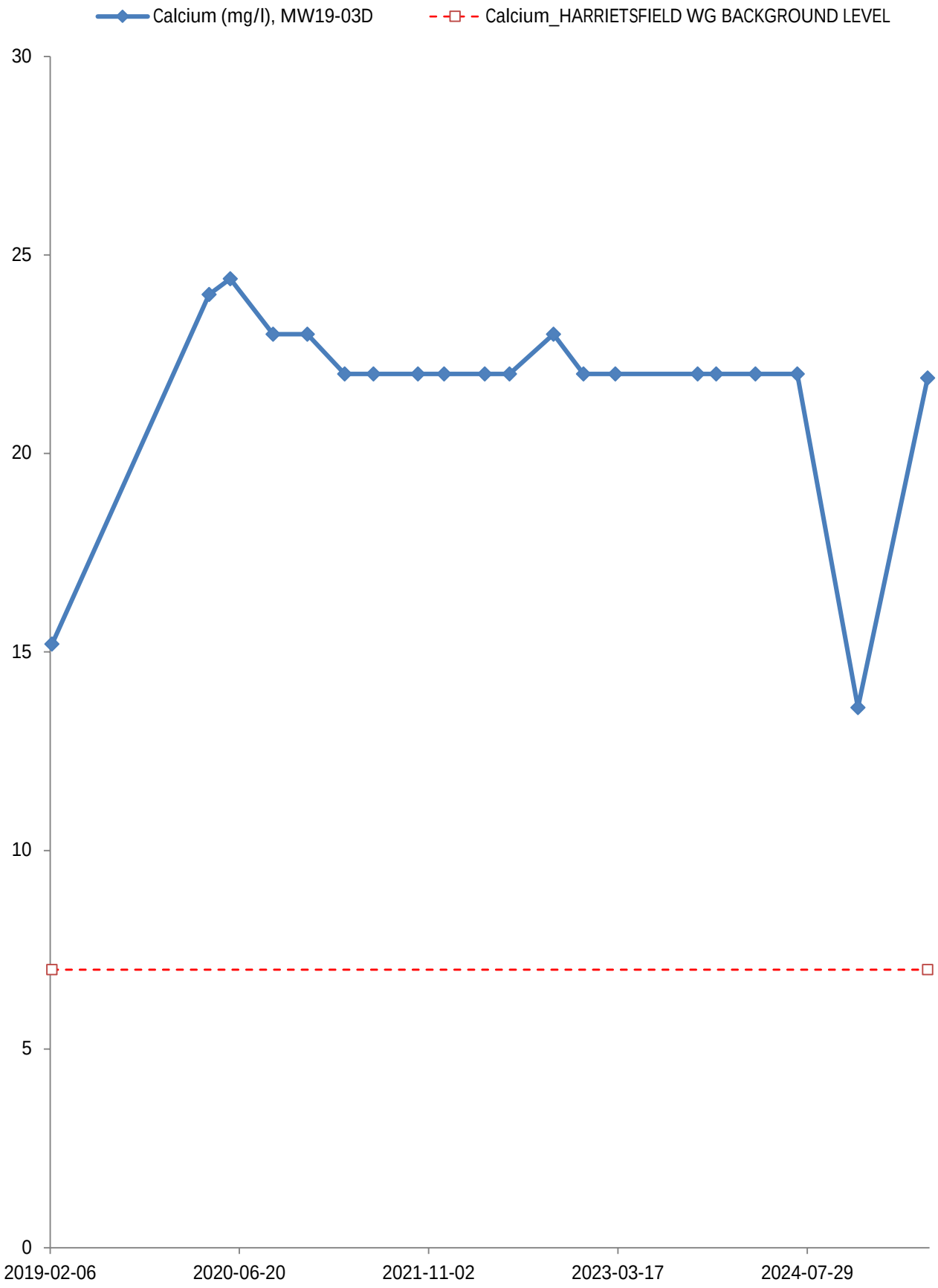

Boron (mg/l), MW19-03D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Cadmium

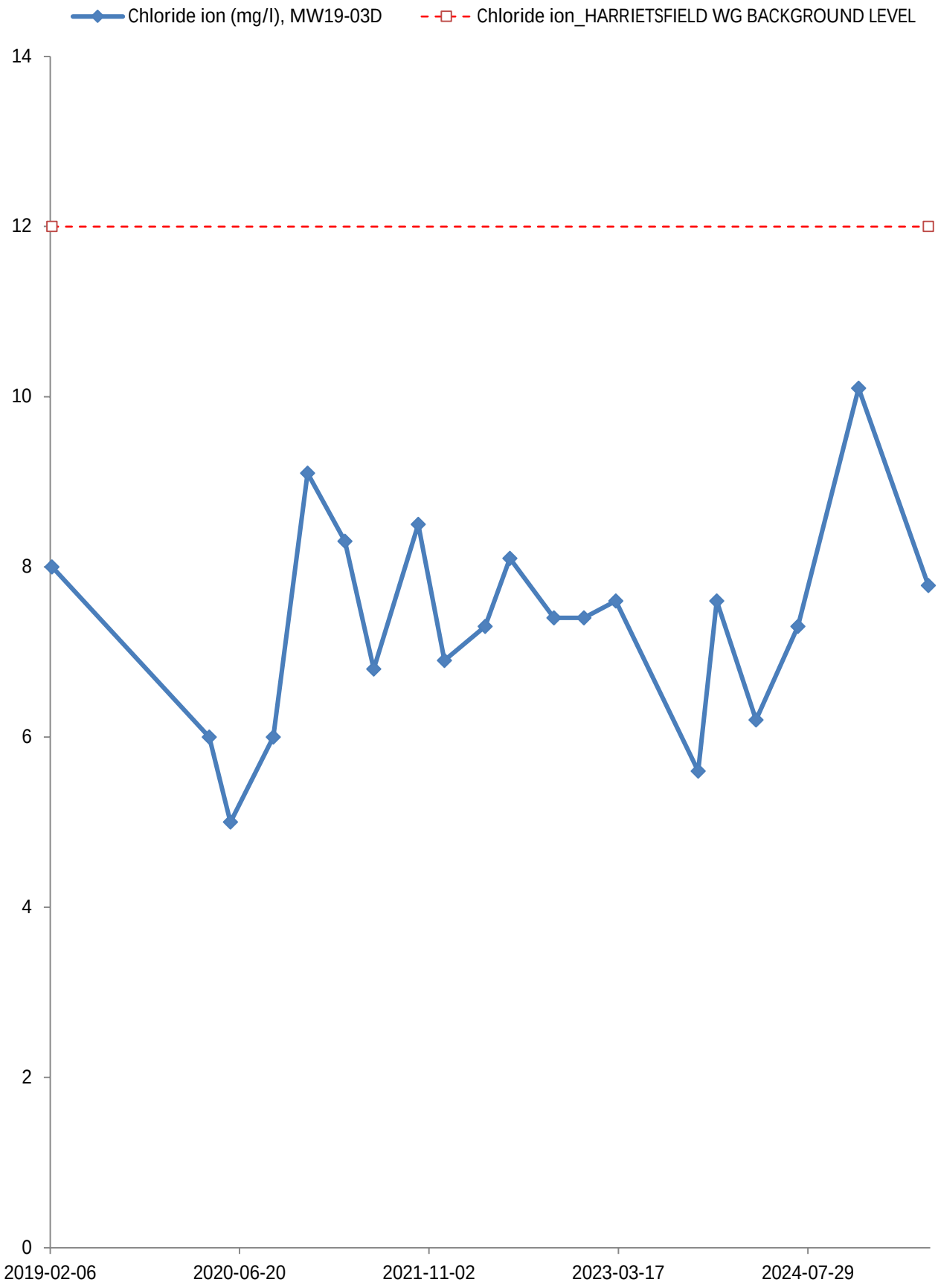

Cadmium (mg/l), MW19-03D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00018
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-03-27
2020-10-13
2021-05-01
2021-11-17
2022-06-05
2022-12-22
2023-07-10
2024-01-26
2024-08-13
2025-03-01

# Calcium



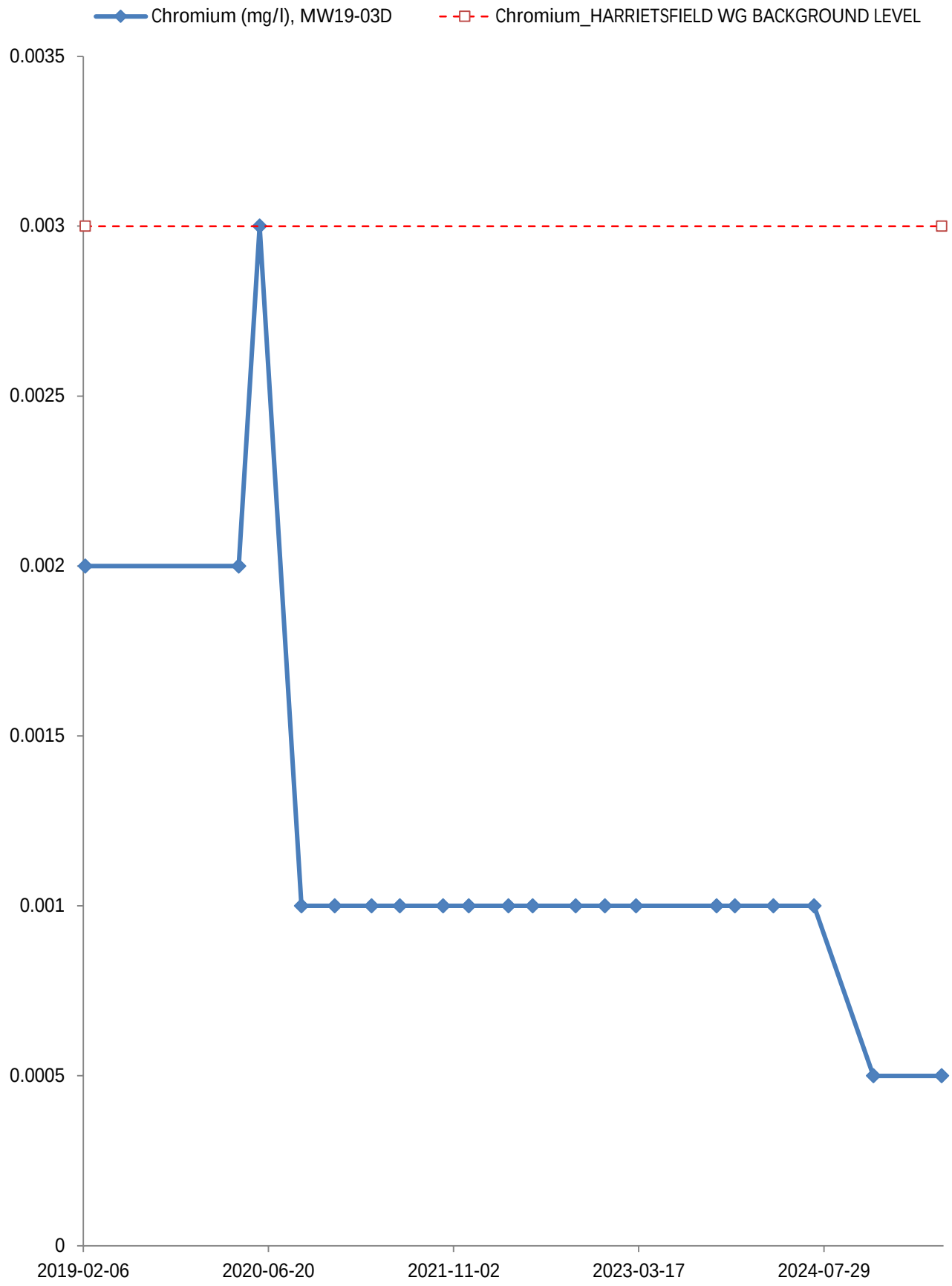

Calcium (mg/l), MW19-03D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Chloride ion

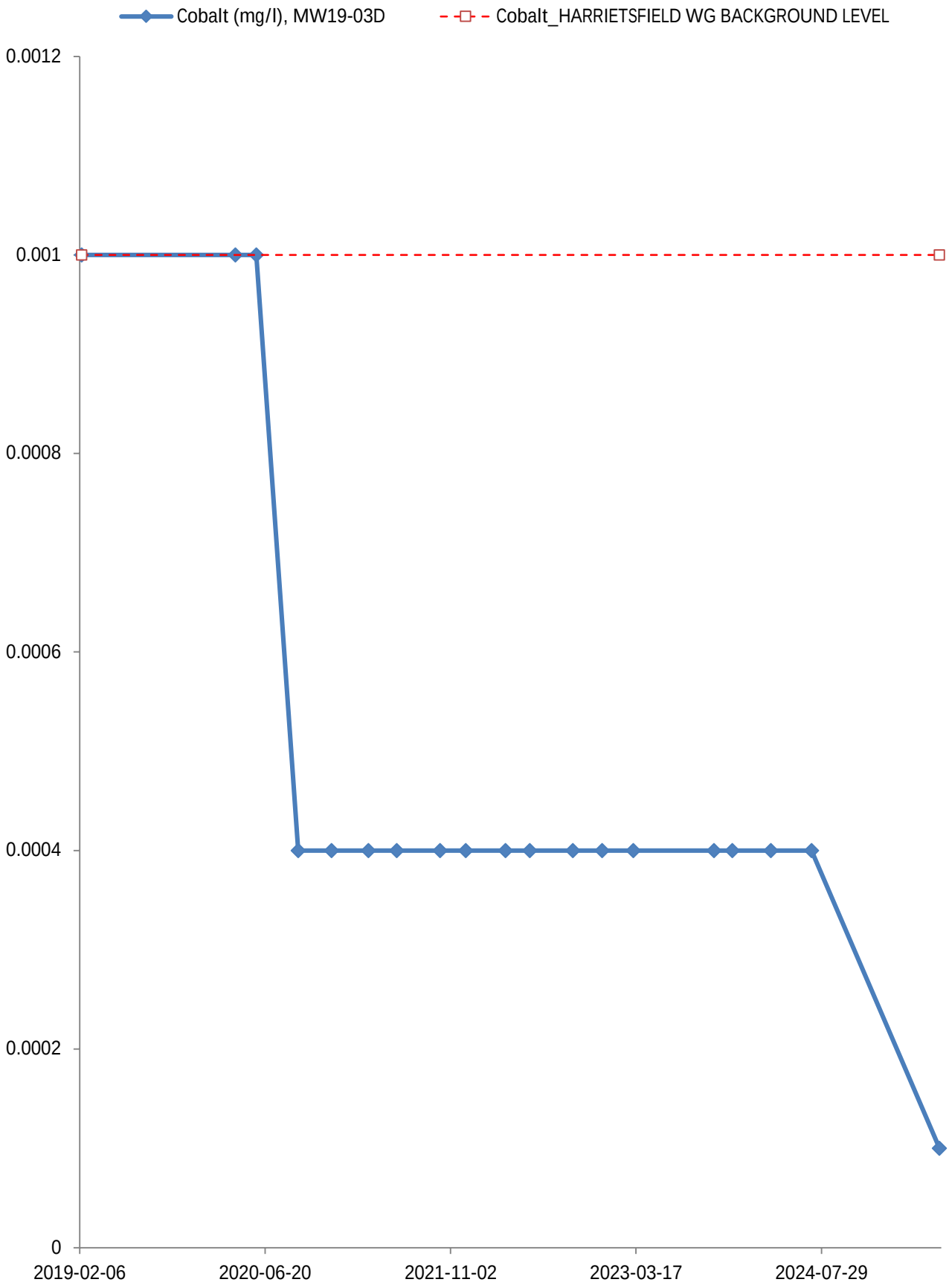


# Chromium



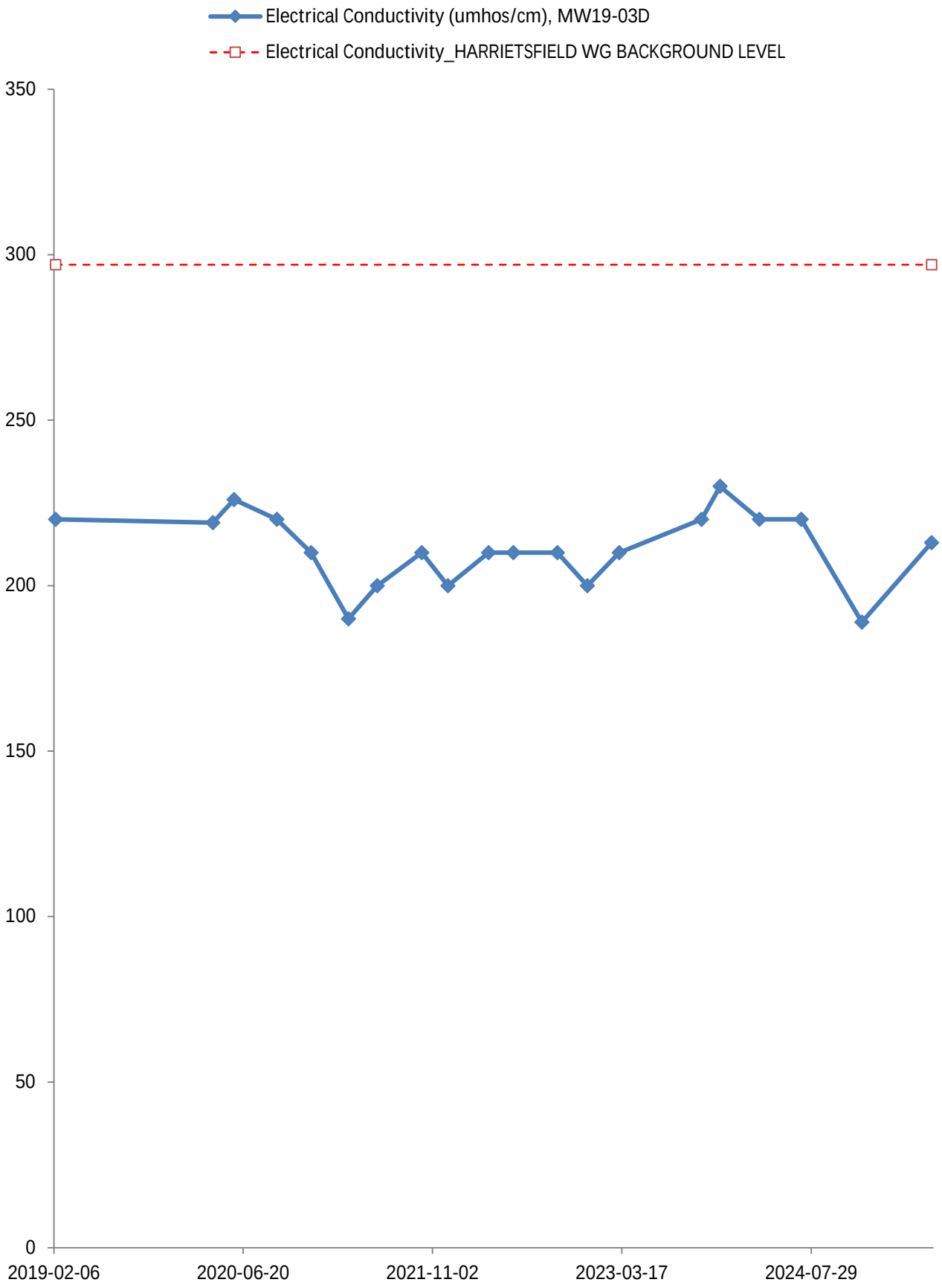

Chromium (mg/l), MW19-03D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Cobalt


Cobalt (mg/l), MW19-03D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

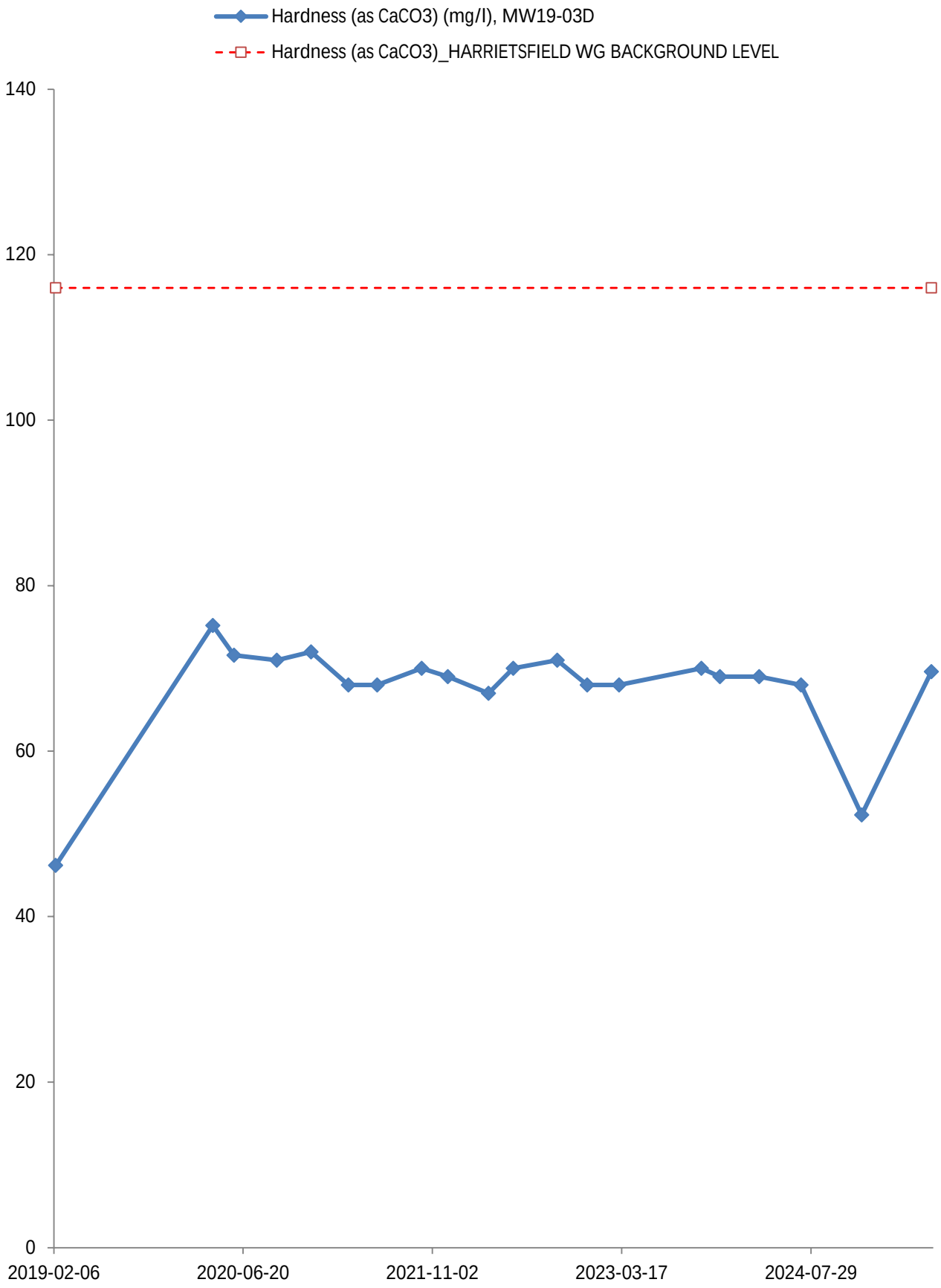
# Electrical Conductivity



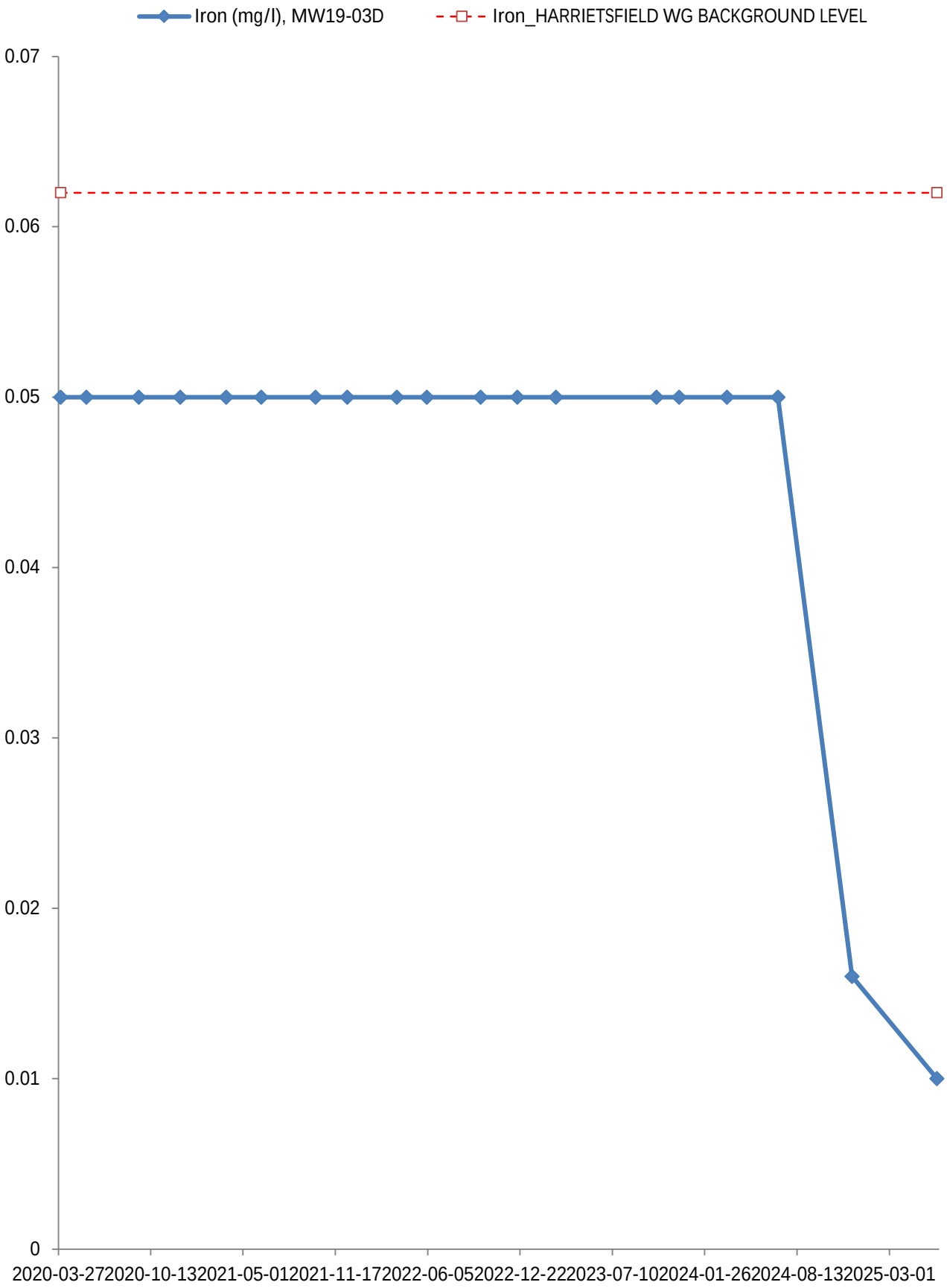


# Hardness (as CaCO3)

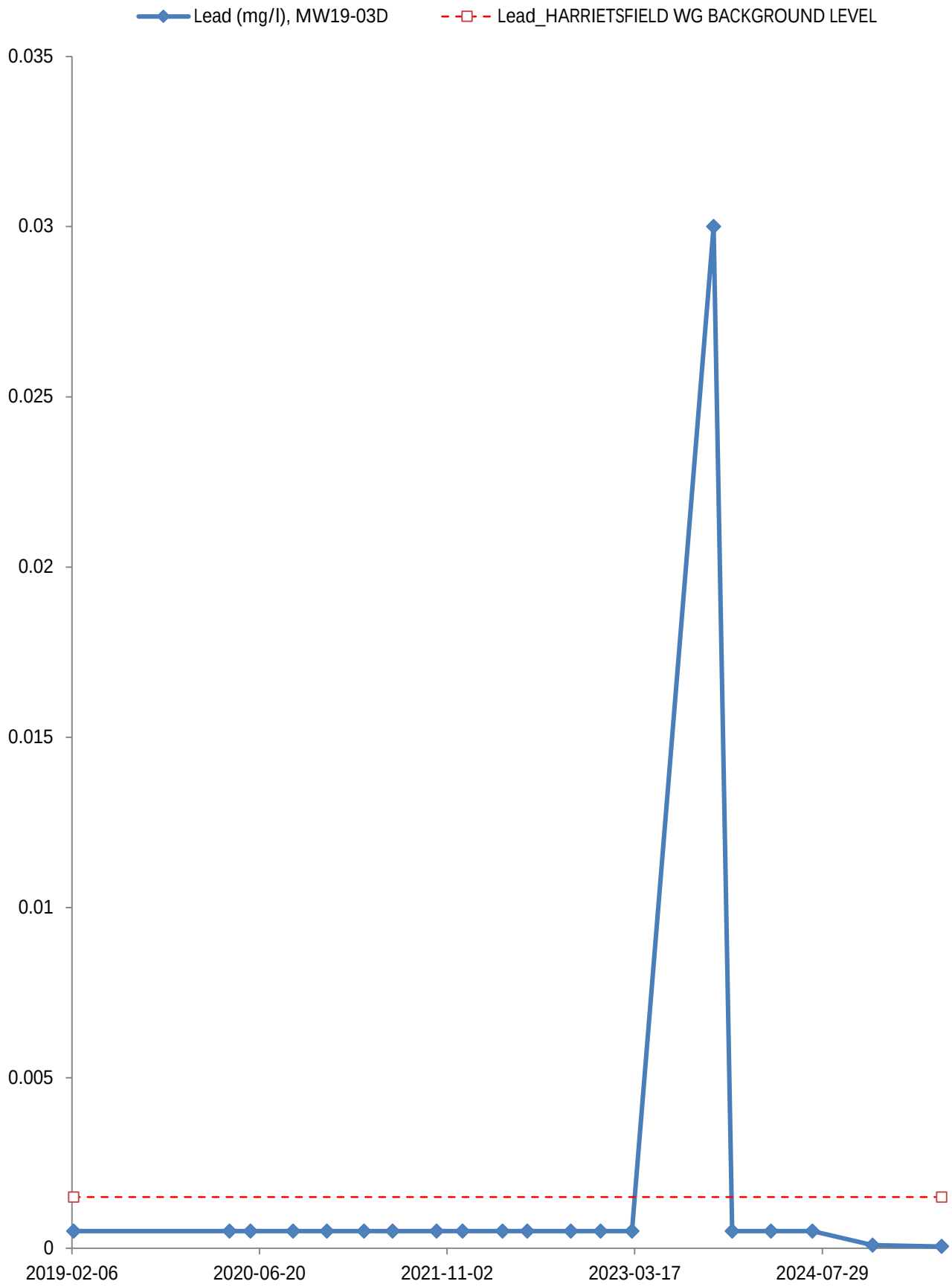




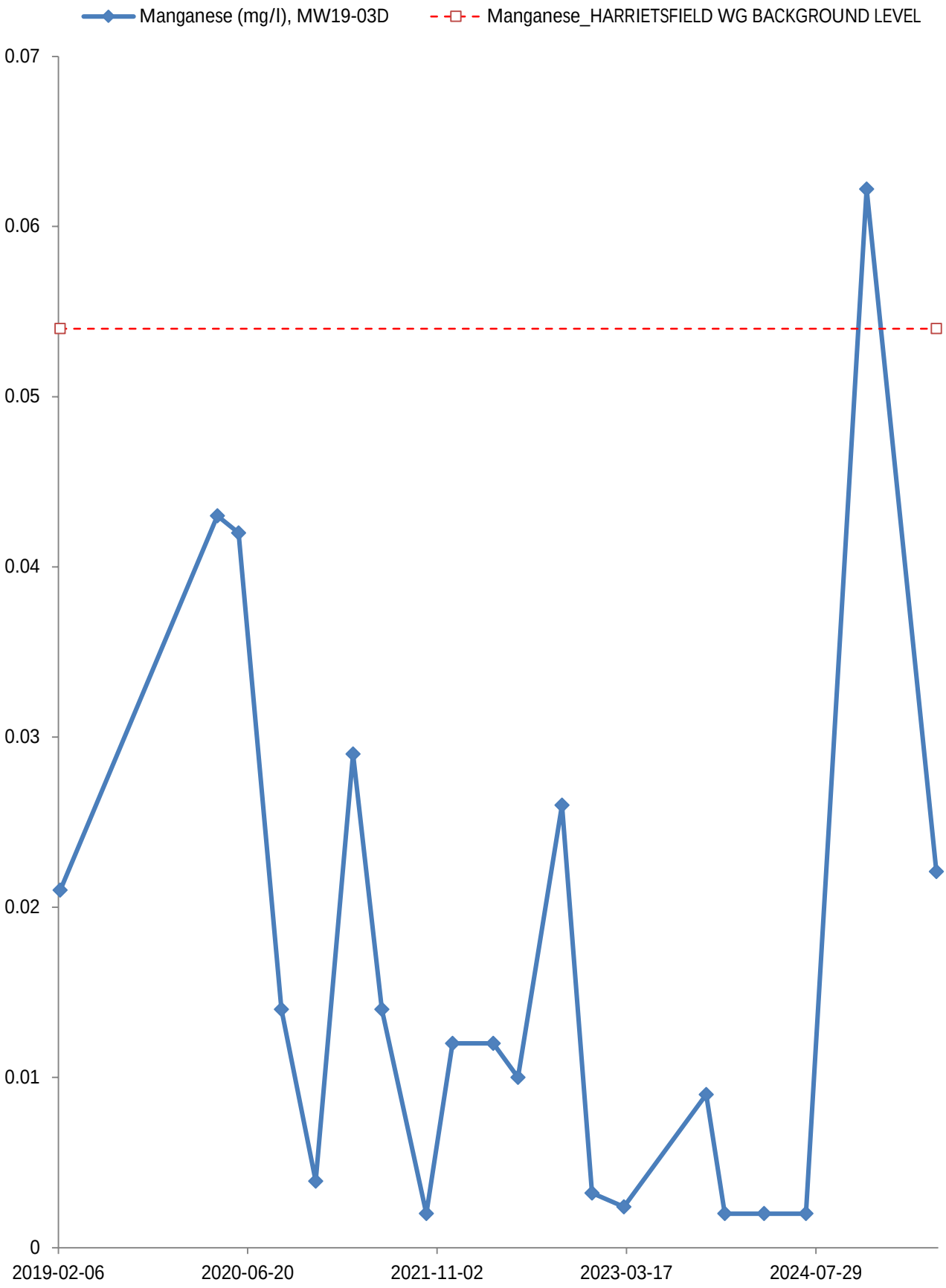
# Iron


Iron (mg/l), MW19-03D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-03-27
2020-10-13
2021-05-01
2021-11-17
2022-06-05
2022-12-22
2023-07-10
2024-01-26
2024-08-13
2025-03-01

# Lead

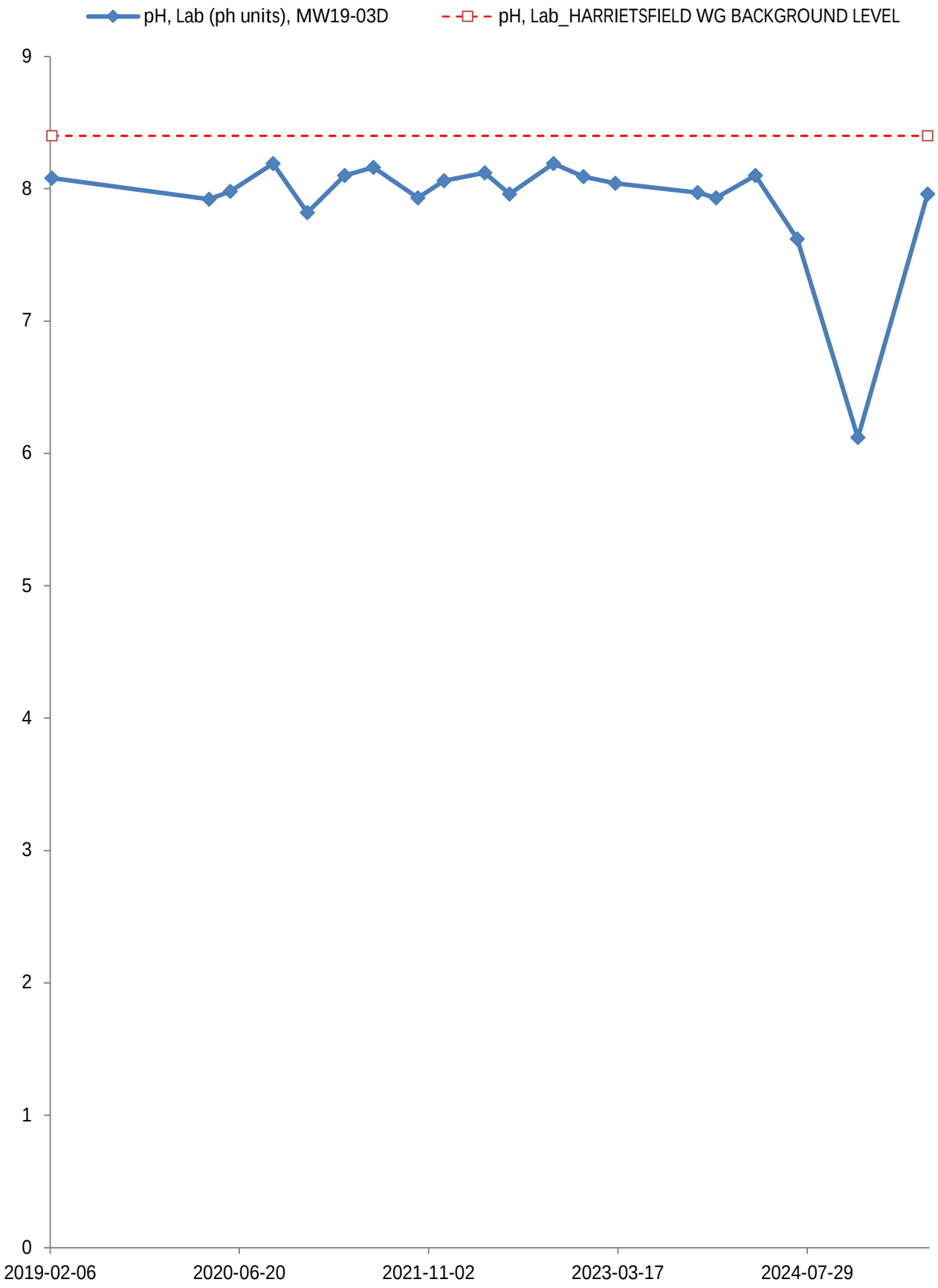

Lead (mg/l), MW19-03D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Manganese

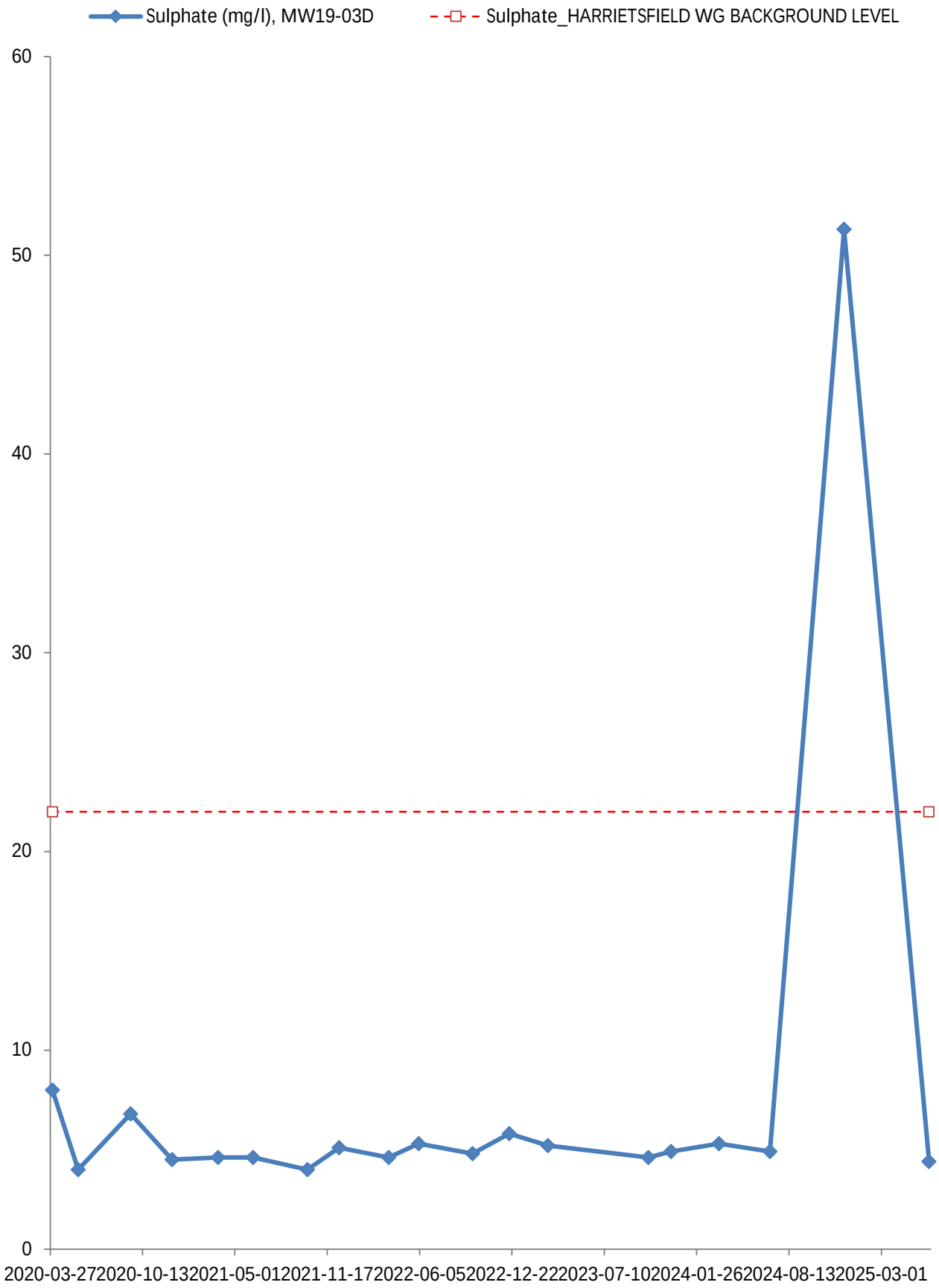

Manganese (mg/l), MW19-03D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# pH, Lab

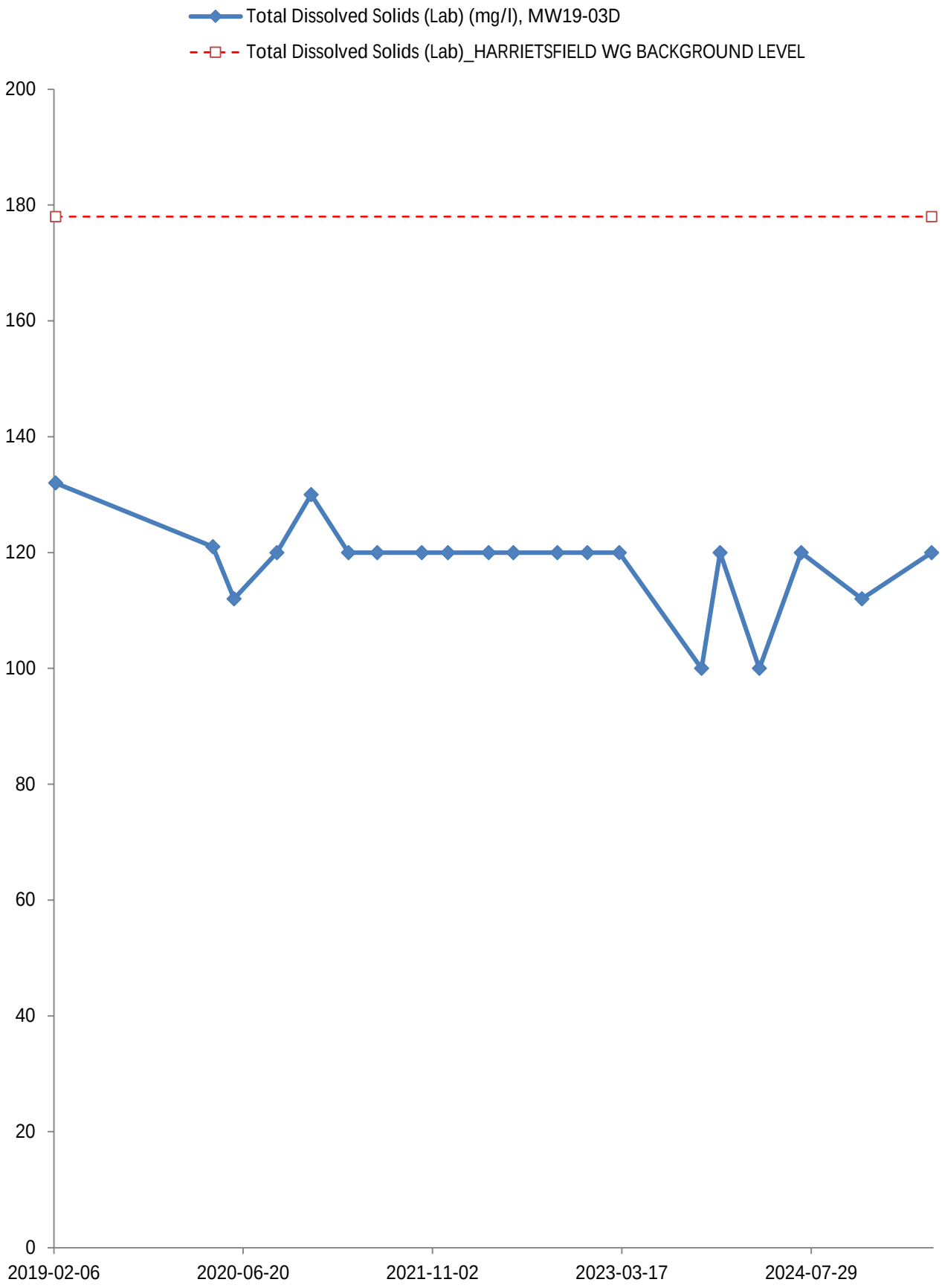



pH, Lab (ph units), MW19-03D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

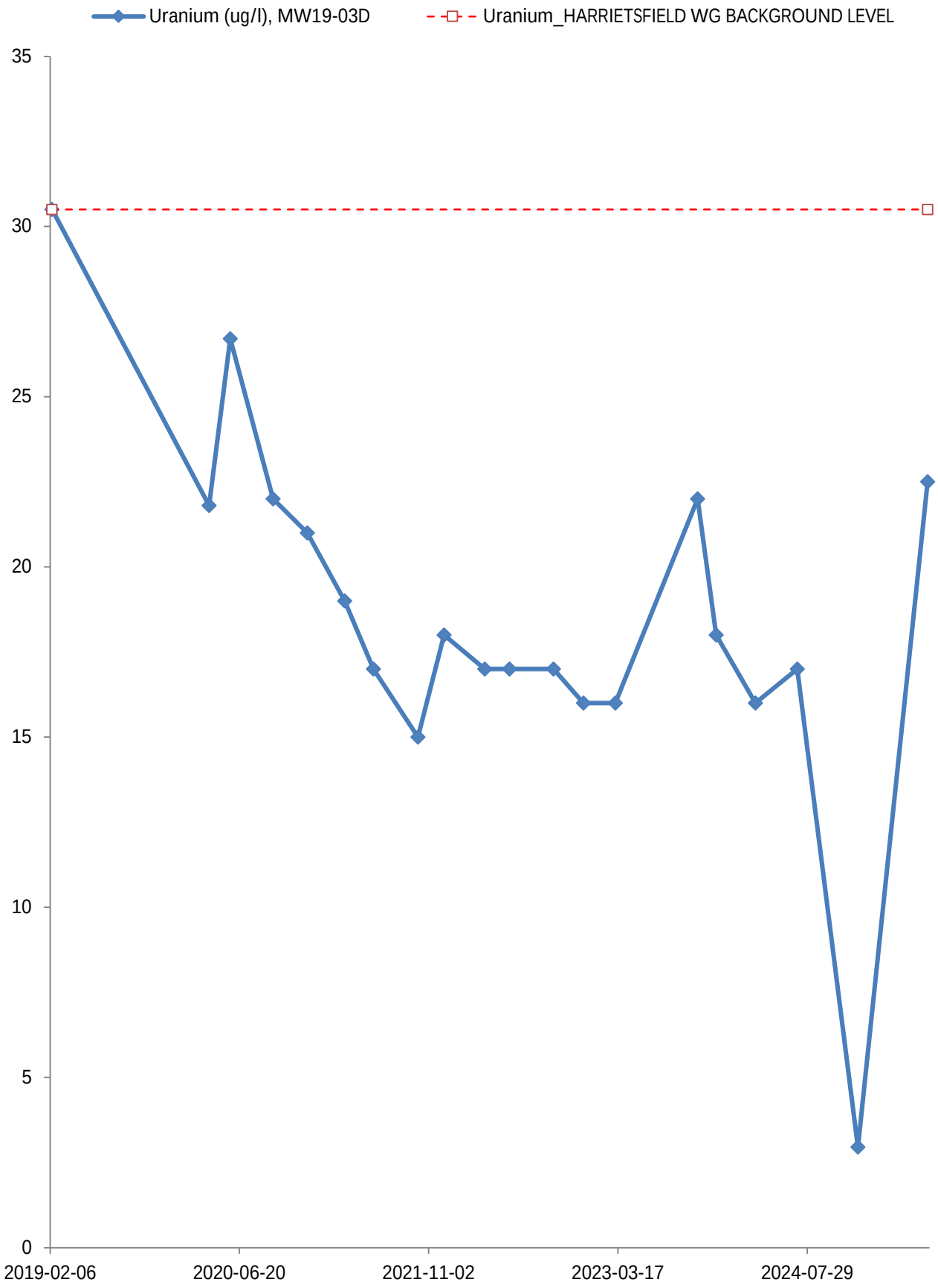
# Sulphate


Sulphate (mg/l), MW19-03D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
60
50
40
30
20
10
0
2020-03-27
2020-10-13
2021-05-01
2021-11-17
2022-06-05
2022-12-22
2023-07-10
2024-01-26
2024-08-13
2025-03-01

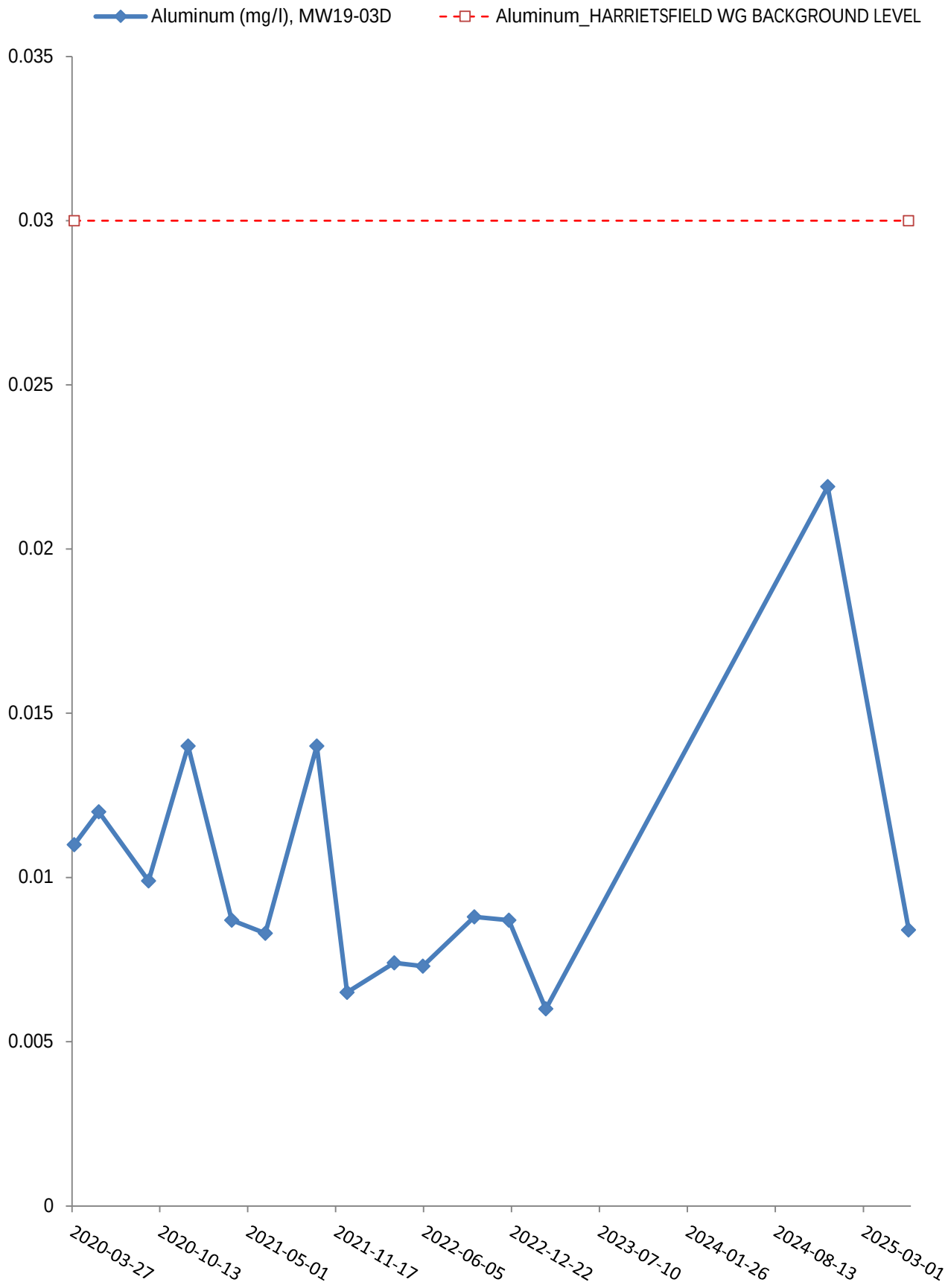
# Total Dissolved Solids (5



# Uranium

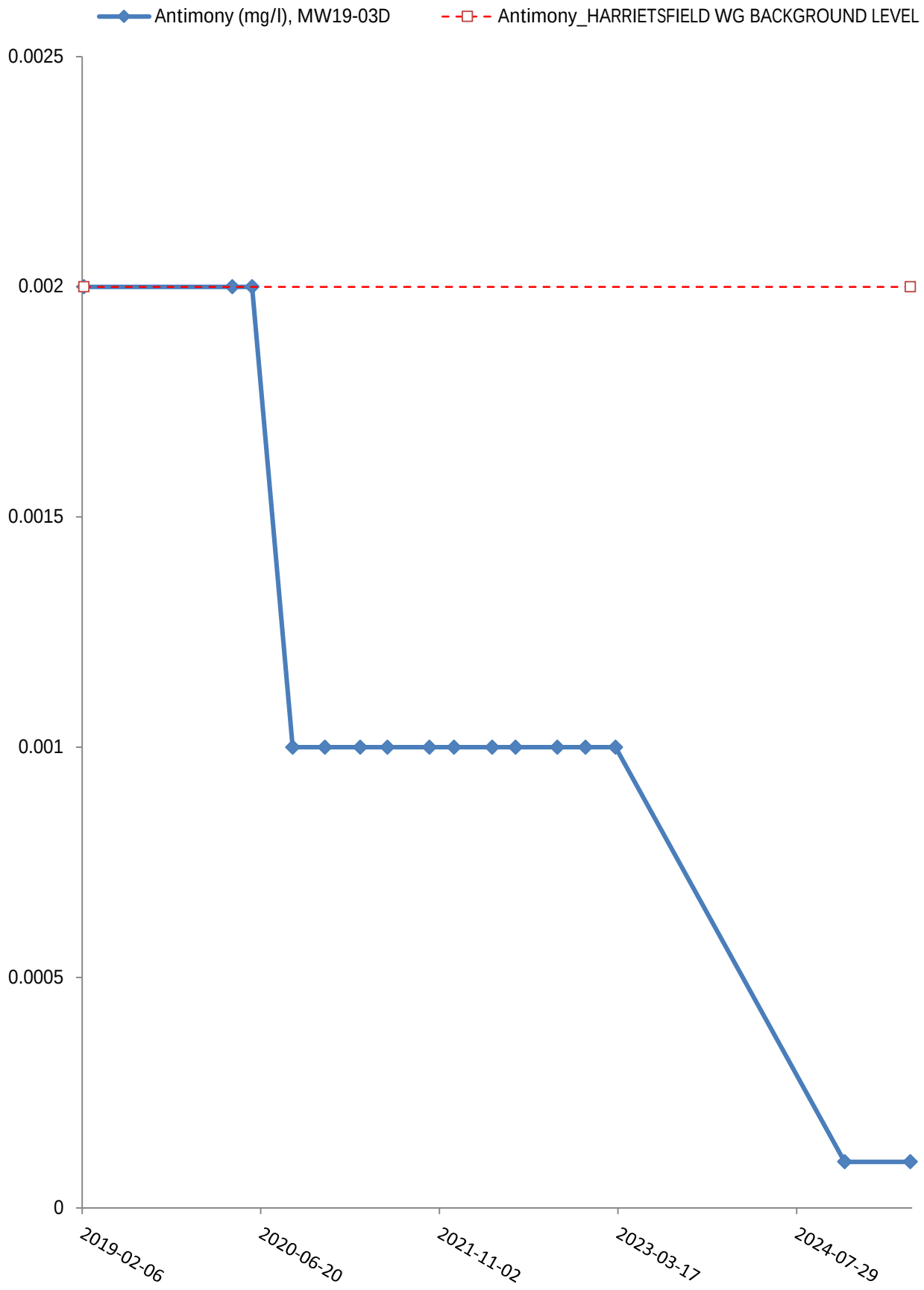

Uranium (ug/l), MW19-03D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Aluminum

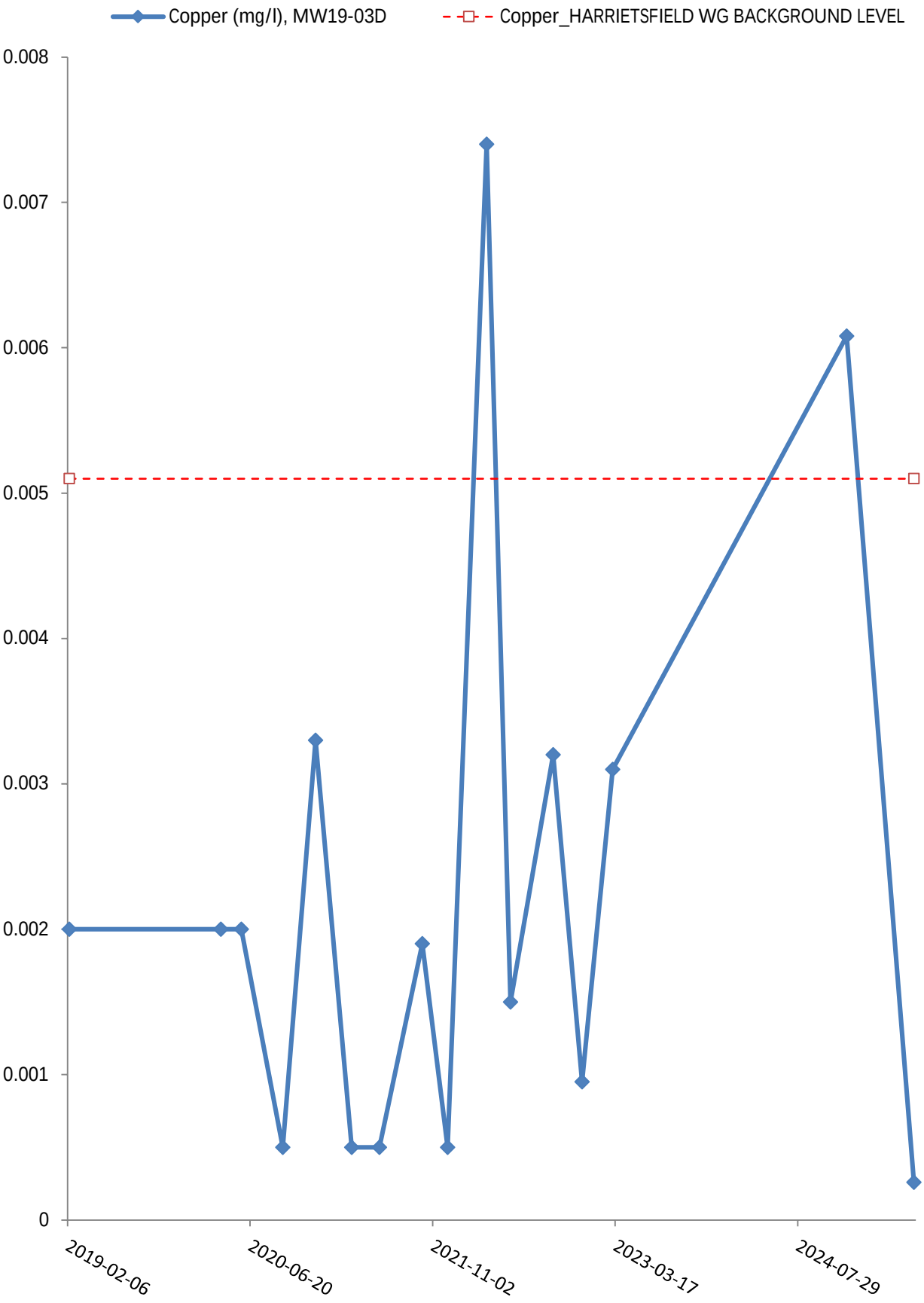

Aluminum (mg/l), MW19-03D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2020-03-27
2020-10-13
2021-05-01
2021-11-17
2022-06-05
2022-12-22
2023-07-10
2024-01-26
2024-08-13
2025-03-01

# Antimony



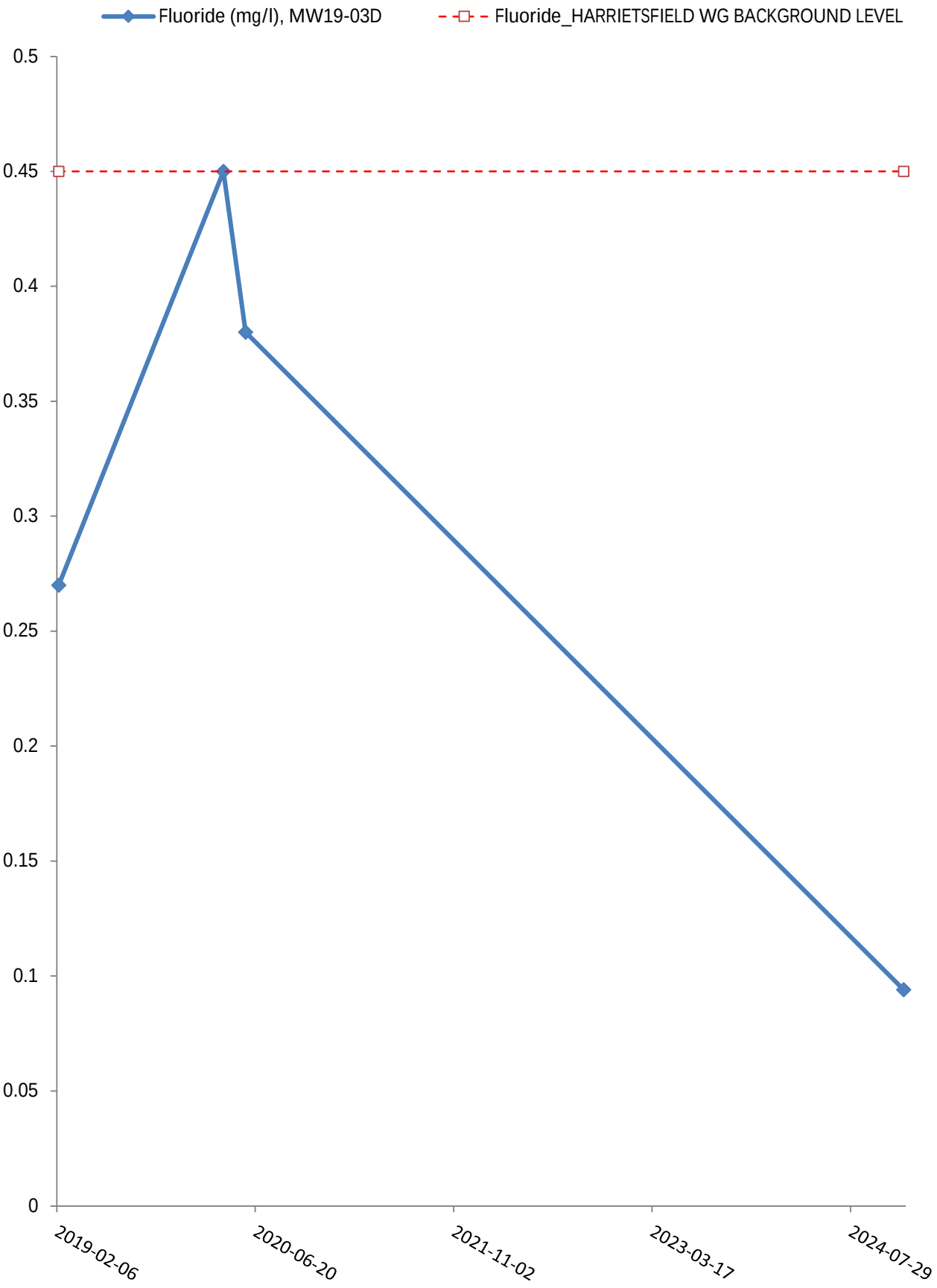

Antimony (mg/l), MW19-03D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Copper

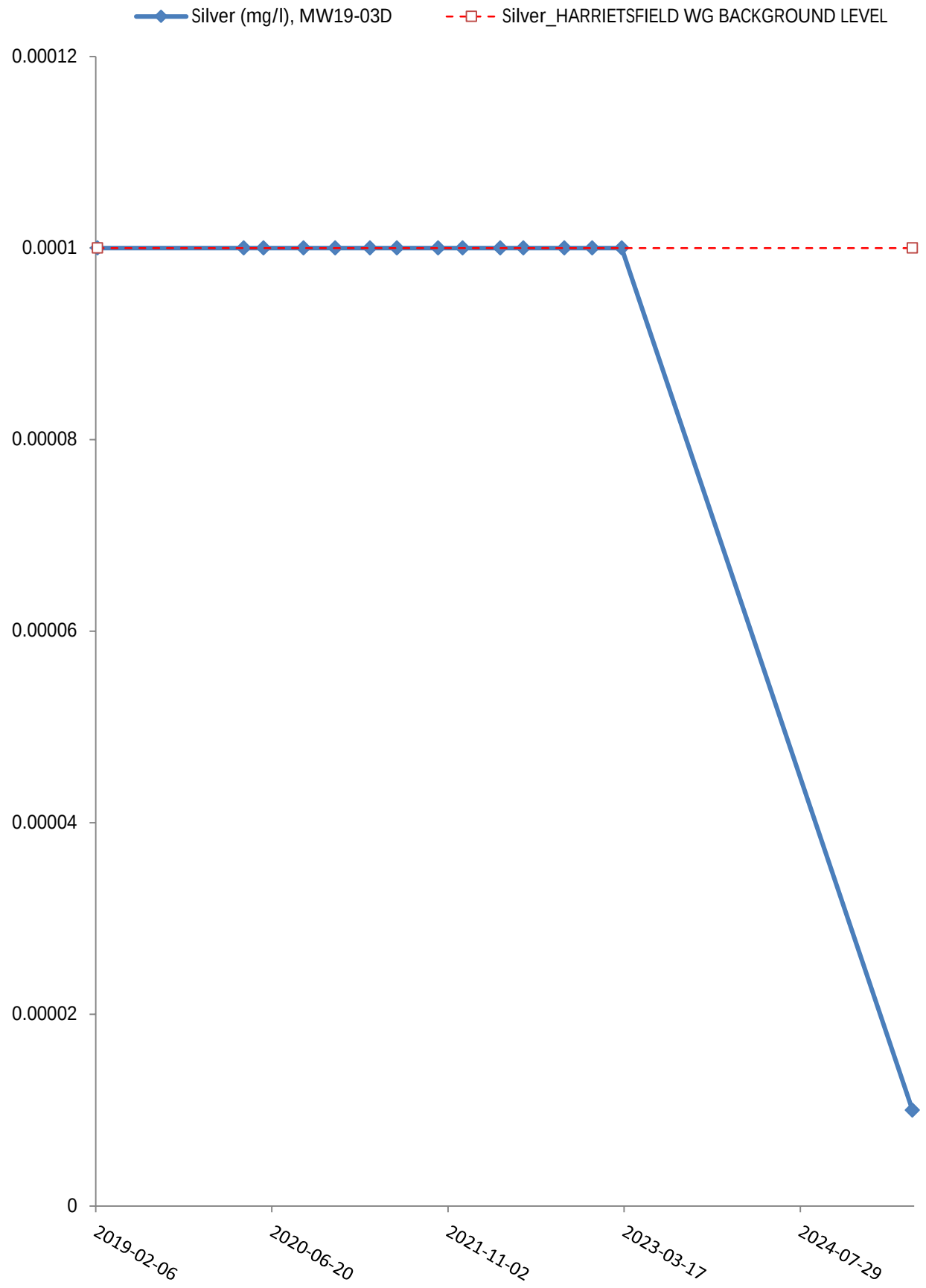

Copper (mg/l), MW19-03D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Fluoride

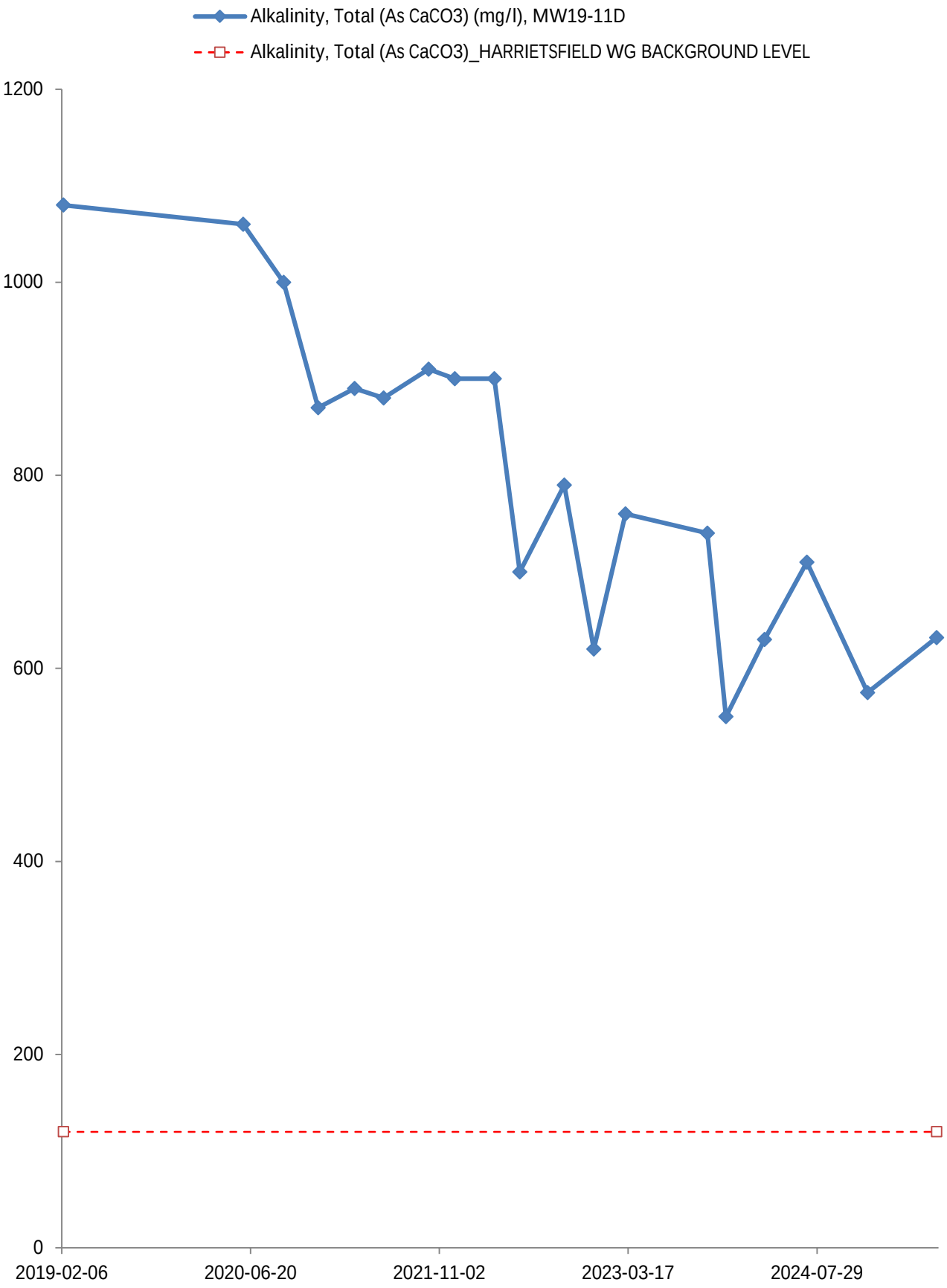


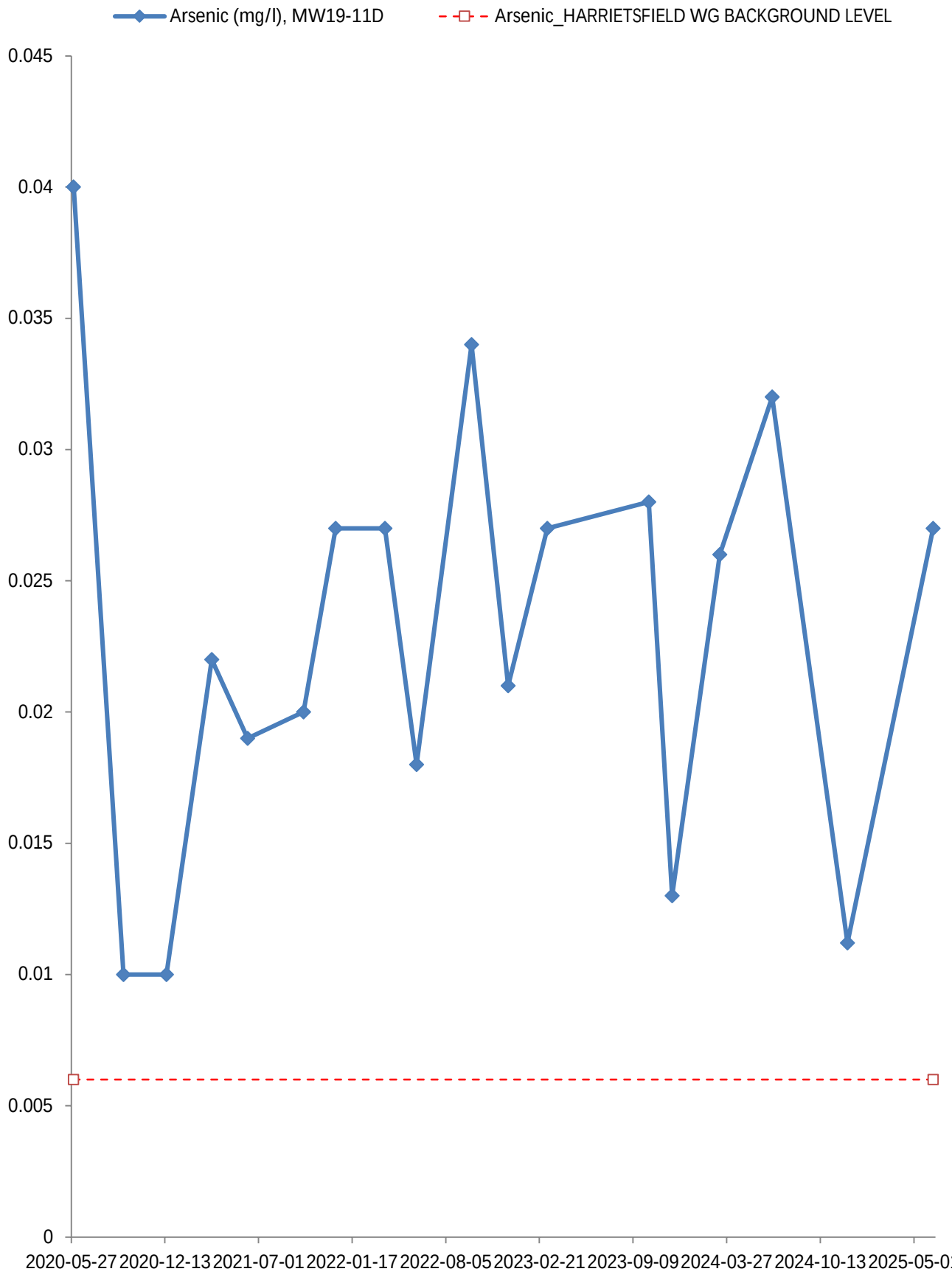

Fluoride (mg/l), MW19-03D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Silver

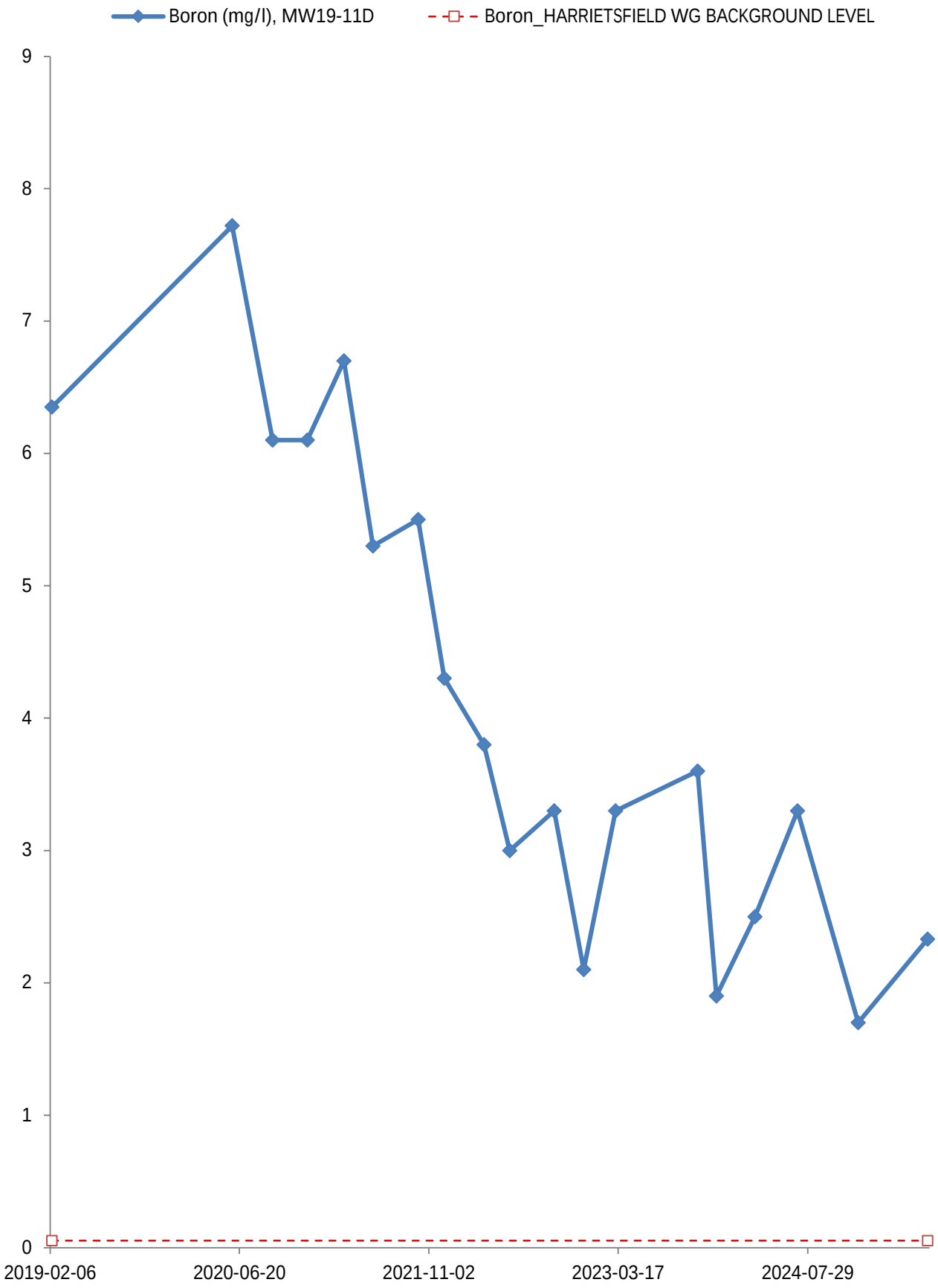

Silver (mg/l), MW19-03D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Alkalinity, Total

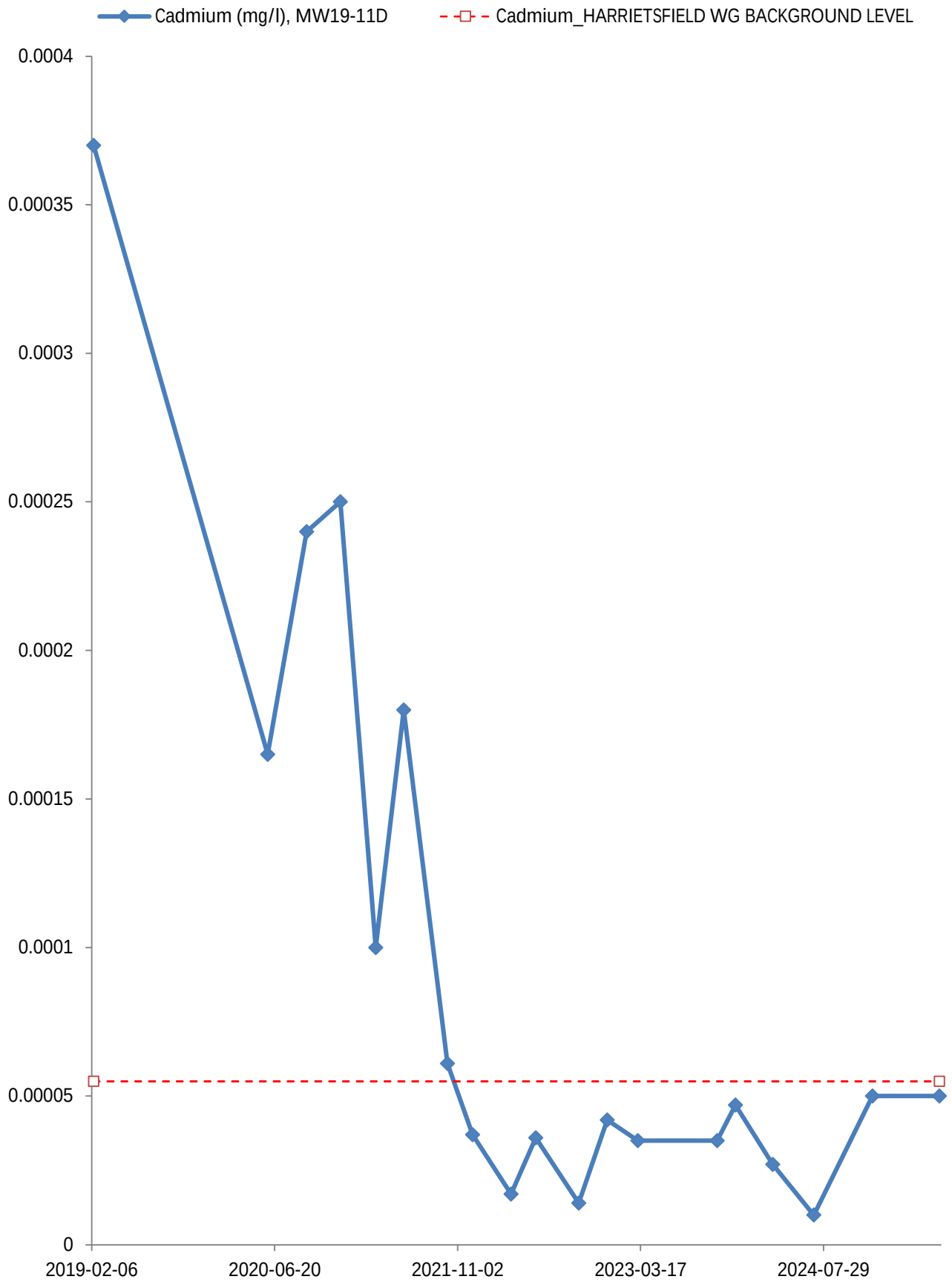



Arsenic (mg/l), MW19-11D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2020-05-27
2020-12-13
2021-07-01
2022-01-17
2022-08-05
2023-02-21
2023-09-09
2024-03-27
2024-10-13
2025-05-01

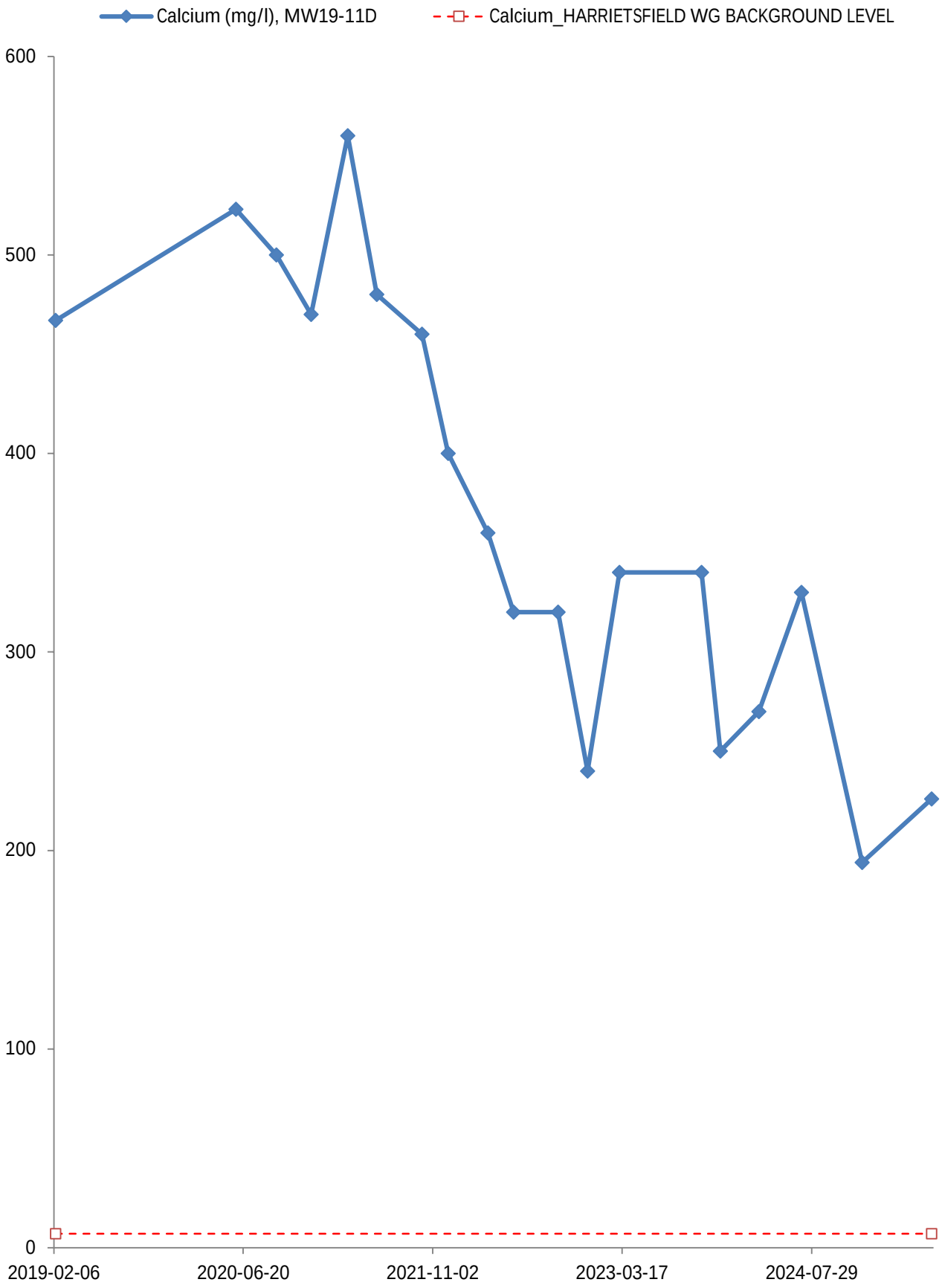
# Boron


Boron (mg/l), MW19-11D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Cadmium


Cadmium (mg/l), MW19-11D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

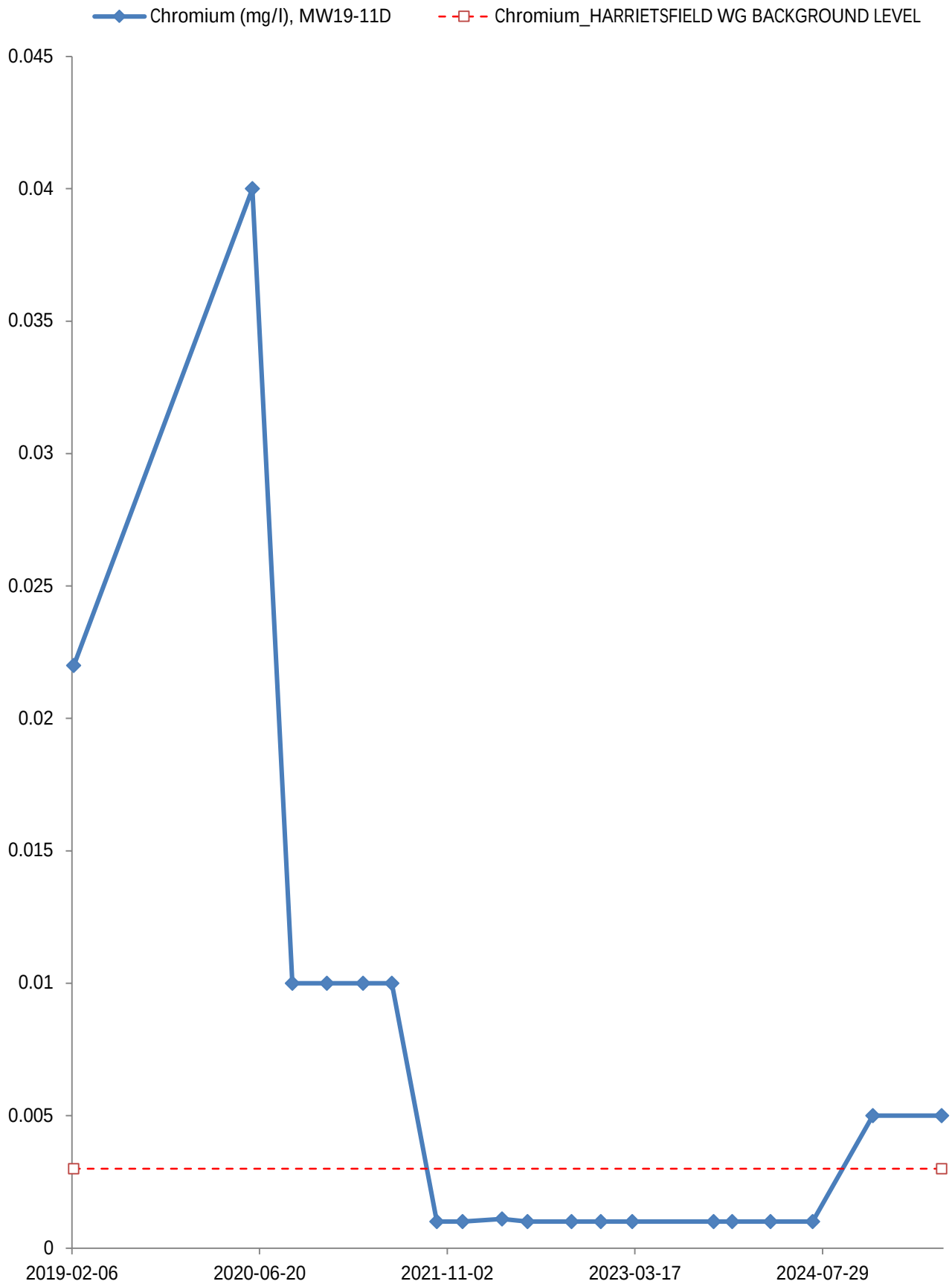
# Calcium


Calcium (mg/l), MW19-11D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Chloride ion

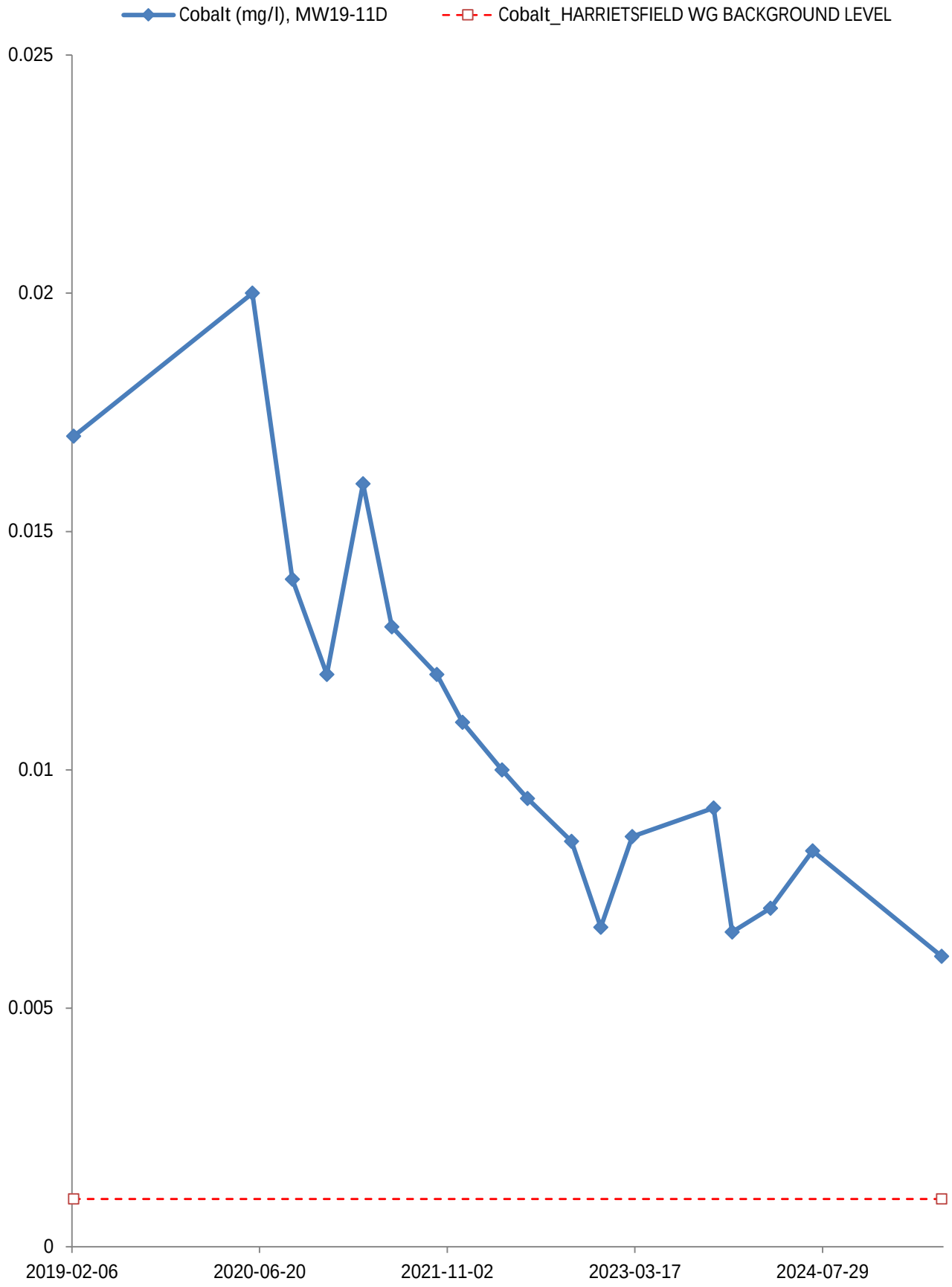


# Chromium


Chromium (mg/l), MW19-11D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

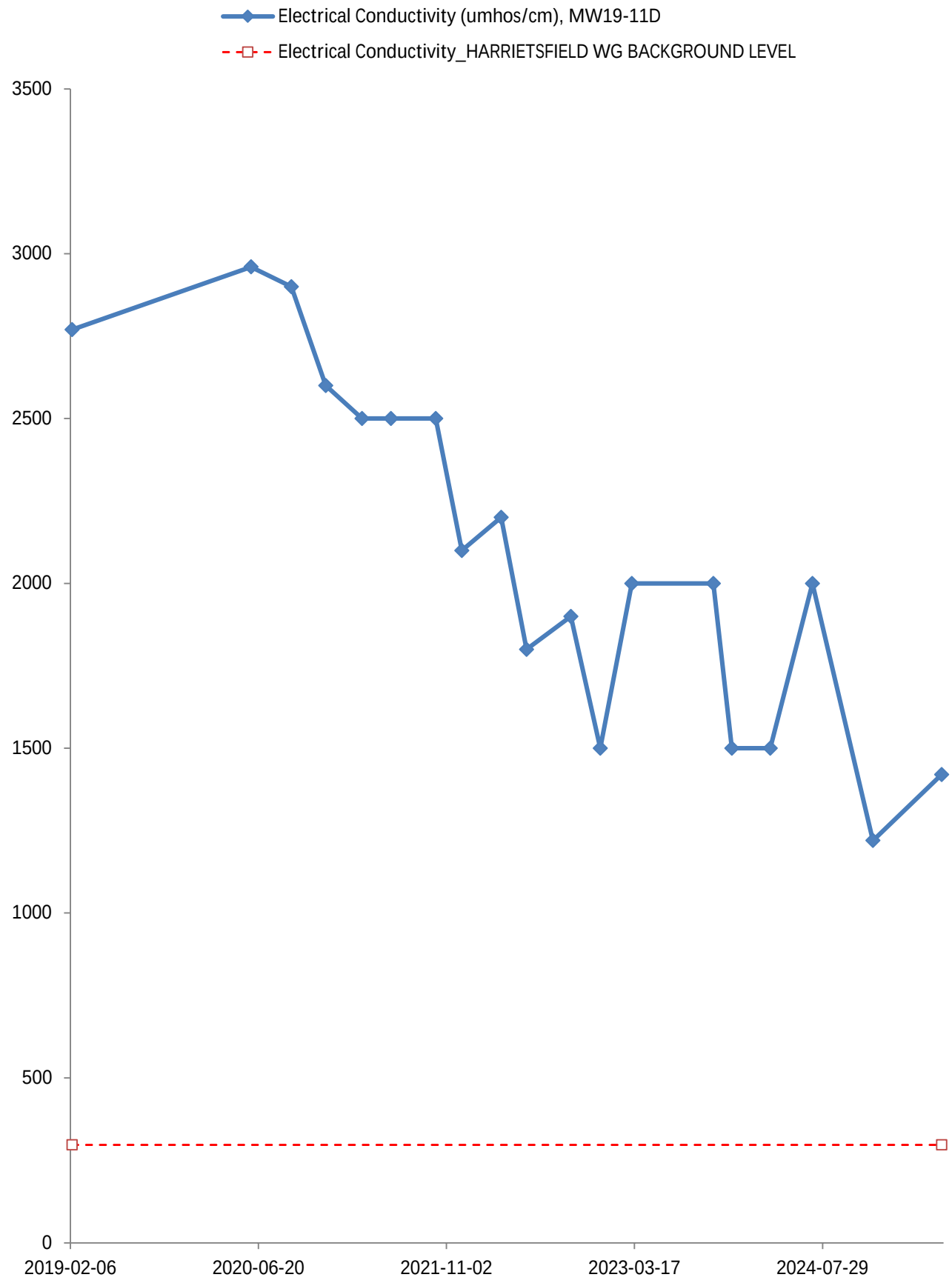
# Cobalt



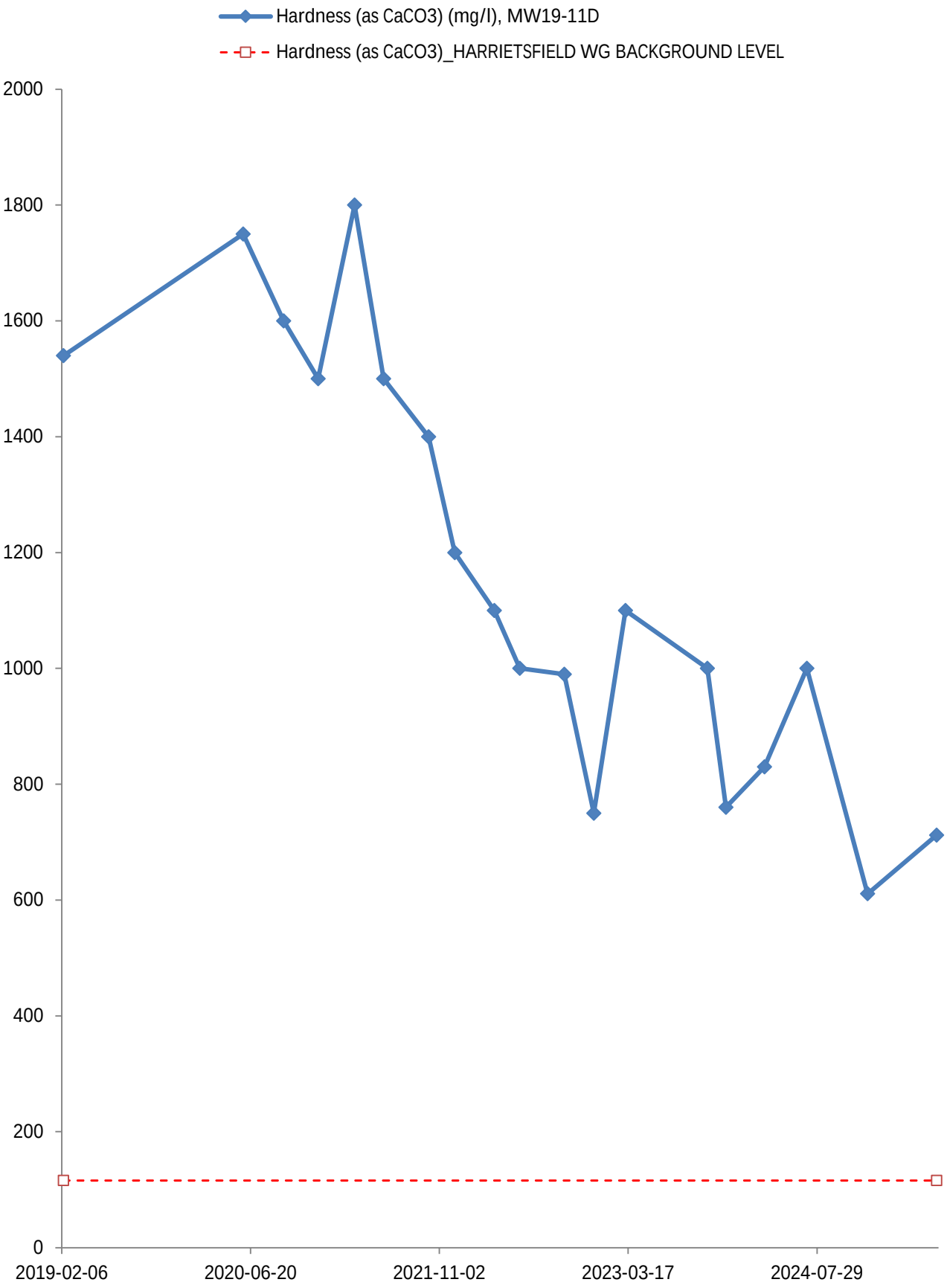

Cobalt (mg/l), MW19-11D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Electrical Conductivity

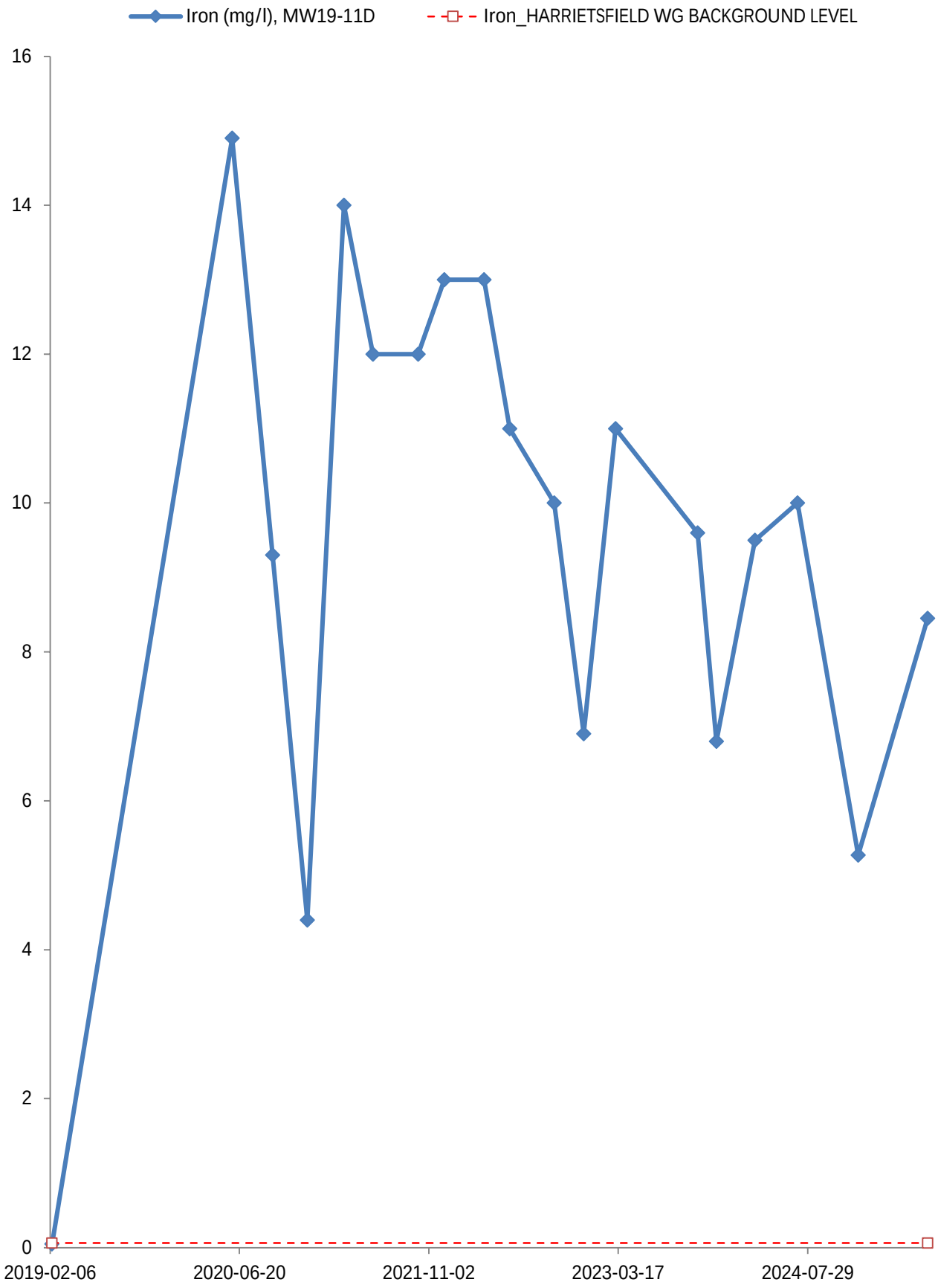




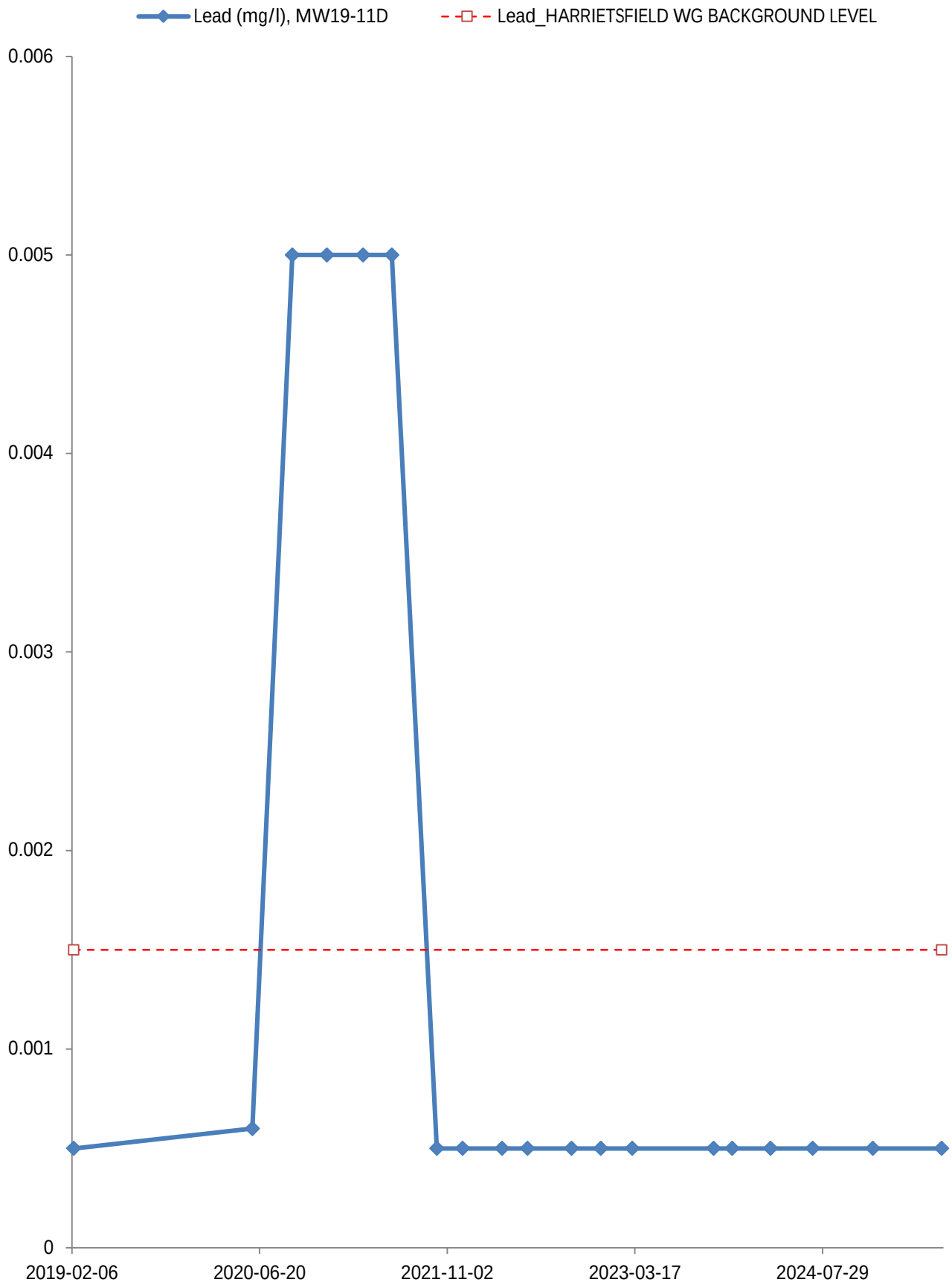
# Hardness (as CaCO3)



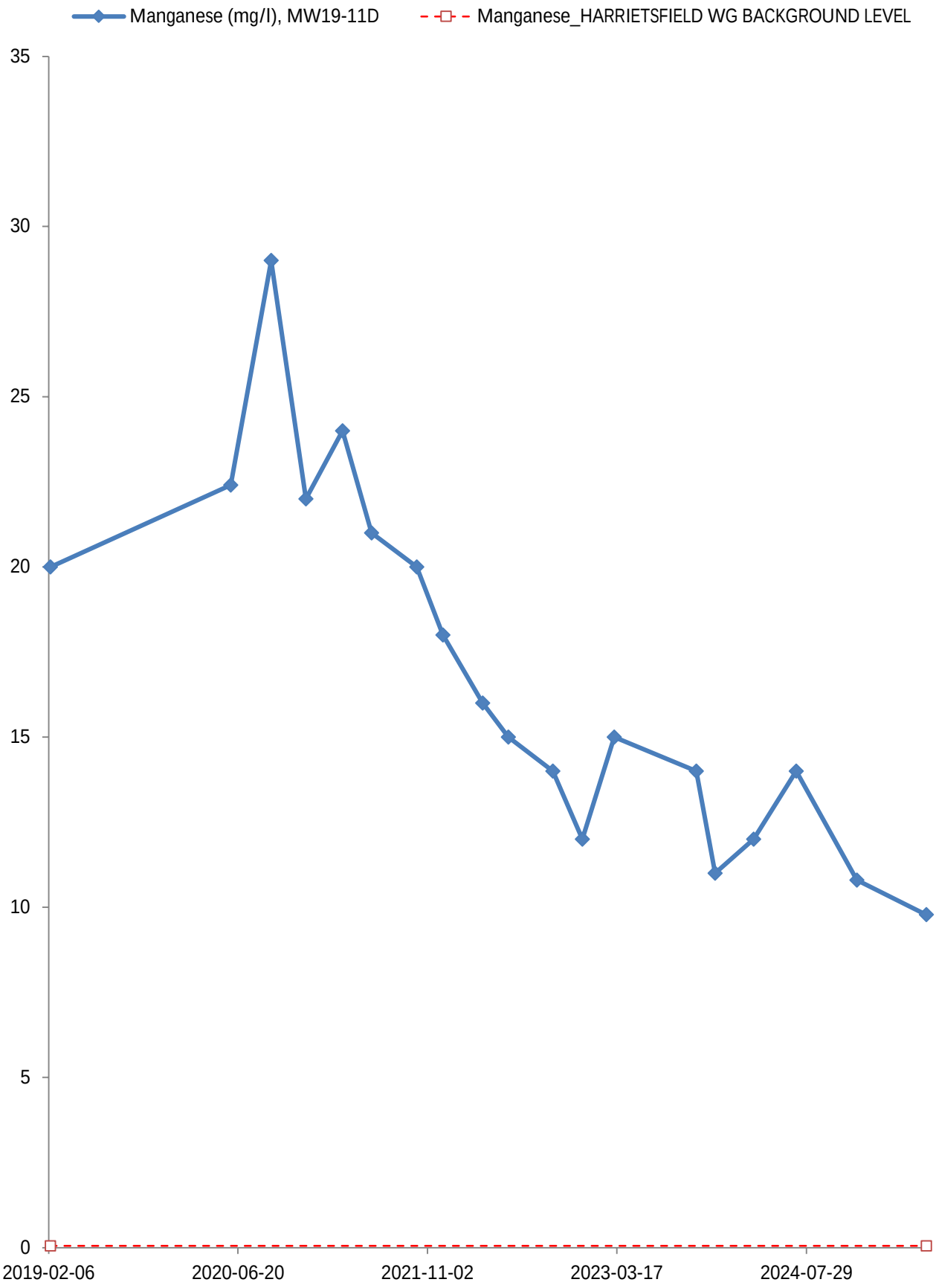
# Iron


Iron (mg/l), MW19-11D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
16
14
12
10
8
6
4
2
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

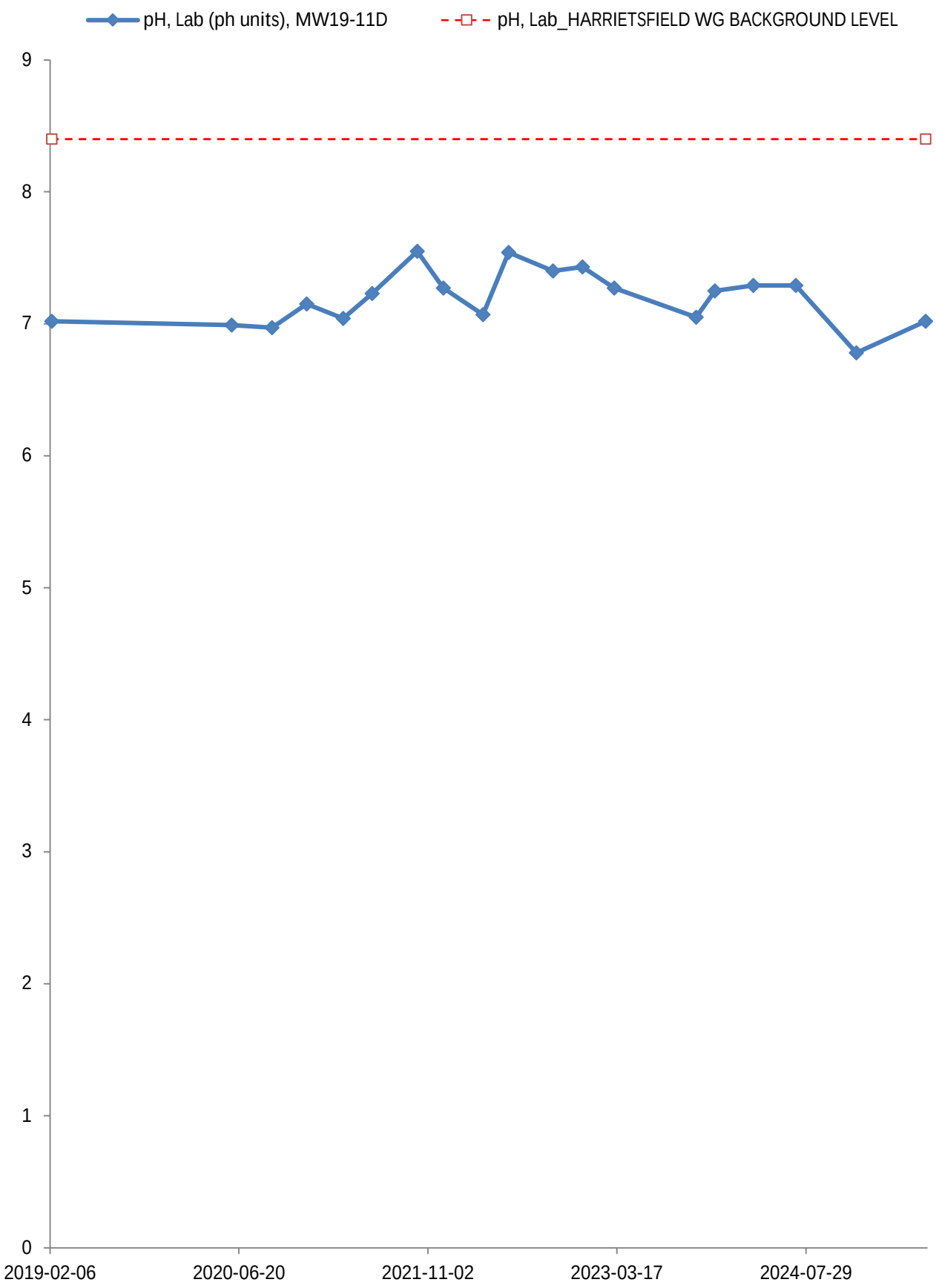
# Lead


Lead (mg/l), MW19-11D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

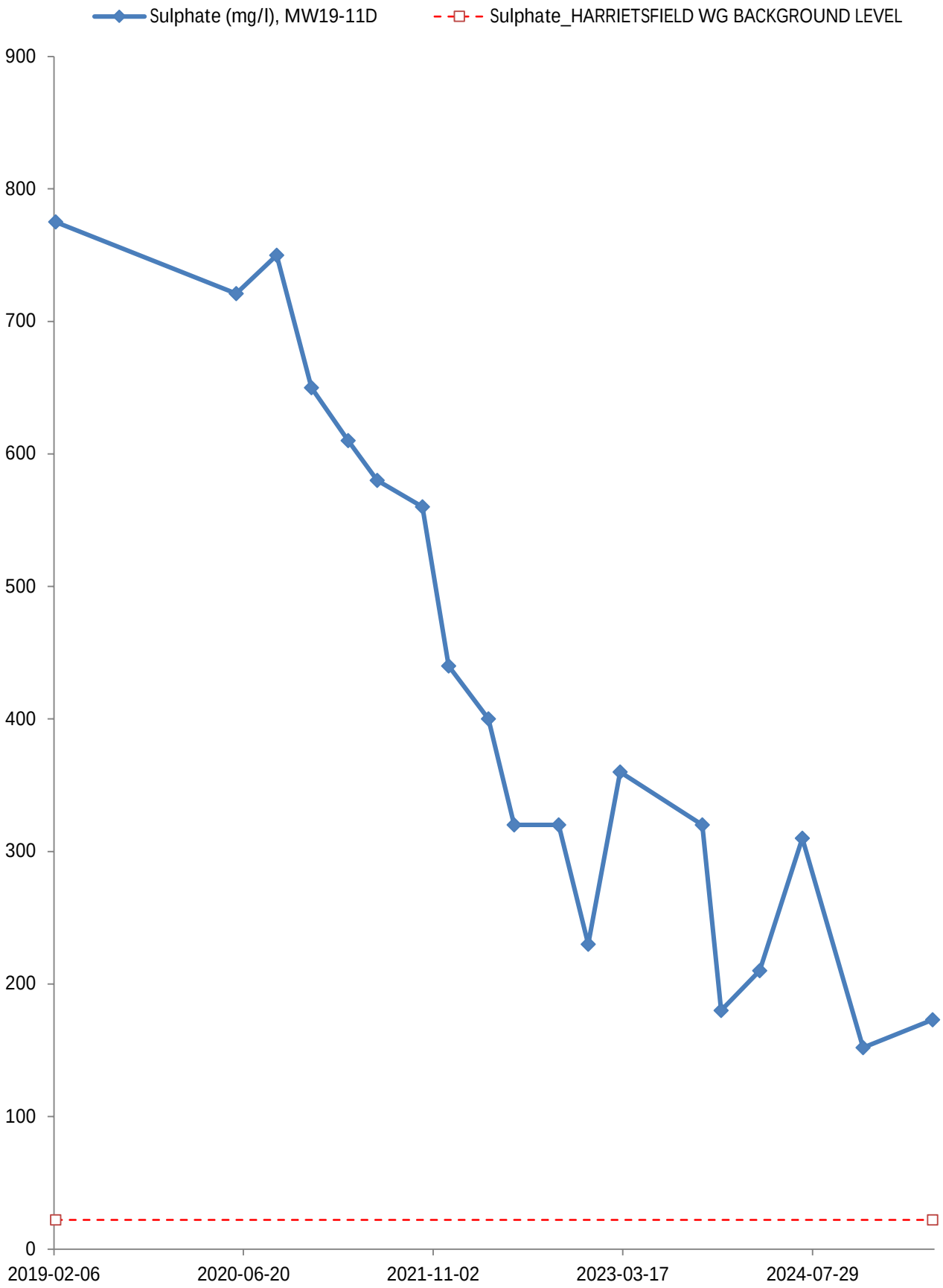
# Manganese

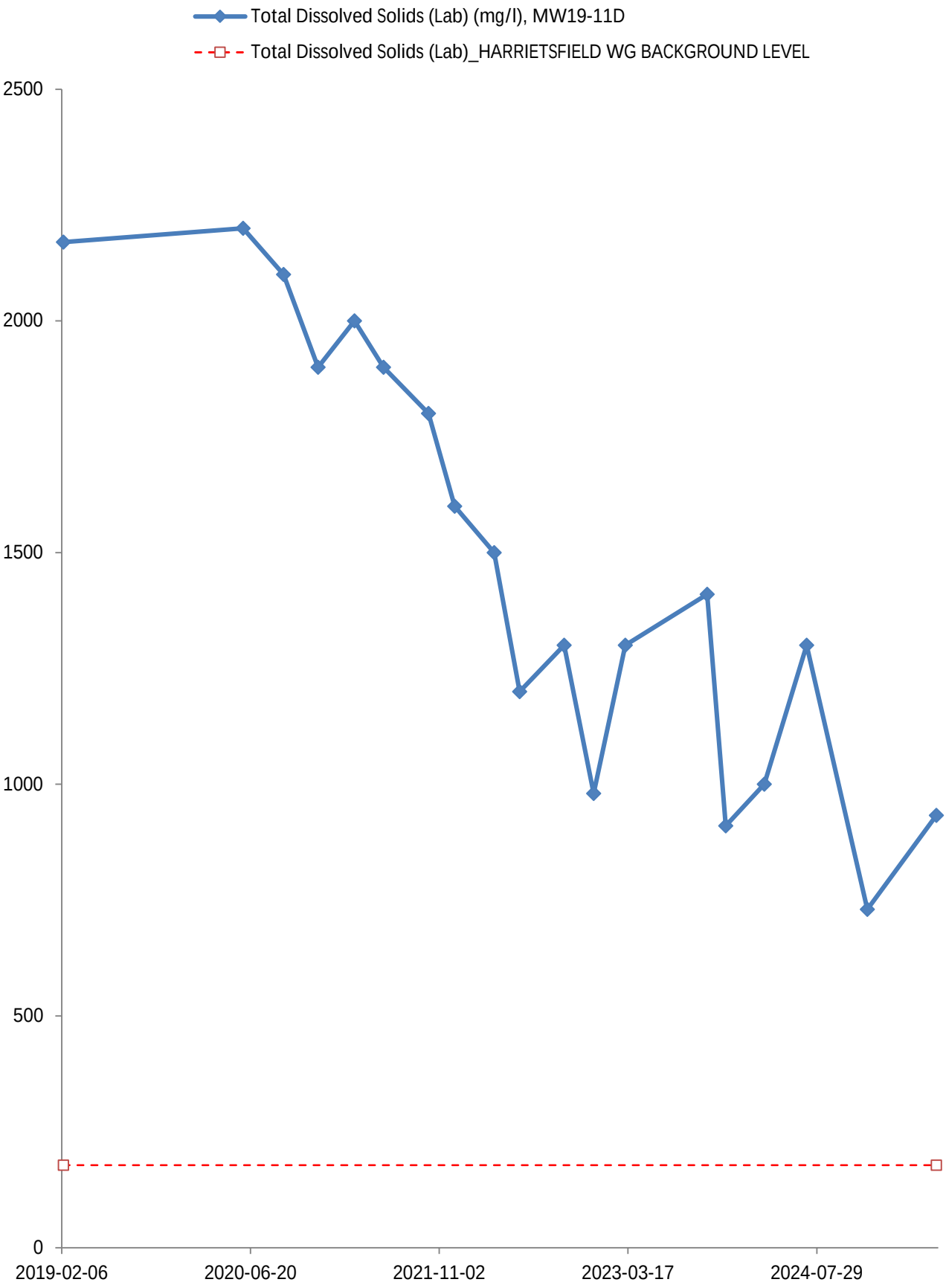

Manganese (mg/l), MW19-11D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

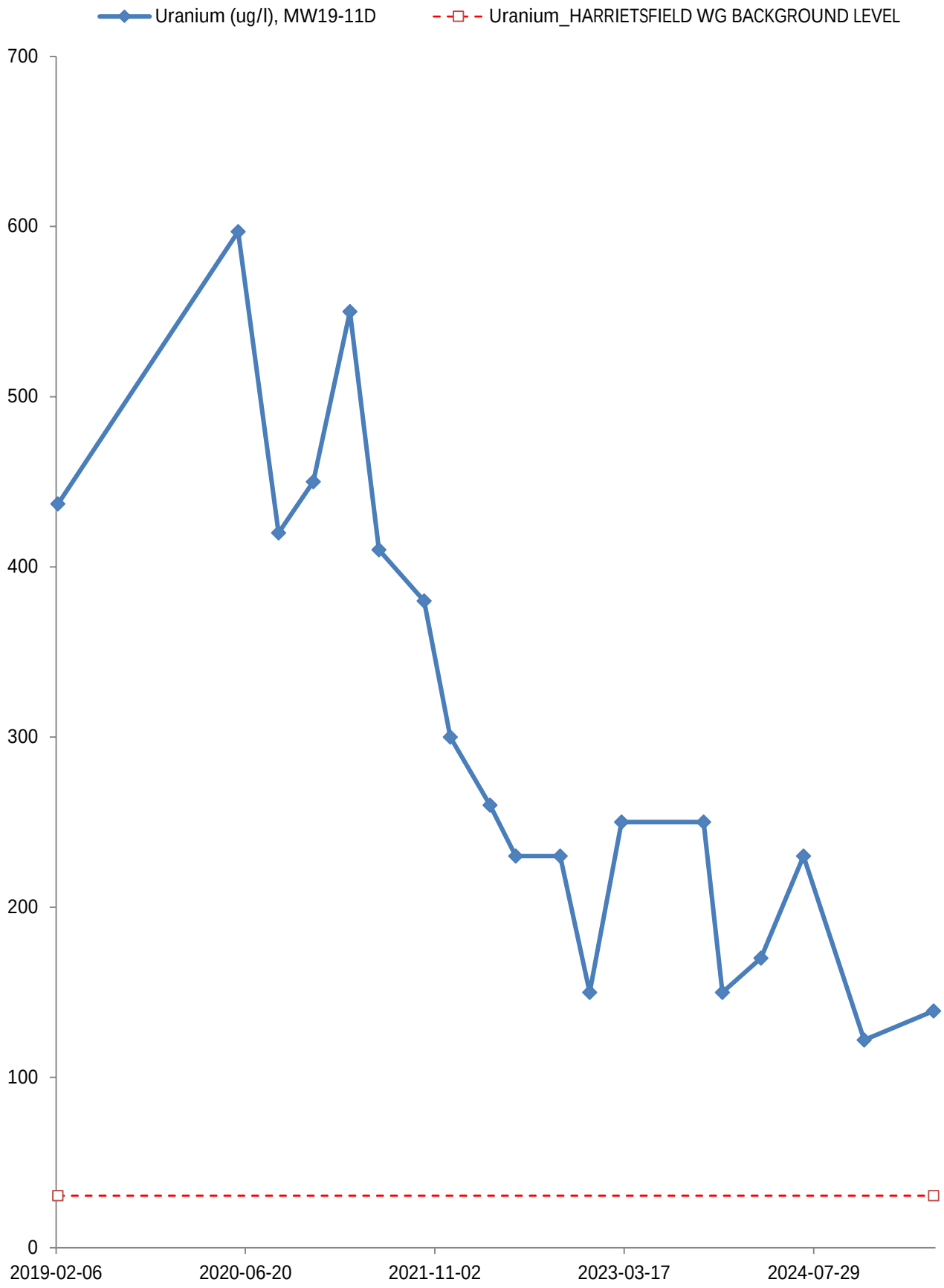
# pH, Lab


pH, Lab (ph units), MW19-11D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

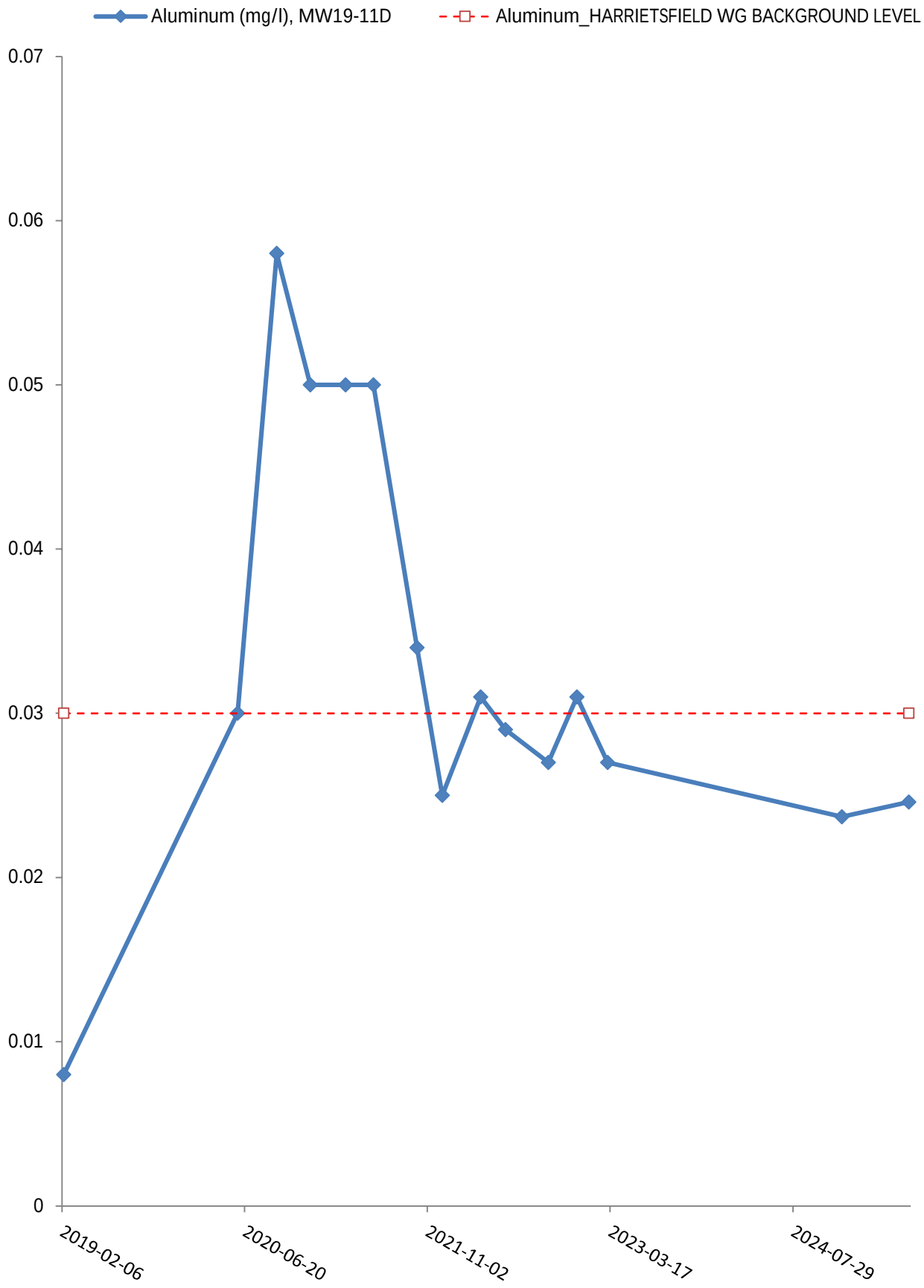
# Sulphate


Sulphate (mg/l), MW19-11D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
900
800
700
600
500
400
300
200
100
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29


Total Dissolved Solids (Lab) (mg/l), MW19-11D
Total Dissolved Solids (Lab)_HARRIETSFIELD WG BACKGROUND LEVEL
2500
2000
1500
1000
500
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

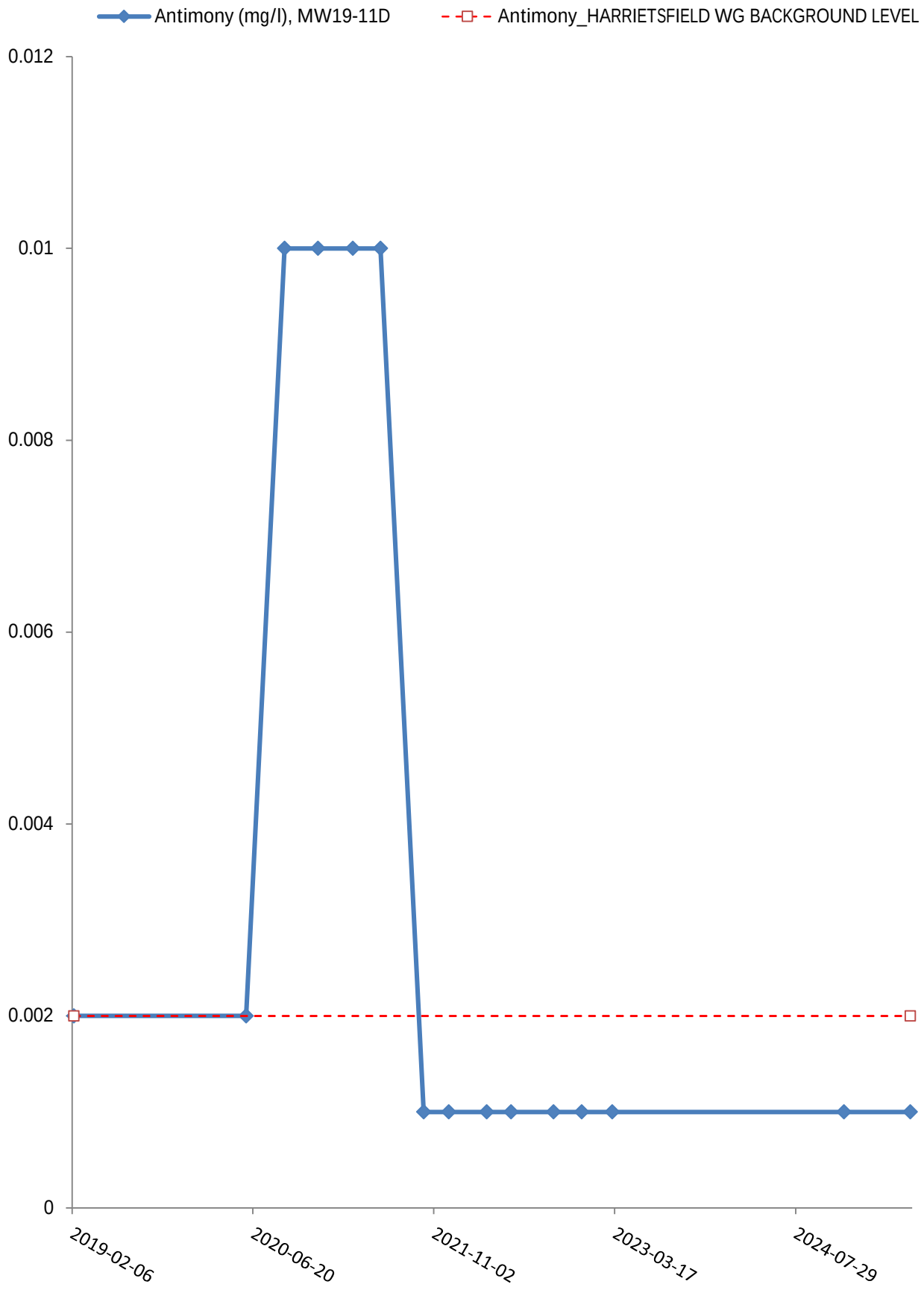

Uranium (ug/l), MW19-11D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
700
600
500
400
300
200
100
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Aluminum

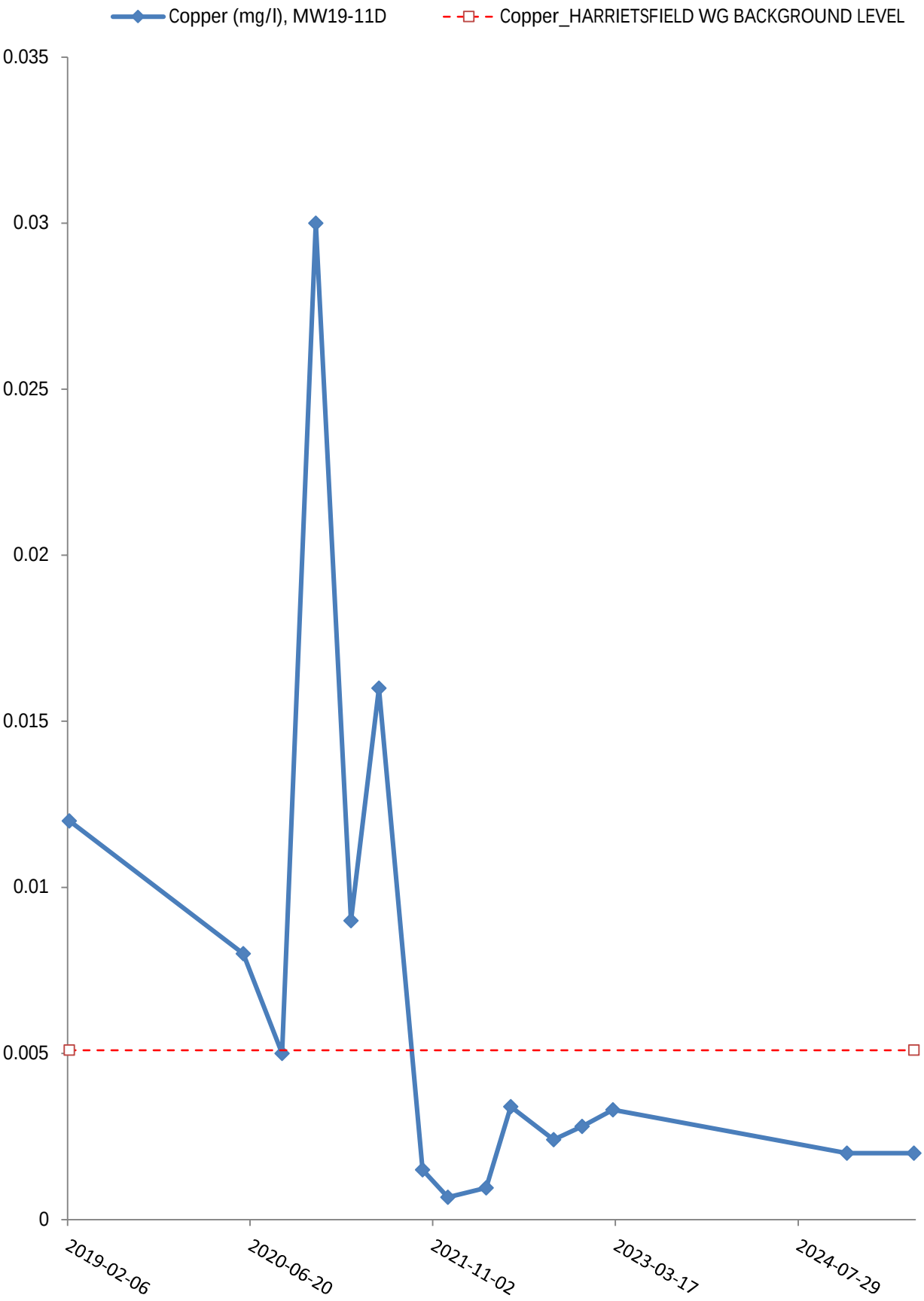

Aluminum (mg/l), MW19-11D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Antimony

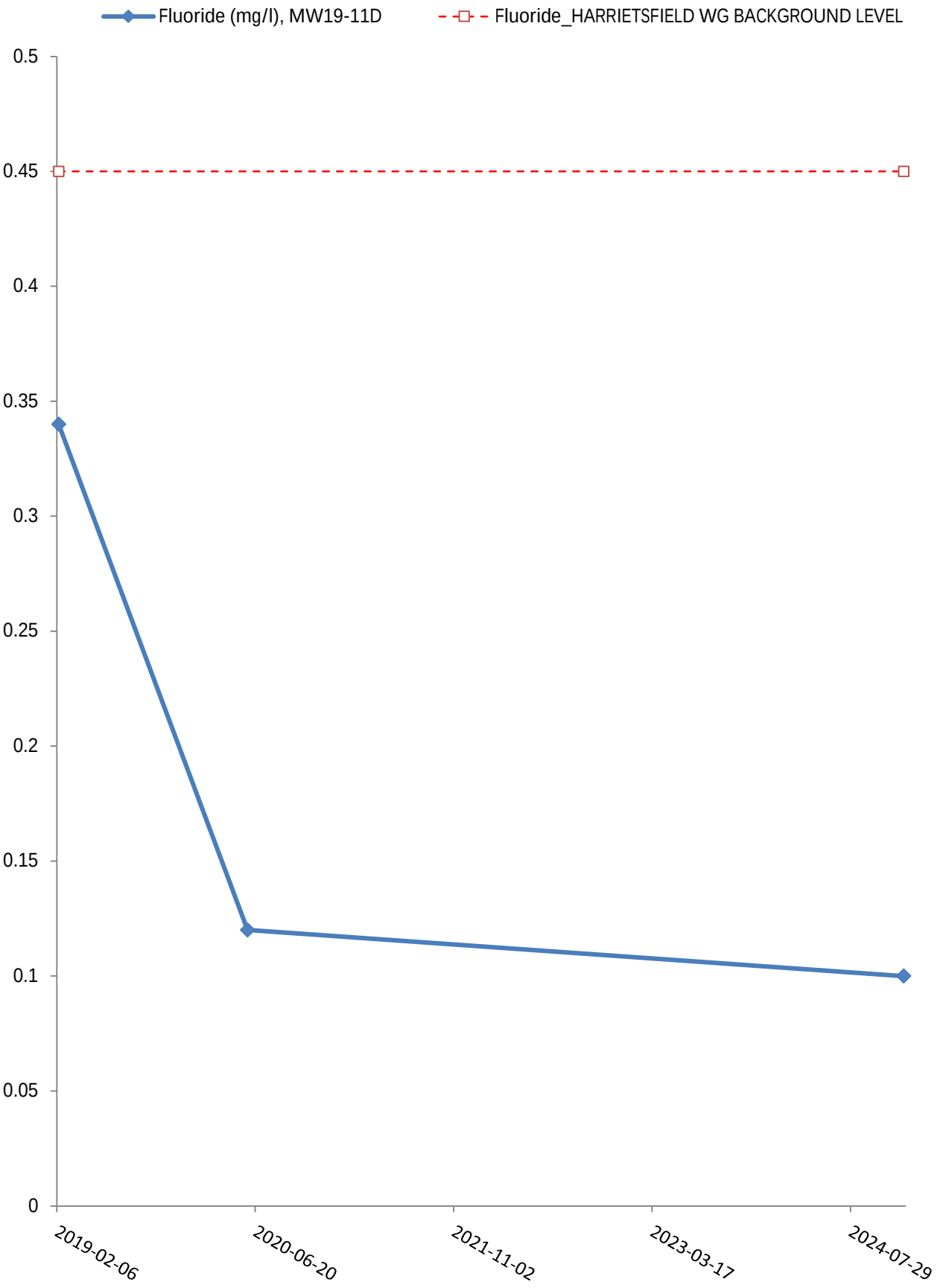



Antimony (mg/l), MW19-11D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

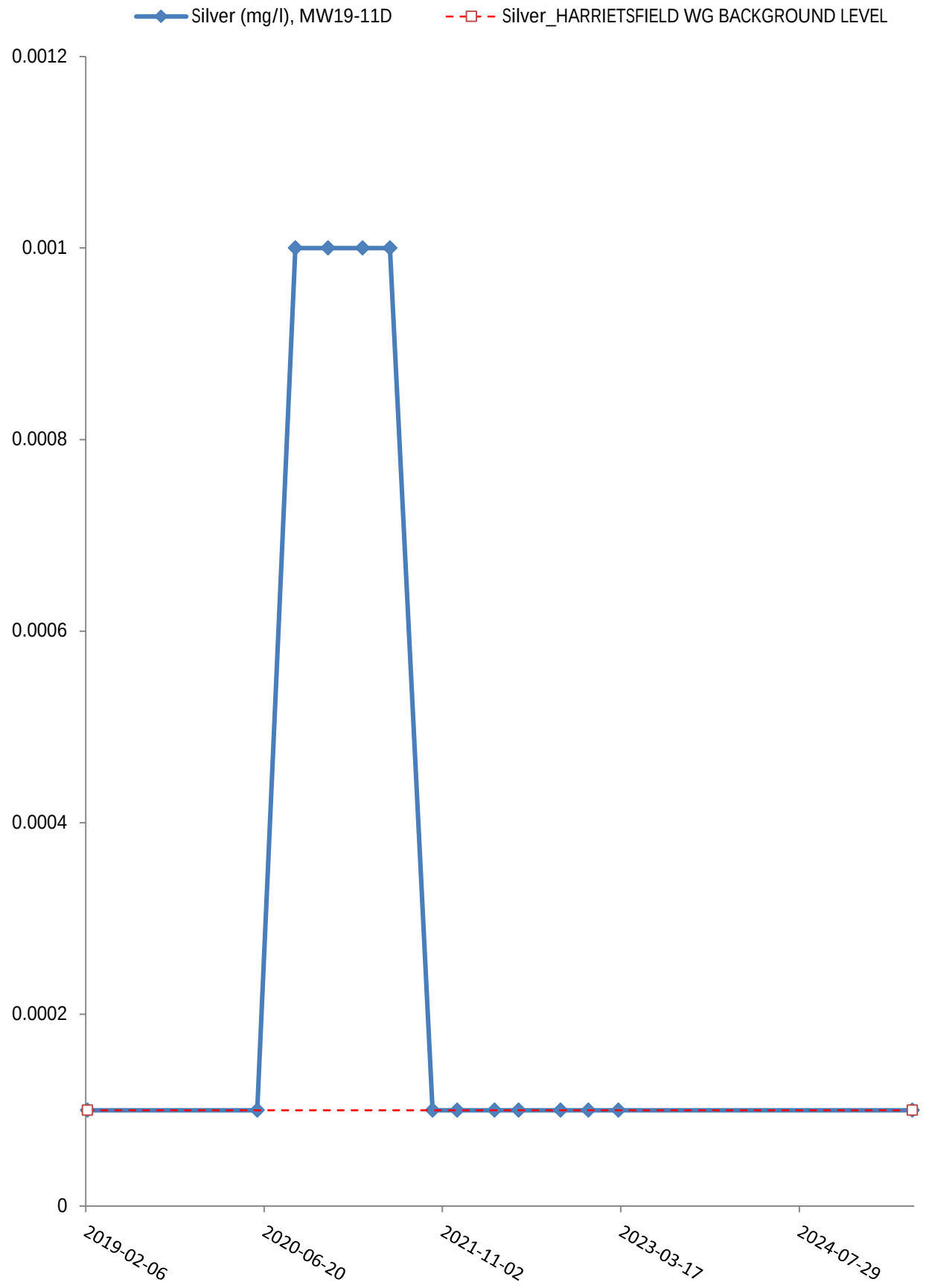
# Copper


Copper (mg/l), MW19-11D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Fluoride

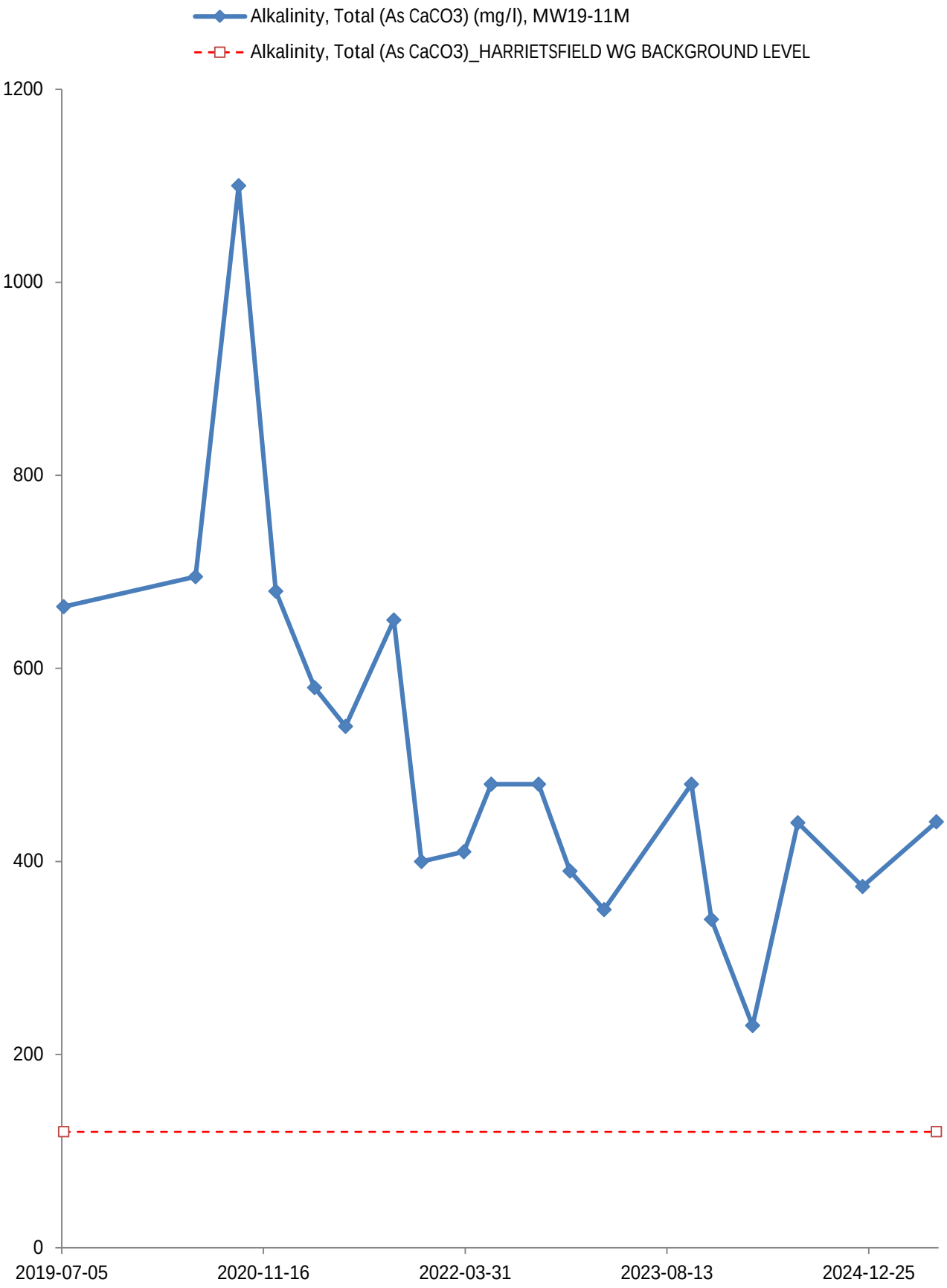

Fluoride (mg/l), MW19-11D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Silver

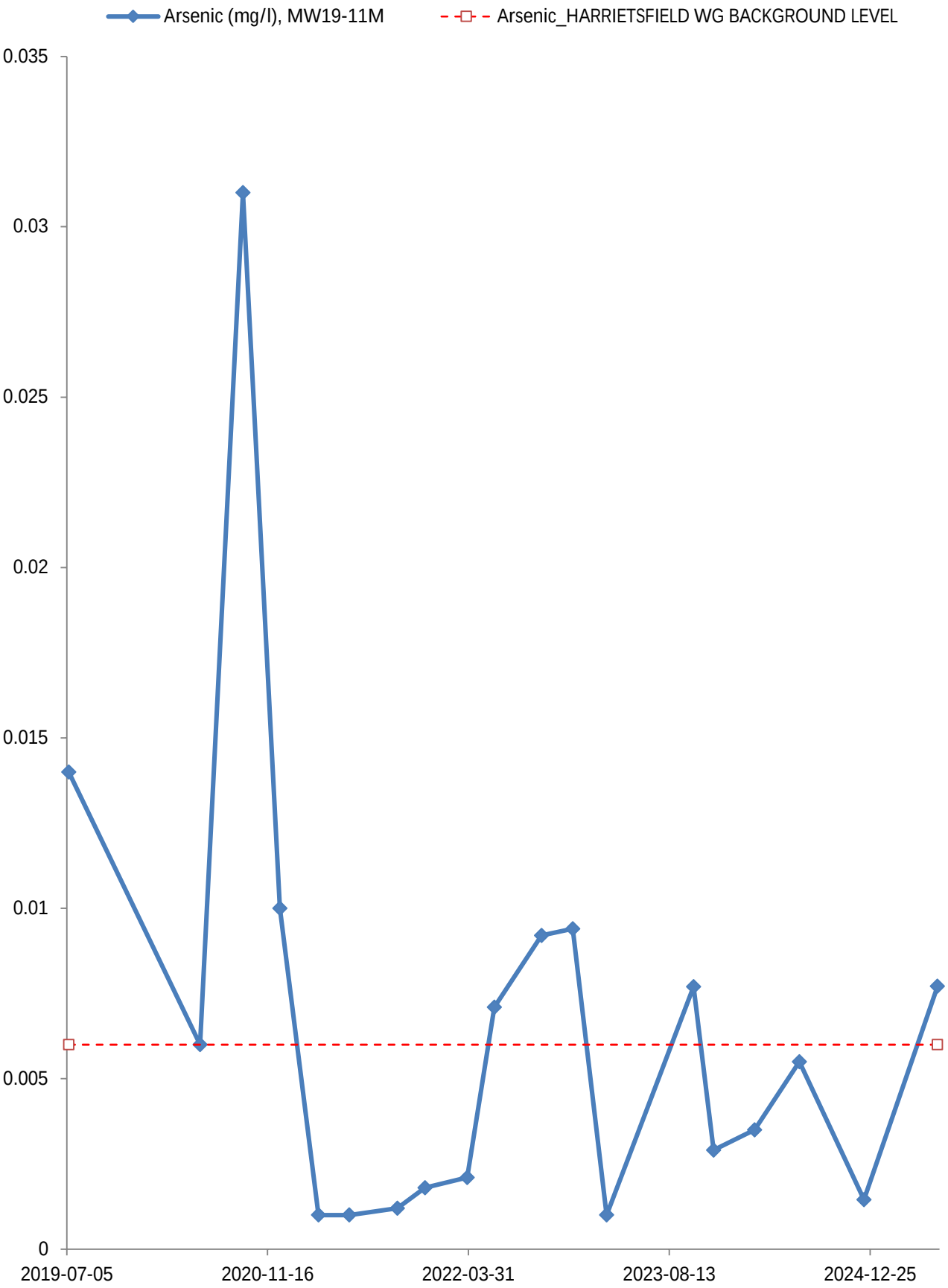

Silver (mg/l), MW19-11D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-02-06
2020-06-20
2021-11-02
2023-03-17
2024-07-29

# Alkalinity, Total

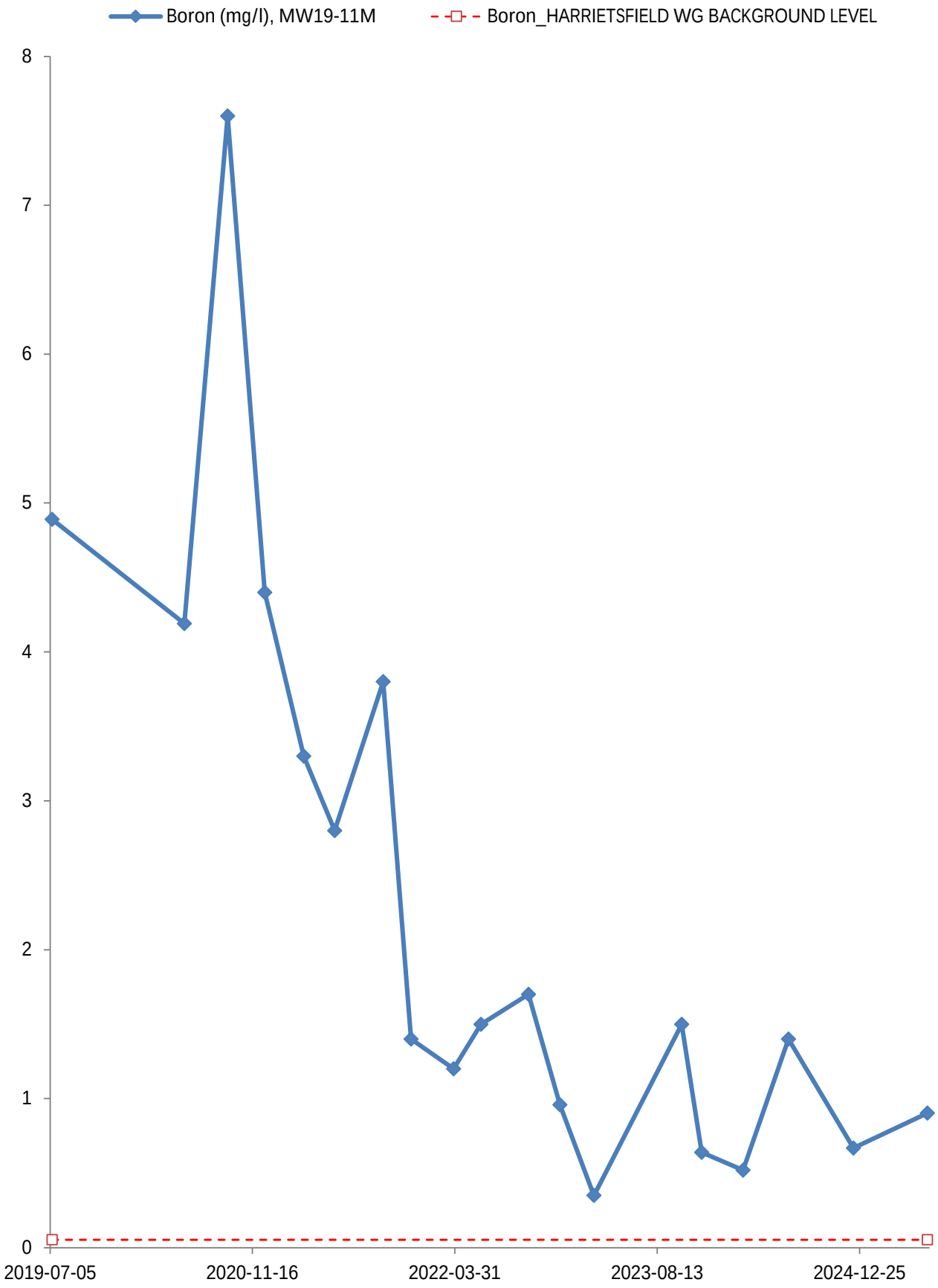




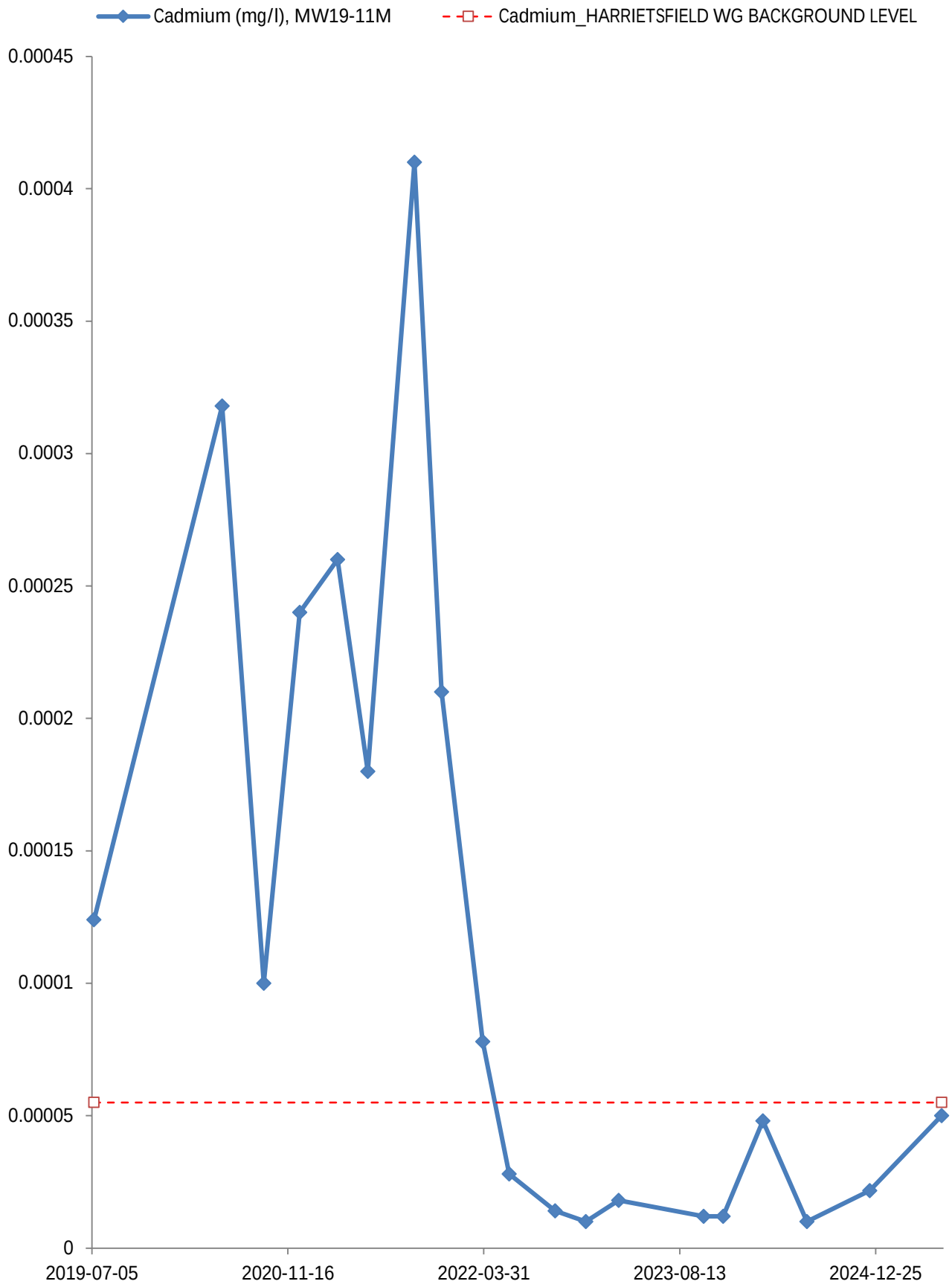
# Arsenic


Arsenic (mg/l), MW19-11M
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

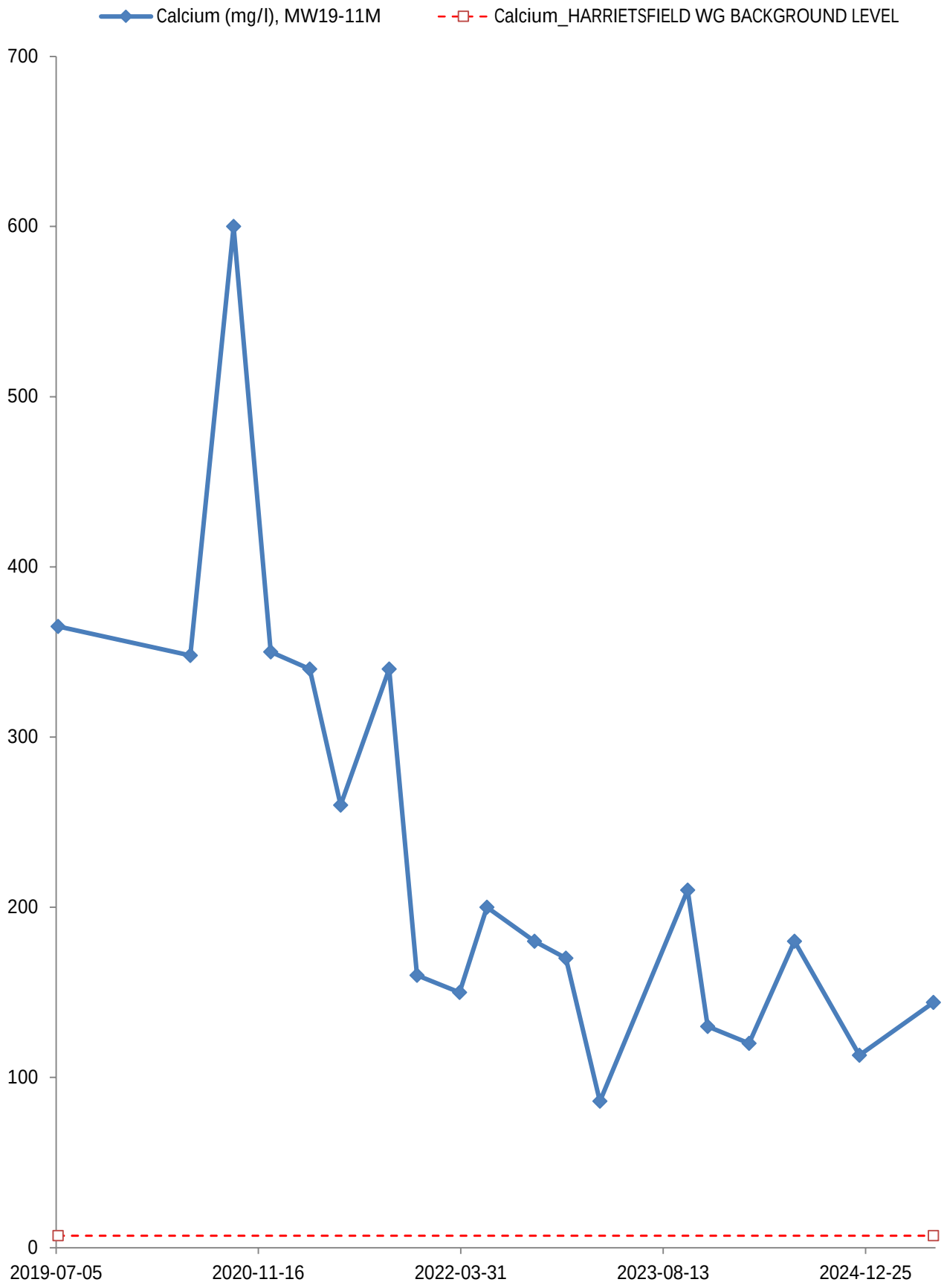
# Boron


Boron (mg/l), MW19-11M
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
8
7
6
5
4
3
2
1
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

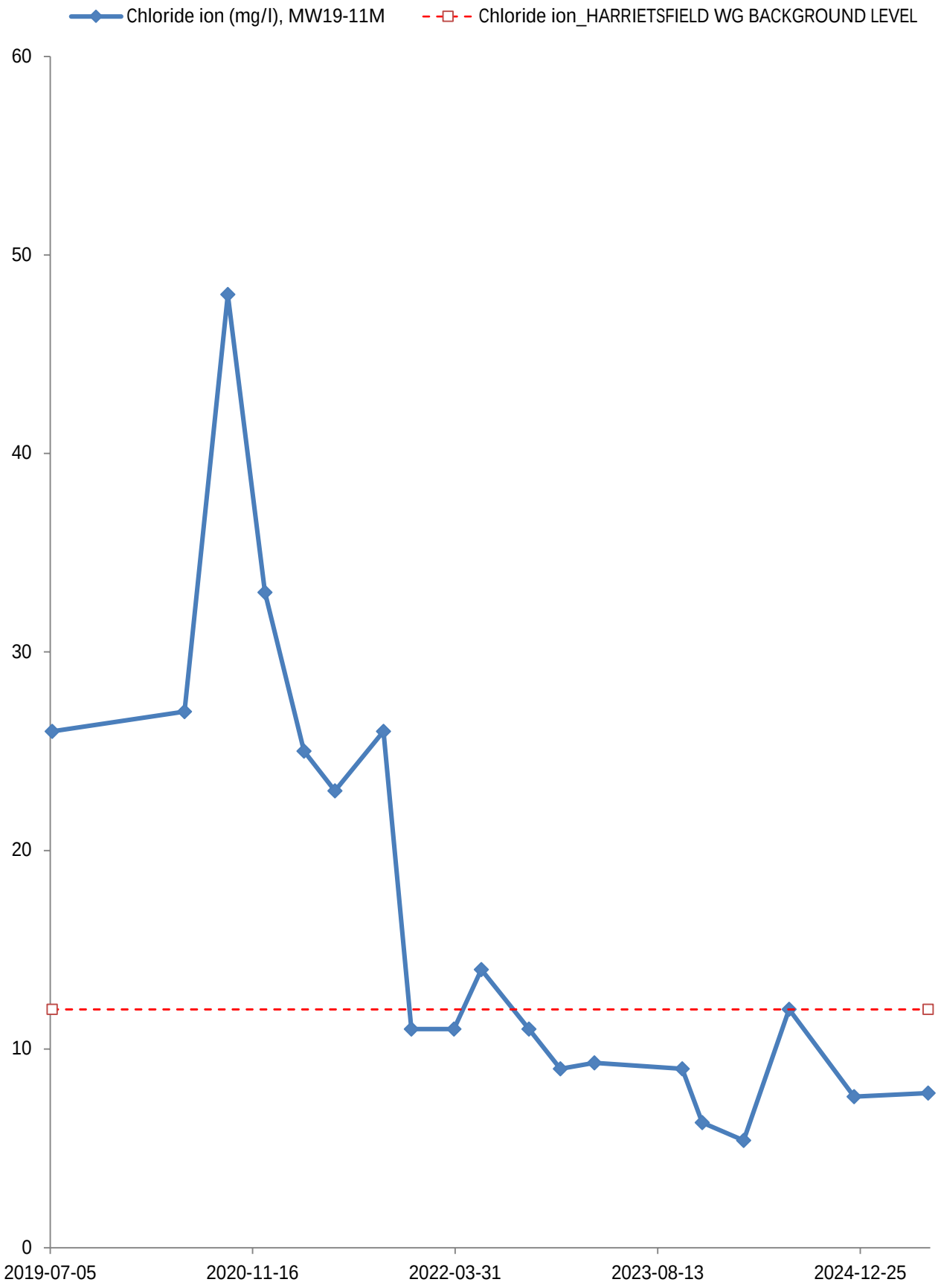
# Cadmium


Cadmium (mg/l), MW19-11M
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

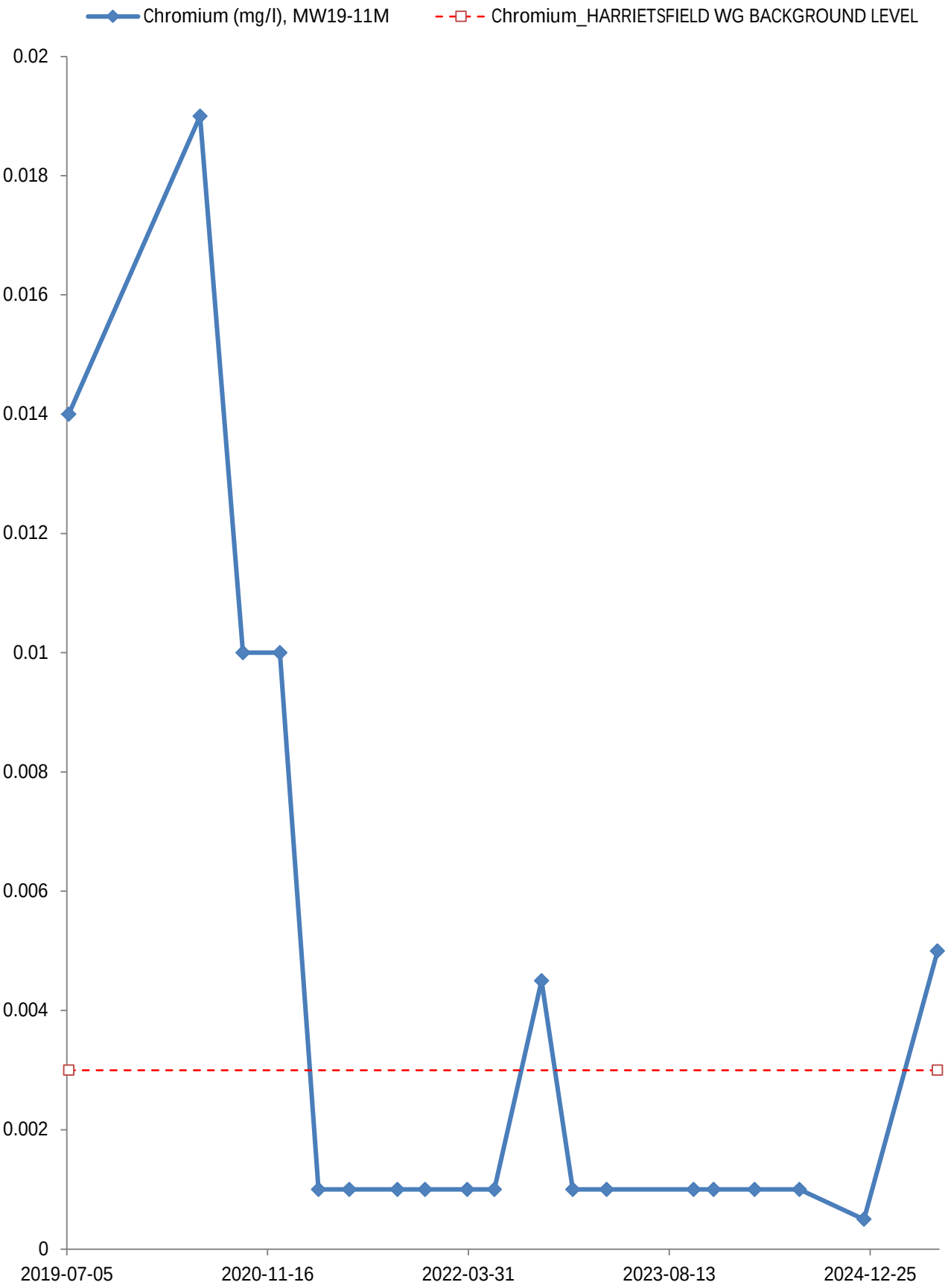
# Calcium


Calcium (mg/l), MW19-11M
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
700
600
500
400
300
200
100
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

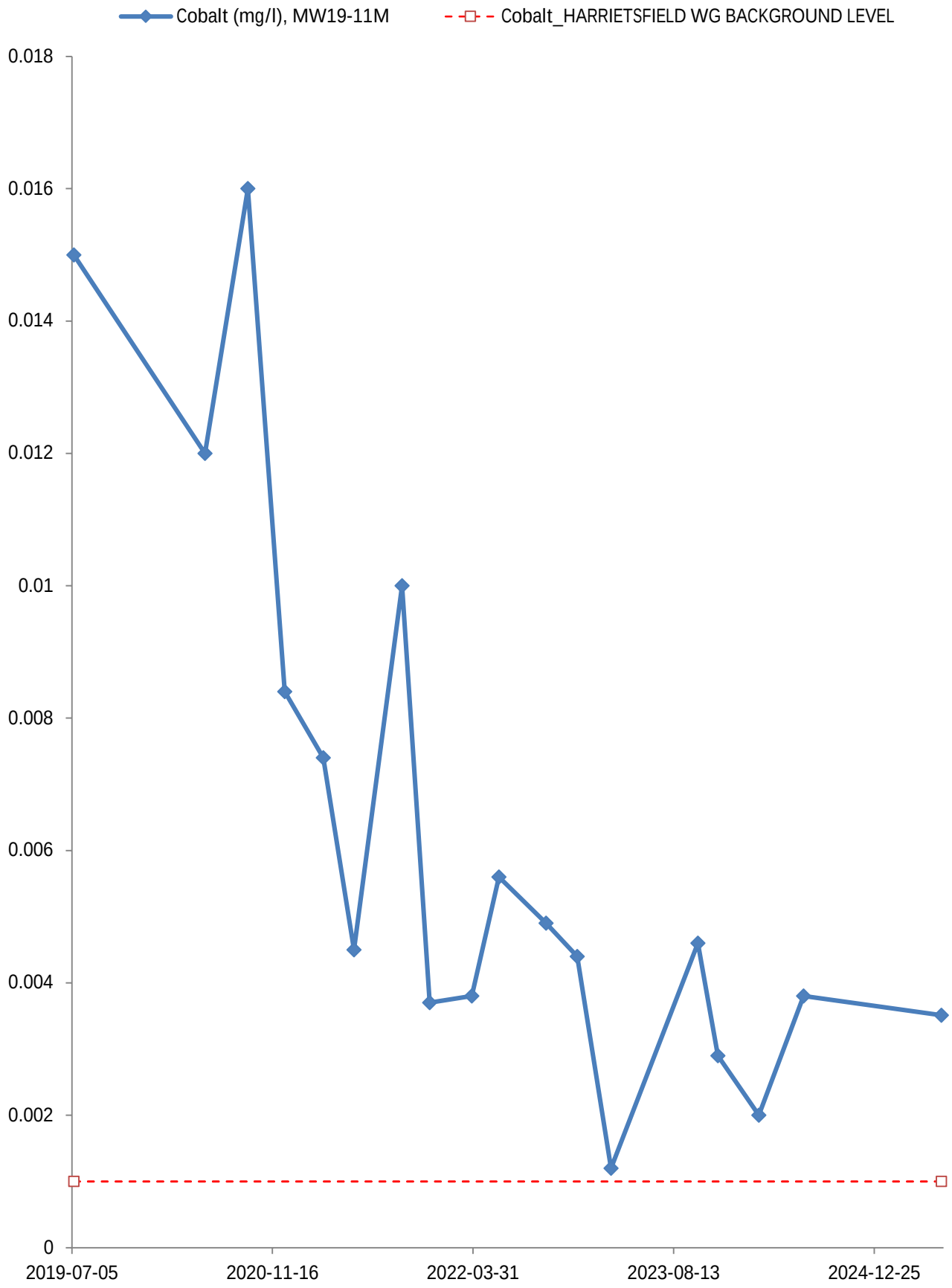
# Chloride ion



# Chromium

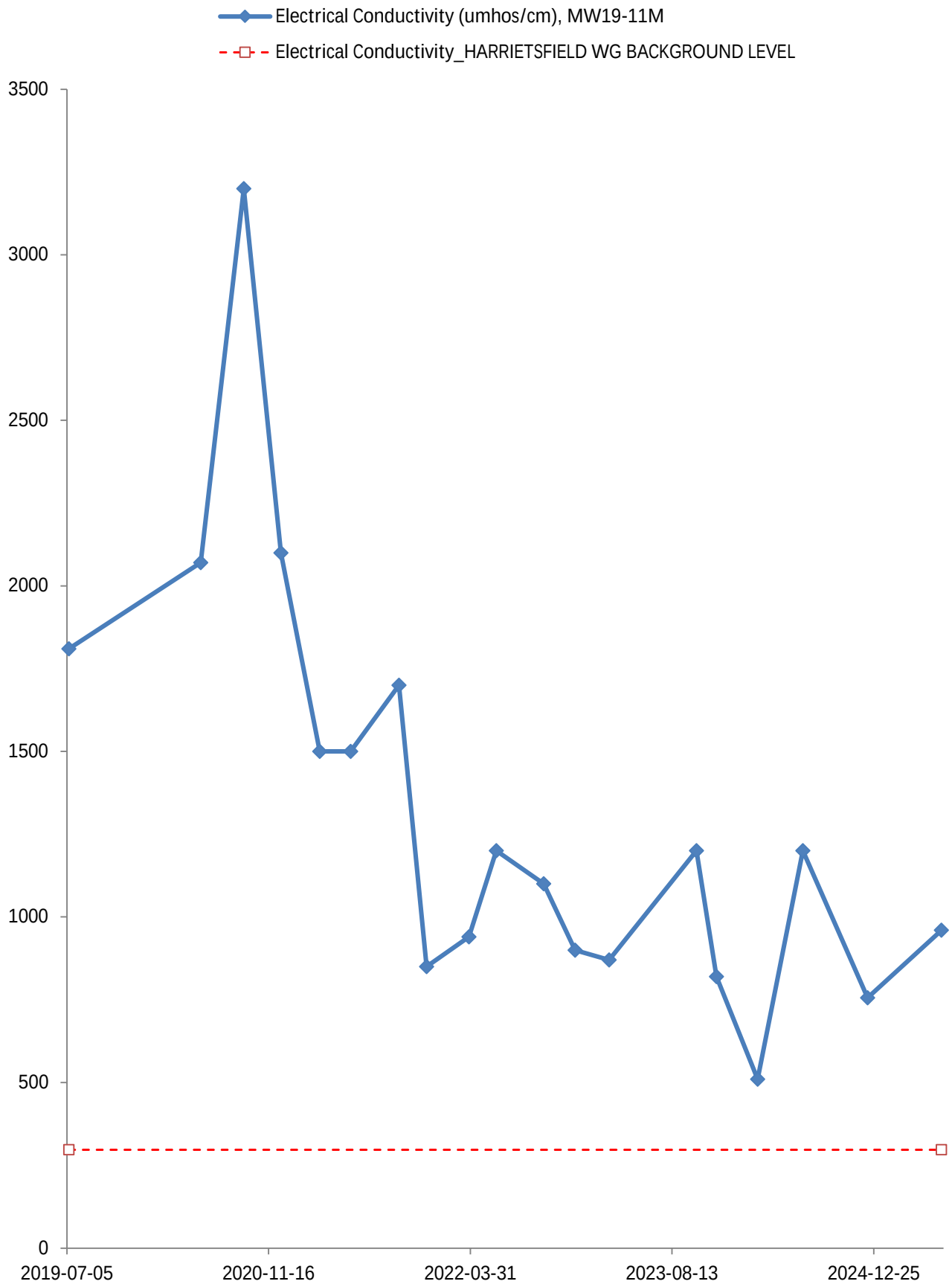

Chromium (mg/l), MW19-11M
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Cobalt

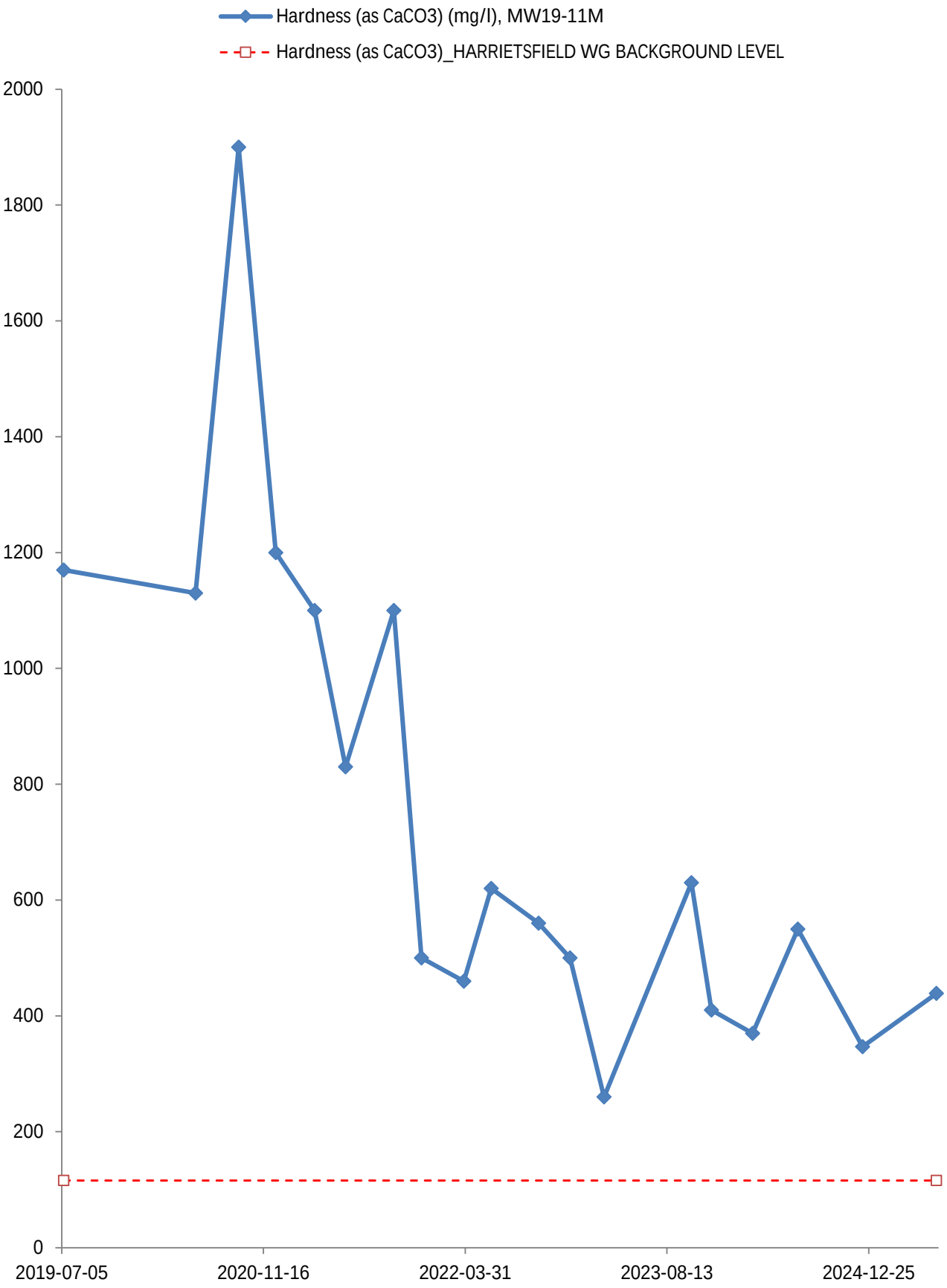

Cobalt (mg/l), MW19-11M
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Electrical Conductivity

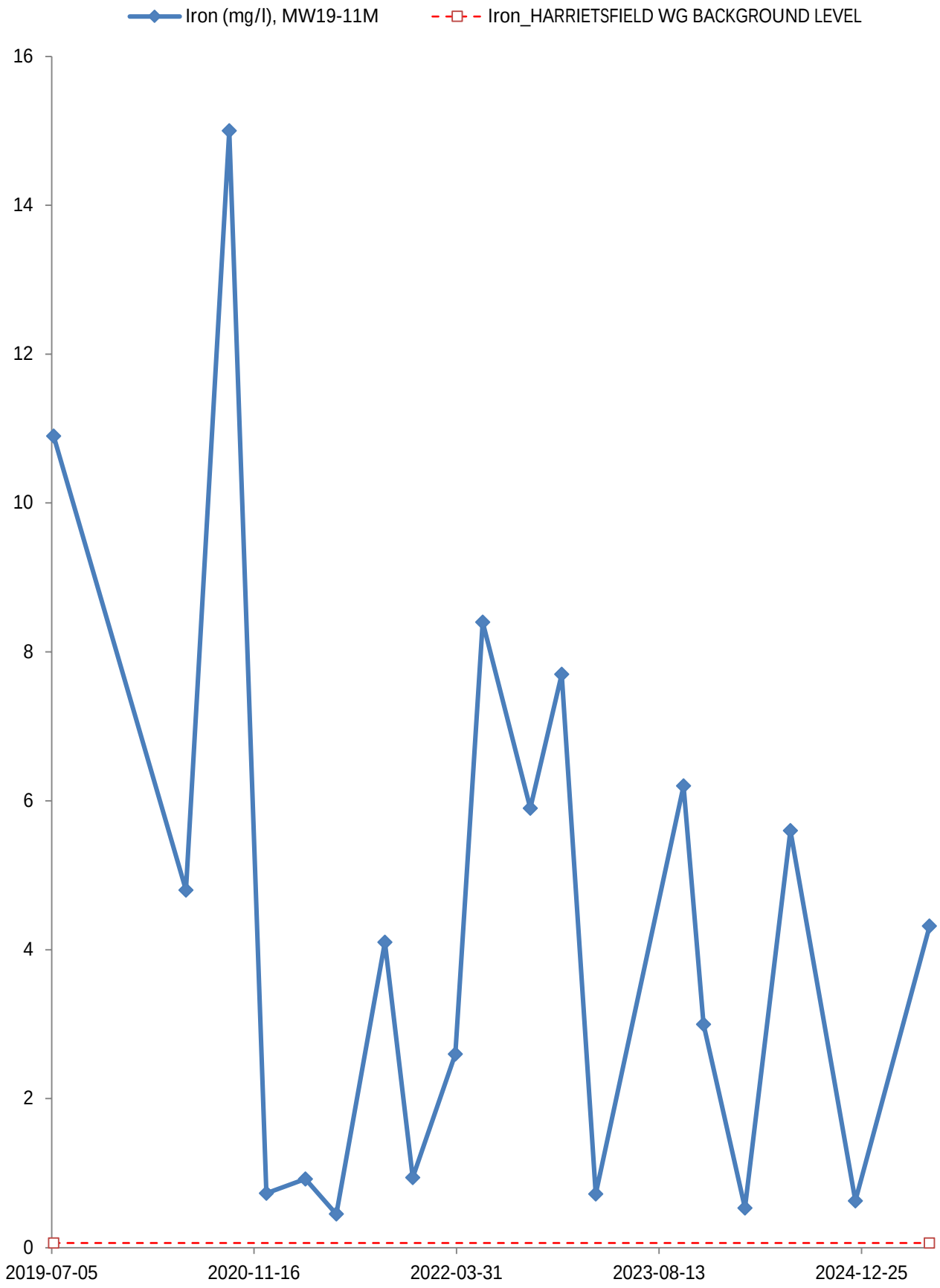




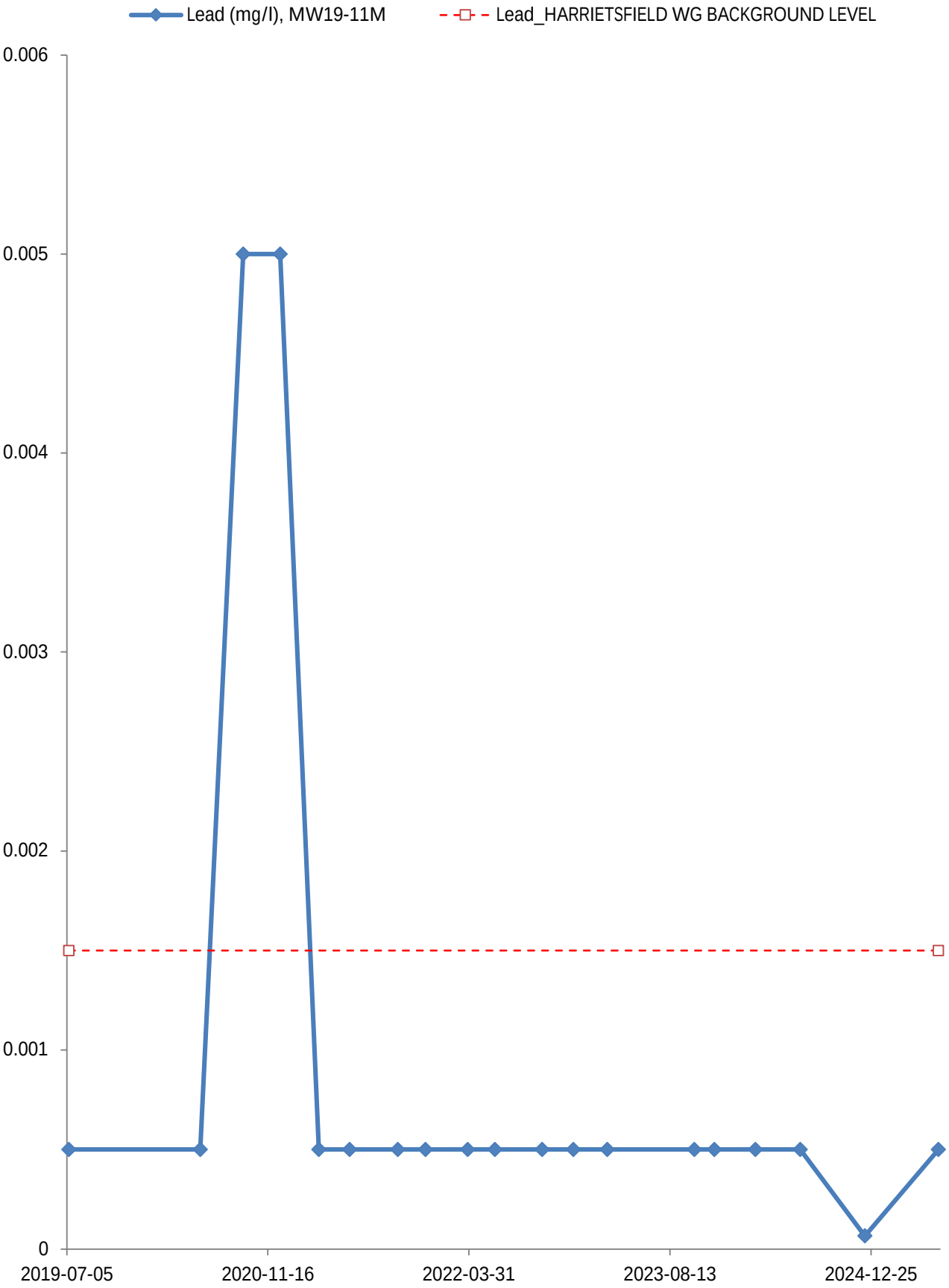
# Hardness (as CaCO3)



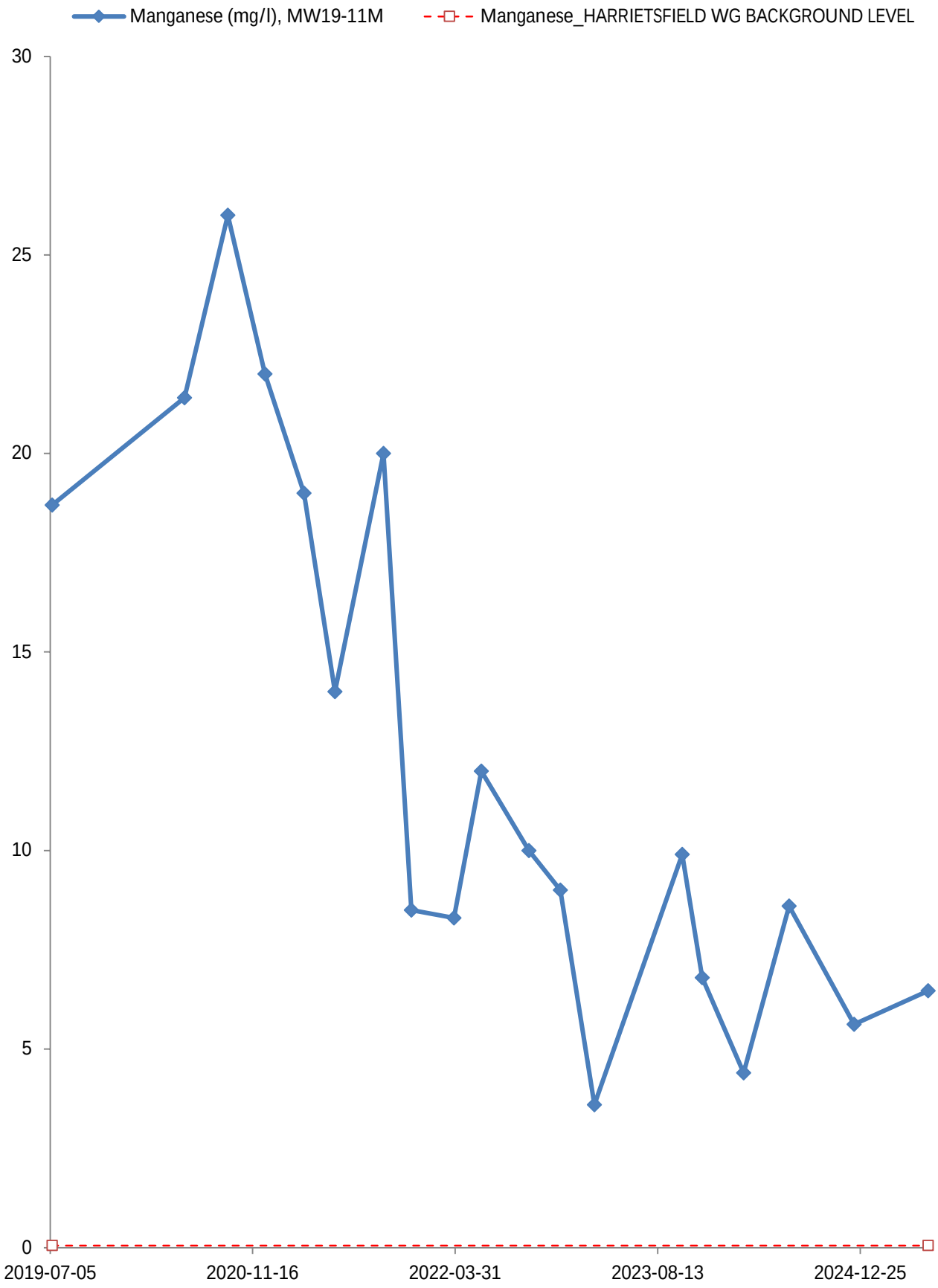
# Iron


Iron (mg/l), MW19-11M
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
16
14
12
10
8
6
4
2
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Lead

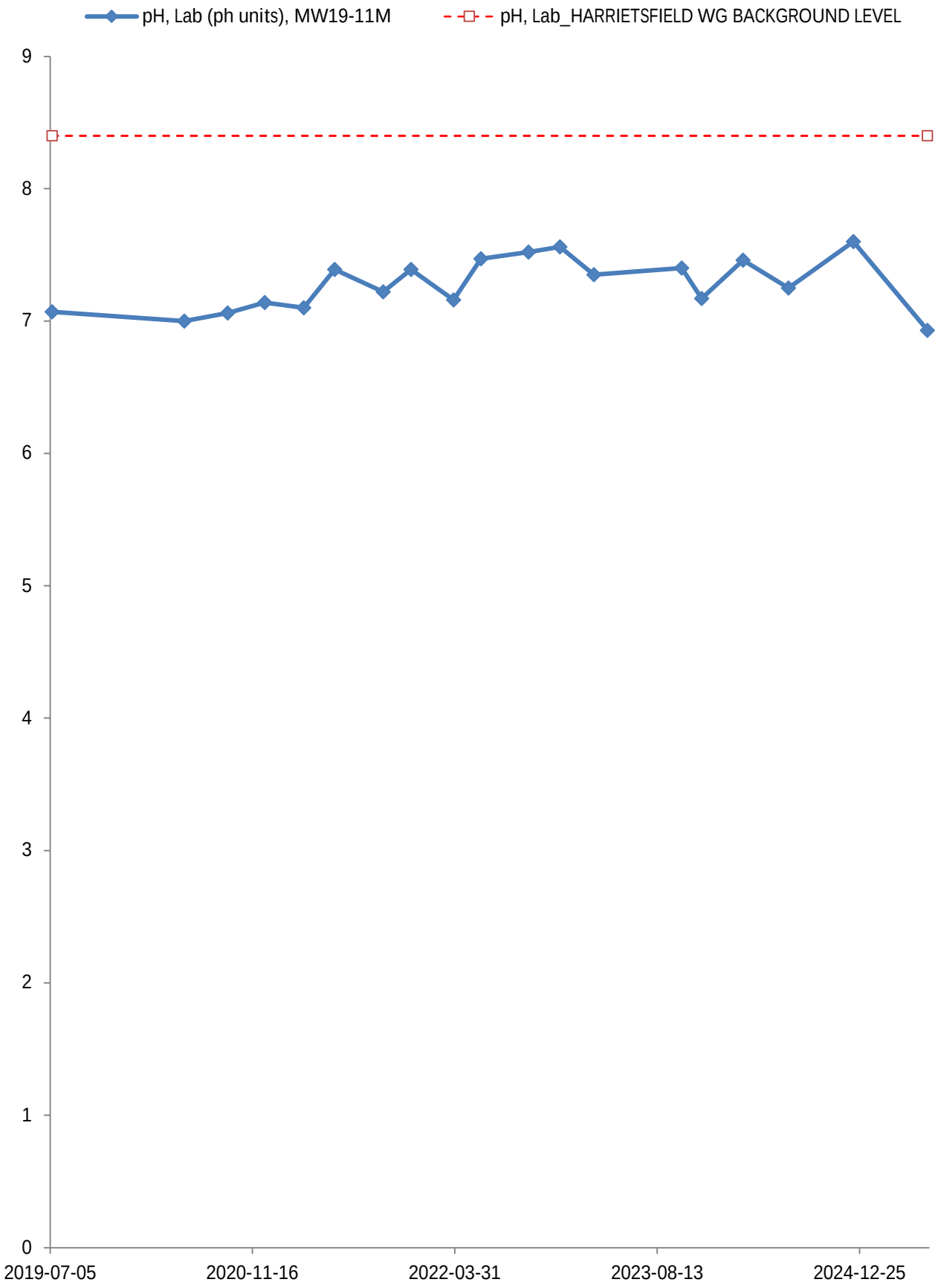

Lead (mg/l), MW19-11M
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Manganese

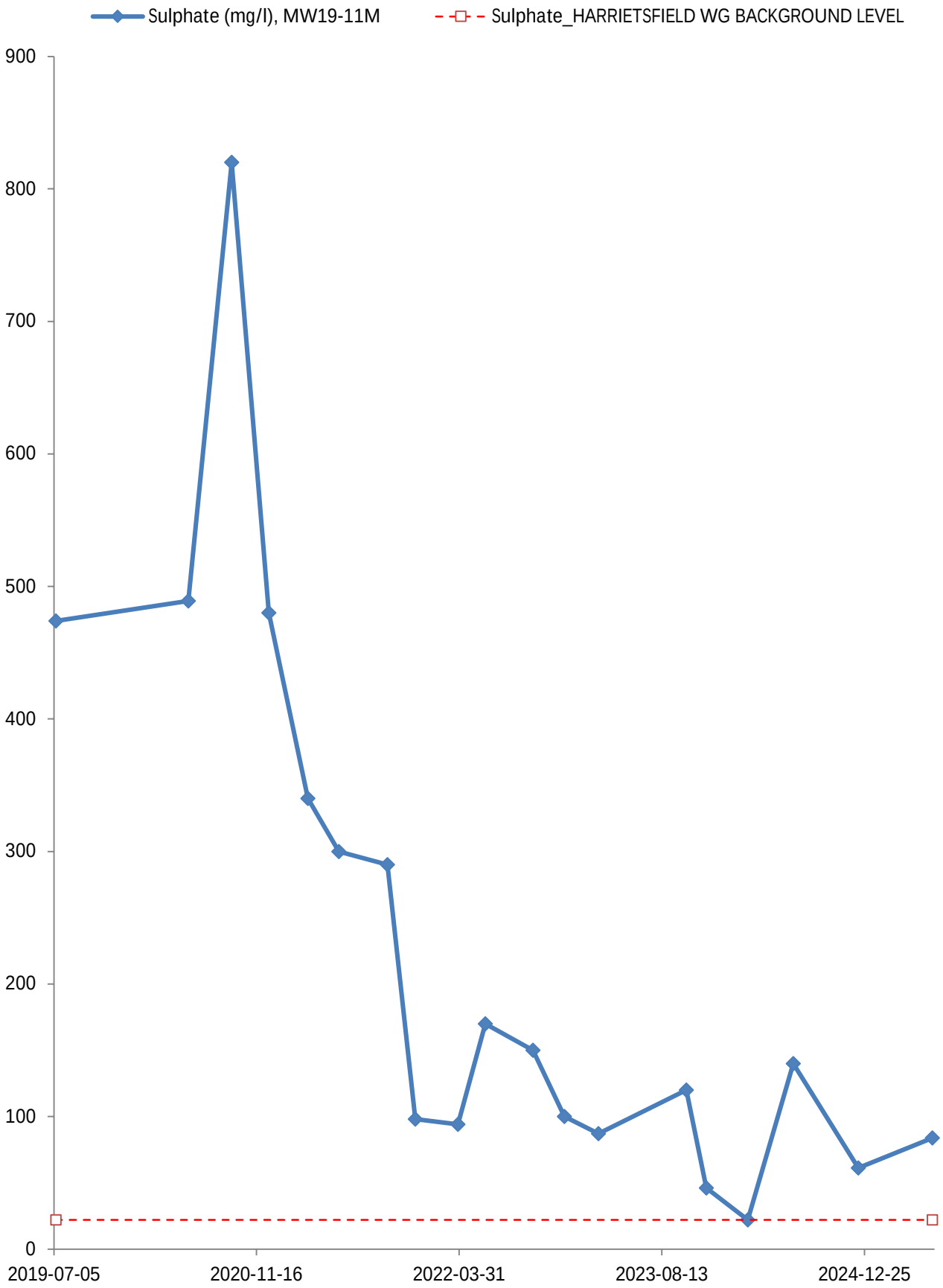

Manganese (mg/l), MW19-11M
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# pH, Lab

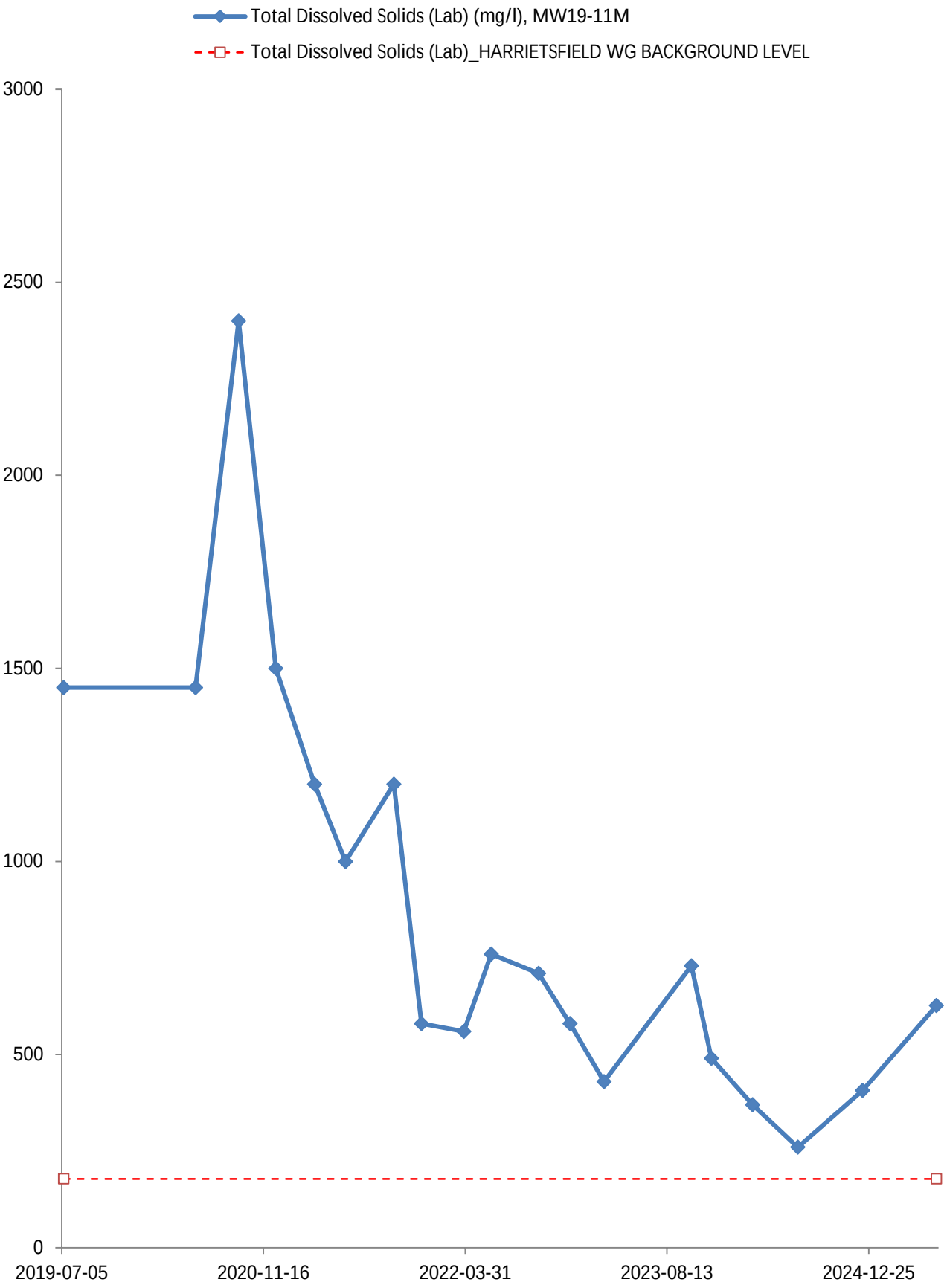



pH, Lab (ph units), MW19-11M
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

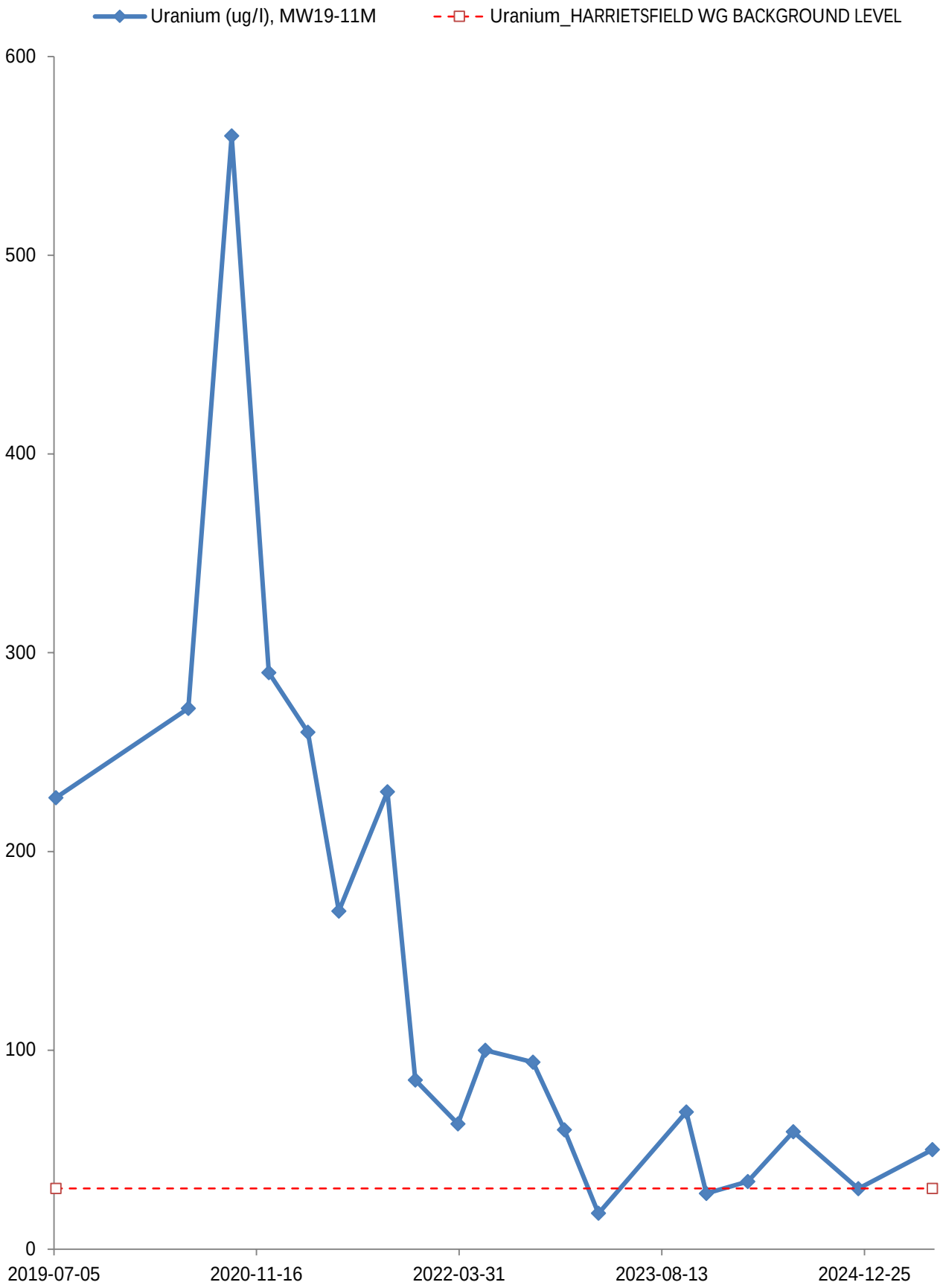
# Sulphate


Sulphate (mg/l), MW19-11M
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
900
800
700
600
500
400
300
200
100
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Total Dissolved Solids (5

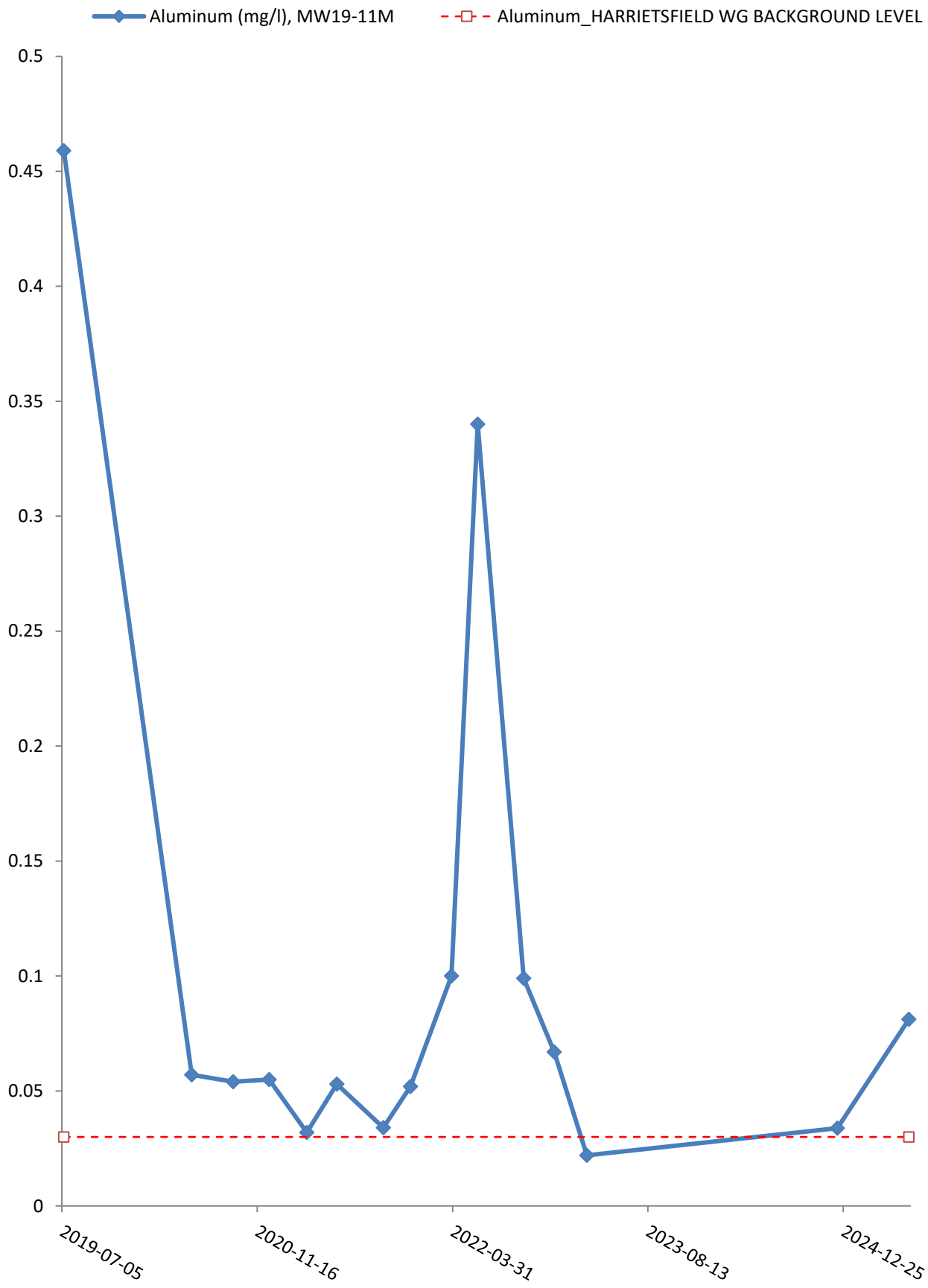


# Uranium

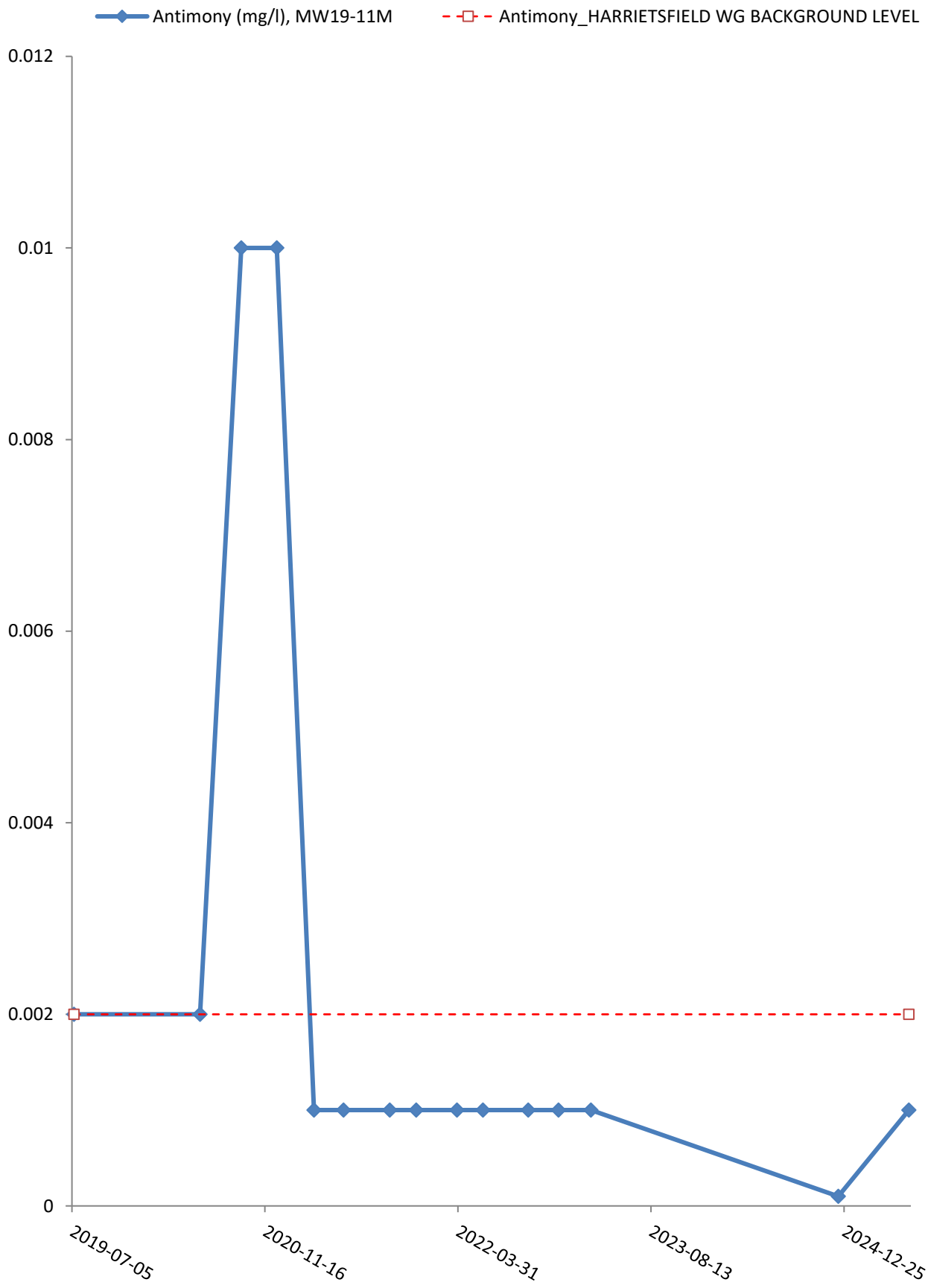

Uranium (ug/l), MW19-11M
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
600
500
400
300
200
100
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Aluminum

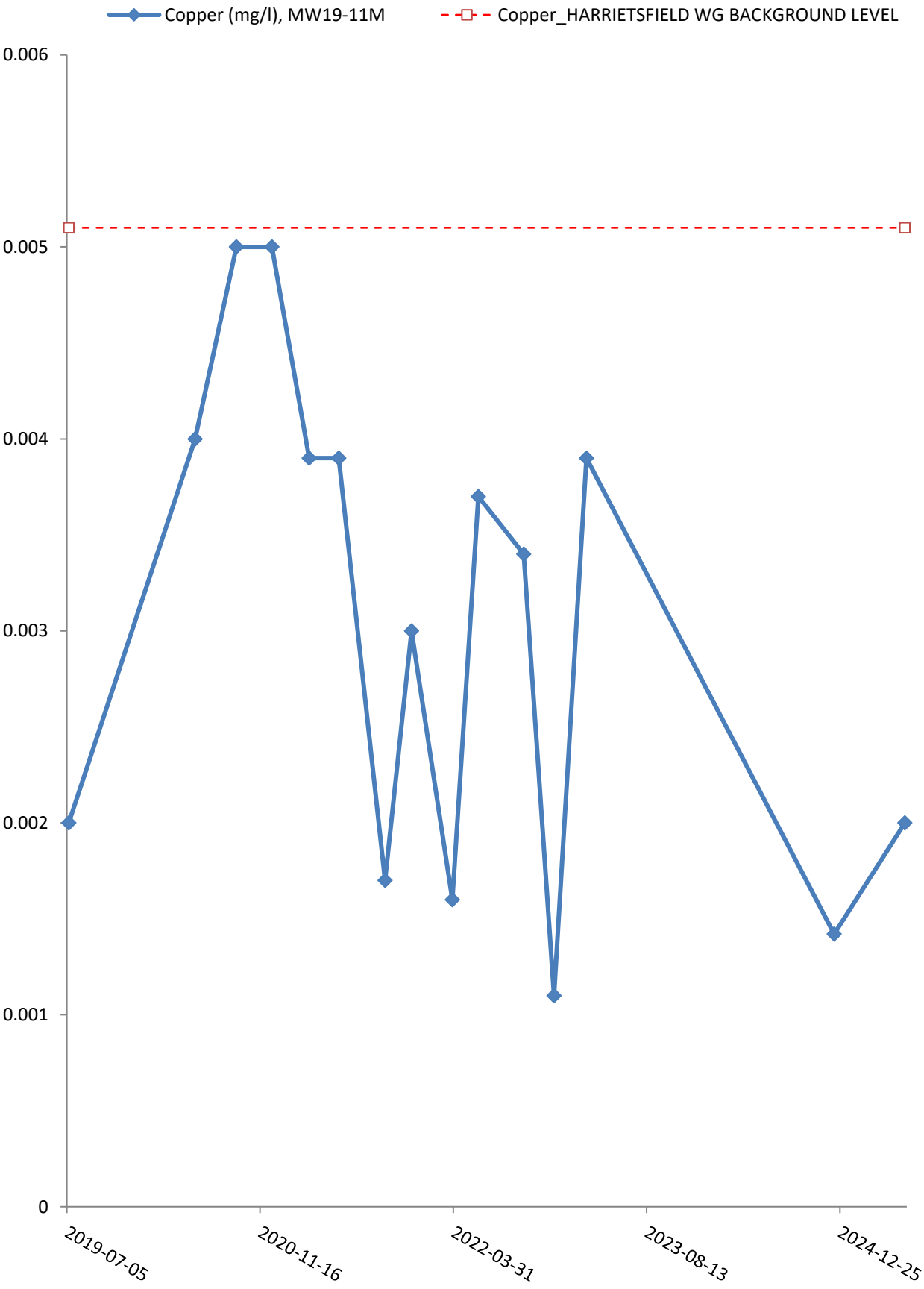



Aluminum (mg/l), MW19-11M
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Antimony

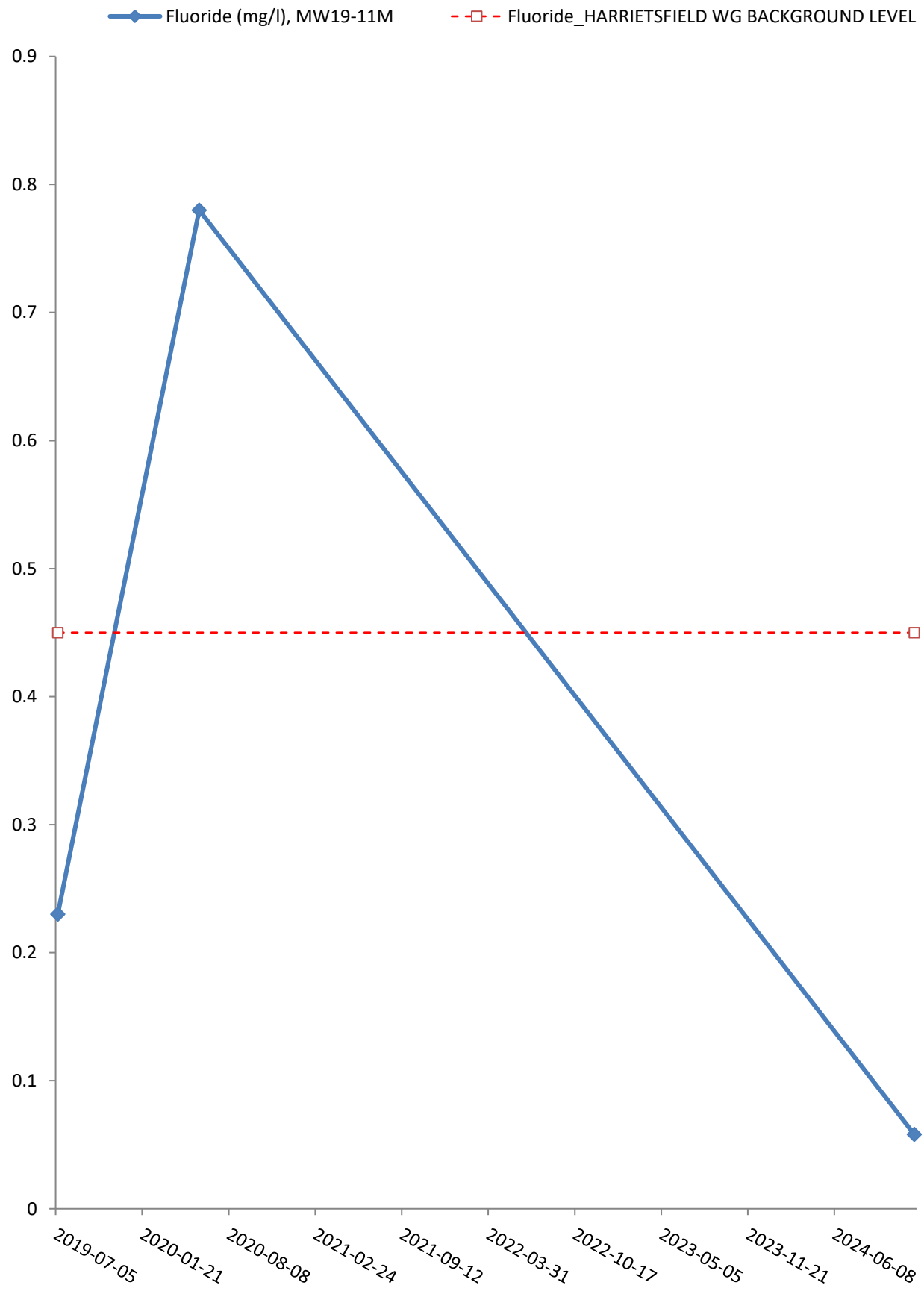

Antimony (mg/l), MW19-11M
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Copper

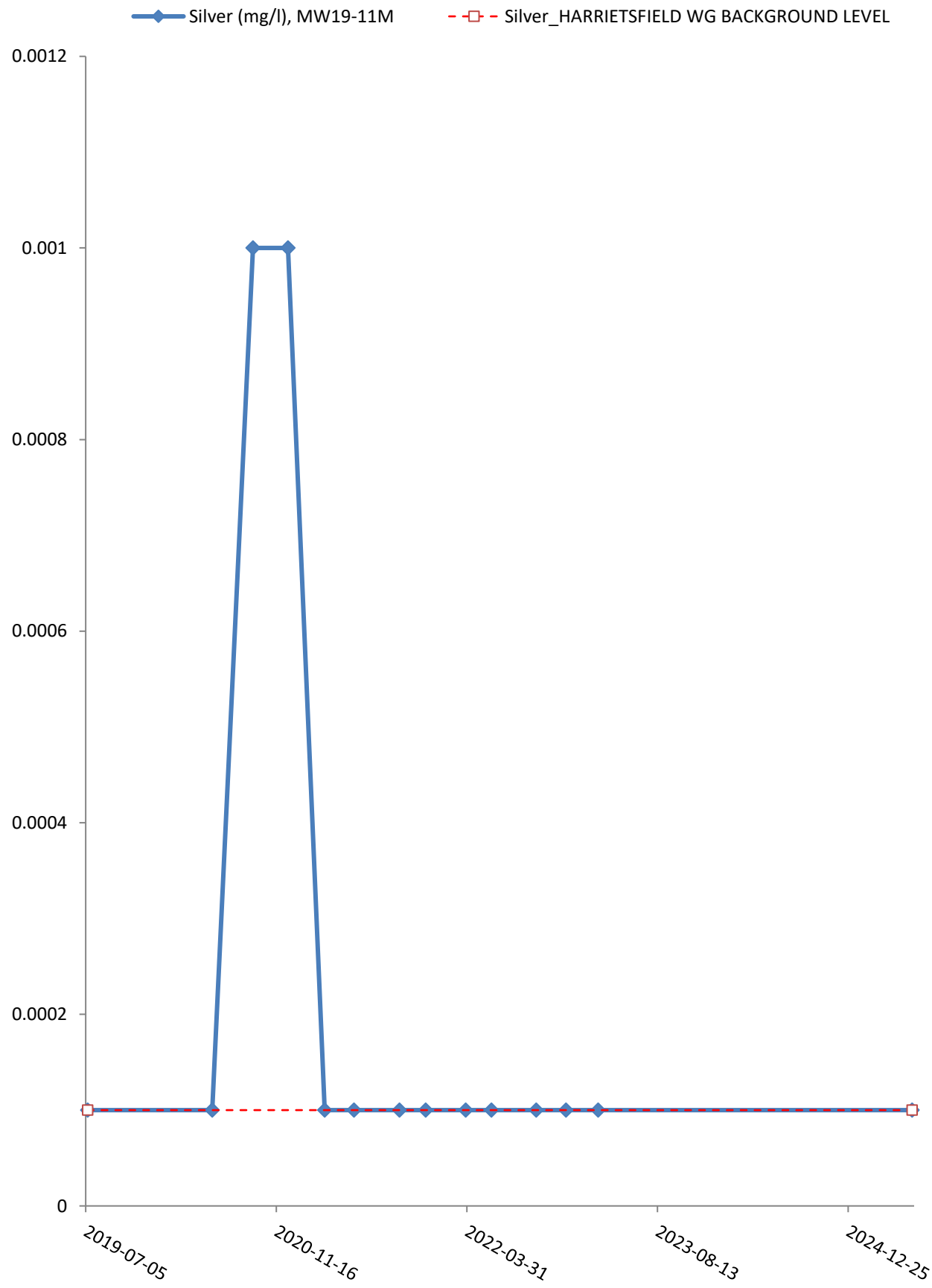

Copper (mg/l), MW19-11M
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Fluoride

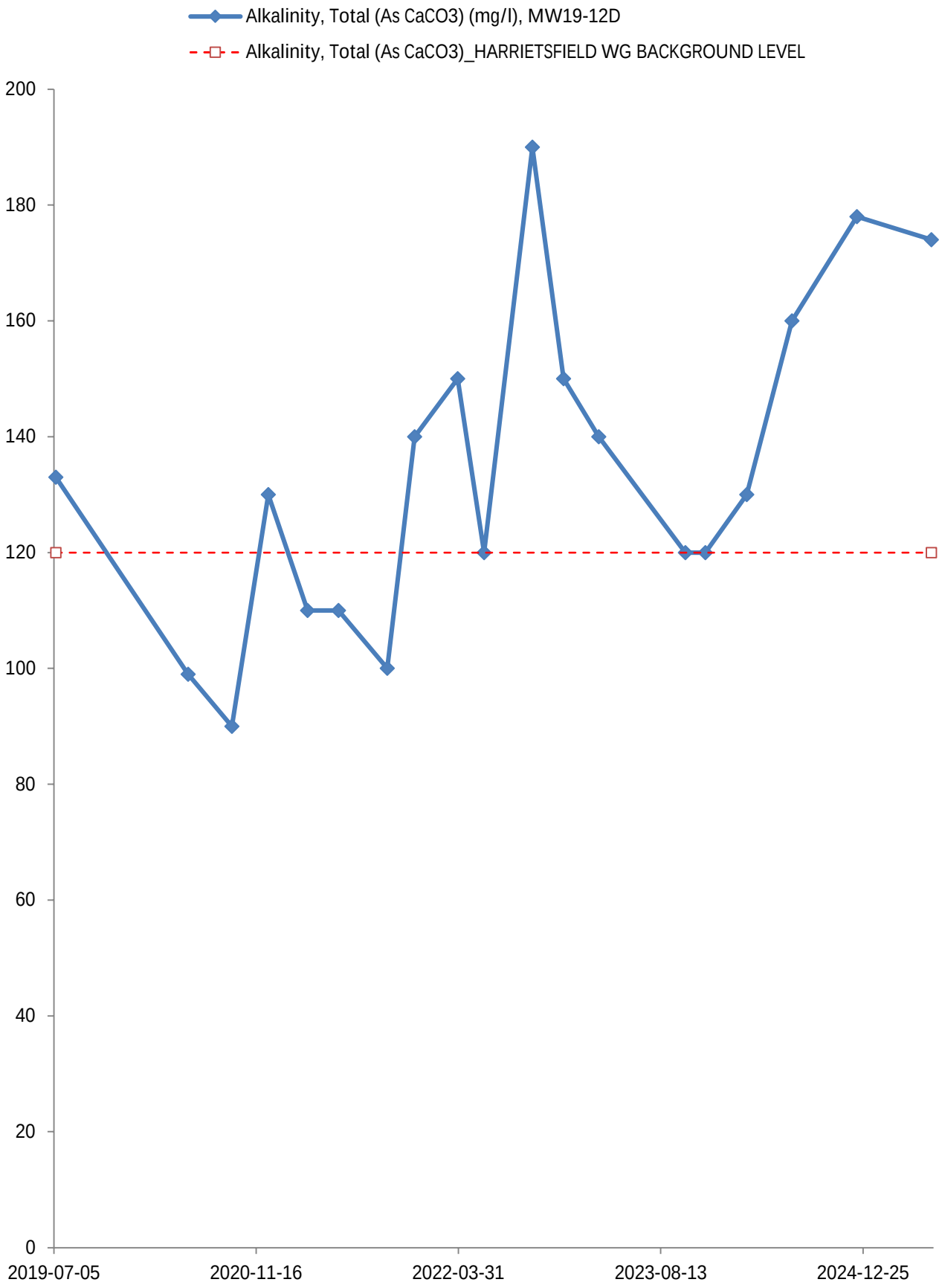



Fluoride (mg/l), MW19-11M
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2019-07-05
2020-01-21
2020-08-08
2021-02-24
2021-09-12
2022-03-31
2022-10-17
2023-05-05
2023-11-21
2024-06-08

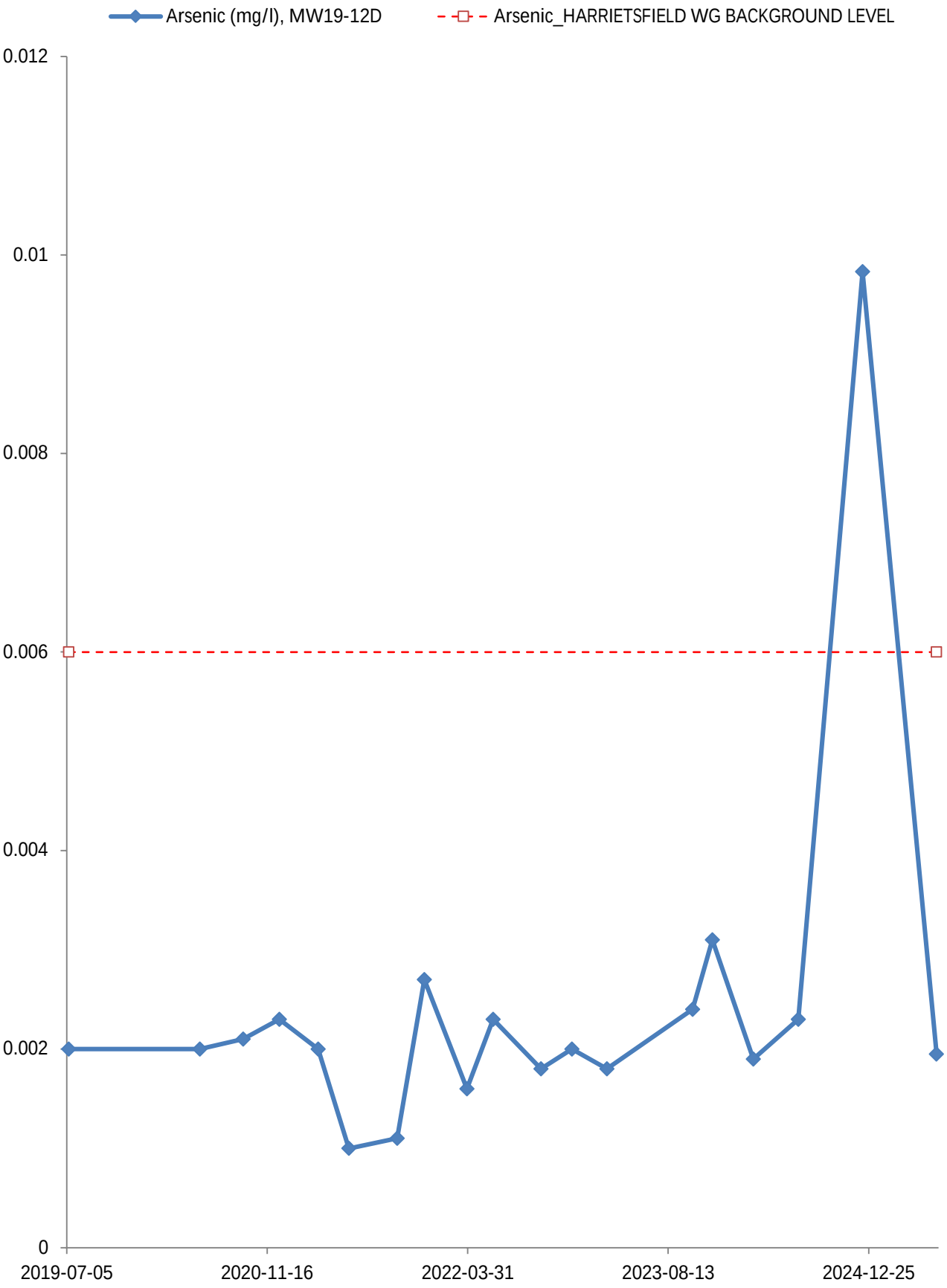
# Silver


Silver (mg/l), MW19-11M
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

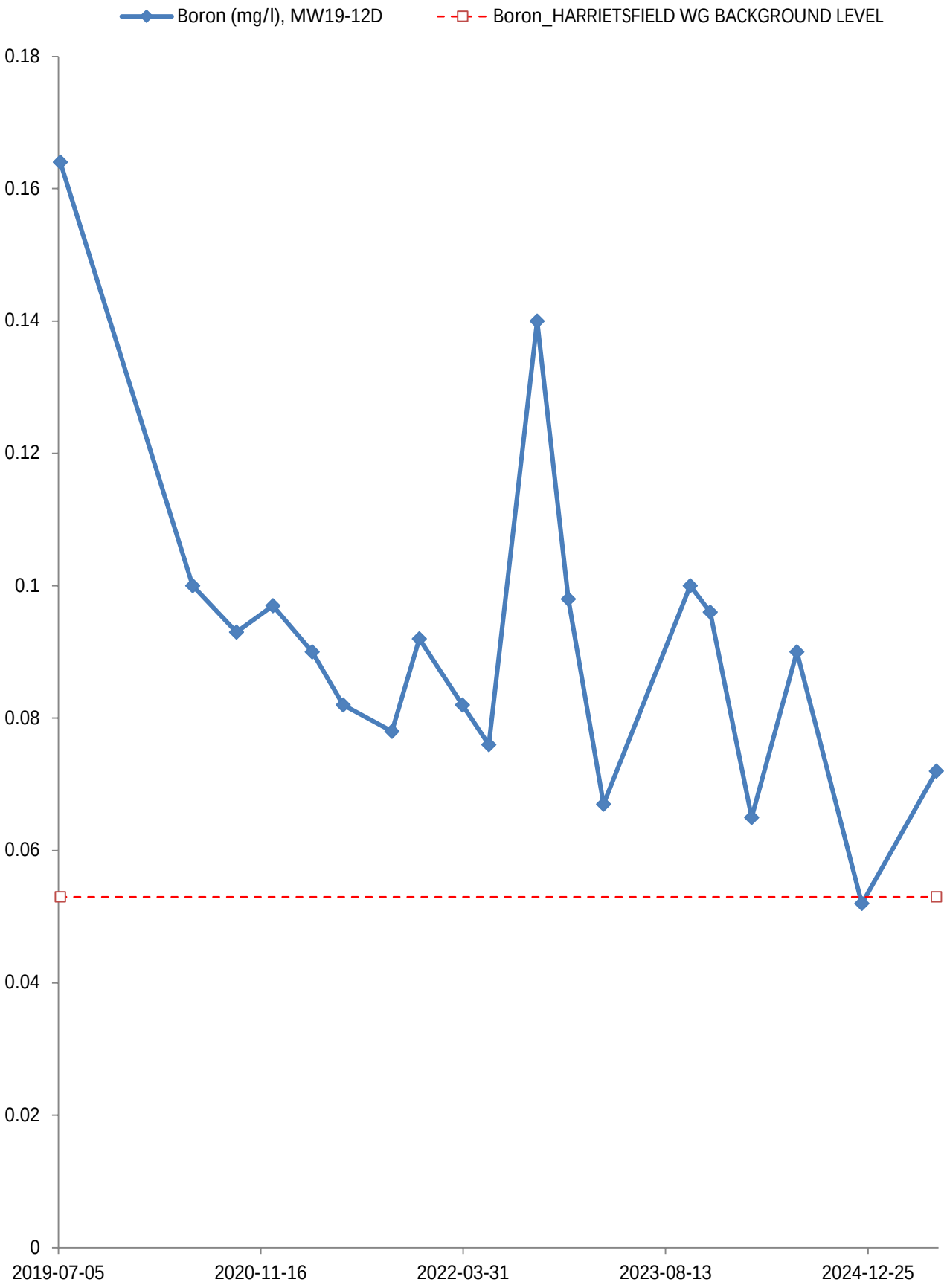
# Alkalinity, Total



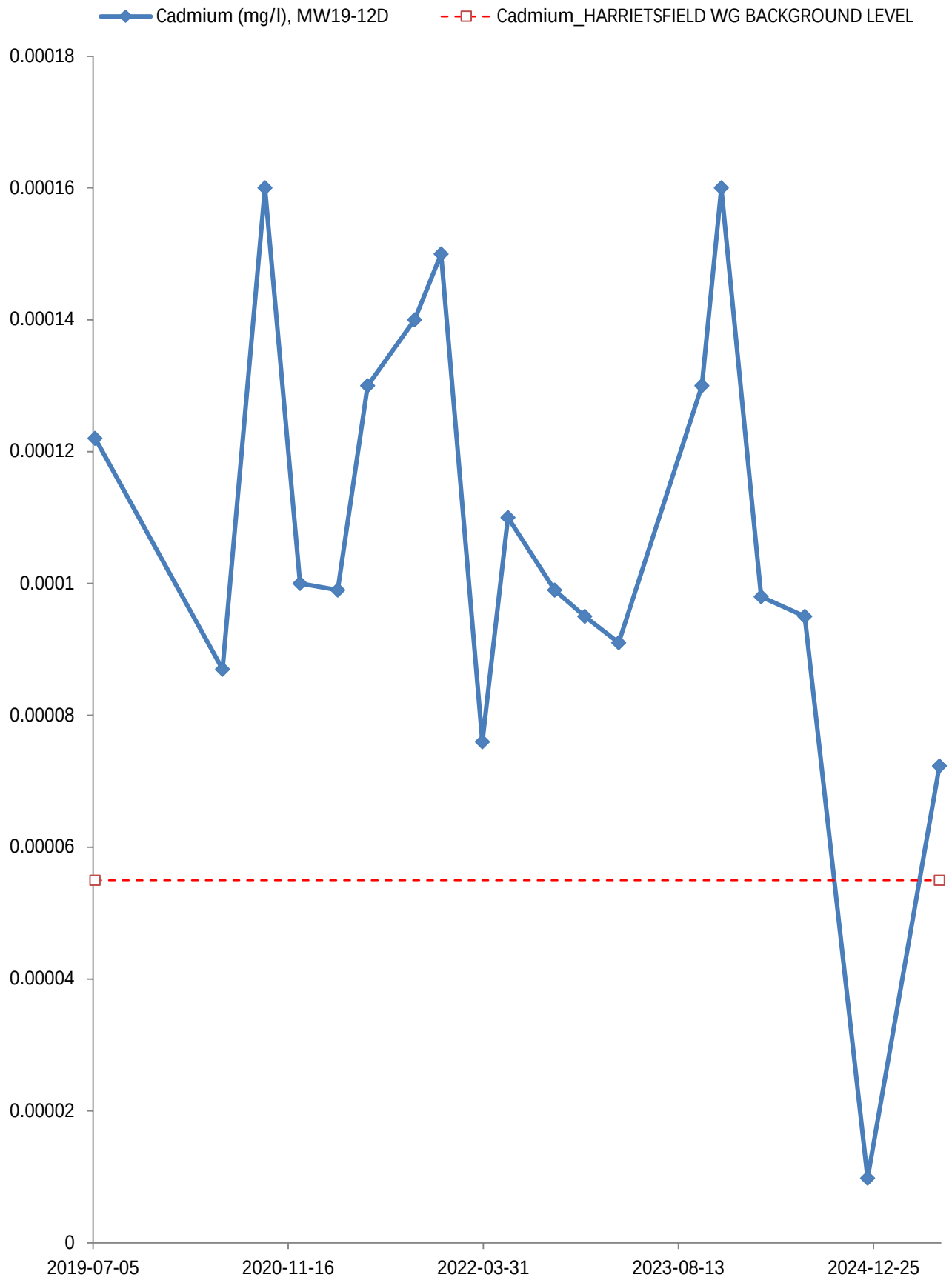
# Arsenic


Arsenic (mg/l), MW19-12D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

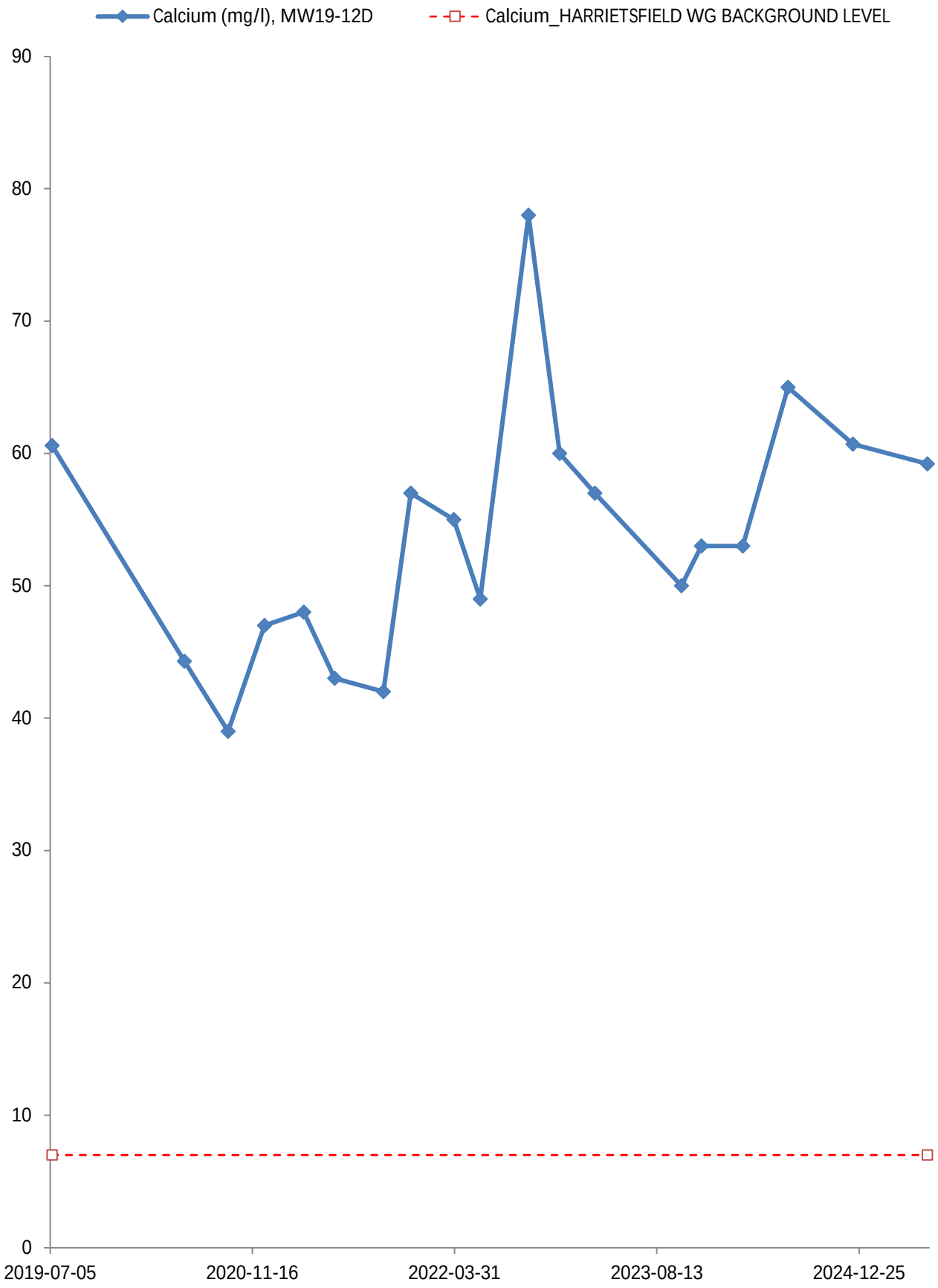
# Boron


Boron (mg/l), MW19-12D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

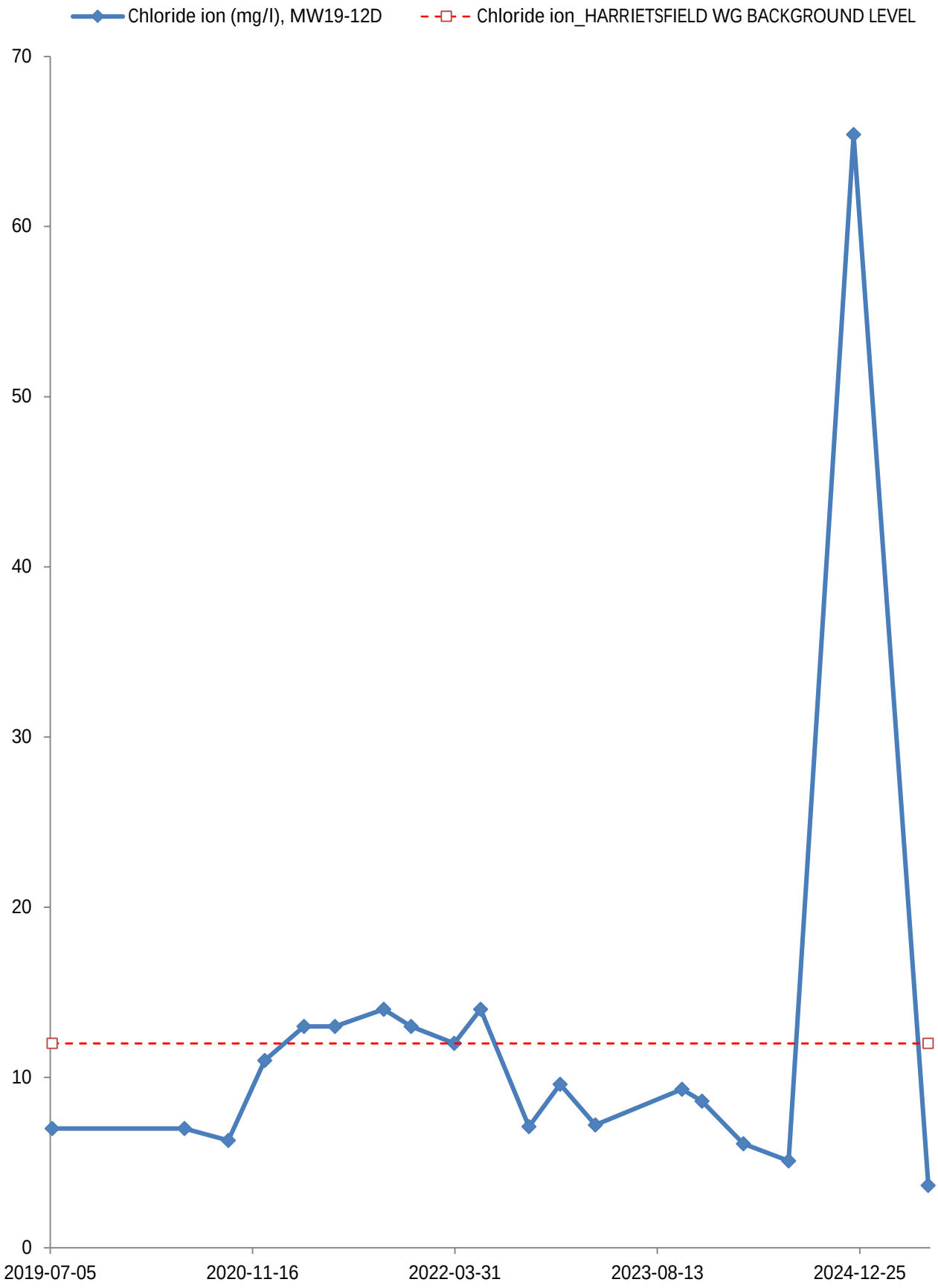
# Cadmium


Cadmium (mg/l), MW19-12D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00018
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

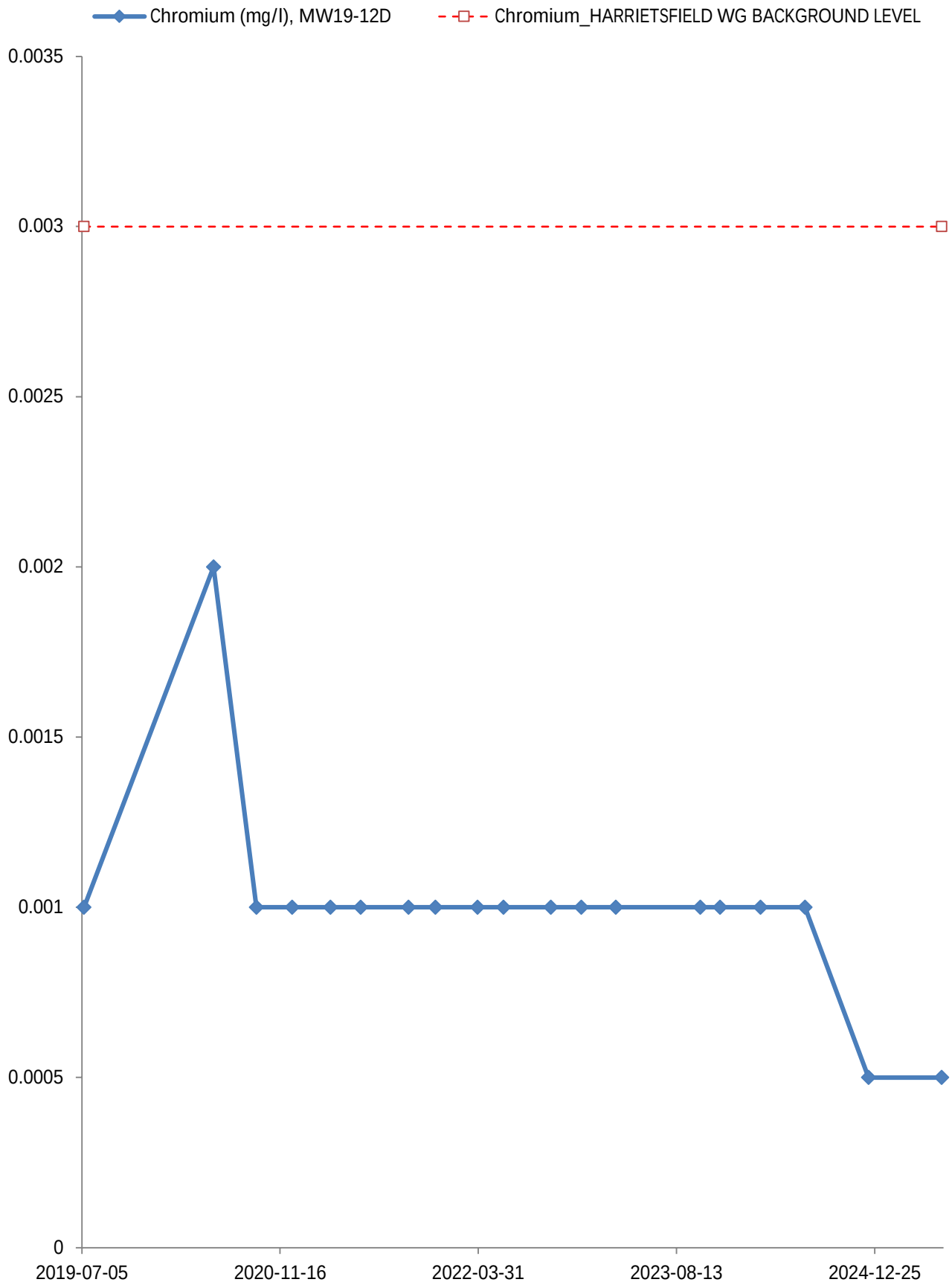
# Calcium


Calcium (mg/l), MW19-12D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
90
80
70
60
50
40
30
20
10
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

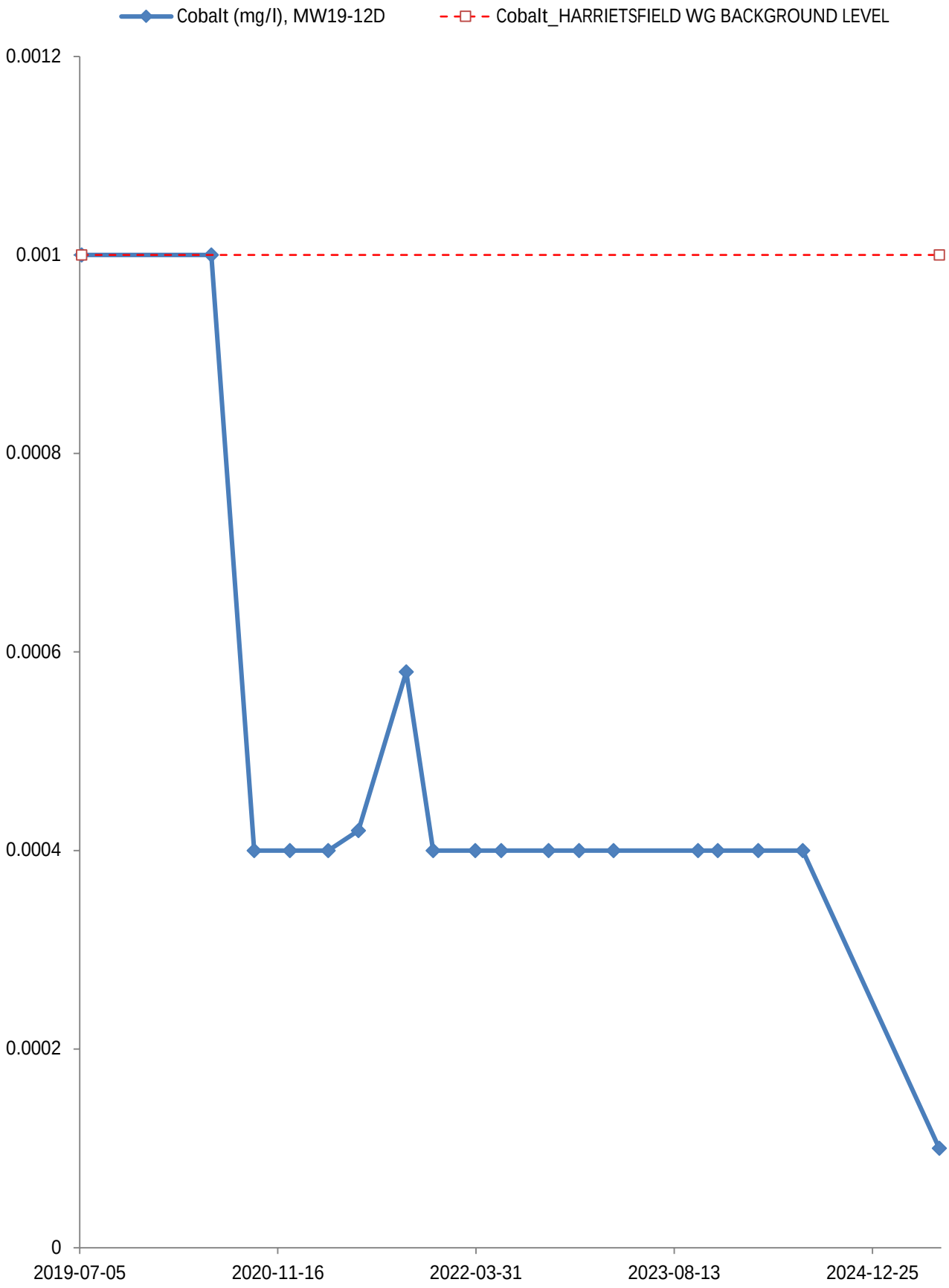
# Chloride ion



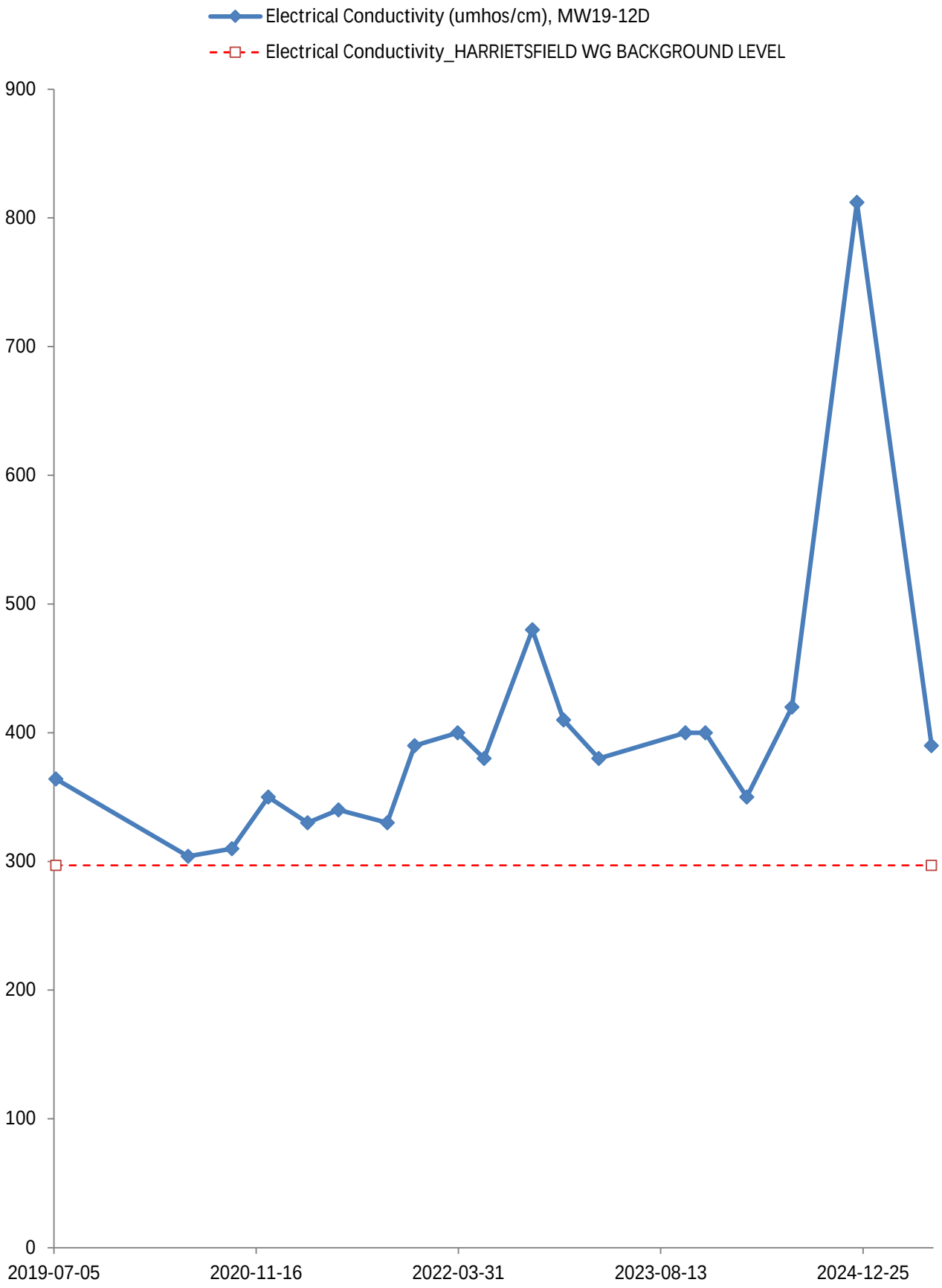
# Chromium


Chromium (mg/l), MW19-12D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

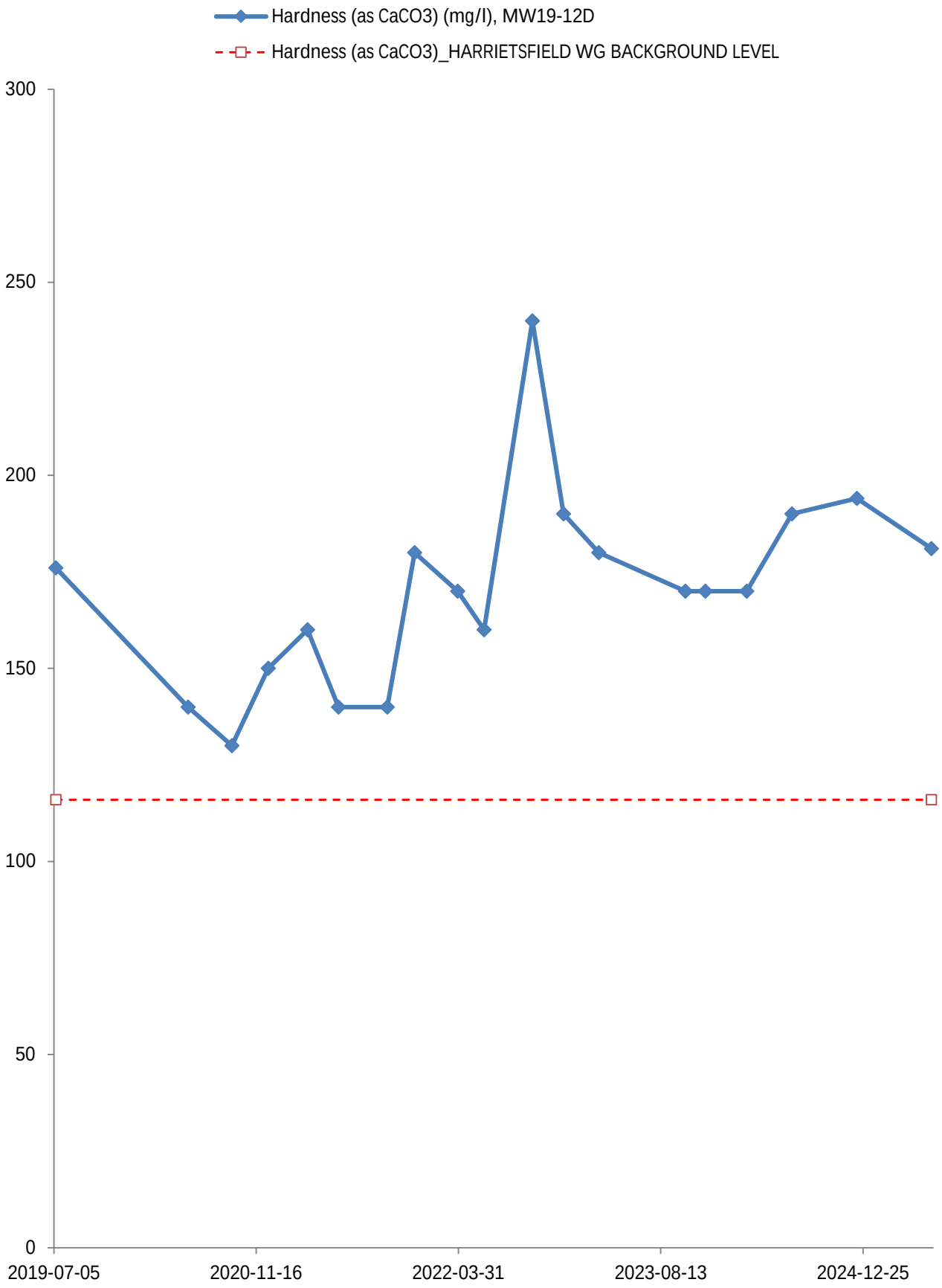
# Cobalt


Cobalt (mg/l), MW19-12D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

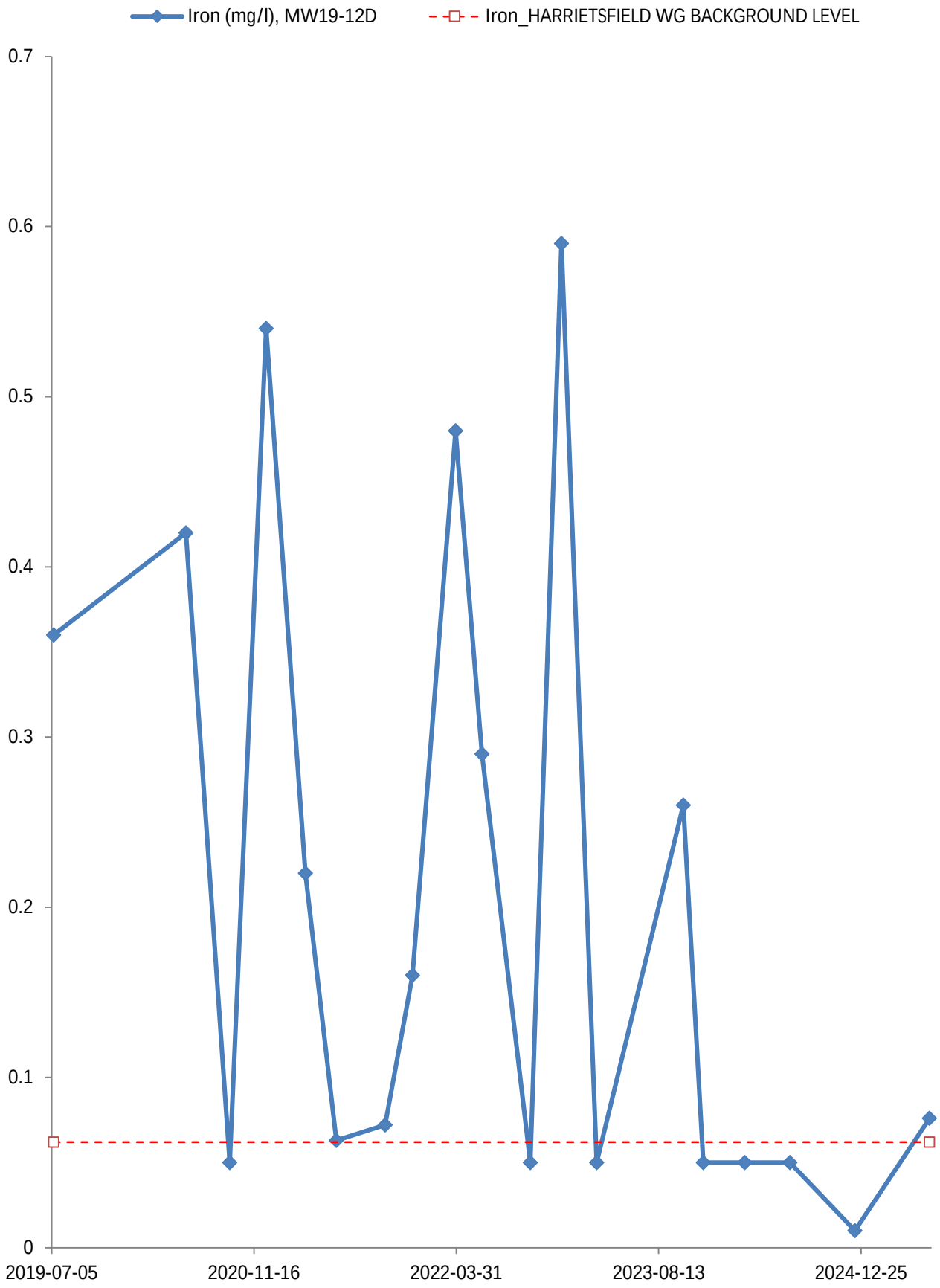
# Electrical Conductivity



# Hardness (as CaCO3)

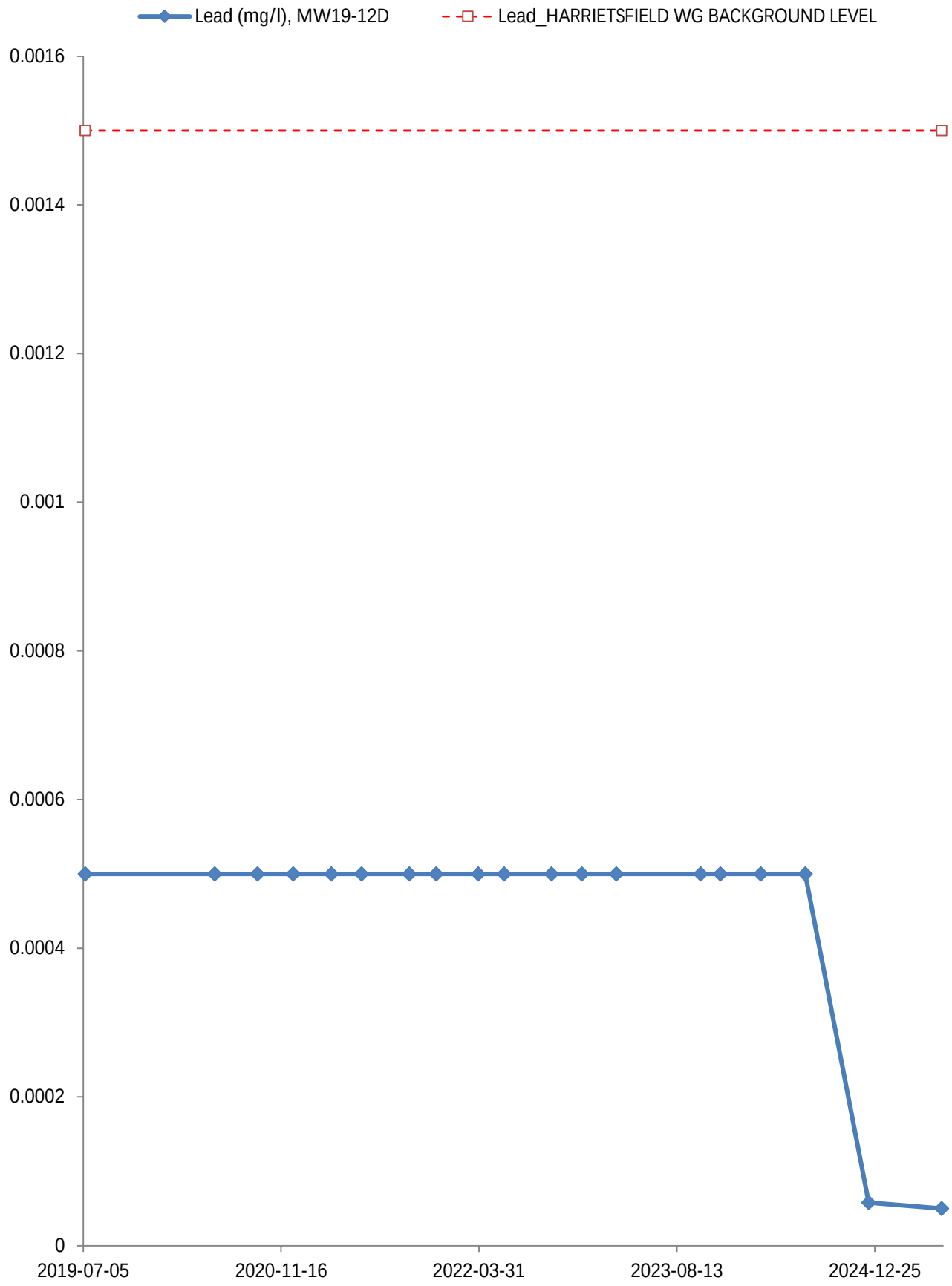


# Iron

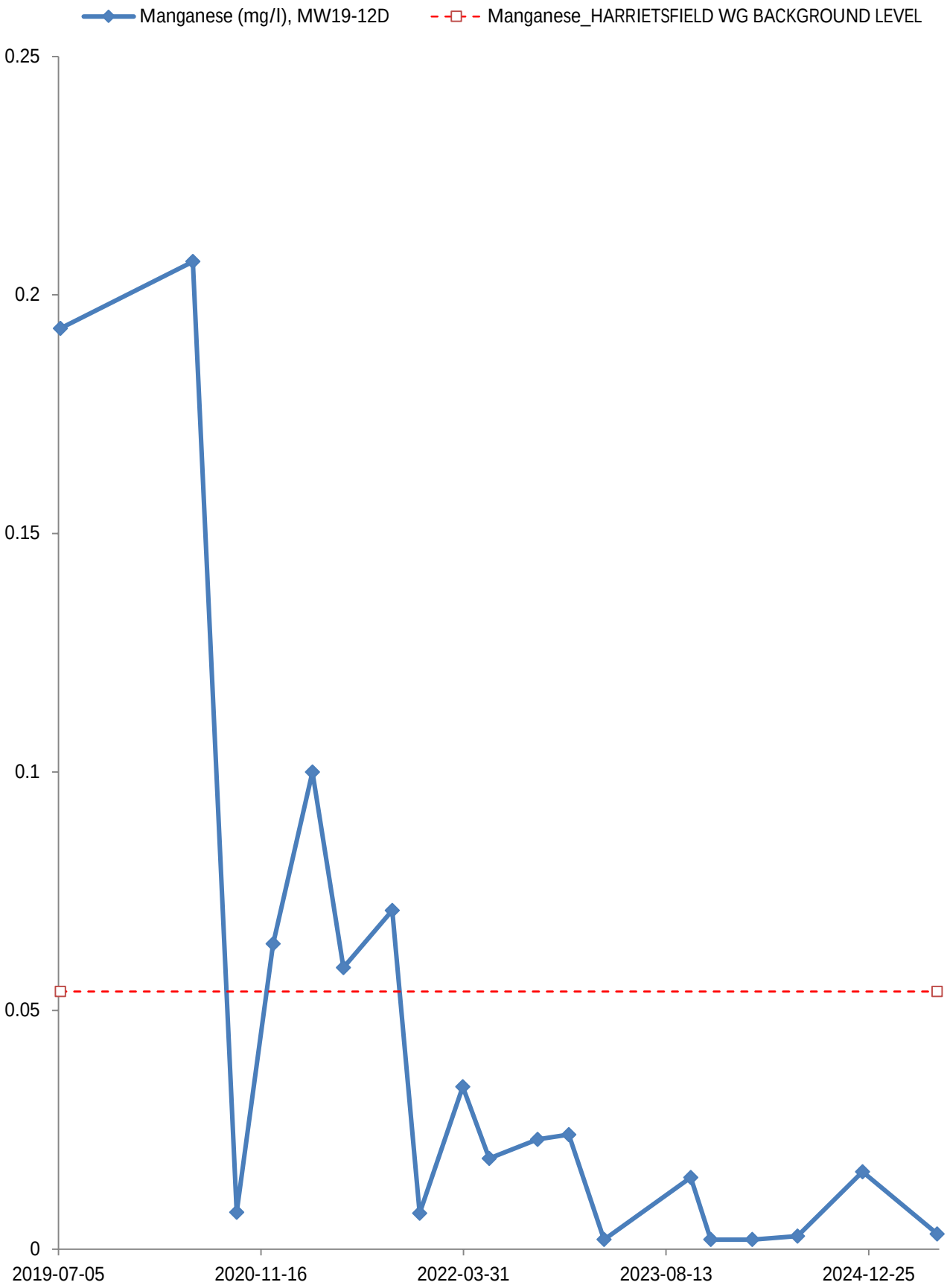

Iron (mg/l), MW19-12D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Lead

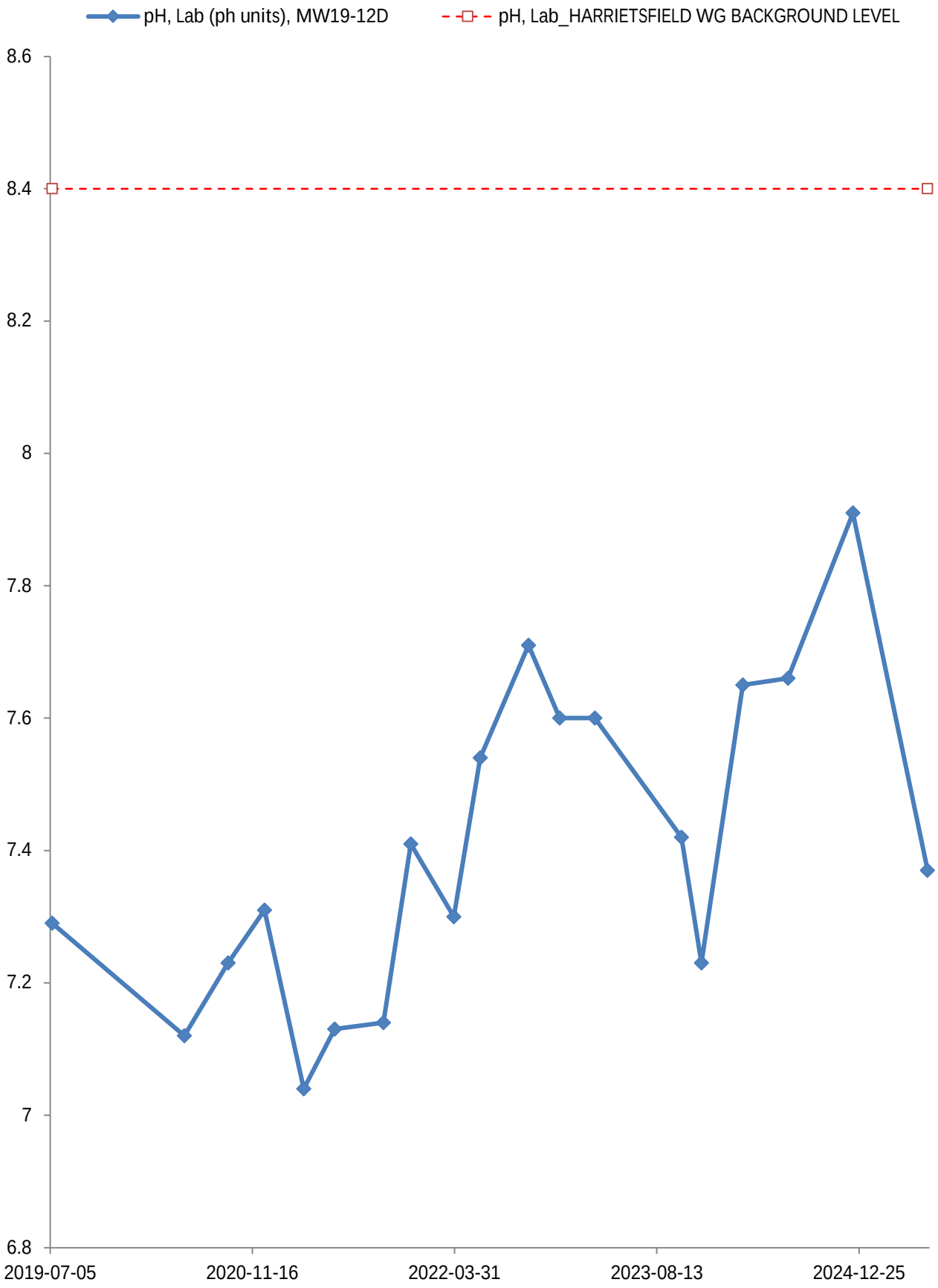



Lead (mg/l), MW19-12D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

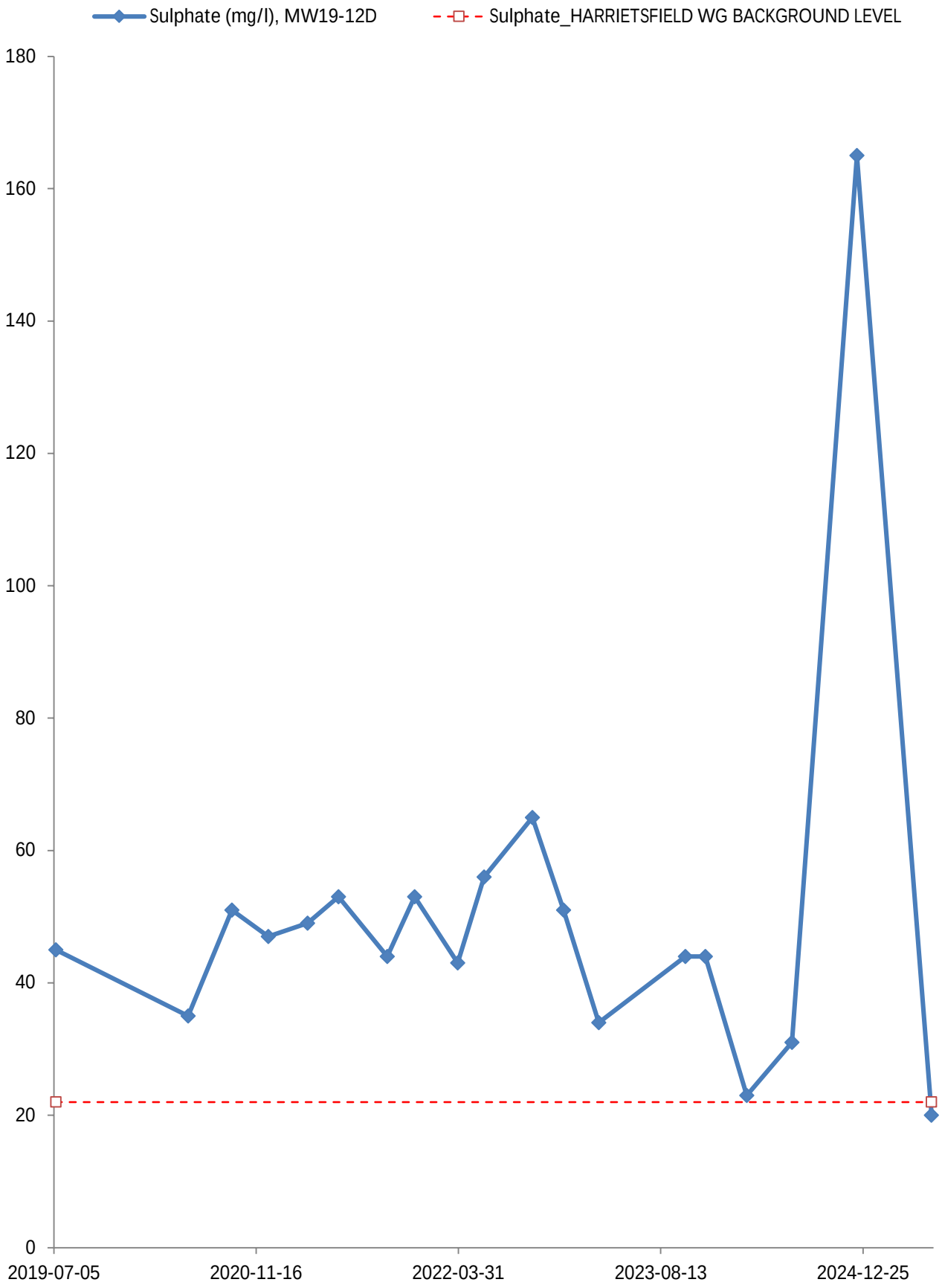
# Manganese


Manganese (mg/l), MW19-12D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

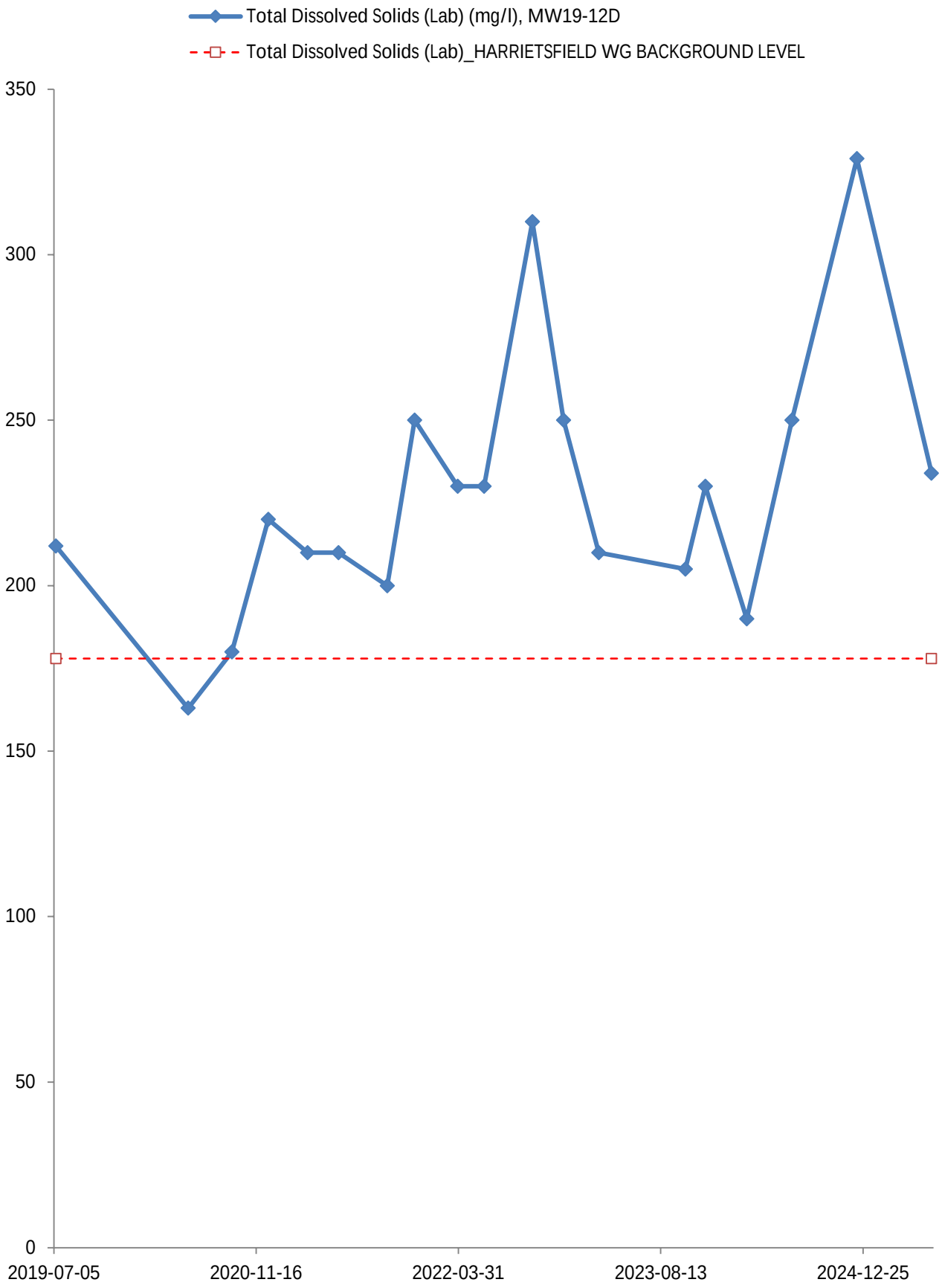
# pH, Lab


pH, Lab (ph units), MW19-12D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
7
6.8
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

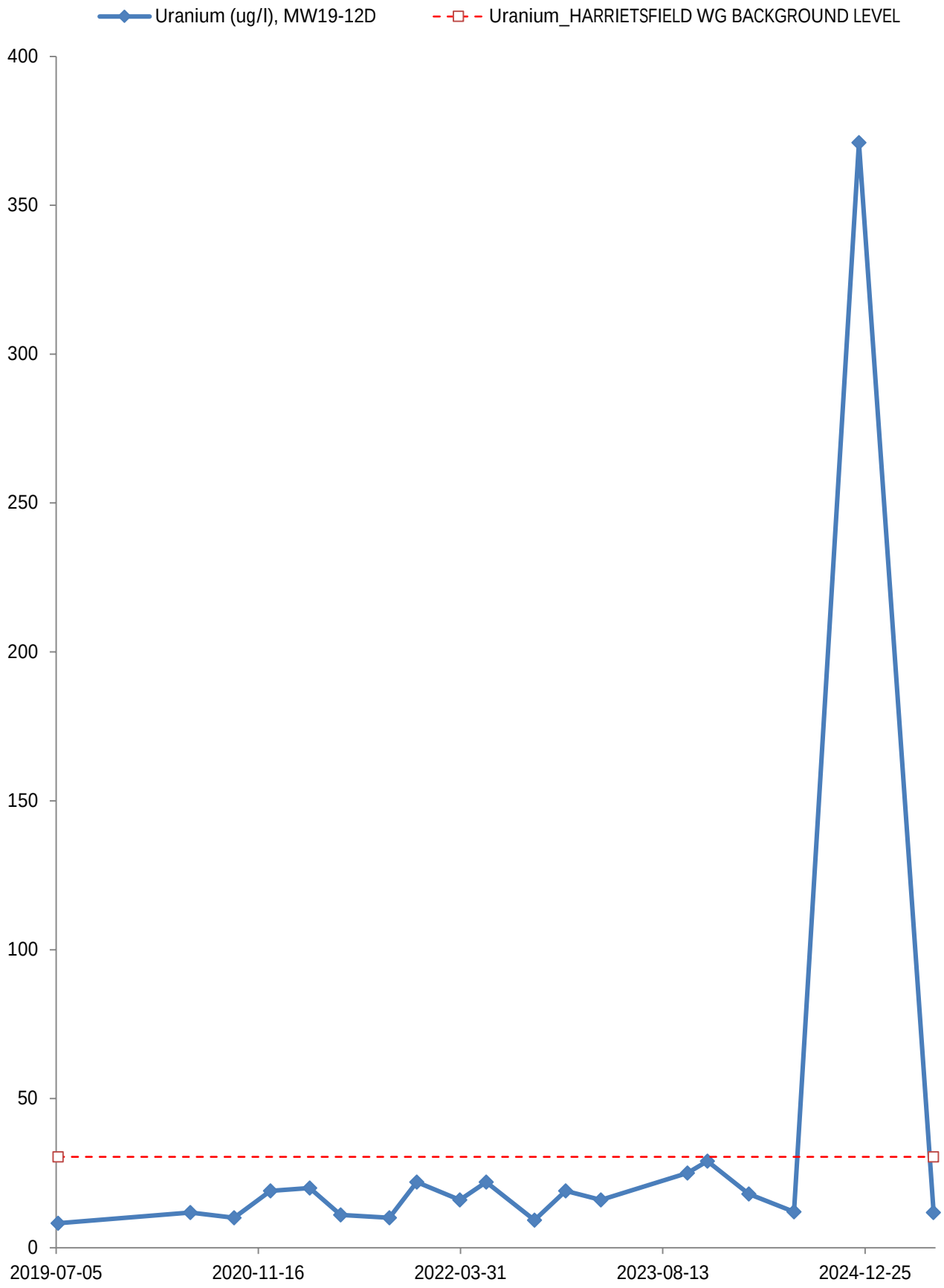
# Sulphate


Sulphate (mg/l), MW19-12D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
180
160
140
120
100
80
60
40
20
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

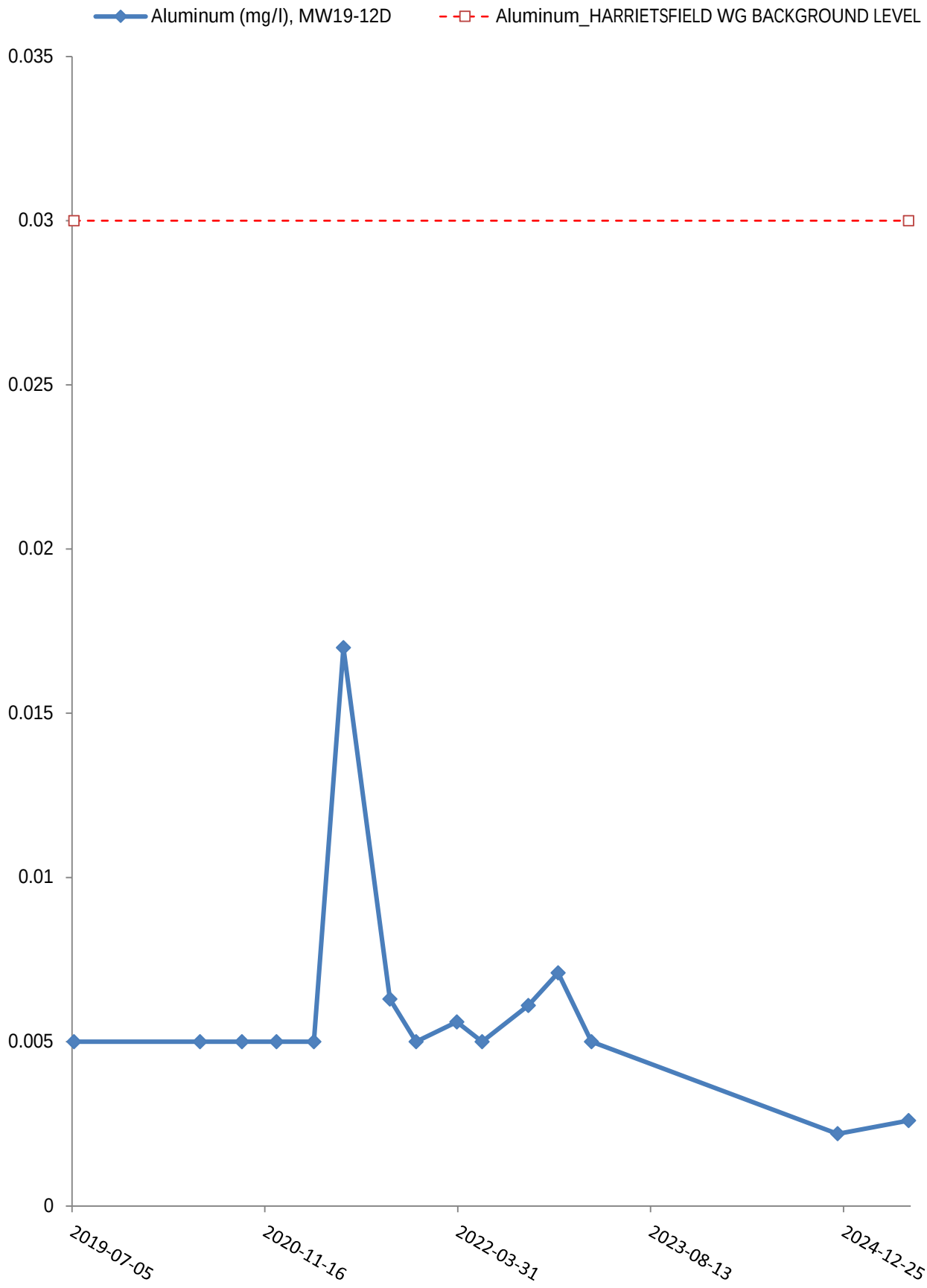
# Total Dissolved Solids (5



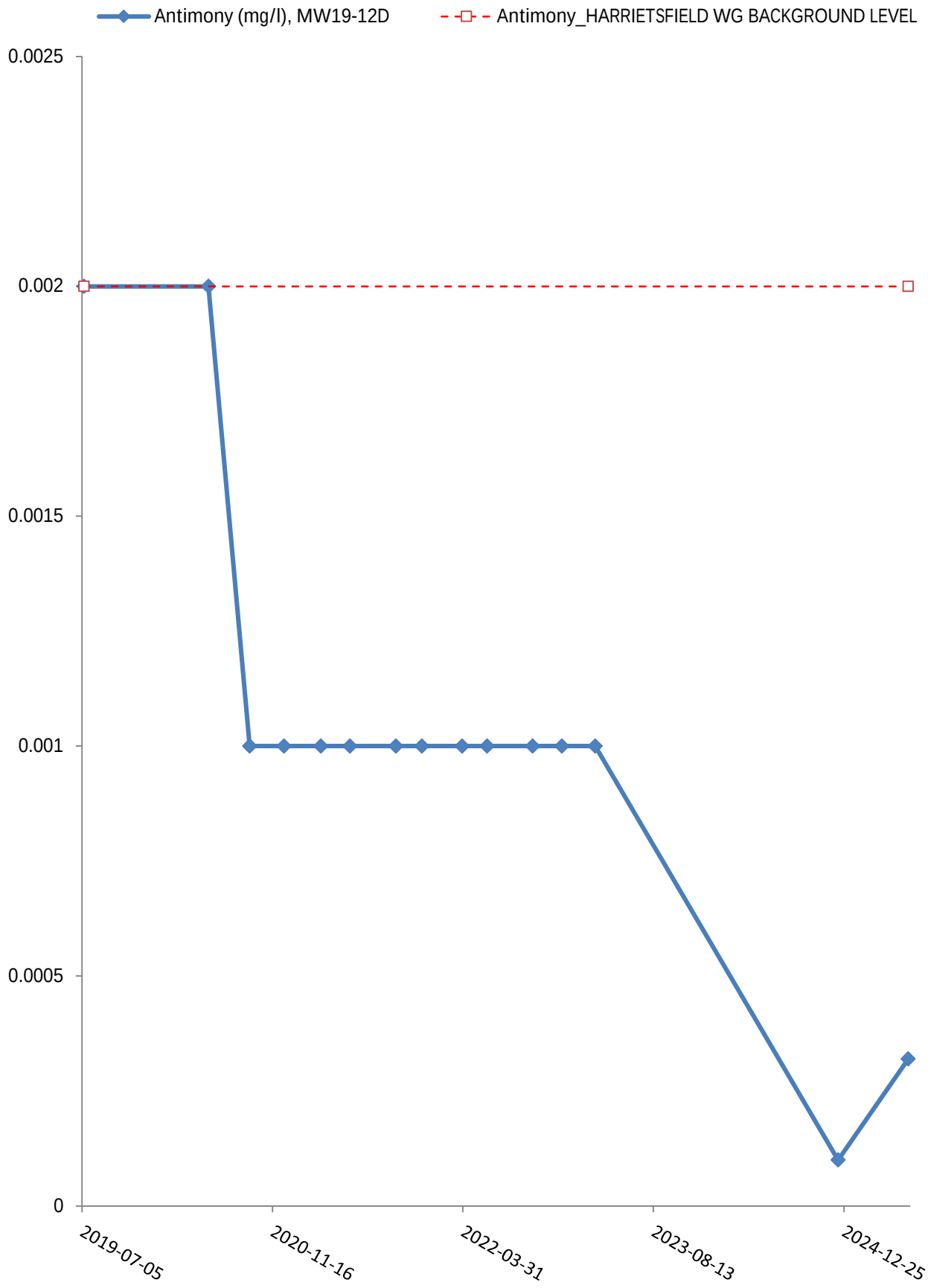
# Uranium


Uranium (ug/l), MW19-12D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
400
350
300
250
200
150
100
50
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

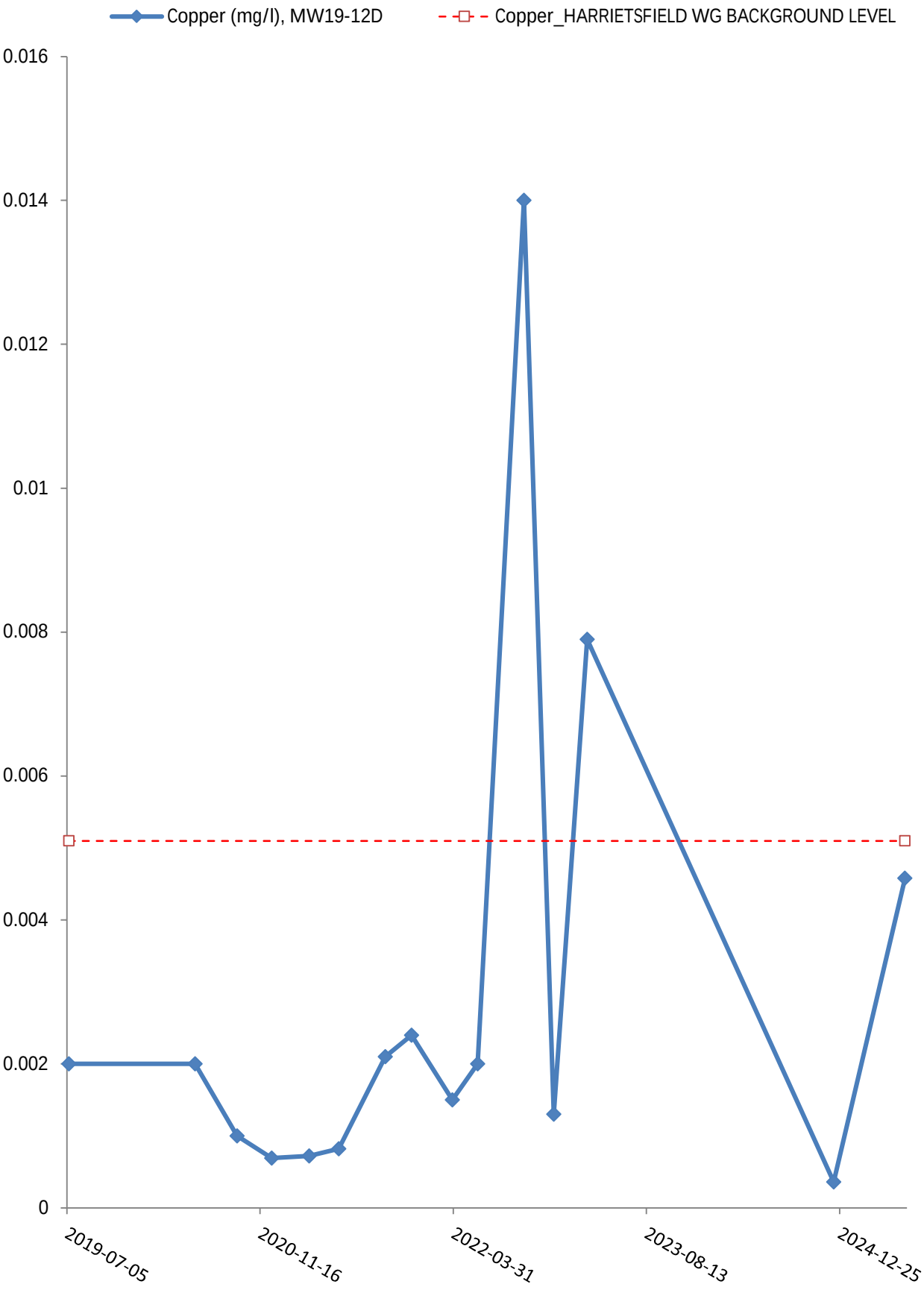
# Aluminum


Aluminum (mg/l), MW19-12D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Antimony

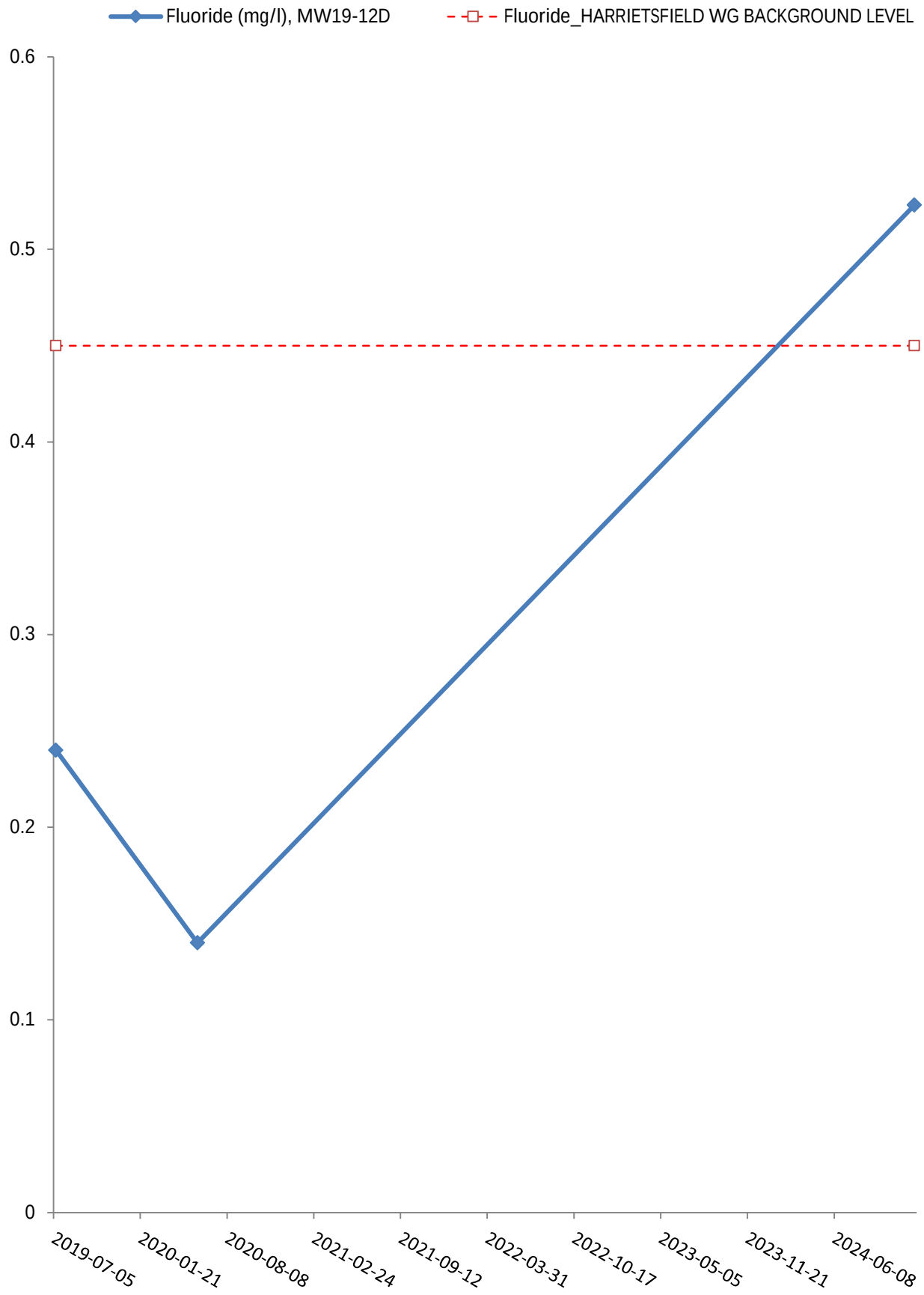

Antimony (mg/l), MW19-12D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Copper

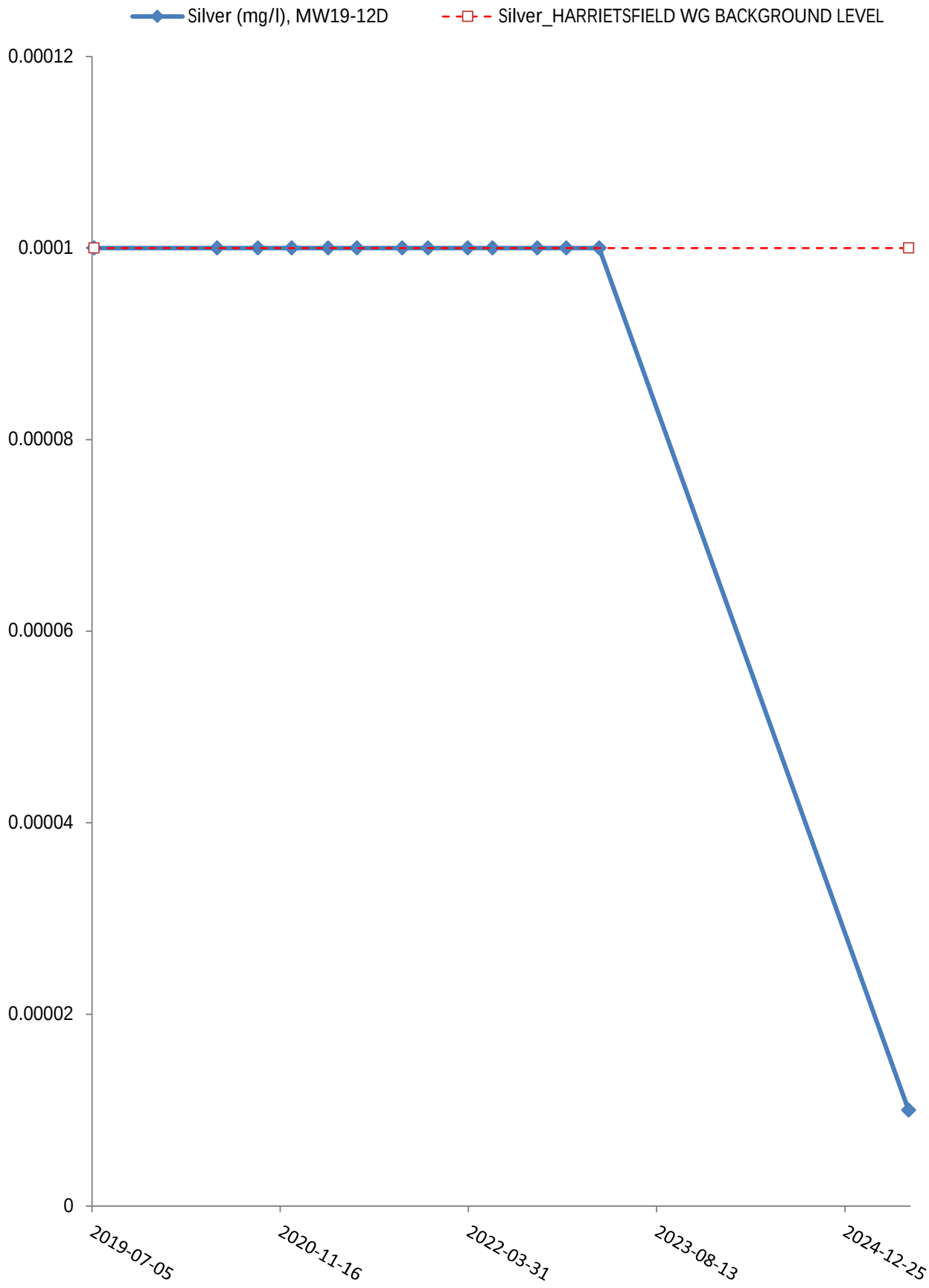

Copper (mg/l), MW19-12D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Fluoride

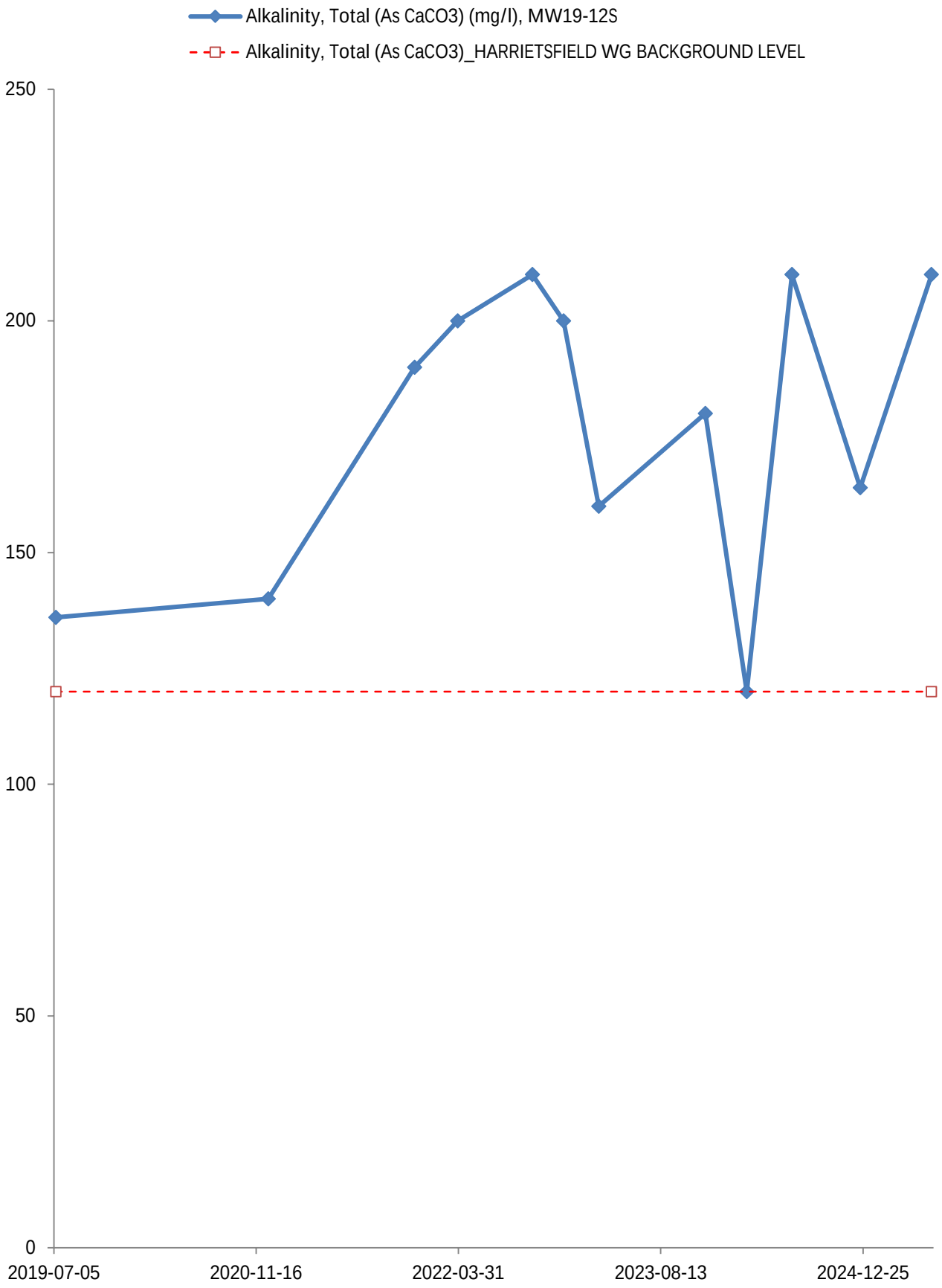



Fluoride (mg/l), MW19-12D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.6
0.5
0.4
0.3
0.2
0.1
0
2019-07-05
2020-01-21
2020-08-08
2021-02-24
2021-09-12
2022-03-31
2022-10-17
2023-05-05
2023-11-21
2024-06-08

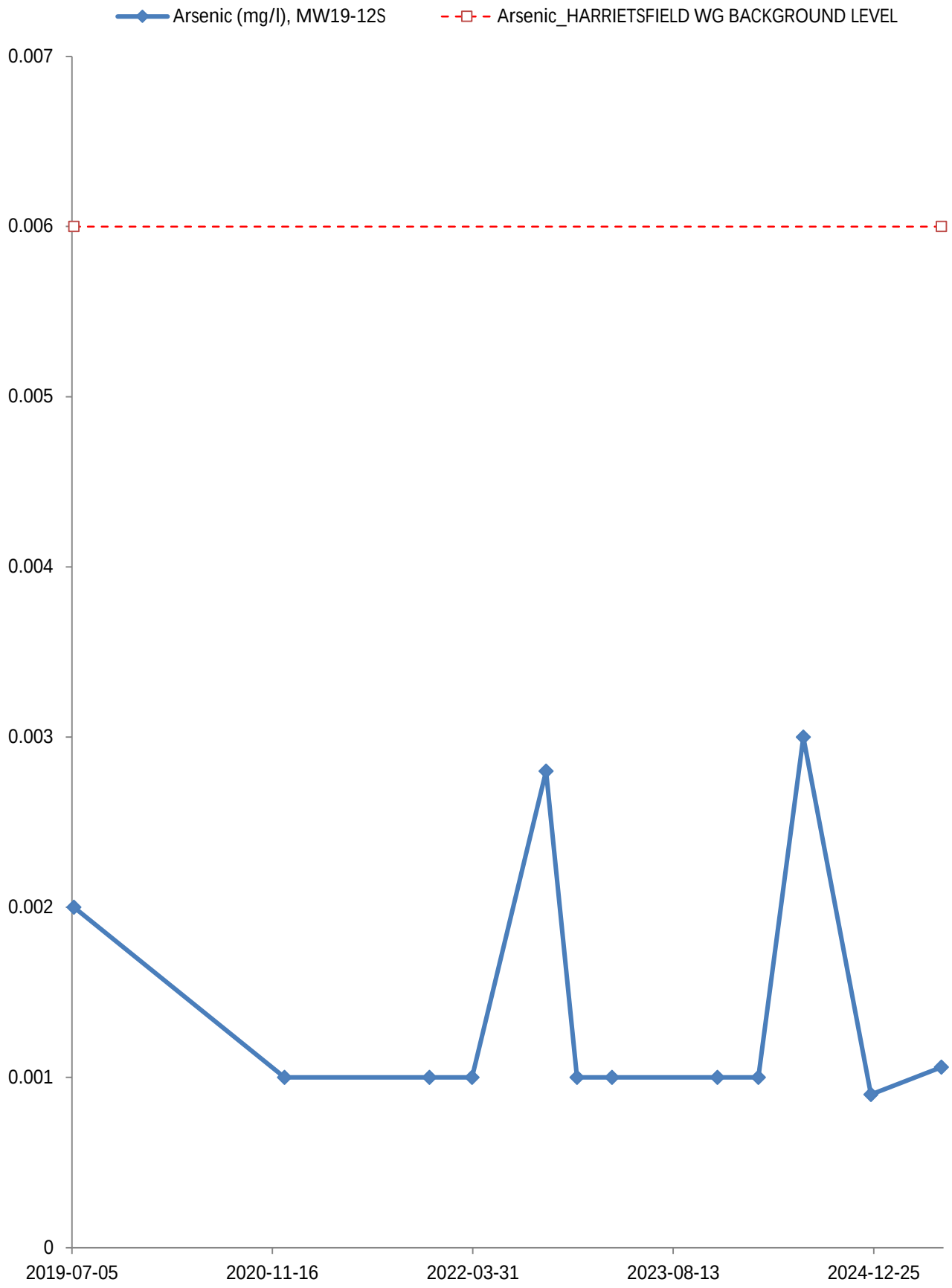
# Silver


Silver (mg/l), MW19-12D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Alkalinity, Total

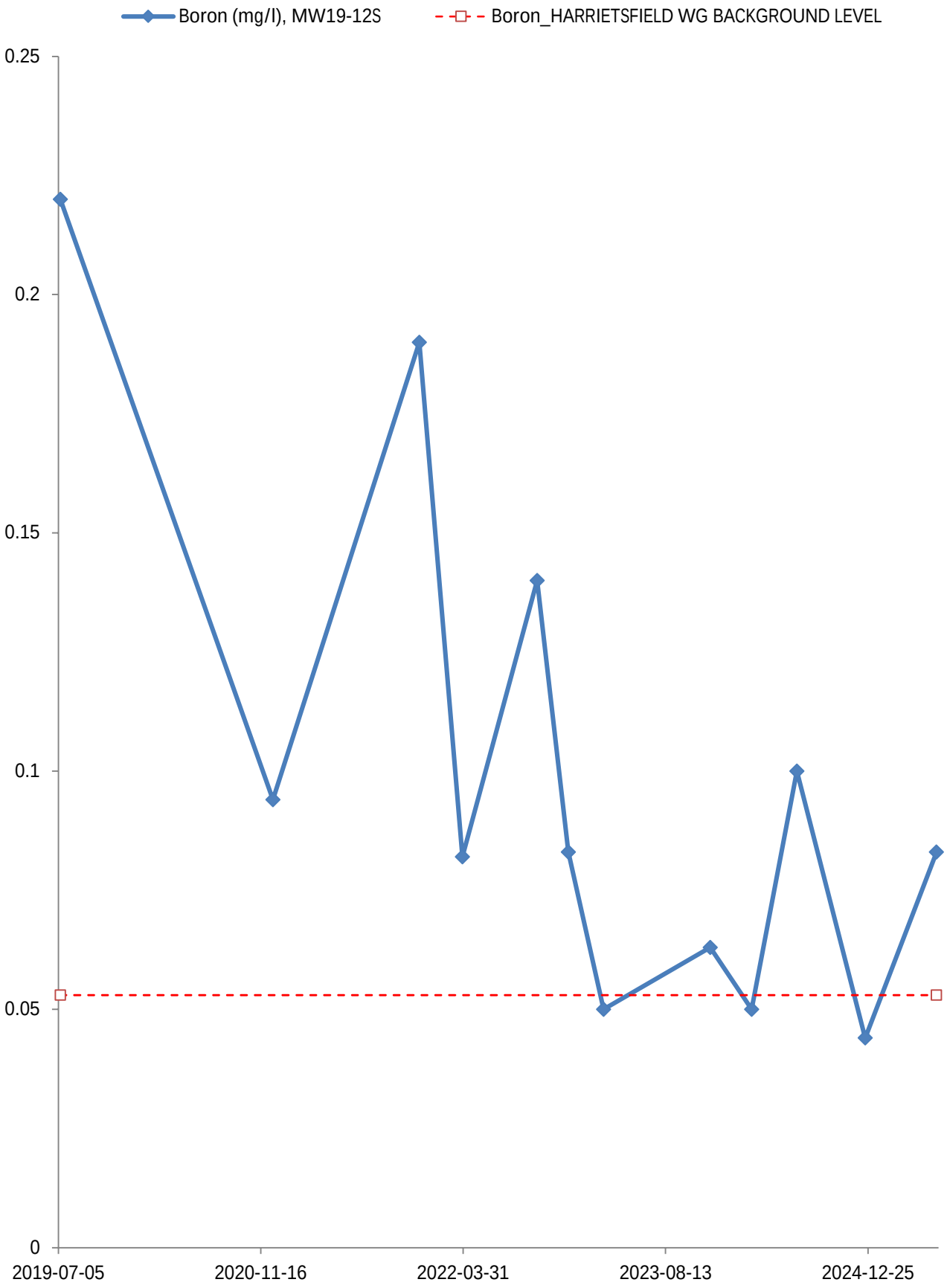


# Arsenic

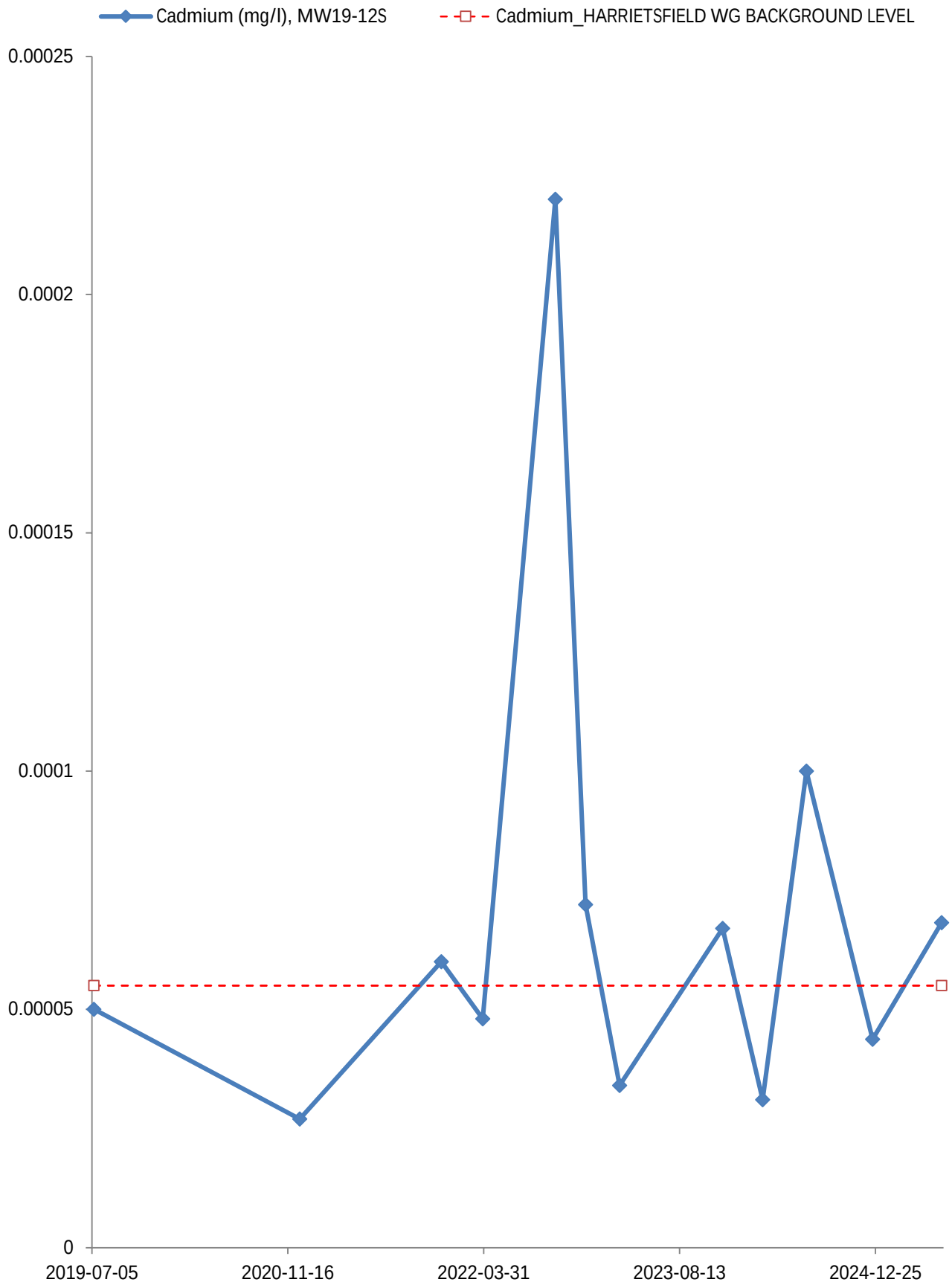

Arsenic (mg/l), MW19-12S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Boron

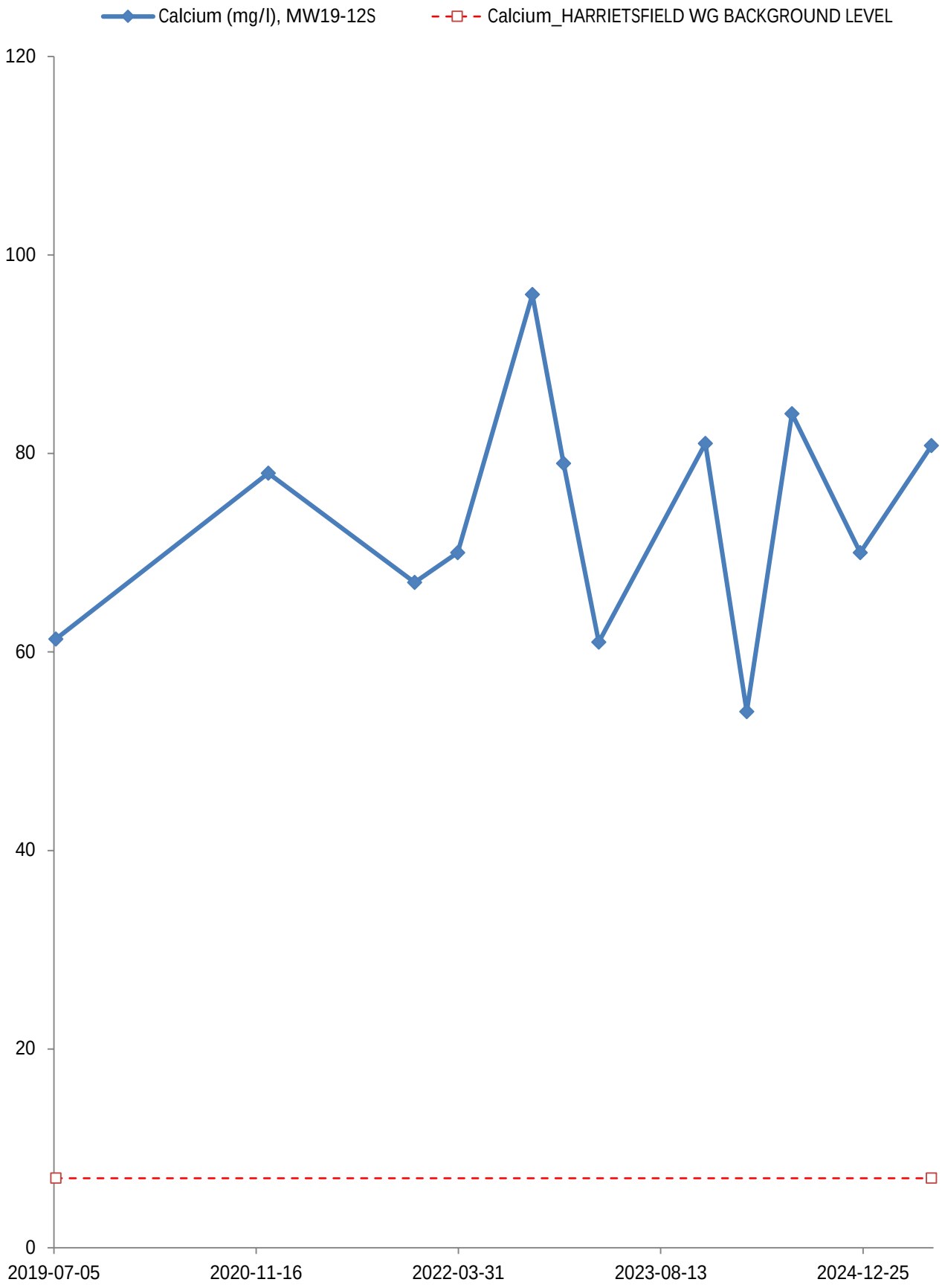



Boron (mg/l), MW19-12S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

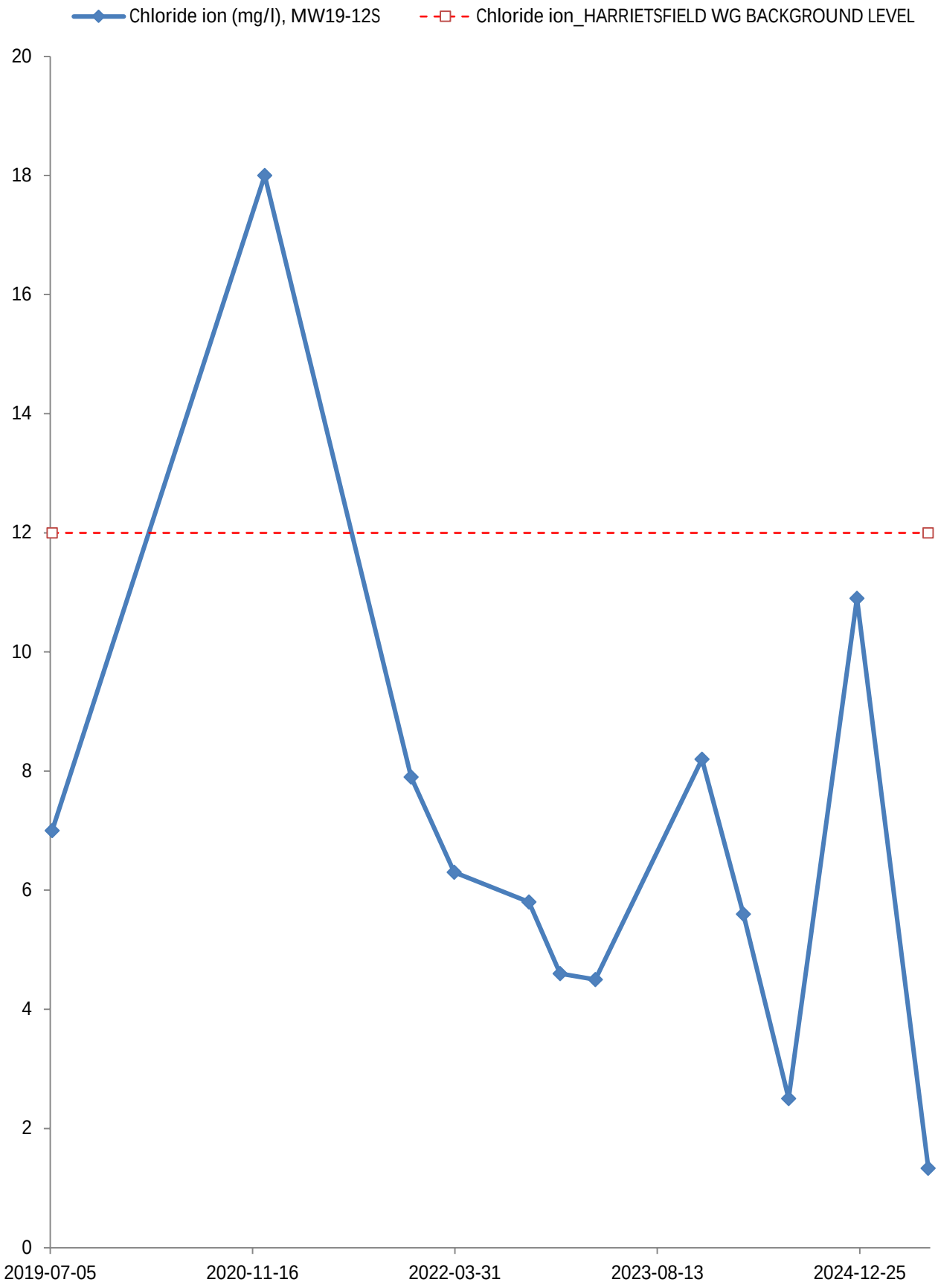
# Cadmium


Cadmium (mg/l), MW19-12S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00025
0.0002
0.00015
0.0001
0.00005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

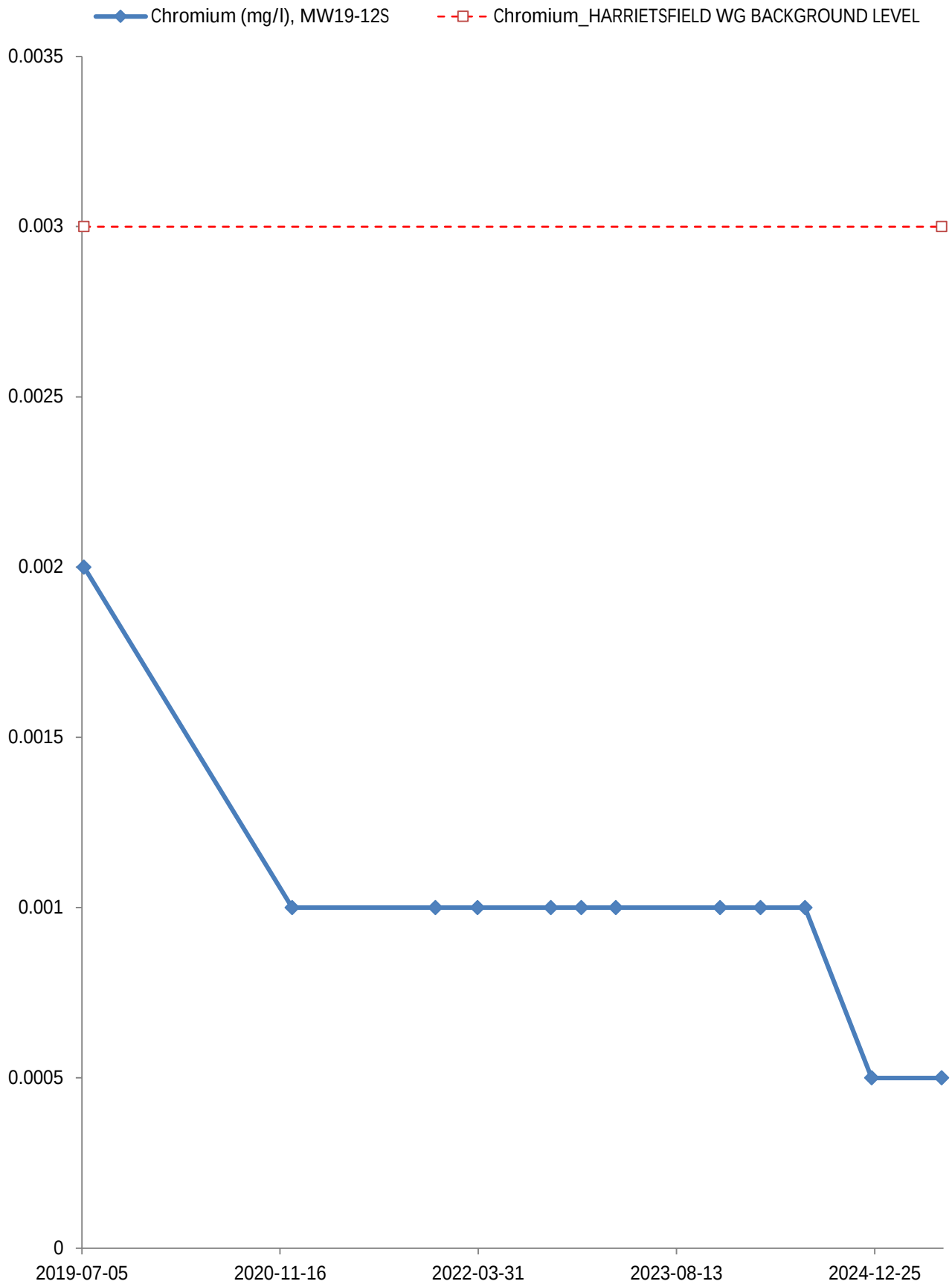
# Calcium


Calcium (mg/l), MW19-12S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
120
100
80
60
40
20
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

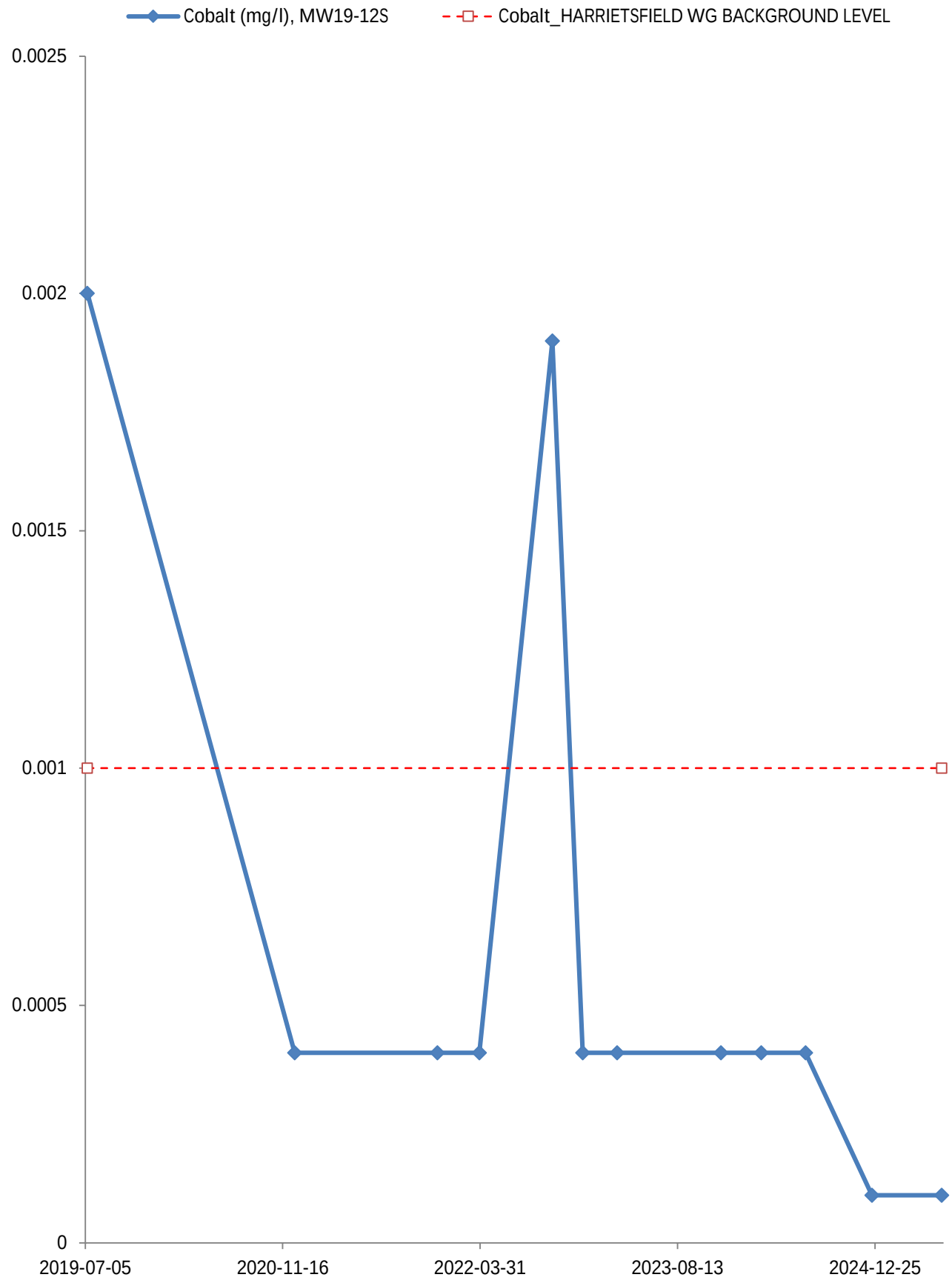
# Chloride ion



# Chromium

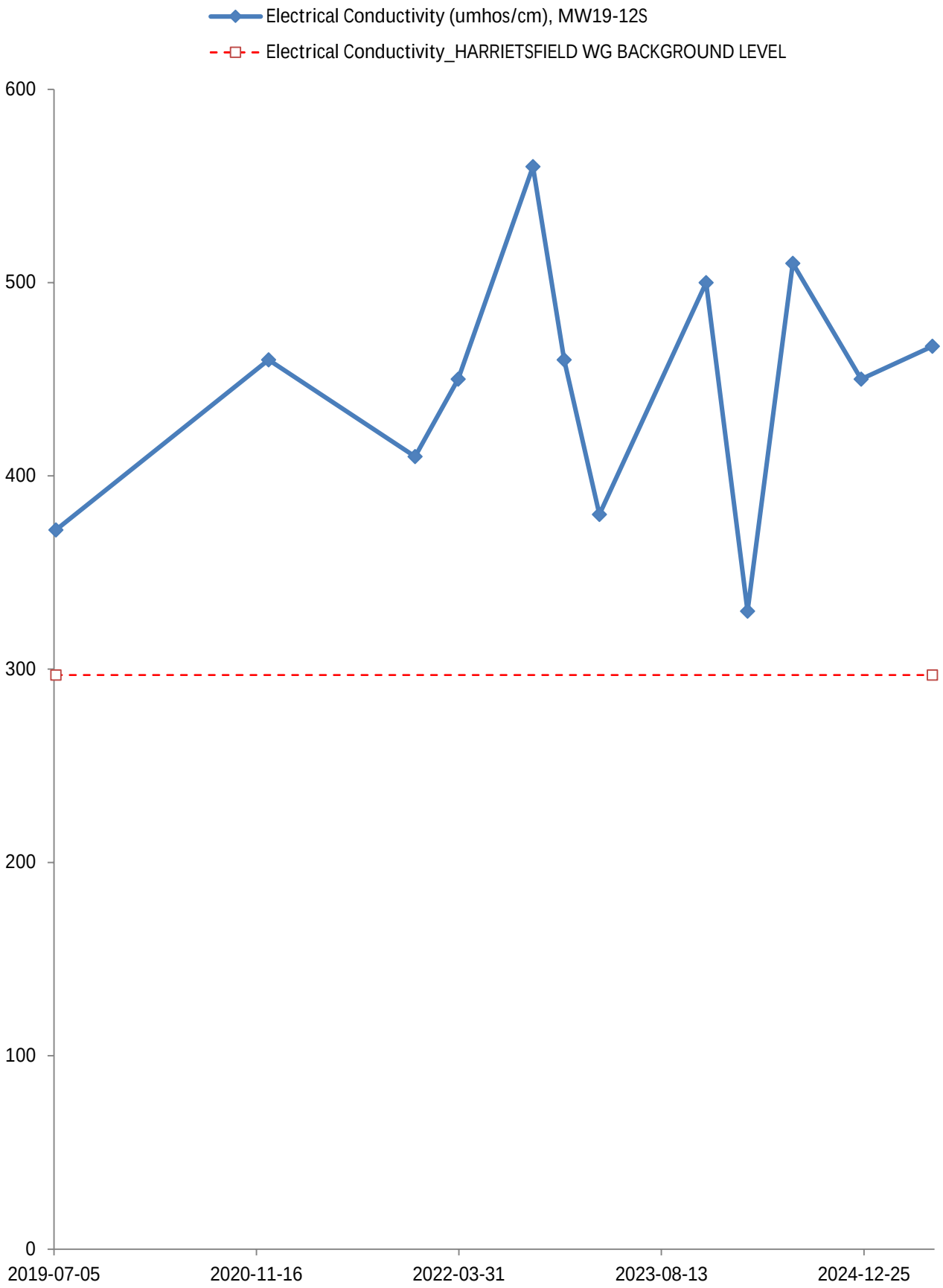

Chromium (mg/l), MW19-12S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Cobalt


Cobalt (mg/l), MW19-12S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

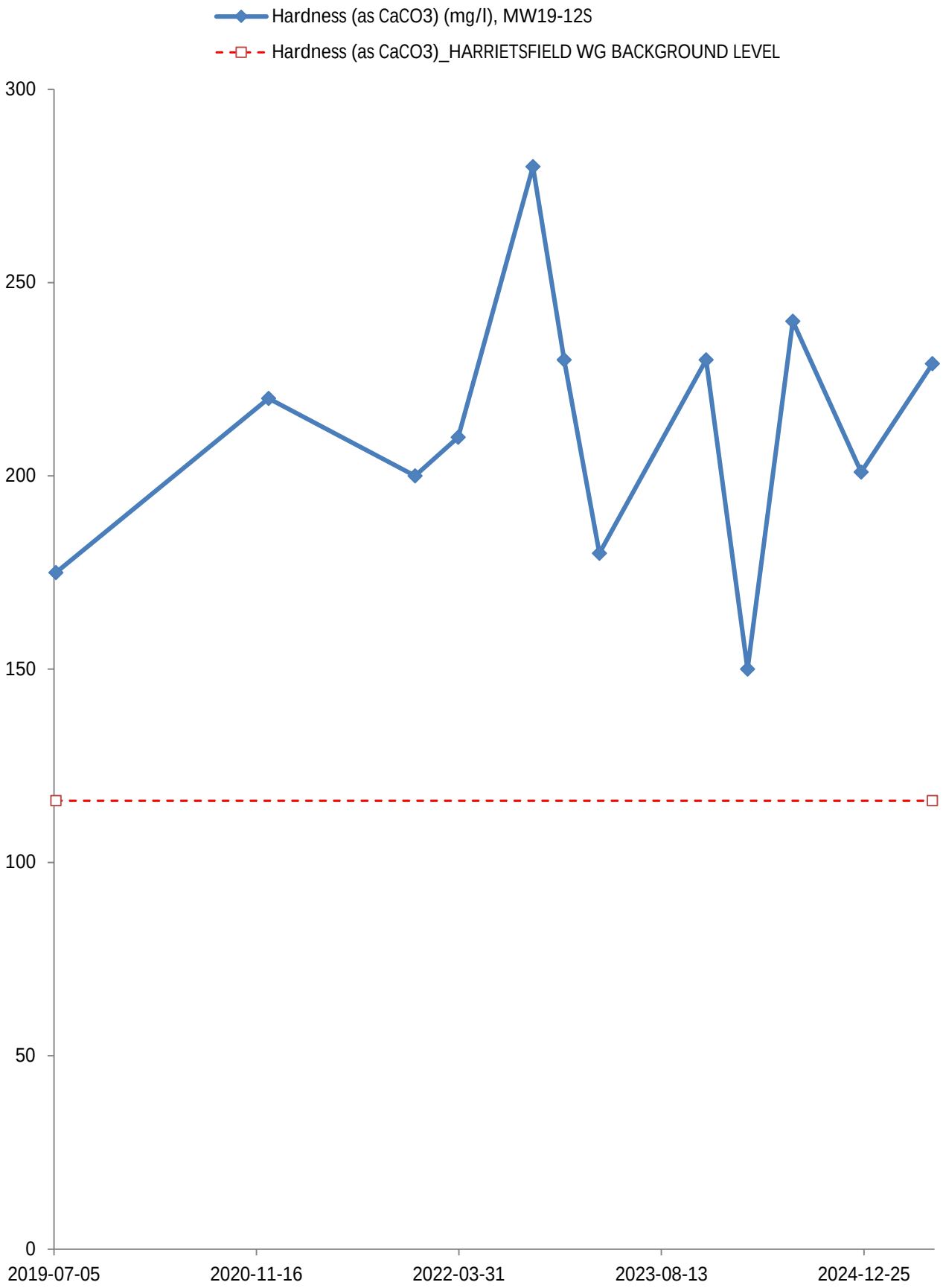
# Electrical Conductivity





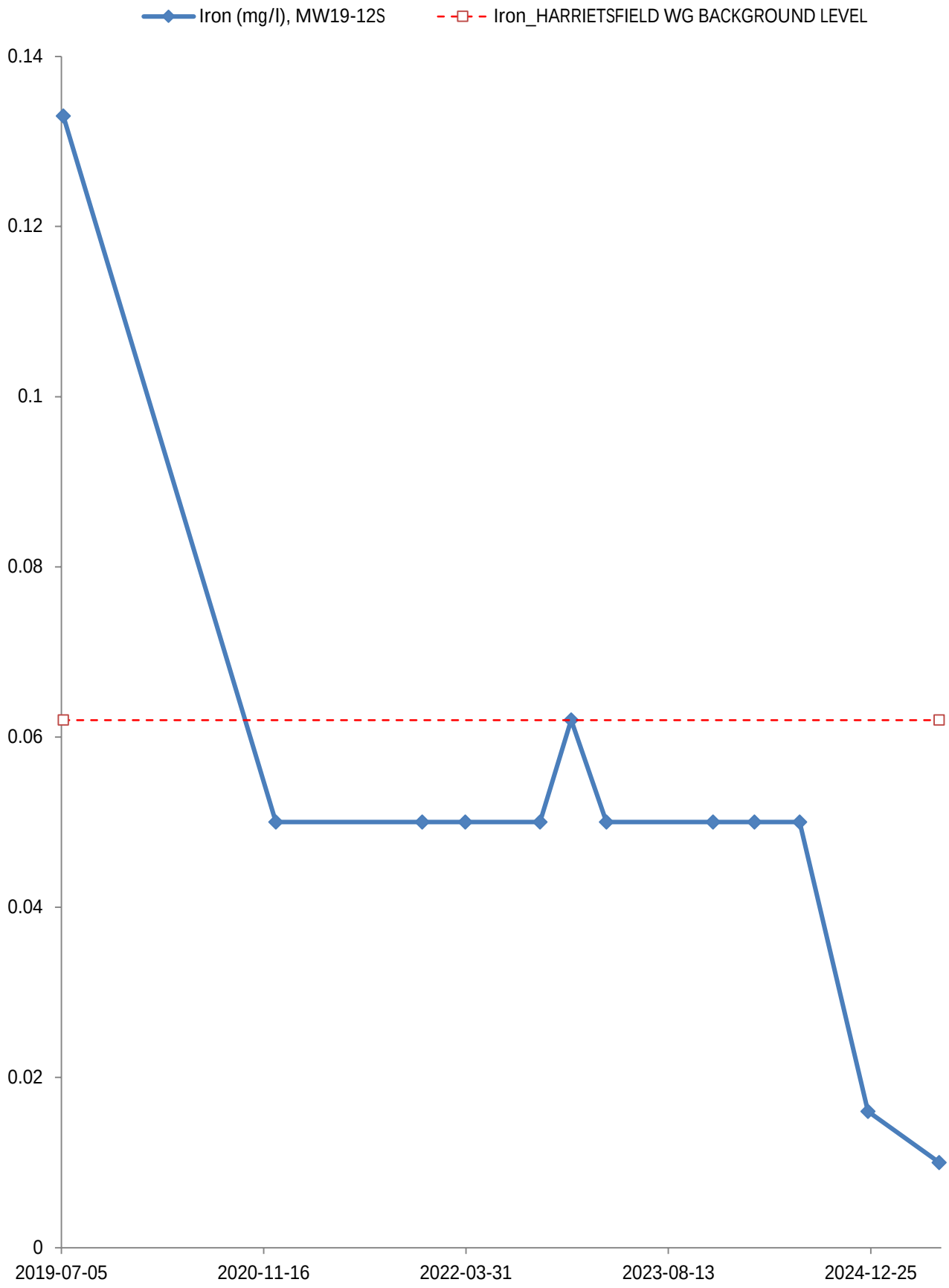
# Hardness (as CaCO3)



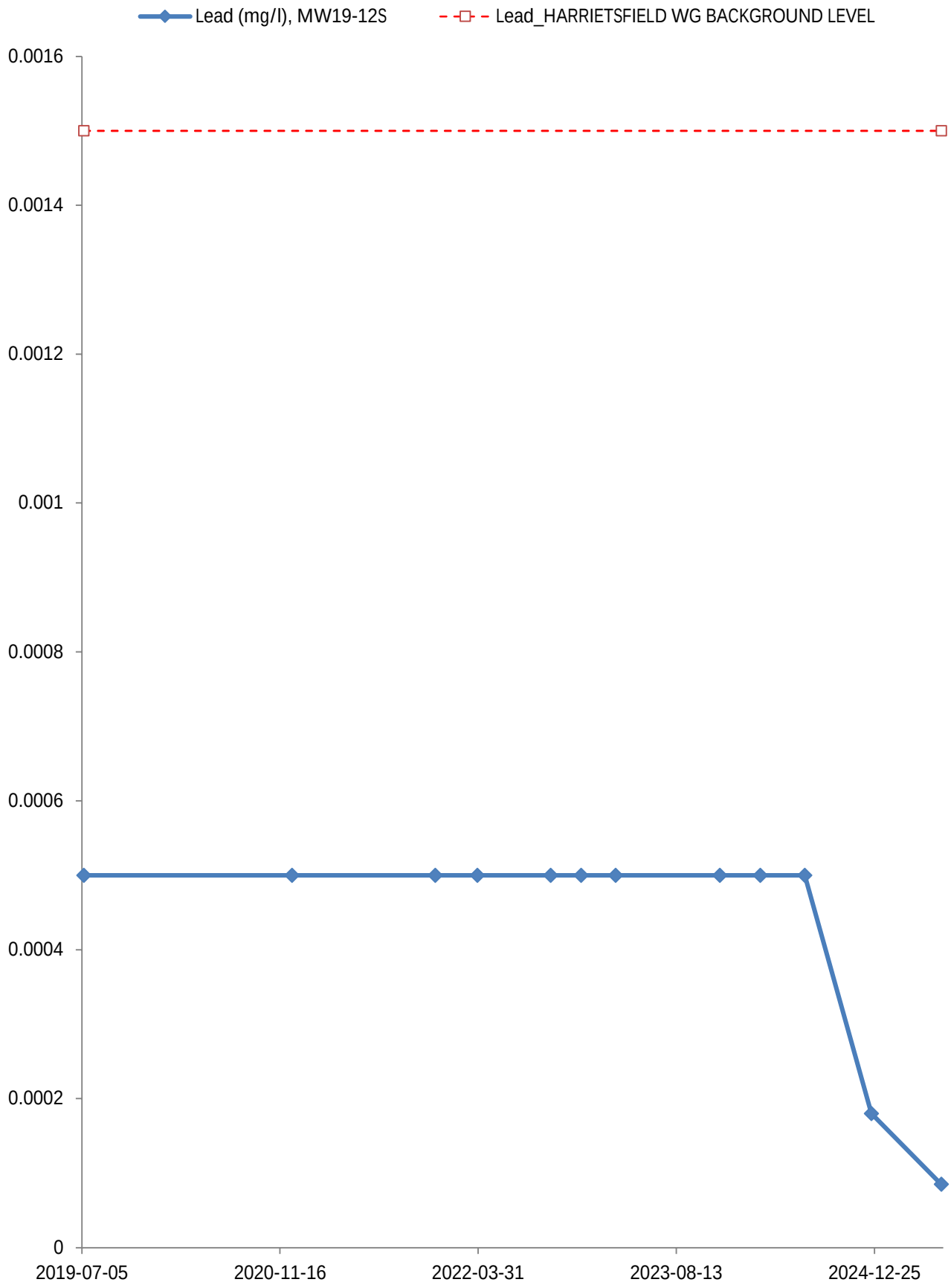


# Iron

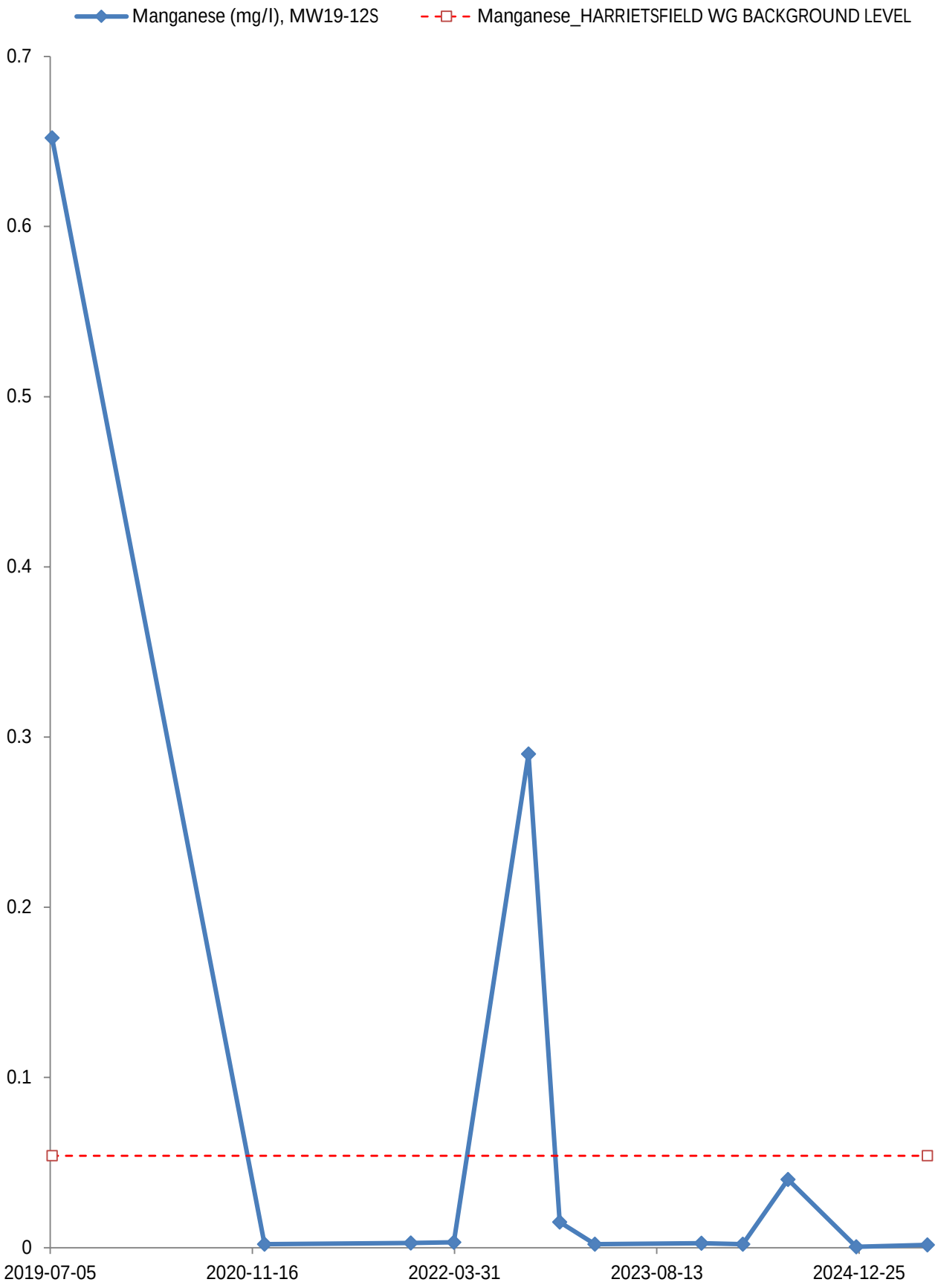



Iron (mg/l), MW19-12S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Lead

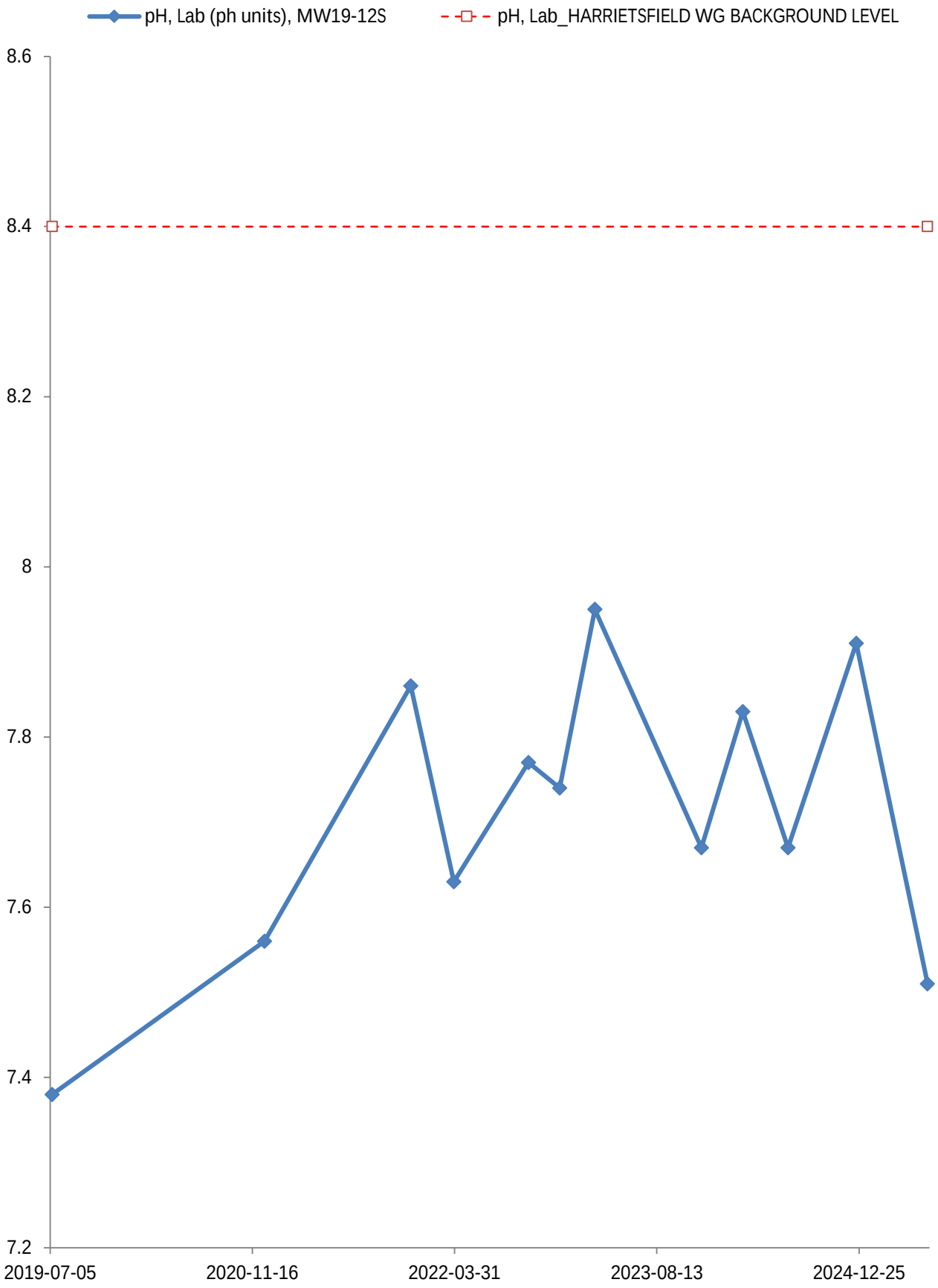

Lead (mg/l), MW19-12S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Manganese


Manganese (mg/l), MW19-12S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

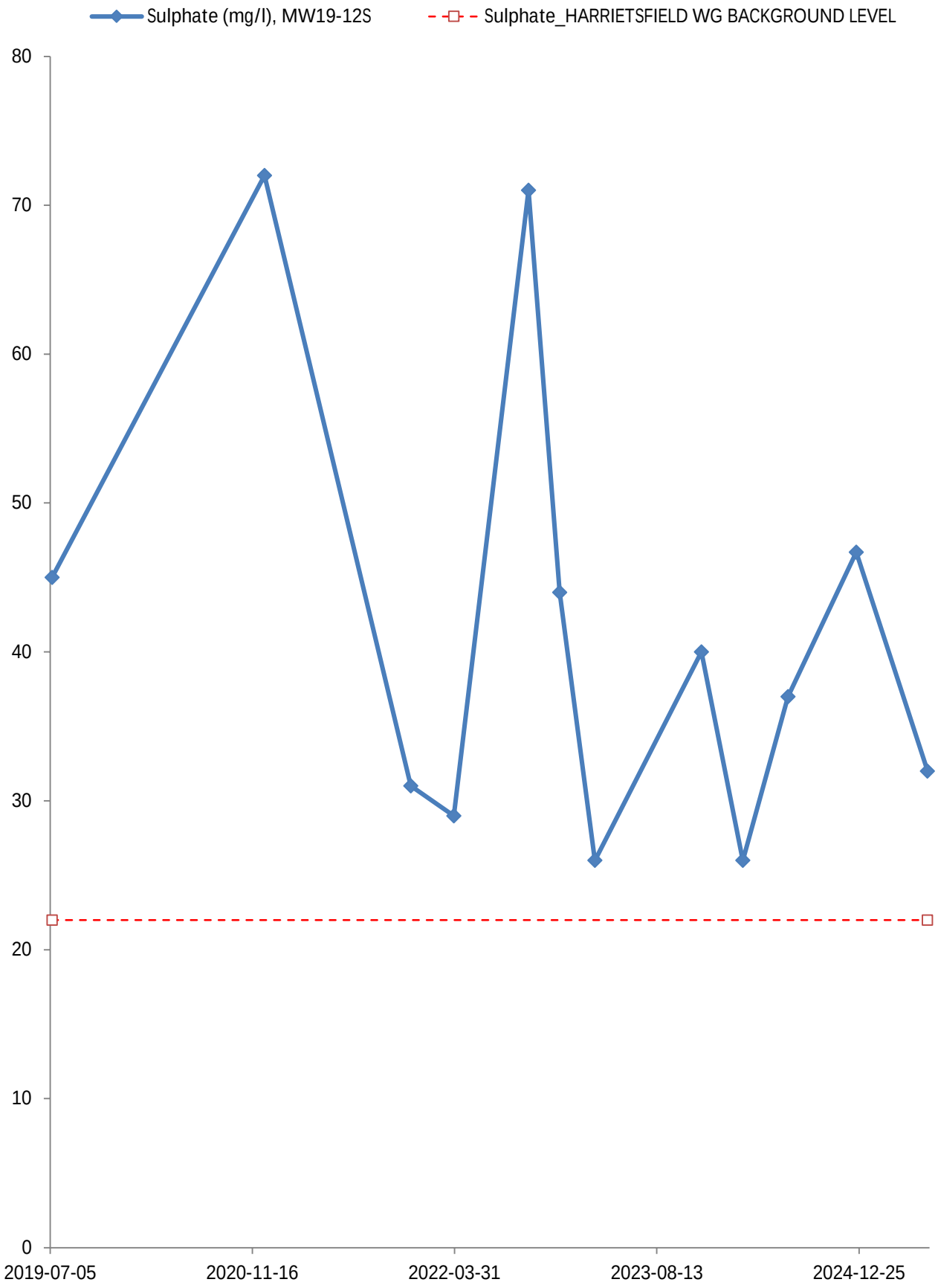
# pH, Lab



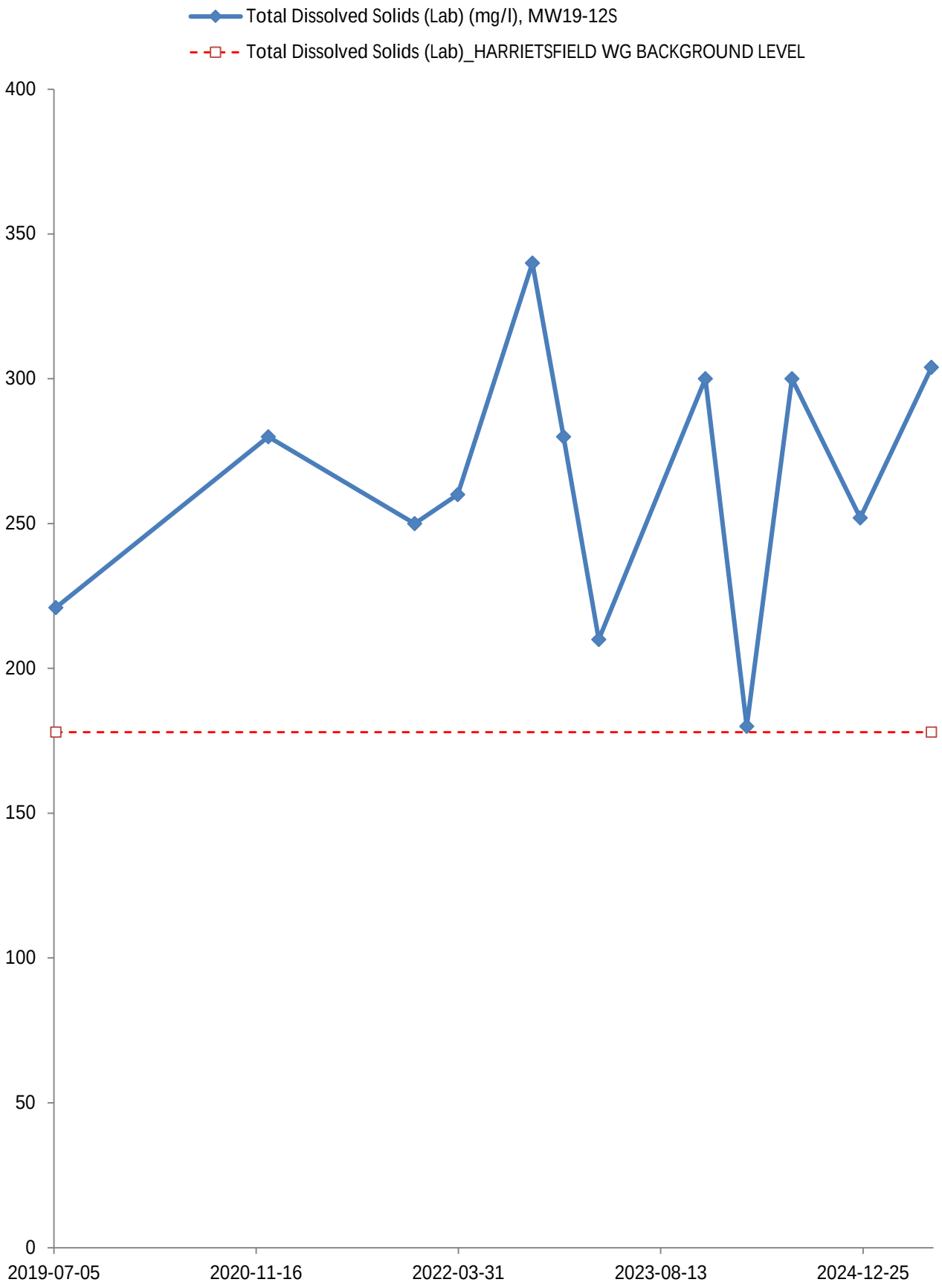

pH, Lab (ph units), MW19-12S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Sulphate

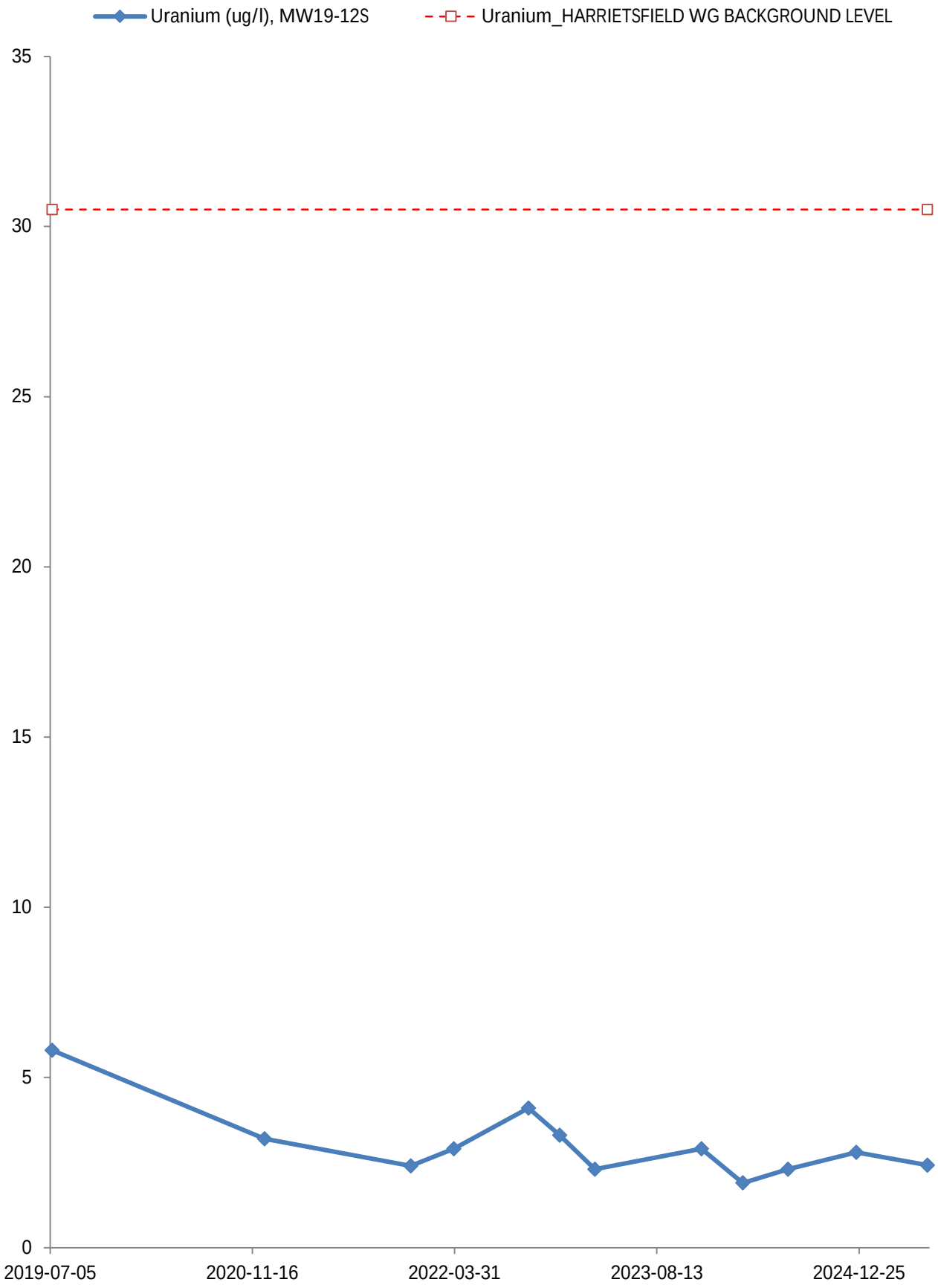



Sulphate (mg/l), MW19-12S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
80
70
60
50
40
30
20
10
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

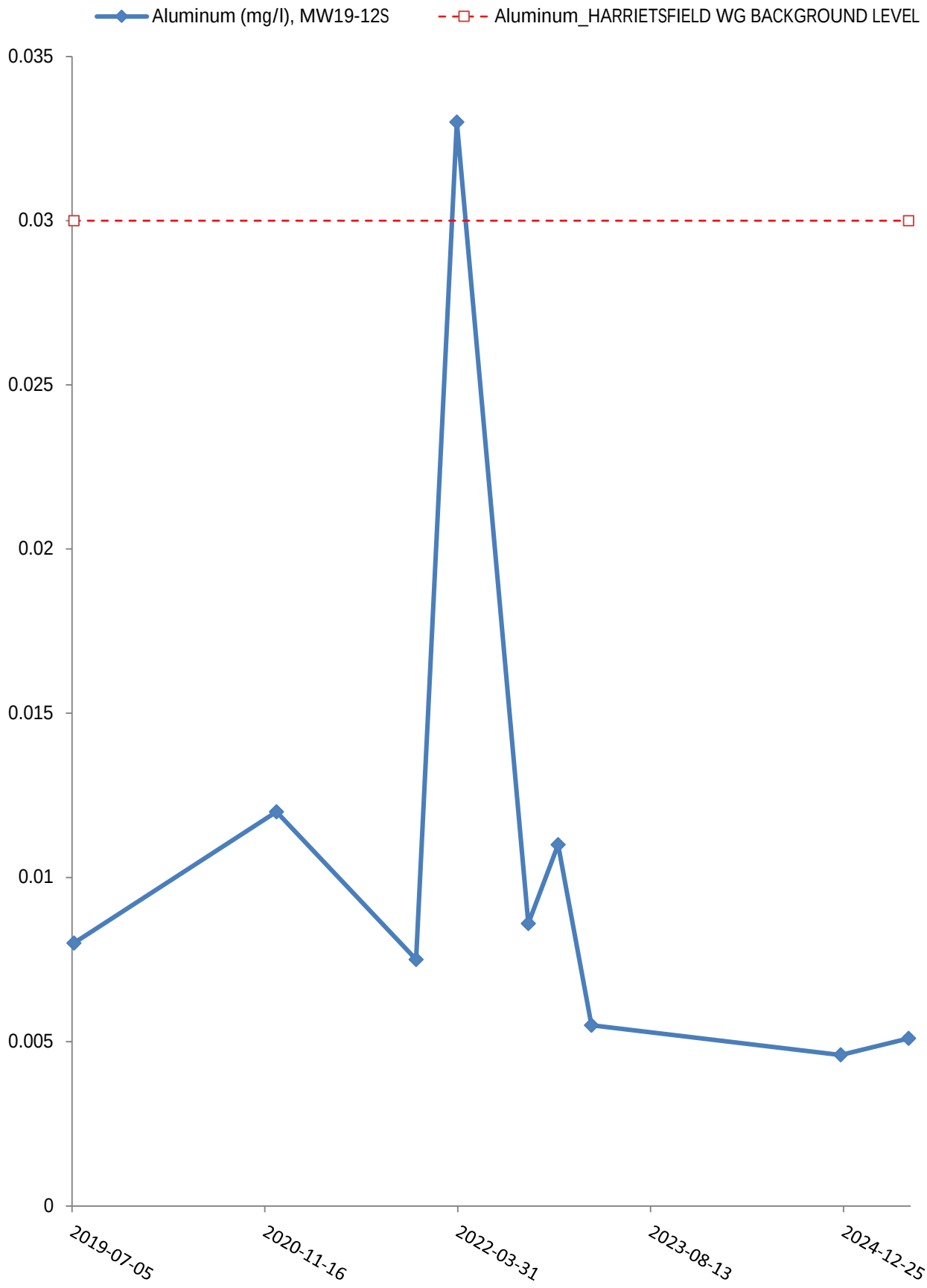
# Total Dissolved Solids (5



# Uranium

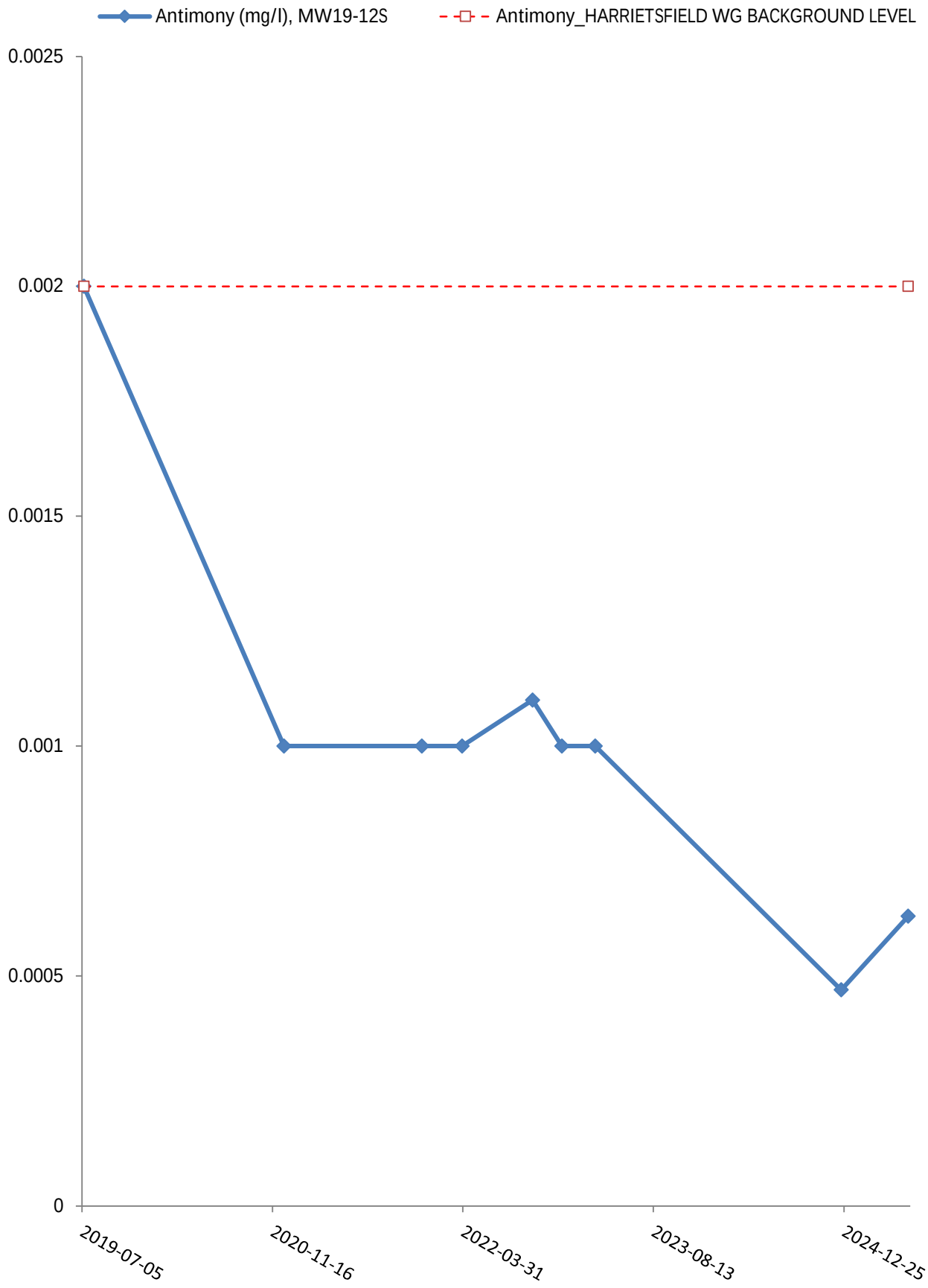

Uranium (ug/l), MW19-12S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Aluminum

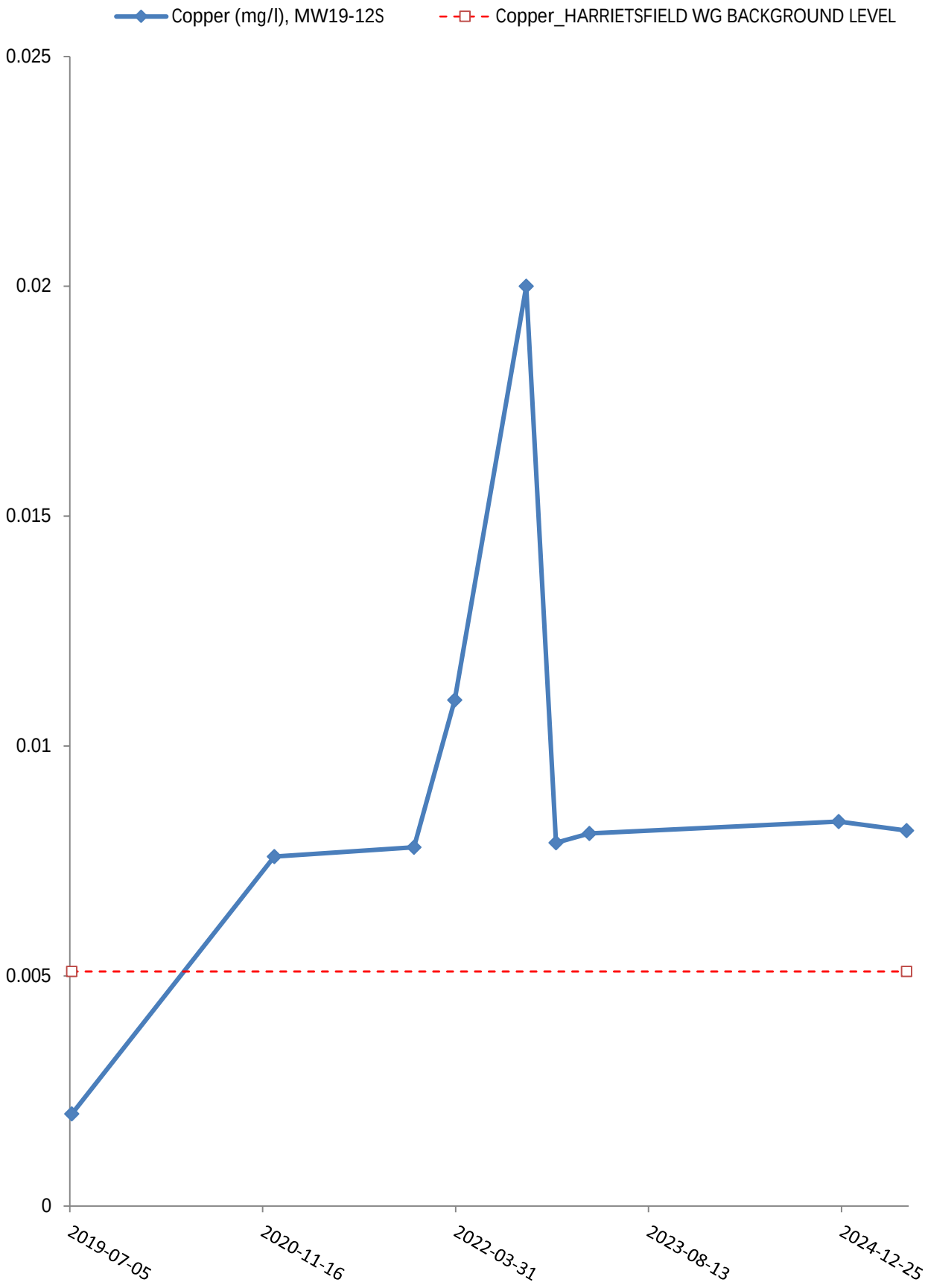

Aluminum (mg/l), MW19-12S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Antimony



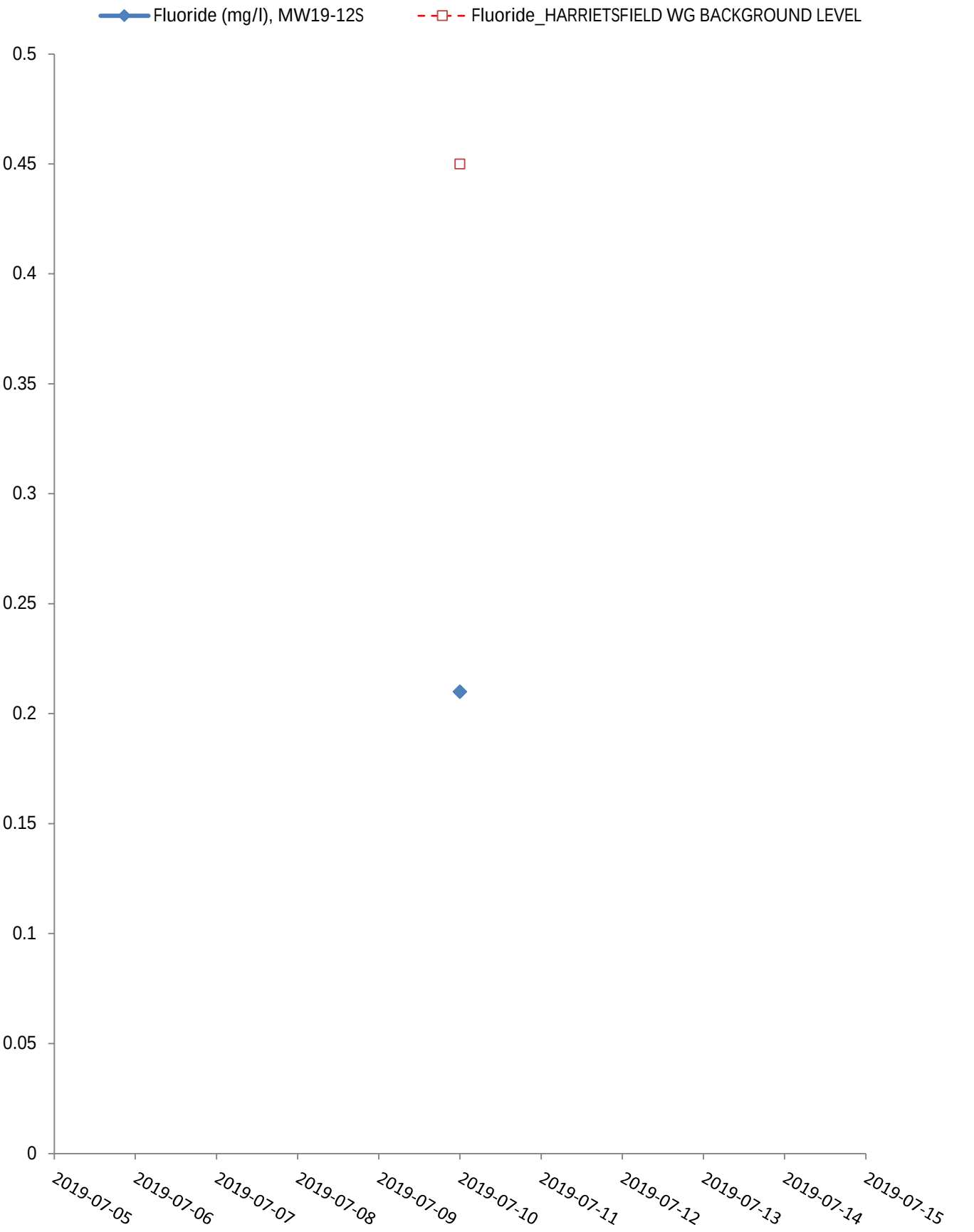

Antimony (mg/l), MW19-12S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Copper

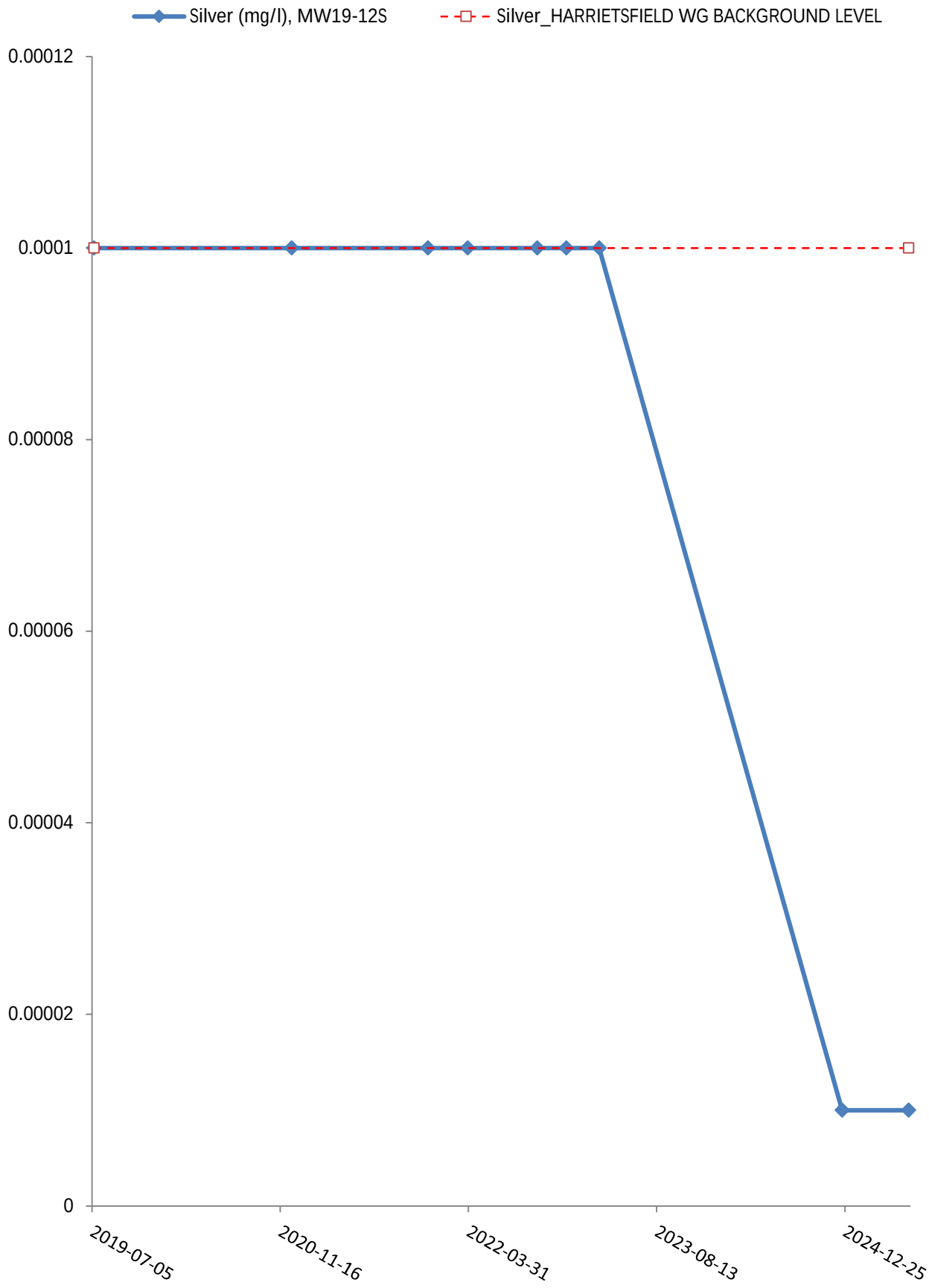

Copper (mg/l), MW19-12S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Fluoride



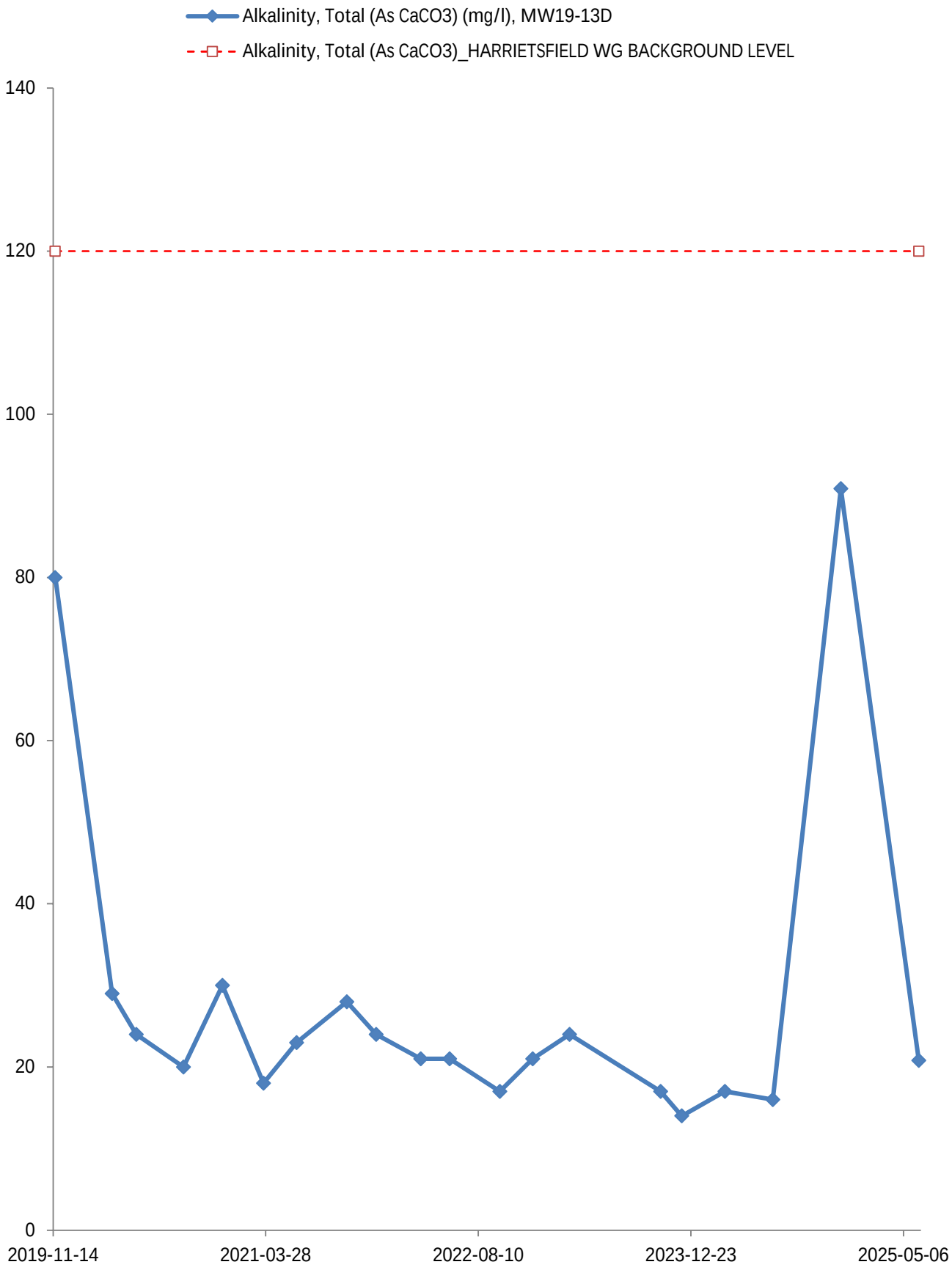

Fluoride (mg/l), MW19-12S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-07-05
2019-07-06
2019-07-07
2019-07-08
2019-07-09
2019-07-10
2019-07-11
2019-07-12
2019-07-13
2019-07-14
2019-07-15

# Silver

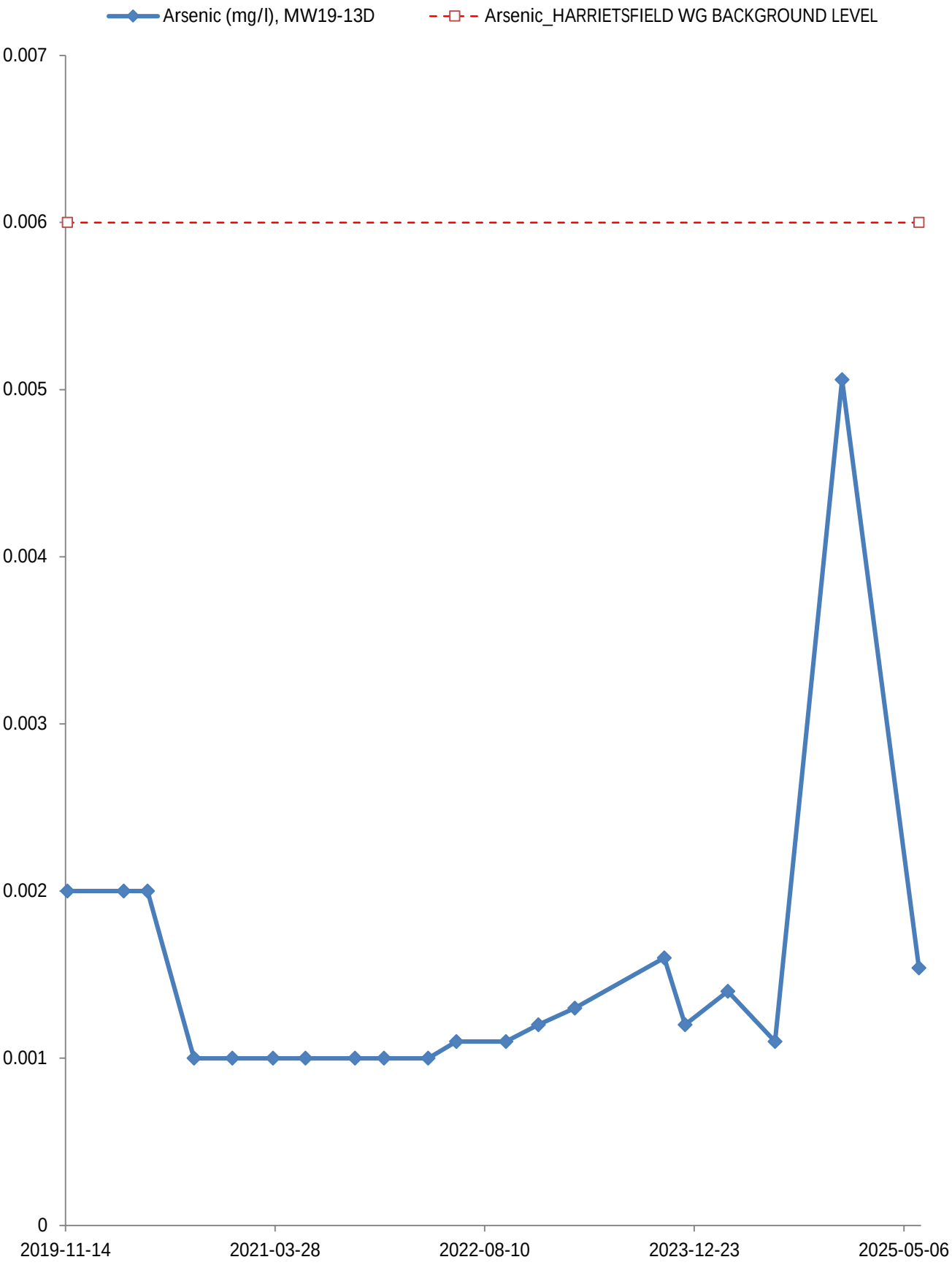

Silver (mg/l), MW19-12S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-07-05
2020-11-16
2022-03-31
2023-08-13
2024-12-25

# Alkalinity, Total

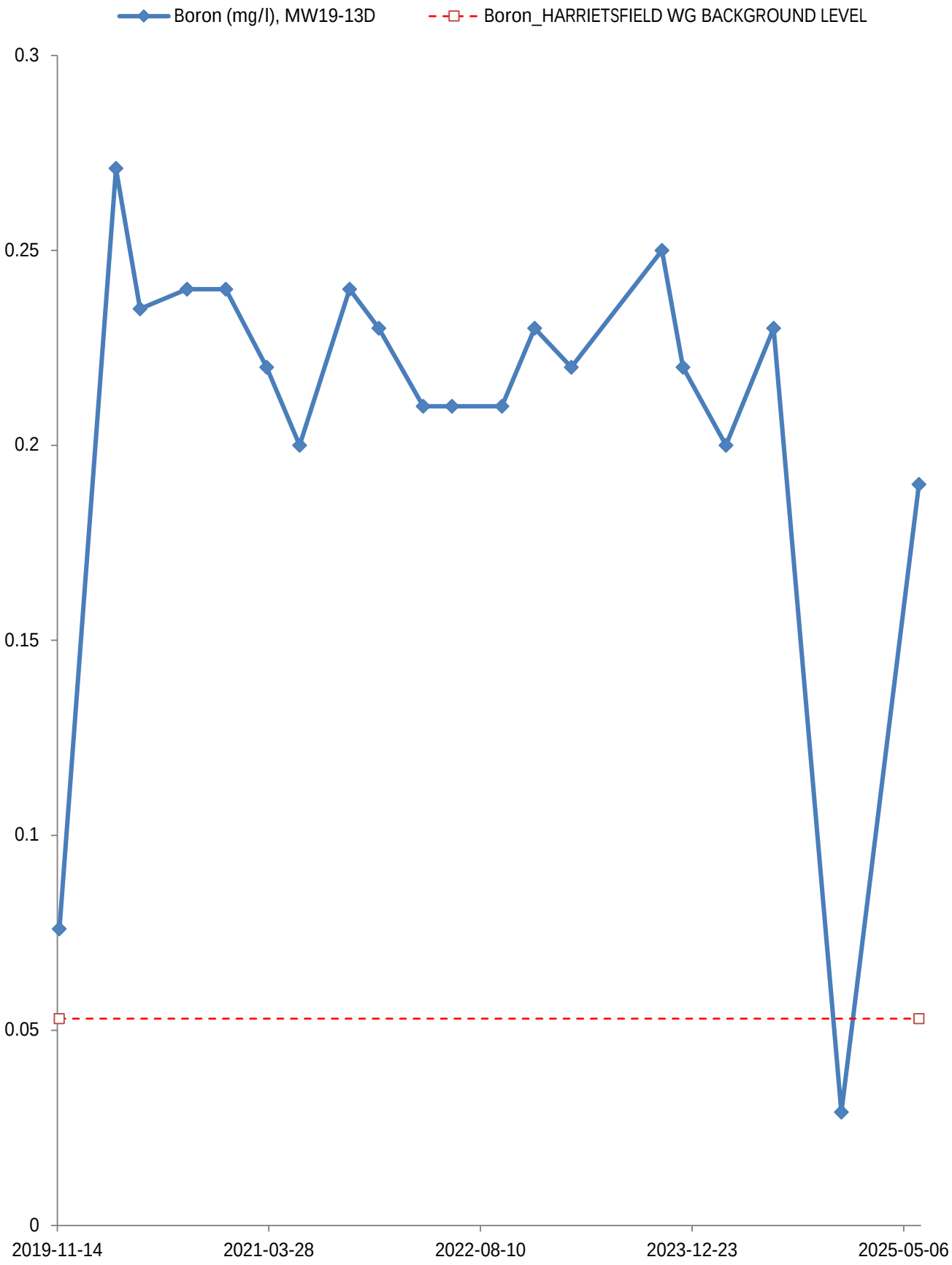




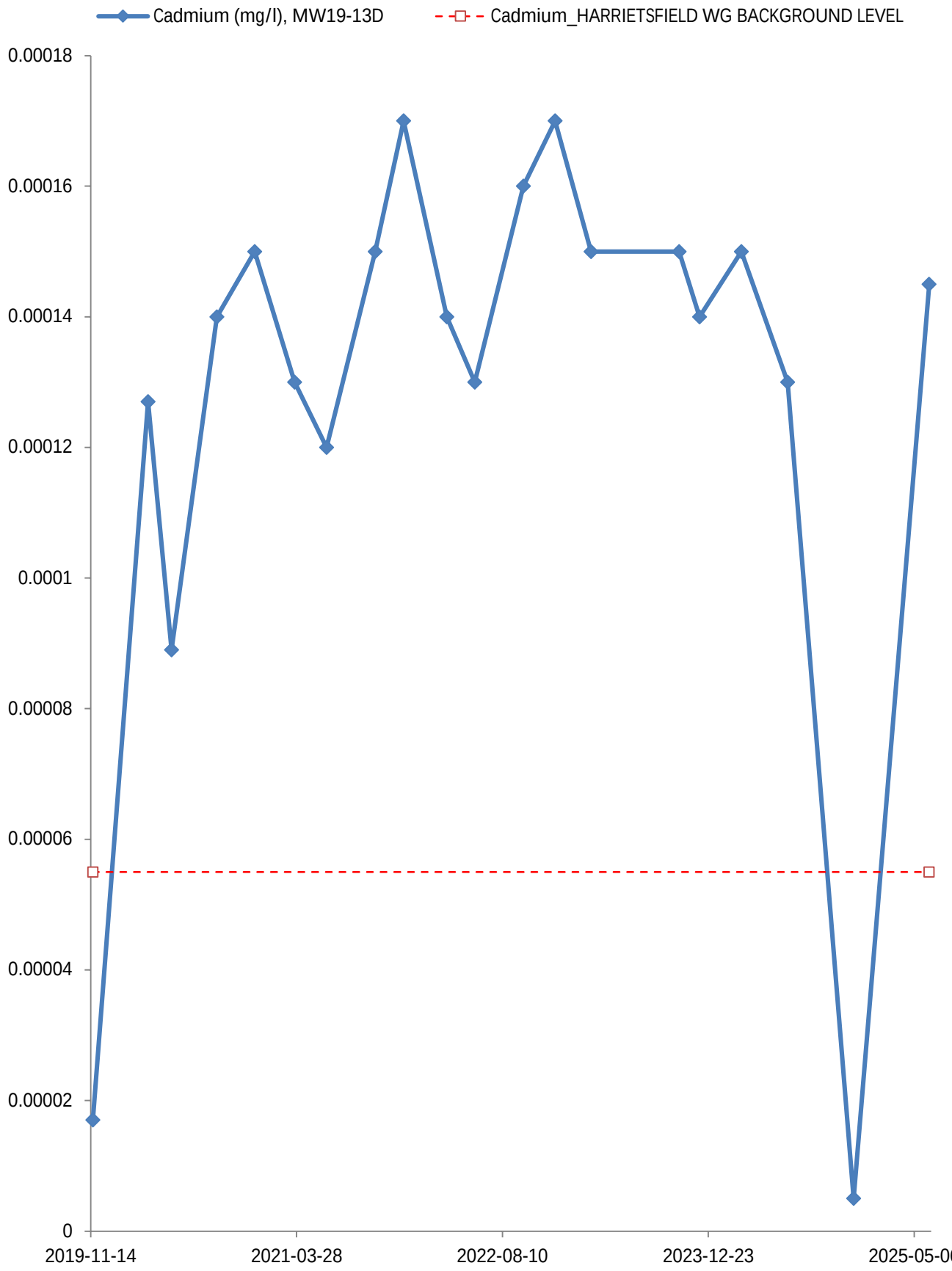
# Arsenic


Arsenic (mg/l), MW19-13D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

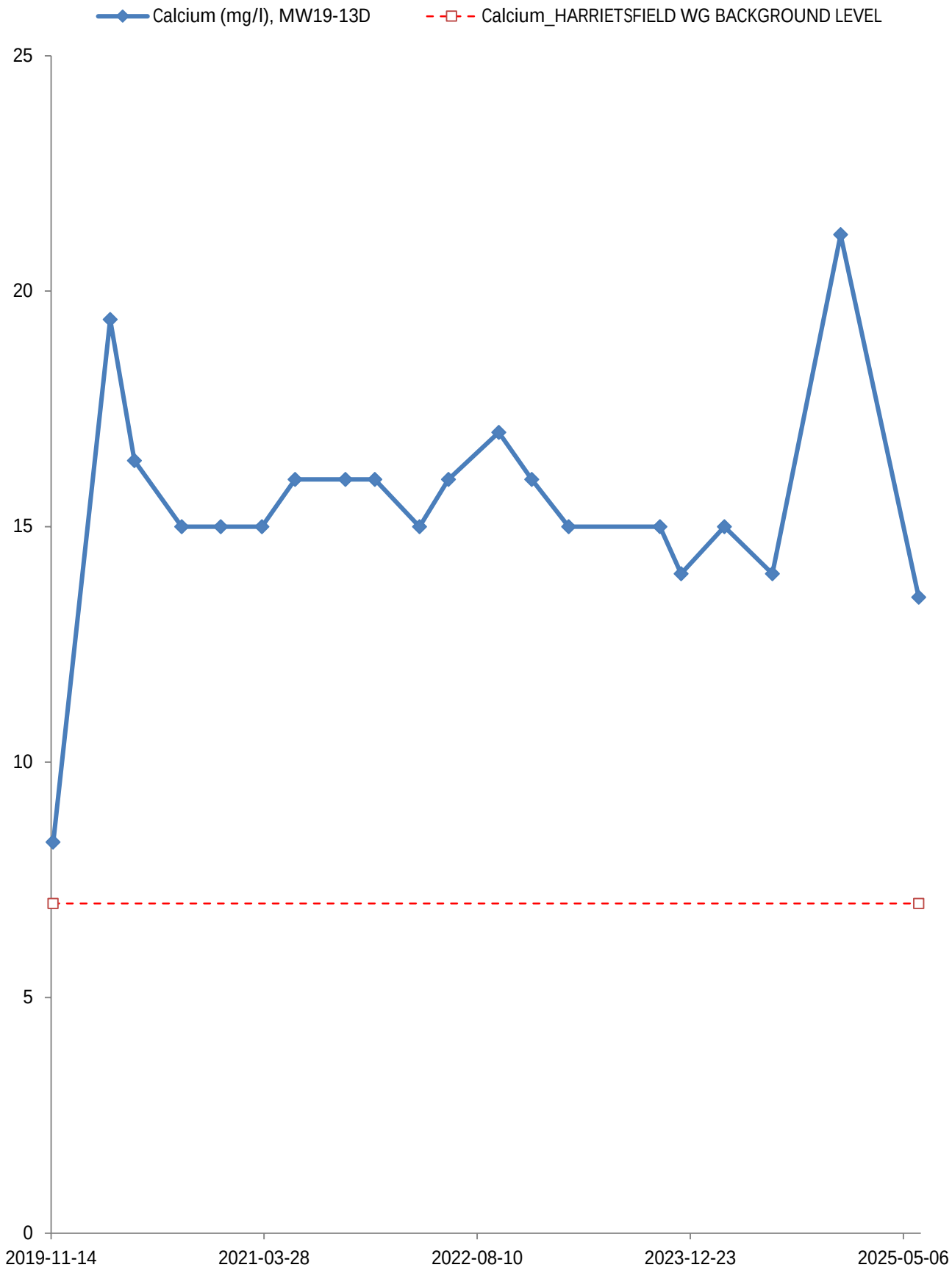
# Boron


Boron (mg/l), MW19-13D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

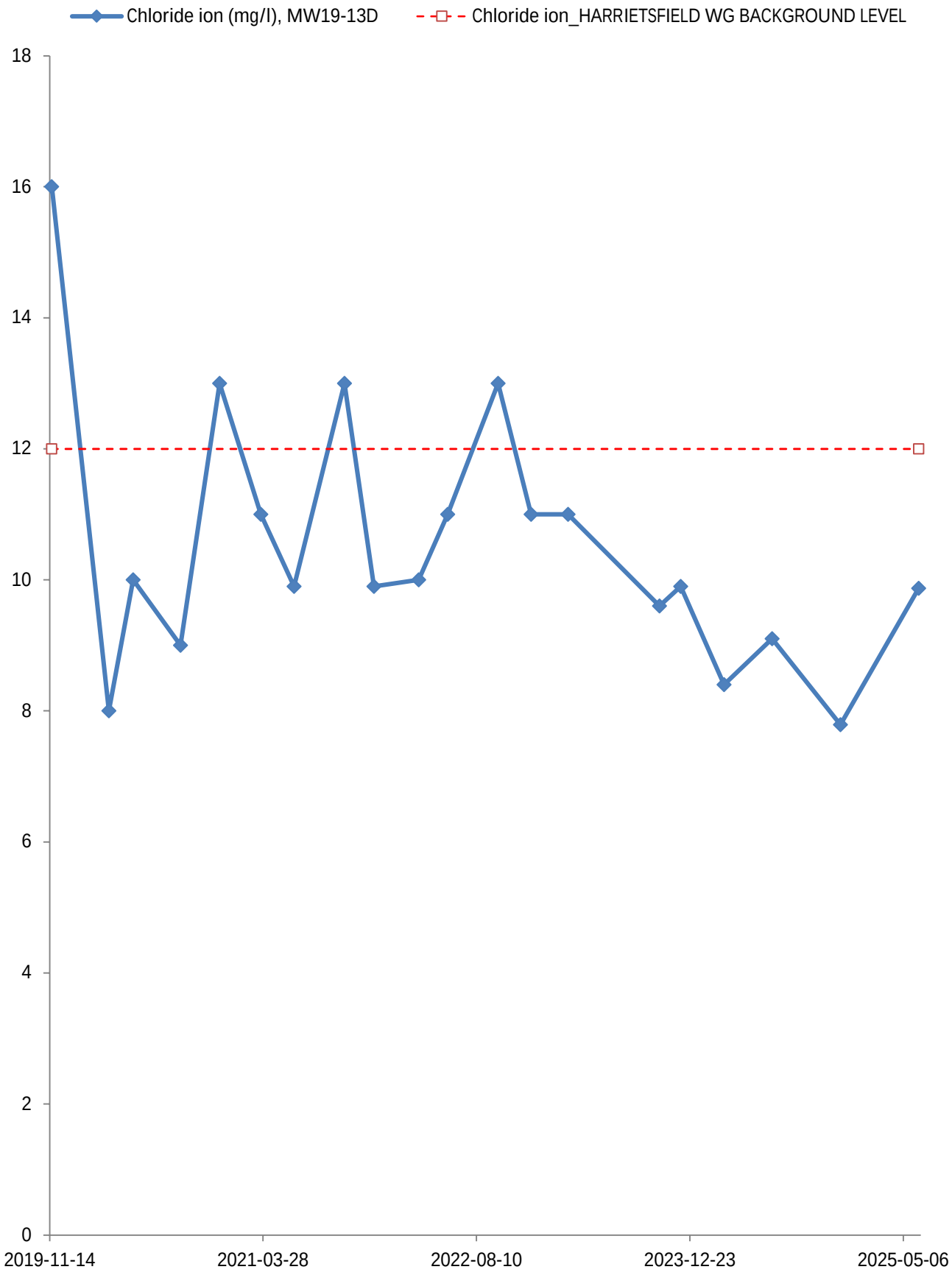
# Cadmium


Cadmium (mg/l), MW19-13D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00018
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

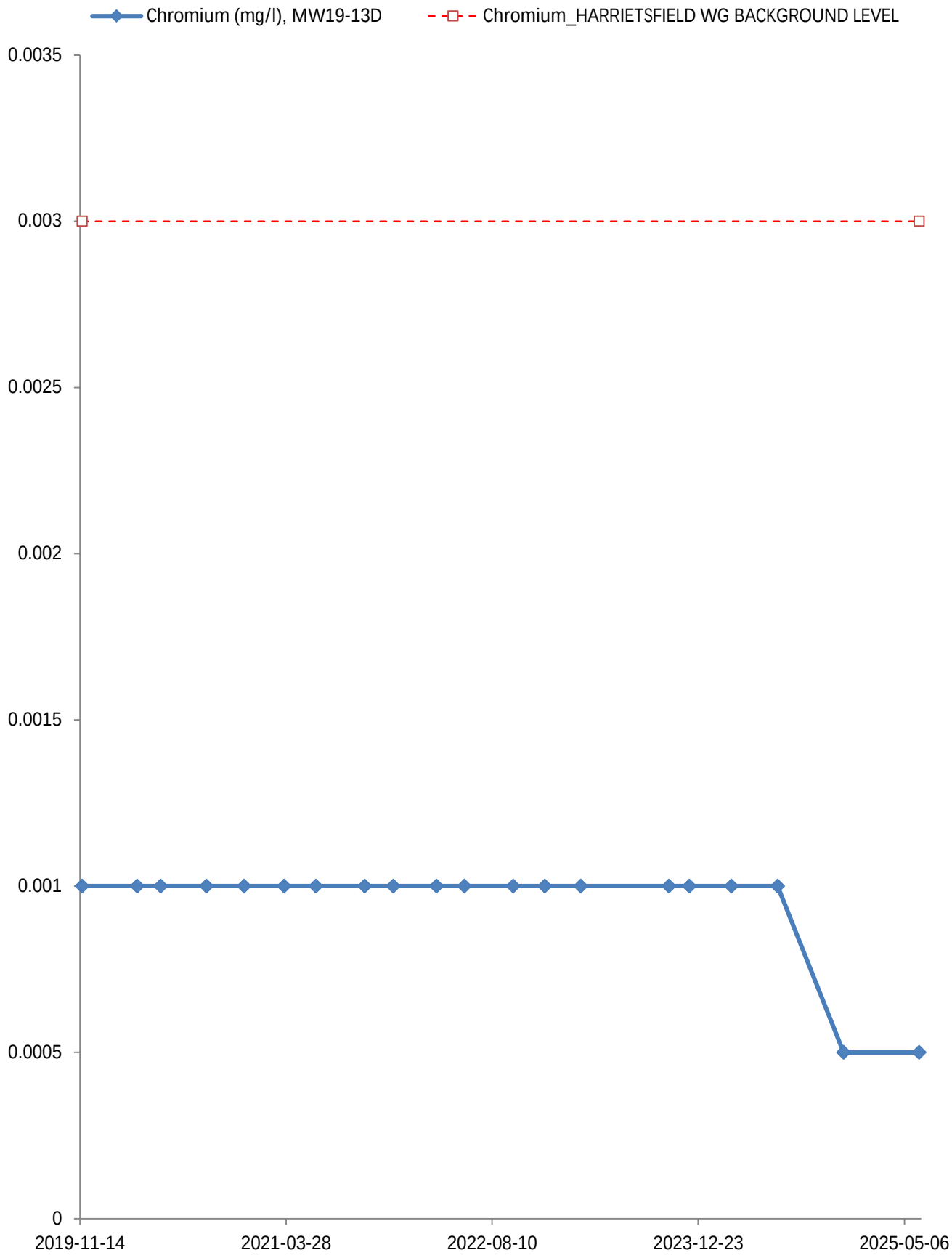
# Calcium


Calcium (mg/l), MW19-13D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

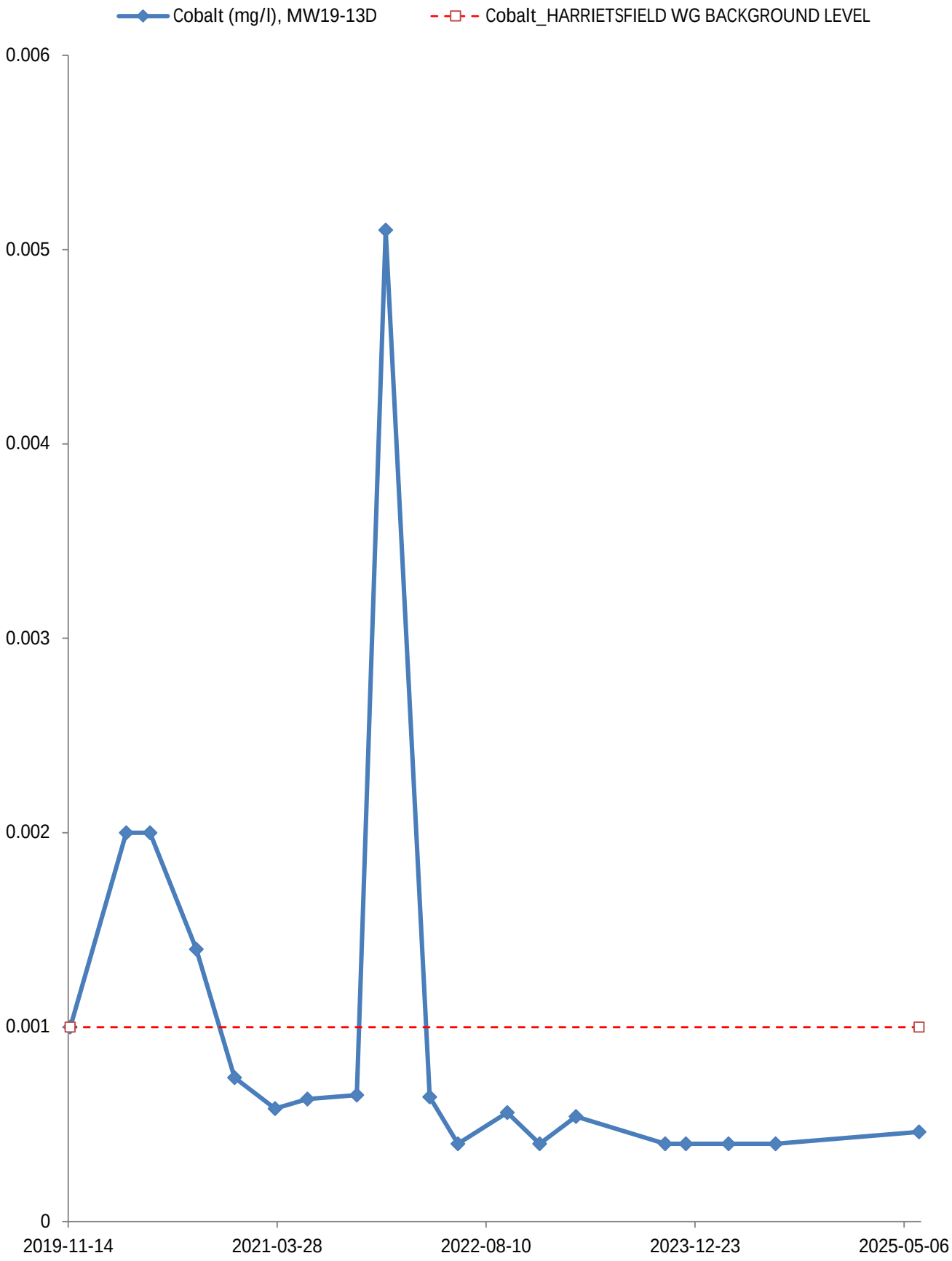
# Chloride ion



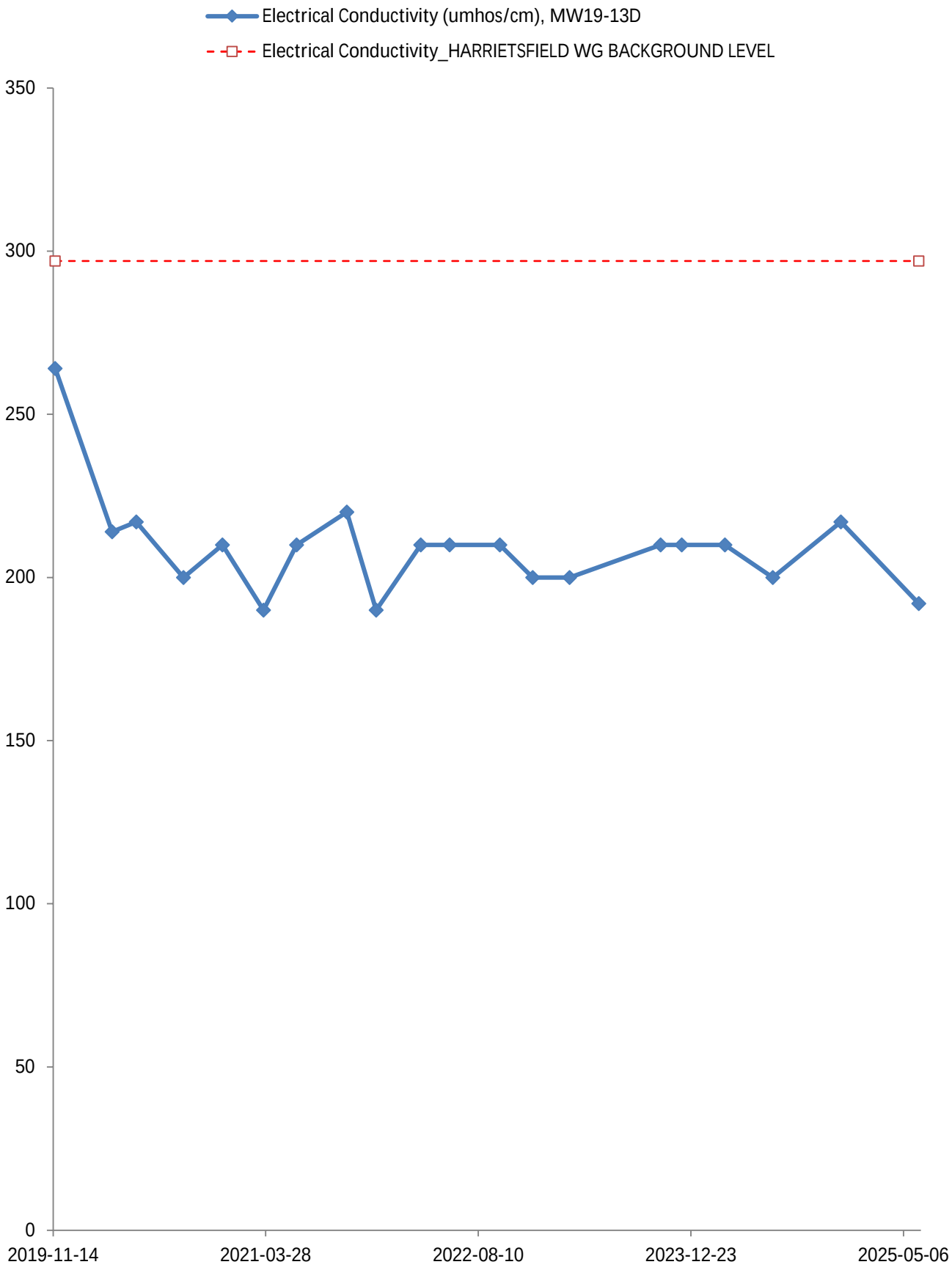
# Chromium


Chromium (mg/l), MW19-13D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Cobalt

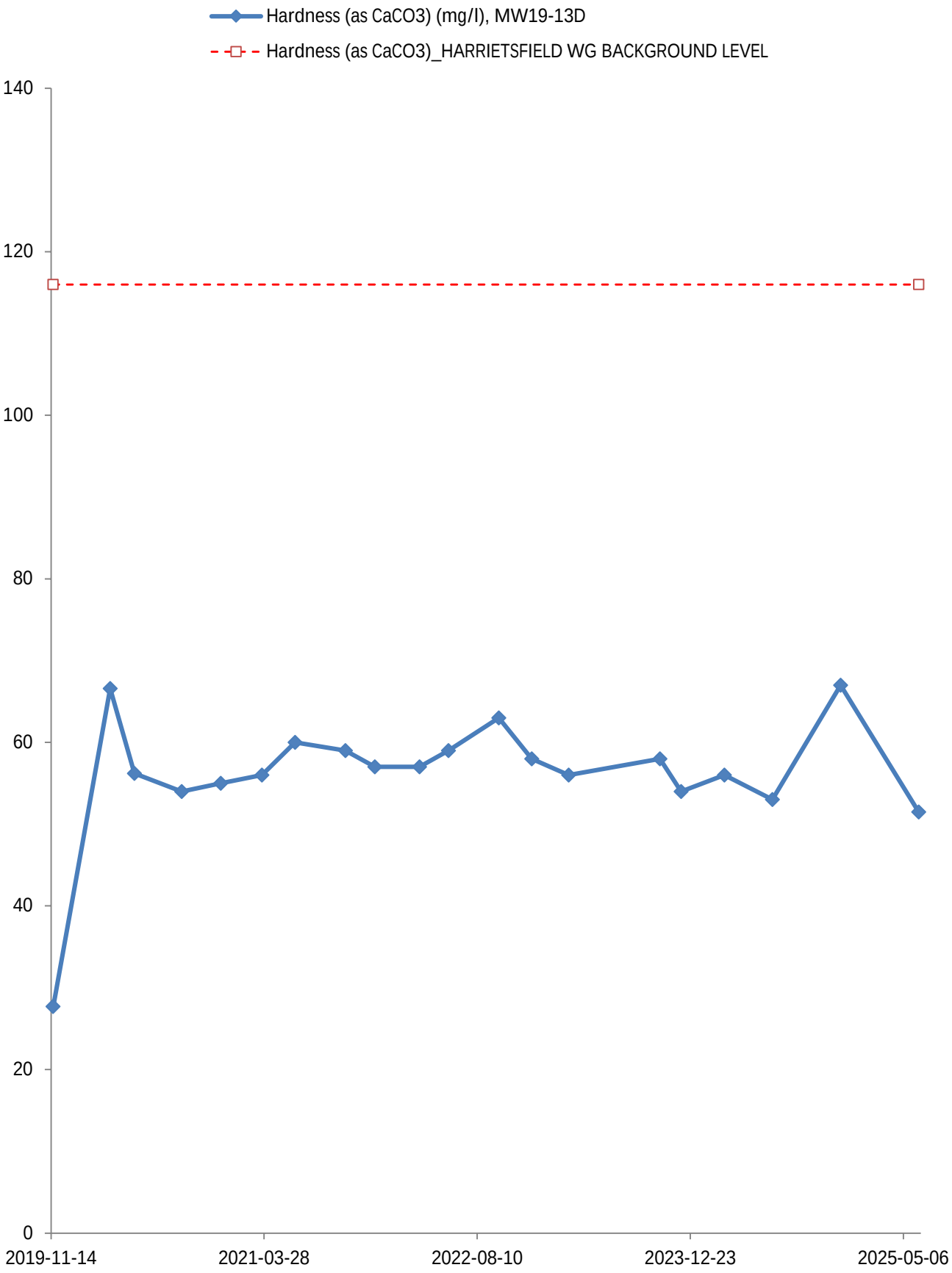

Cobalt (mg/l), MW19-13D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Electrical Conductivity

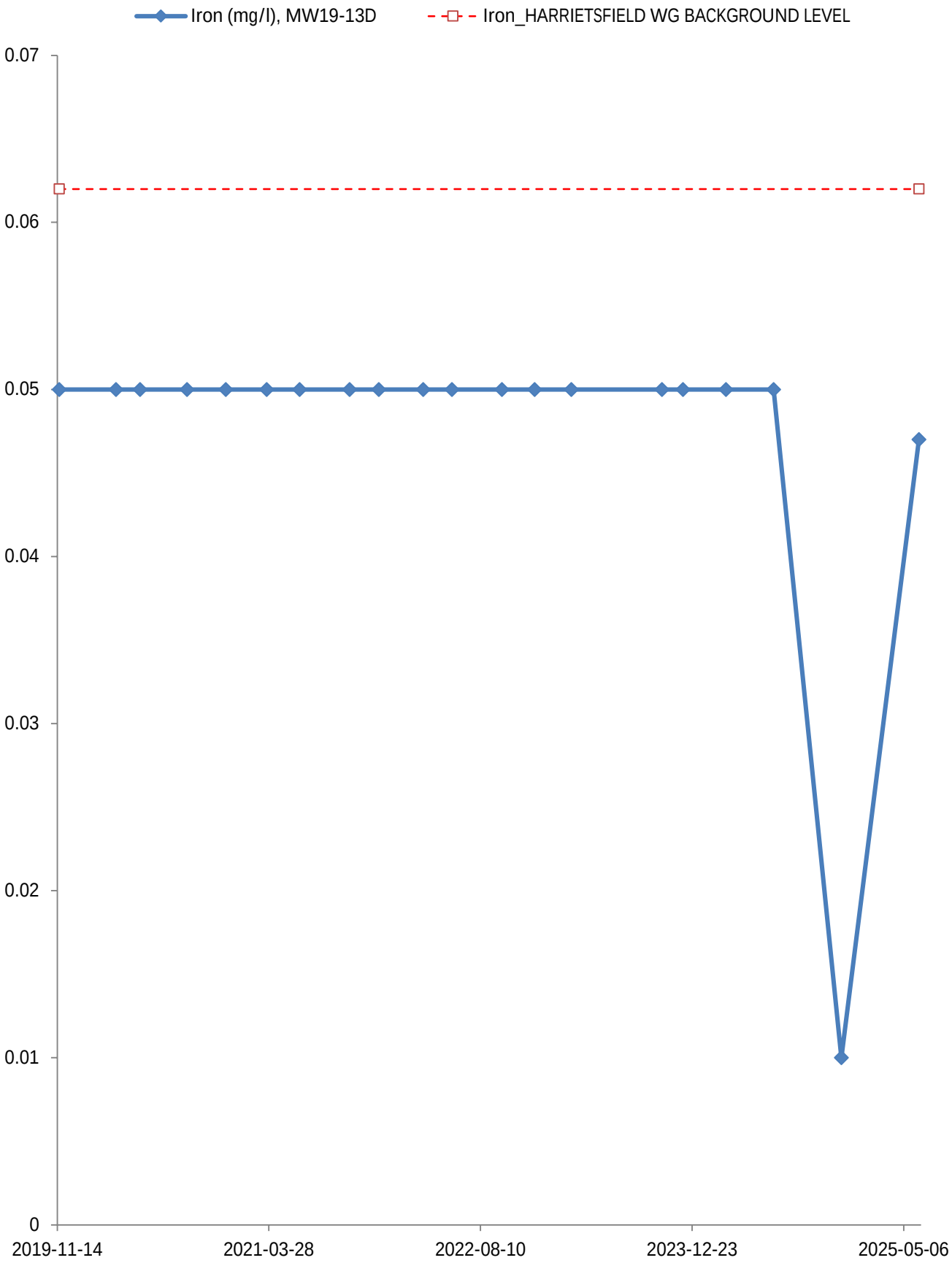


# Hardness (as CaCO3)

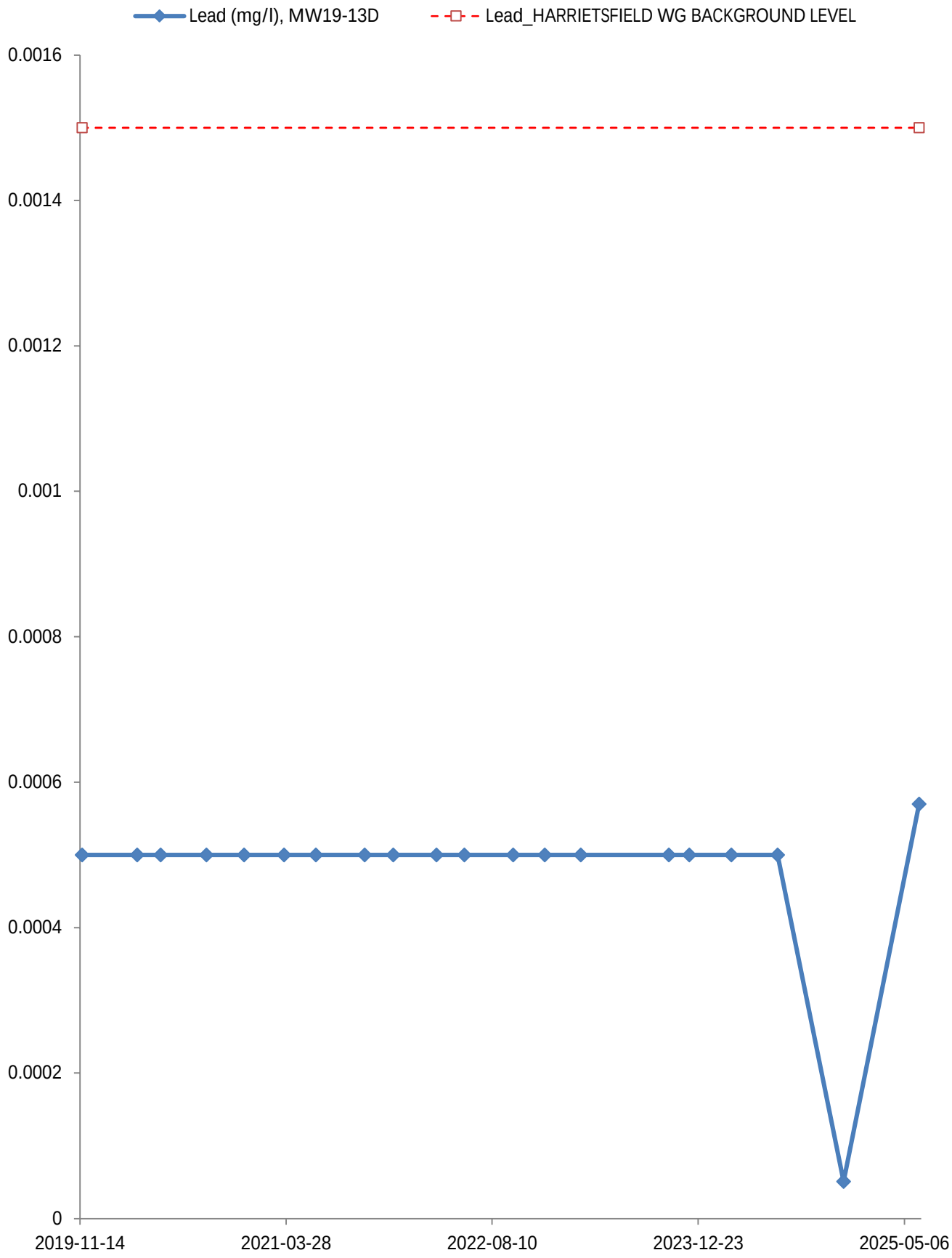




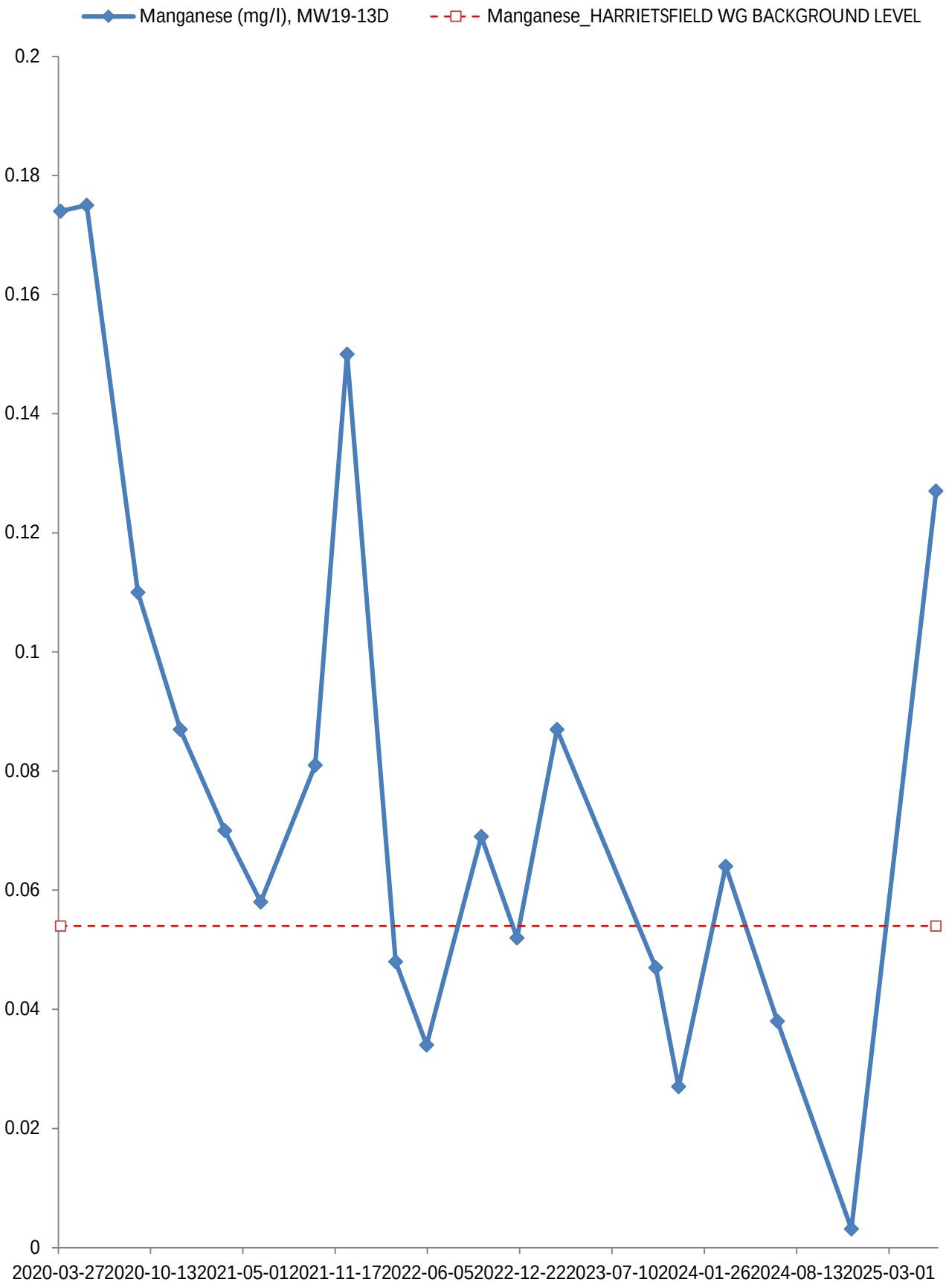
# Iron


Iron (mg/l), MW19-13D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

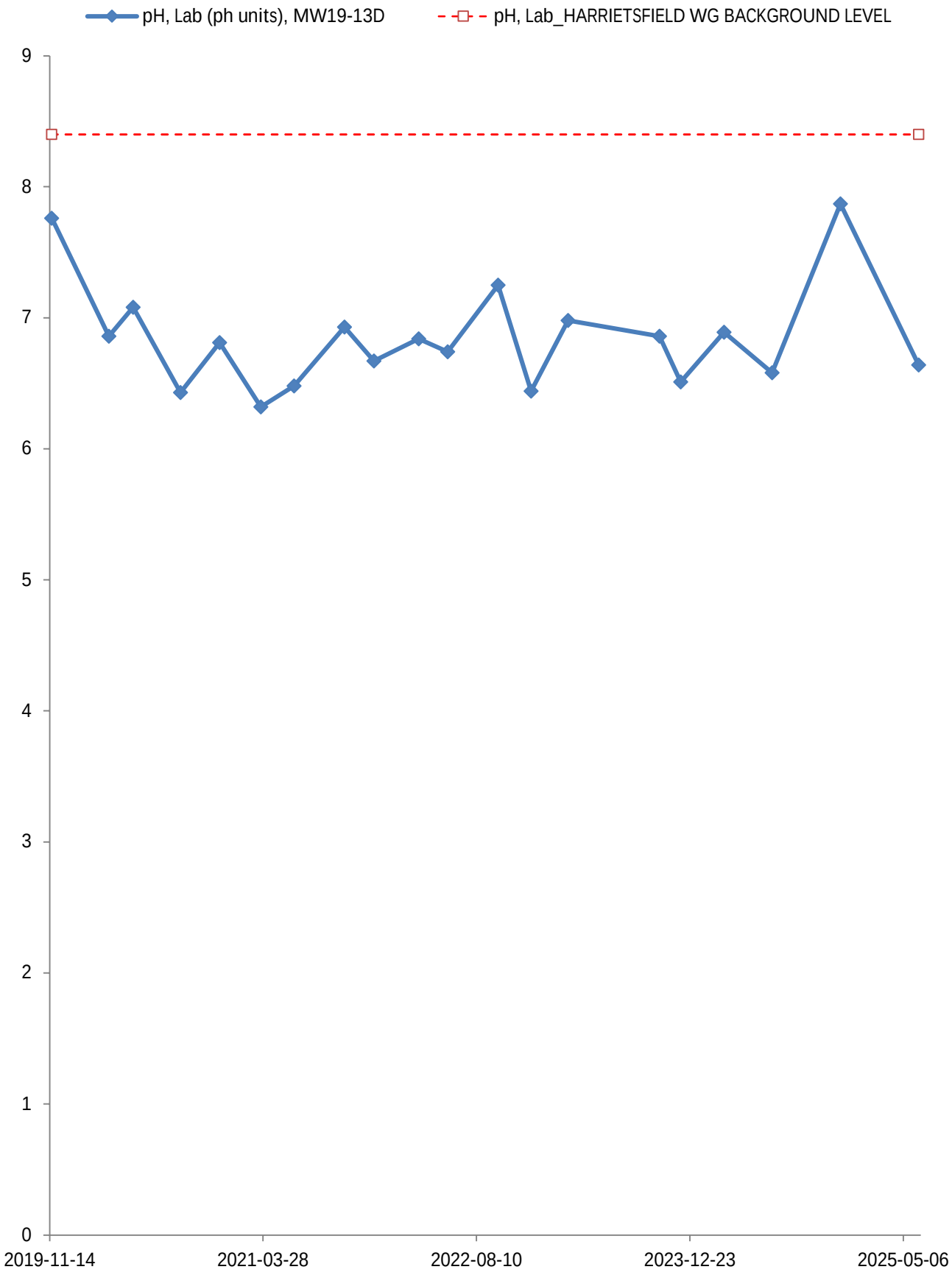
# Lead


Lead (mg/l), MW19-13D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

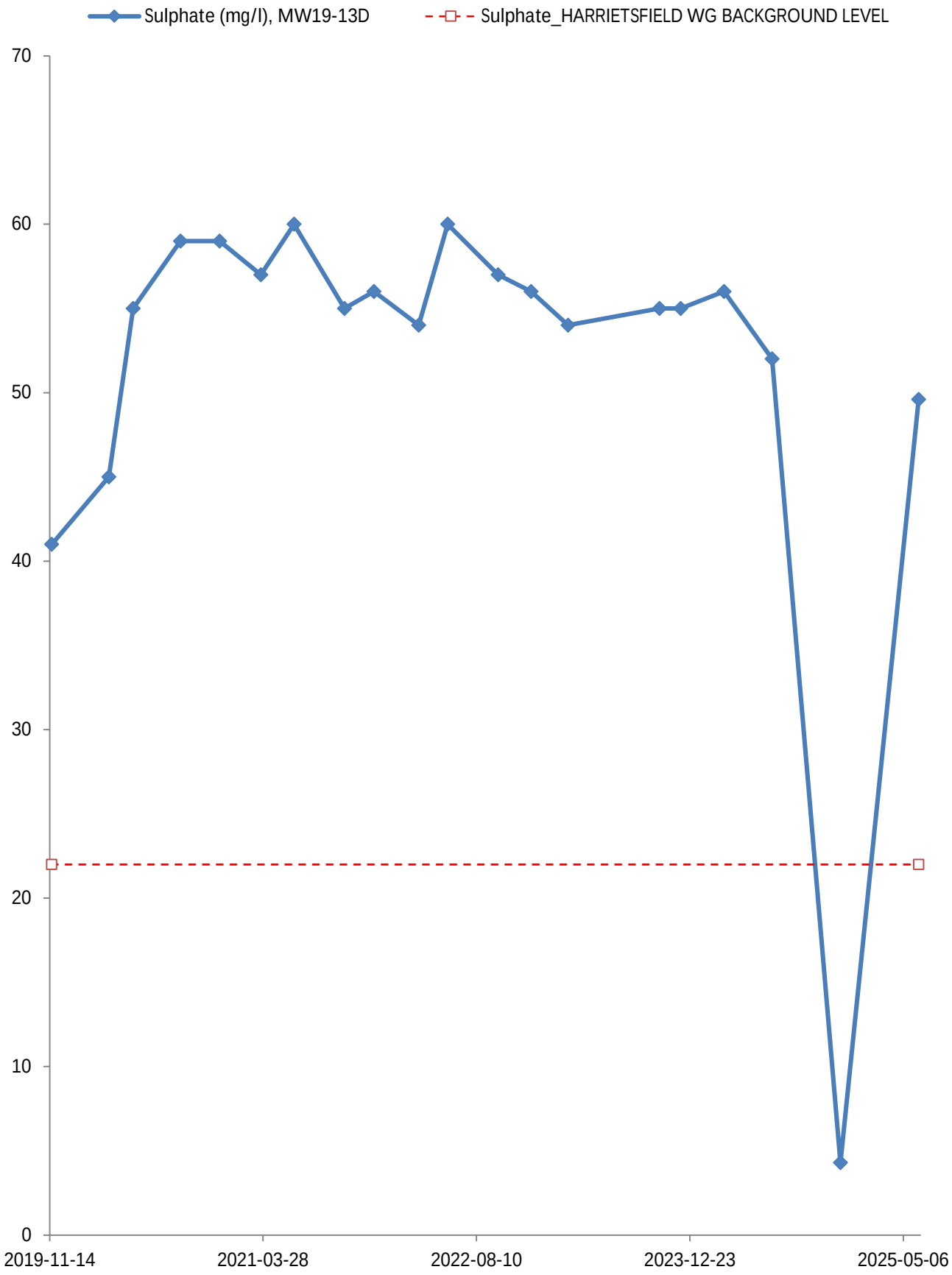
# Manganese


Manganese (mg/l), MW19-13D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2020-03-27
2020-10-13
2021-05-01
2021-11-17
2022-06-05
2022-12-22
2023-07-10
2024-01-26
2024-08-13
2025-03-01

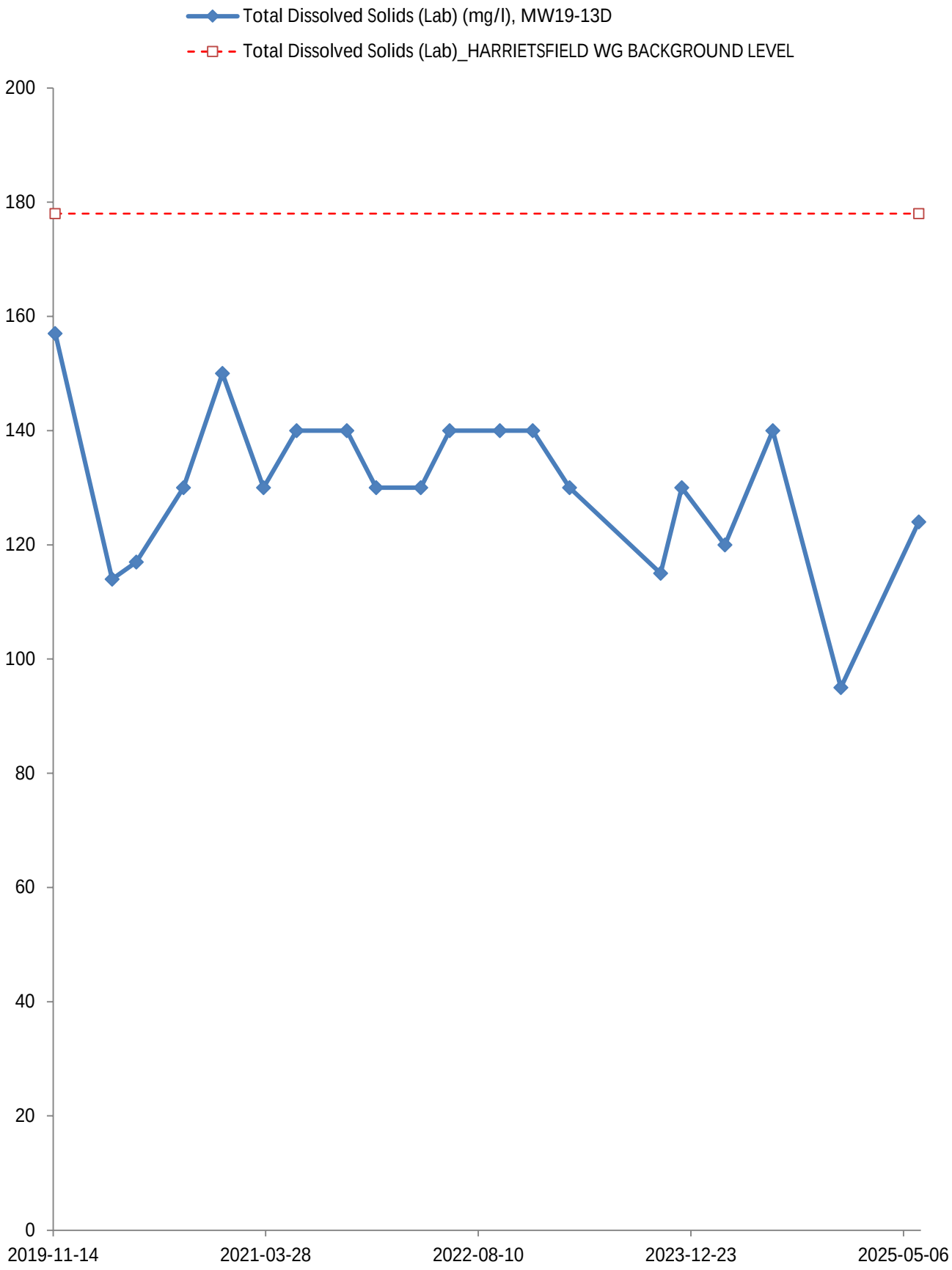
# pH, Lab


pH, Lab (ph units), MW19-13D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

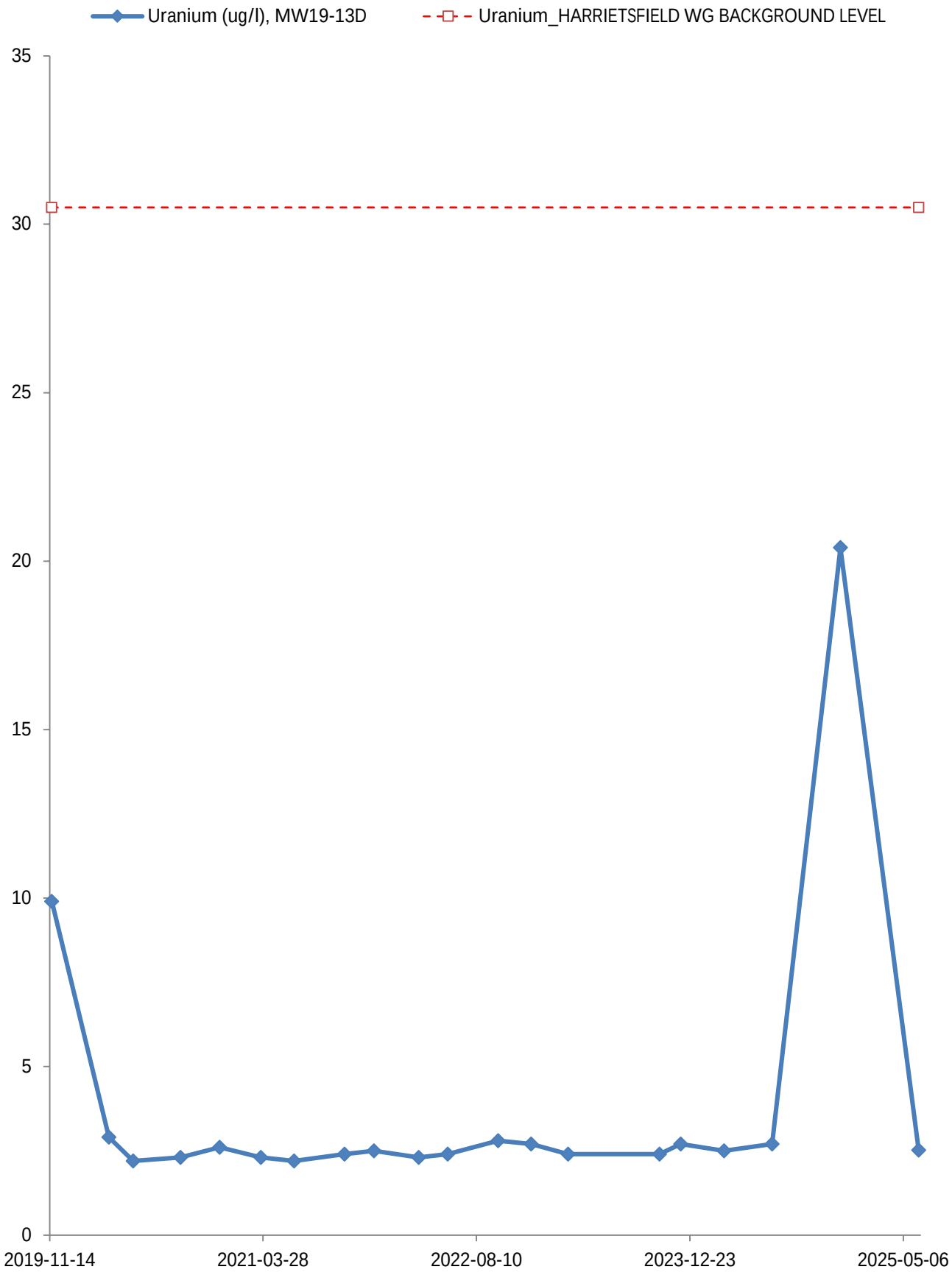
# Sulphate


Sulphate (mg/l), MW19-13D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
70
60
50
40
30
20
10
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

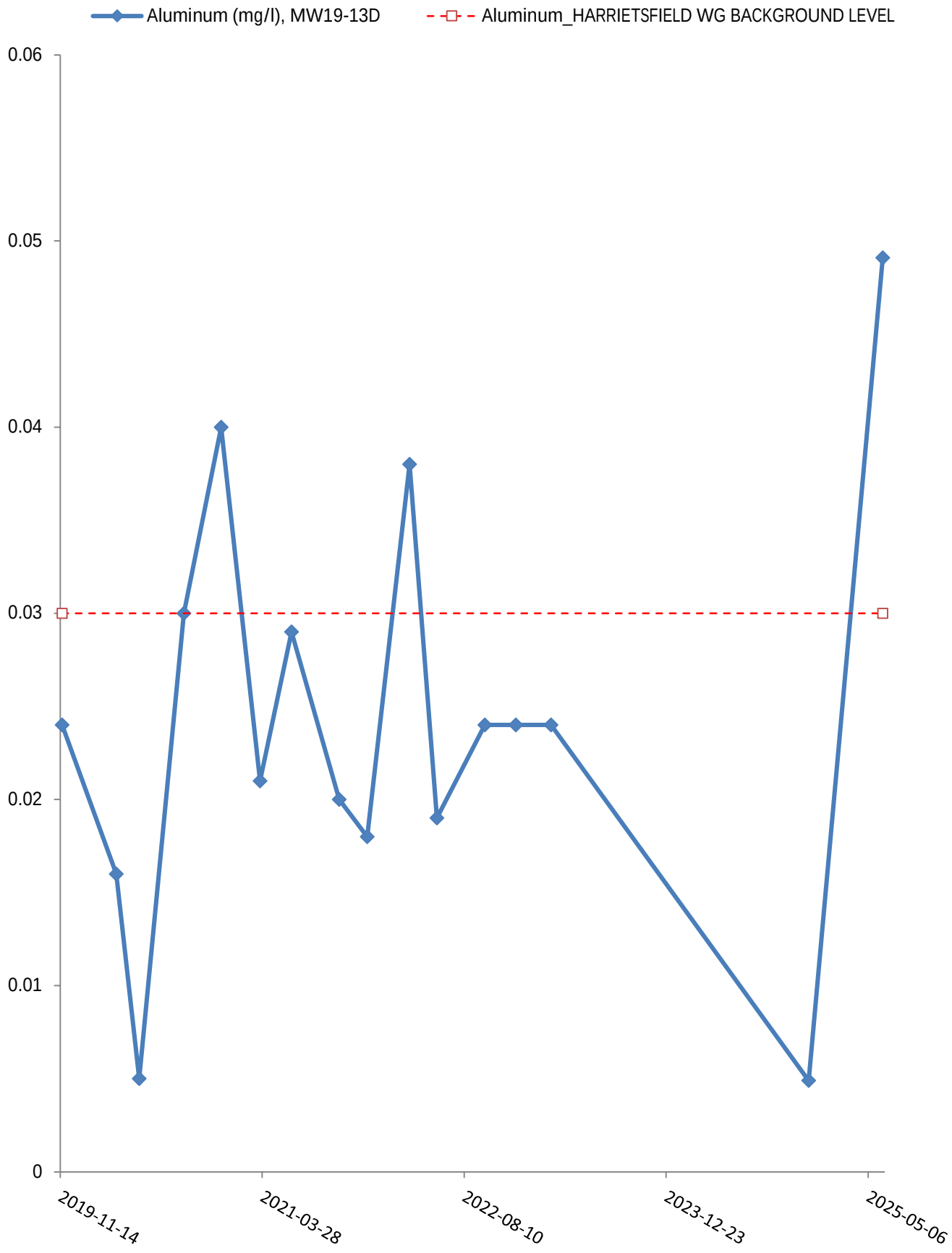
# Total Dissolved Solids (5



# Uranium

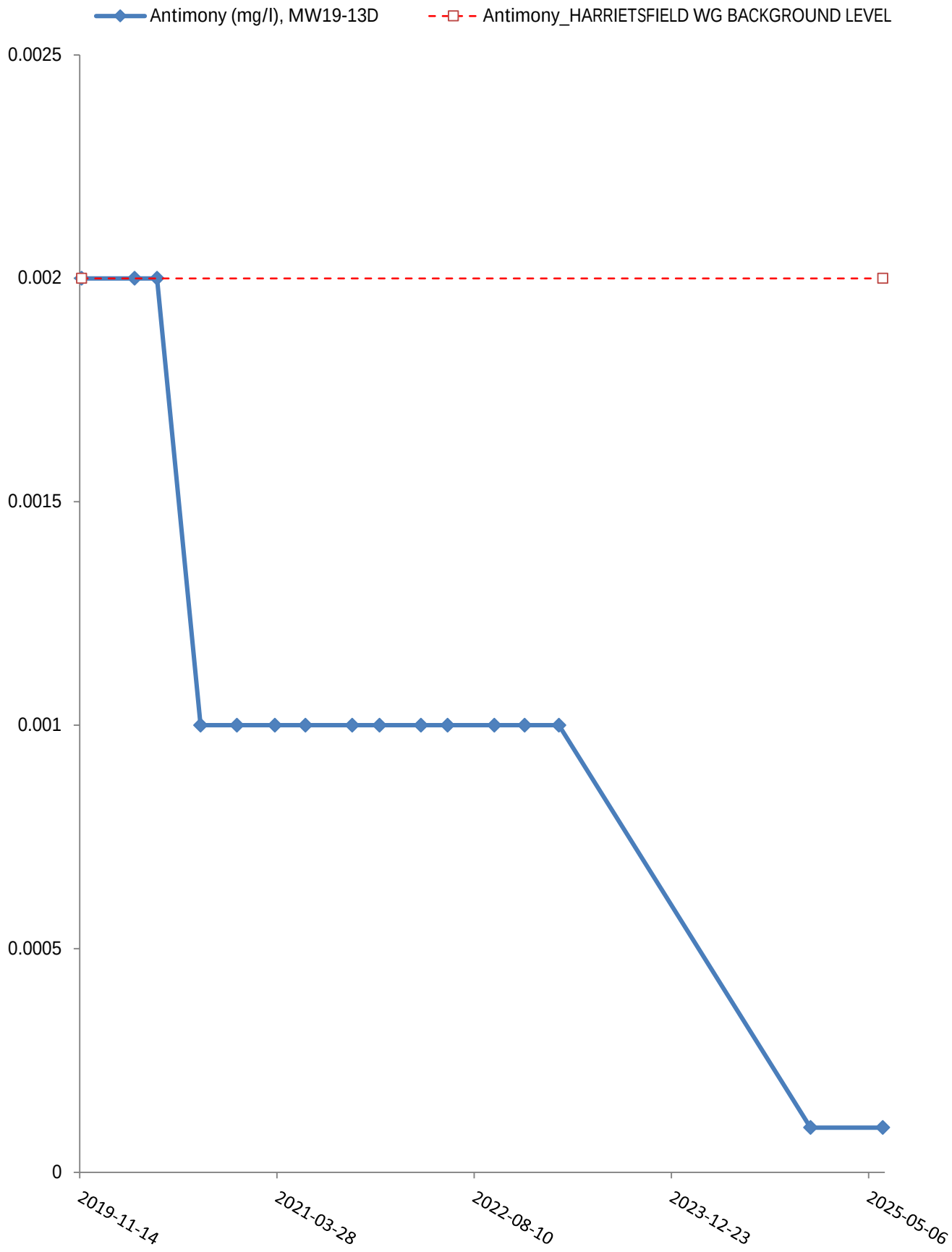

Uranium (ug/l), MW19-13D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Aluminum

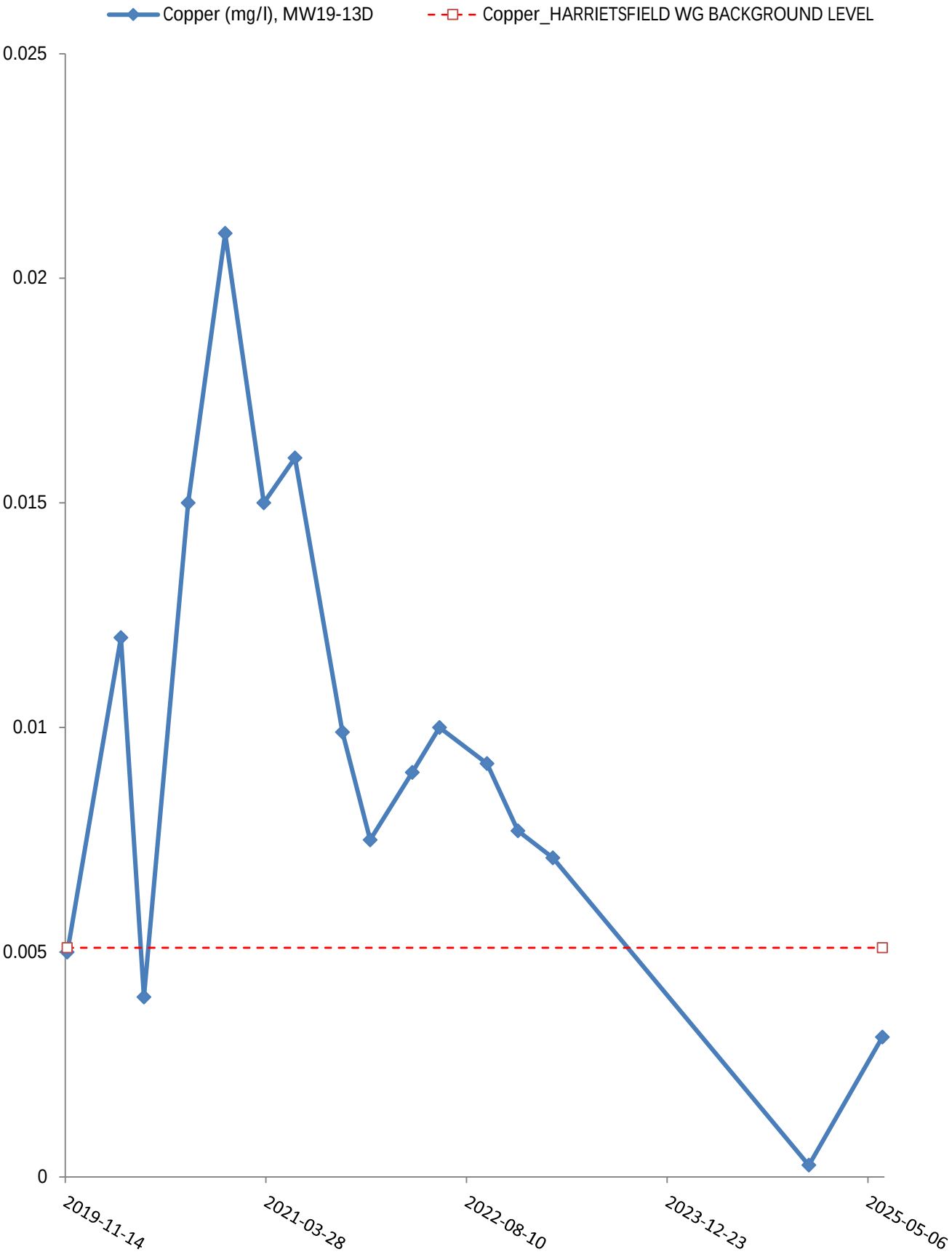

Aluminum (mg/l), MW19-13D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Antimony



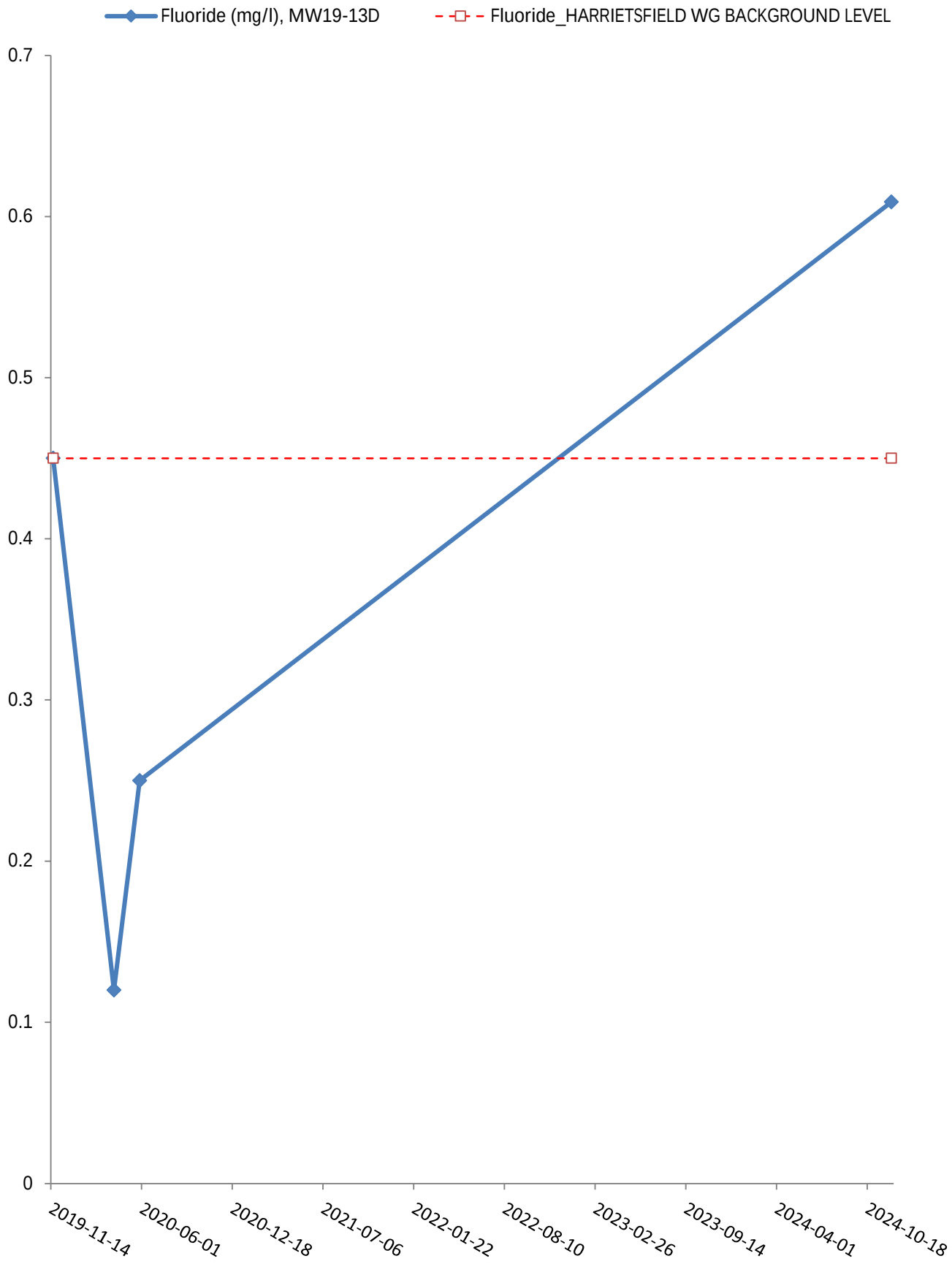

Antimony (mg/l), MW19-13D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Copper

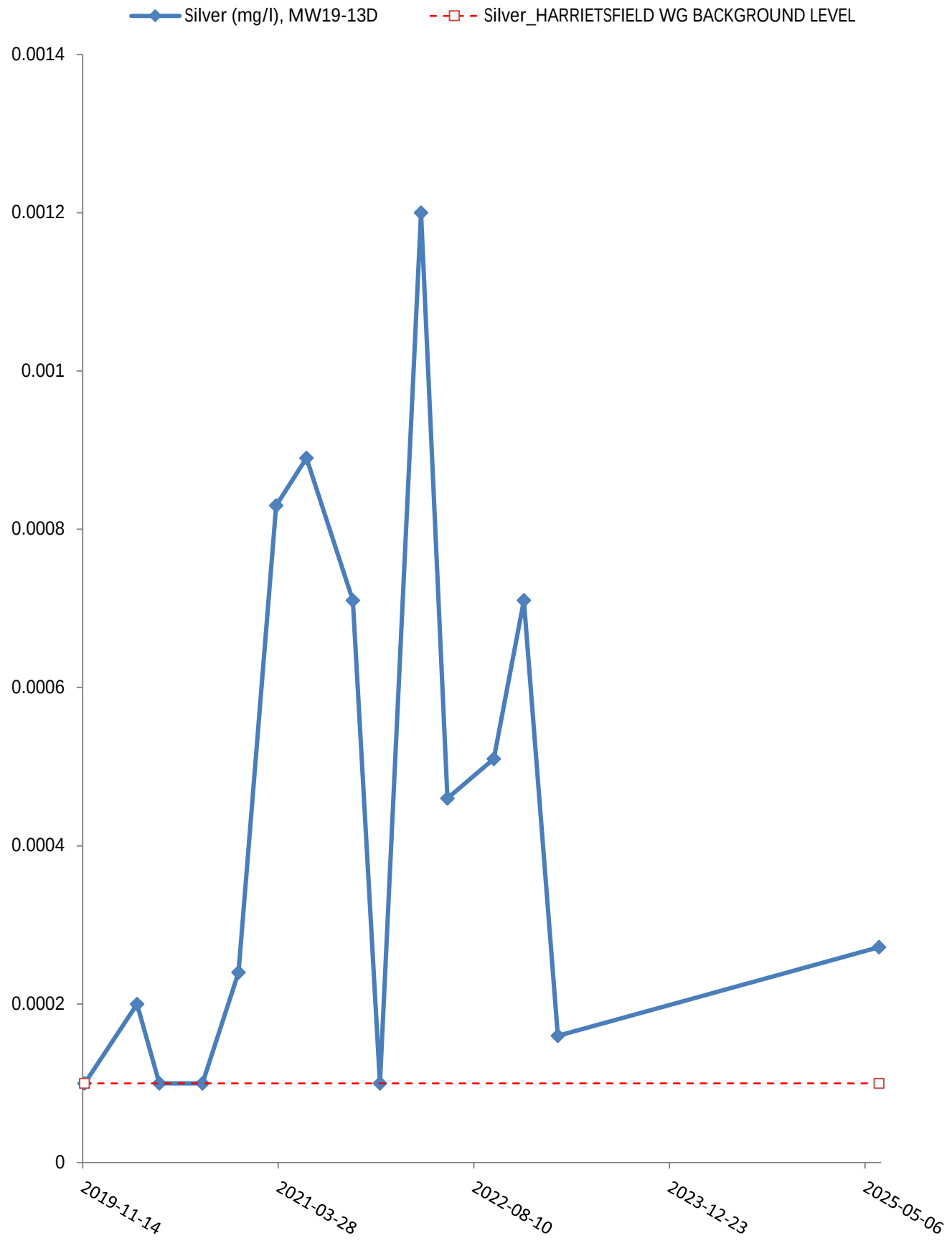

Copper (mg/l), MW19-13D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Fluoride



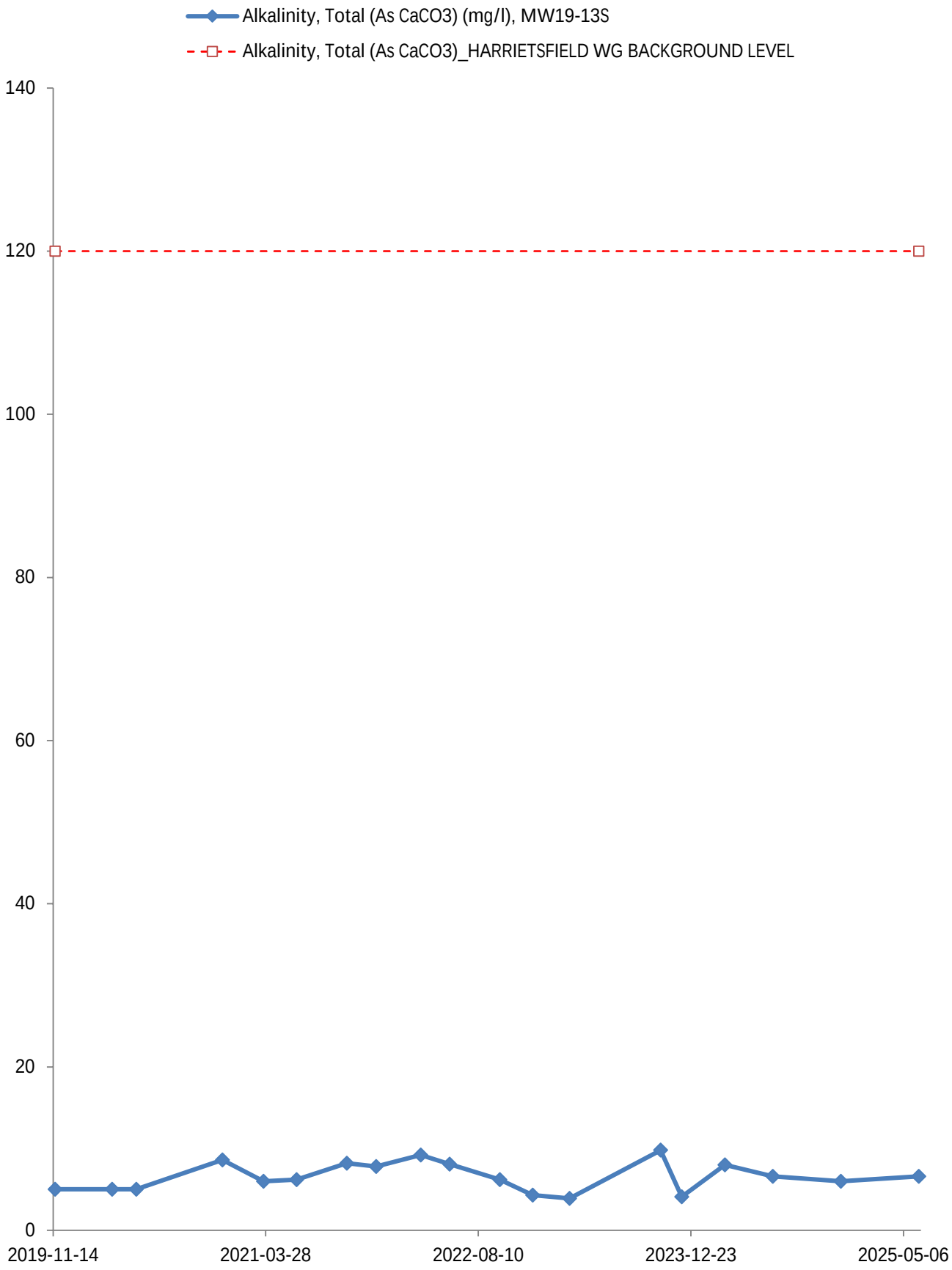

Fluoride (mg/l), MW19-13D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2019-11-14
2020-06-01
2020-12-18
2021-07-06
2022-01-22
2022-08-10
2023-02-26
2023-09-14
2024-04-01
2024-10-18

# Silver

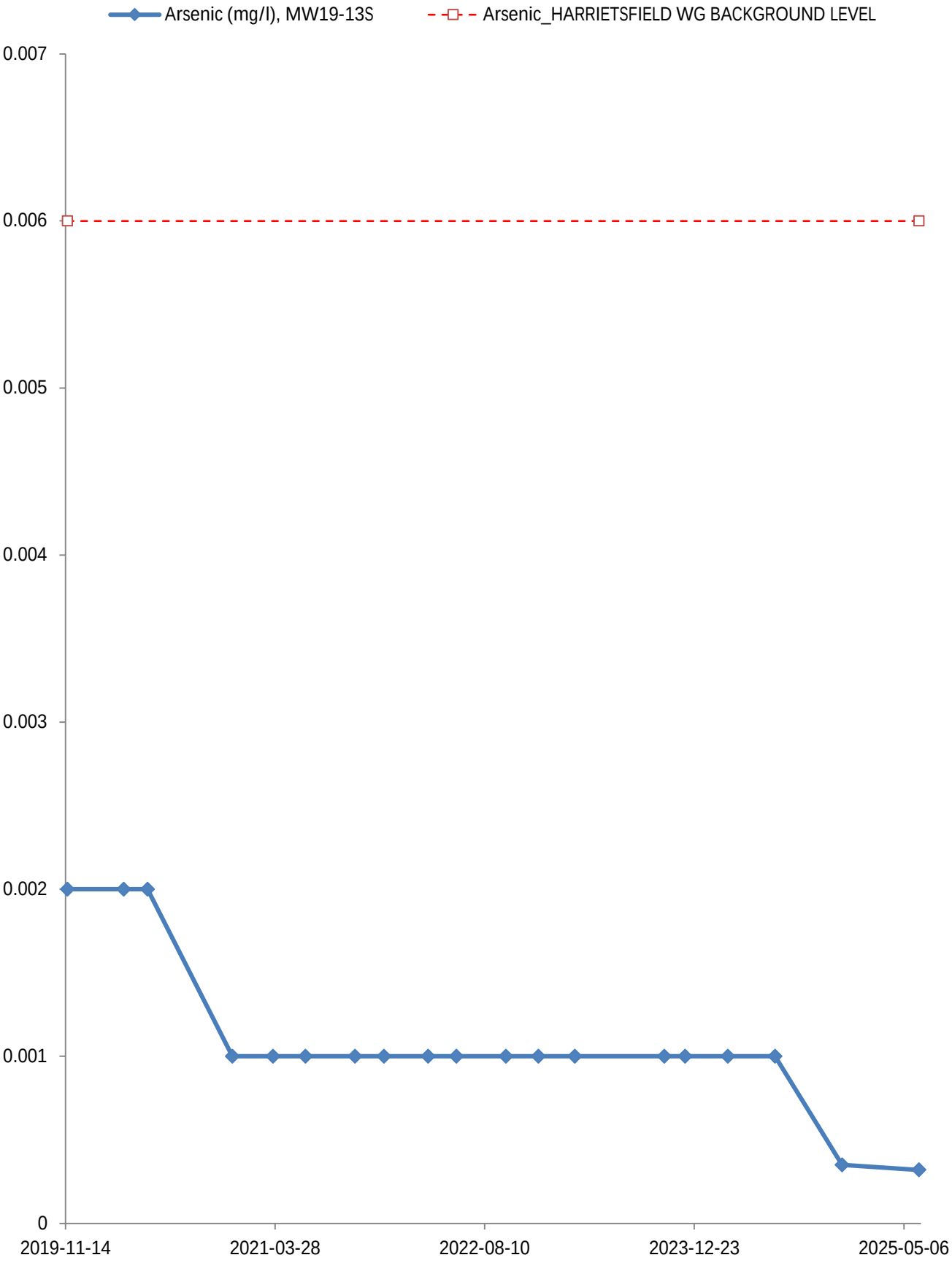

Silver (mg/l), MW19-13D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Alkalinity, Total

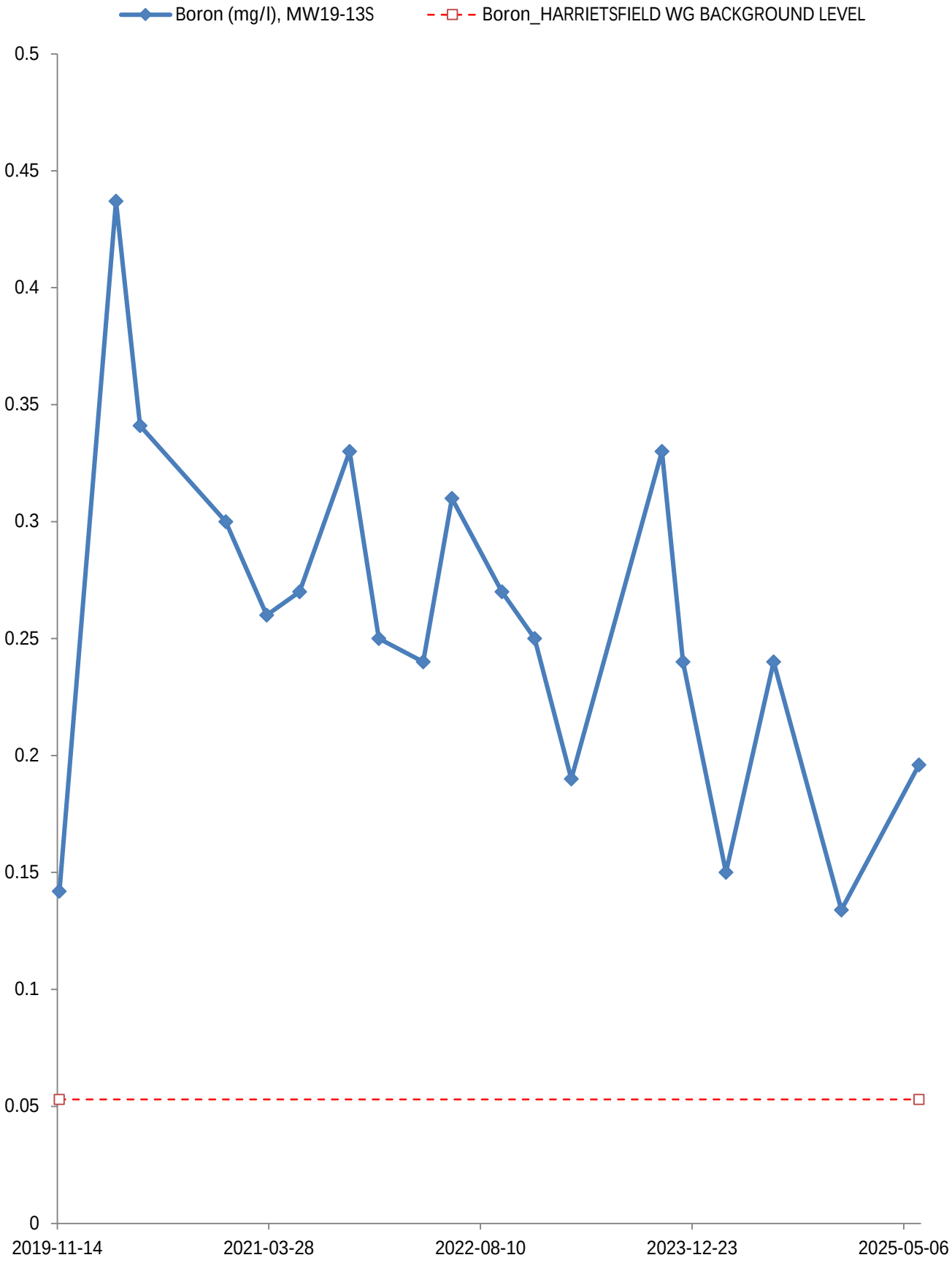




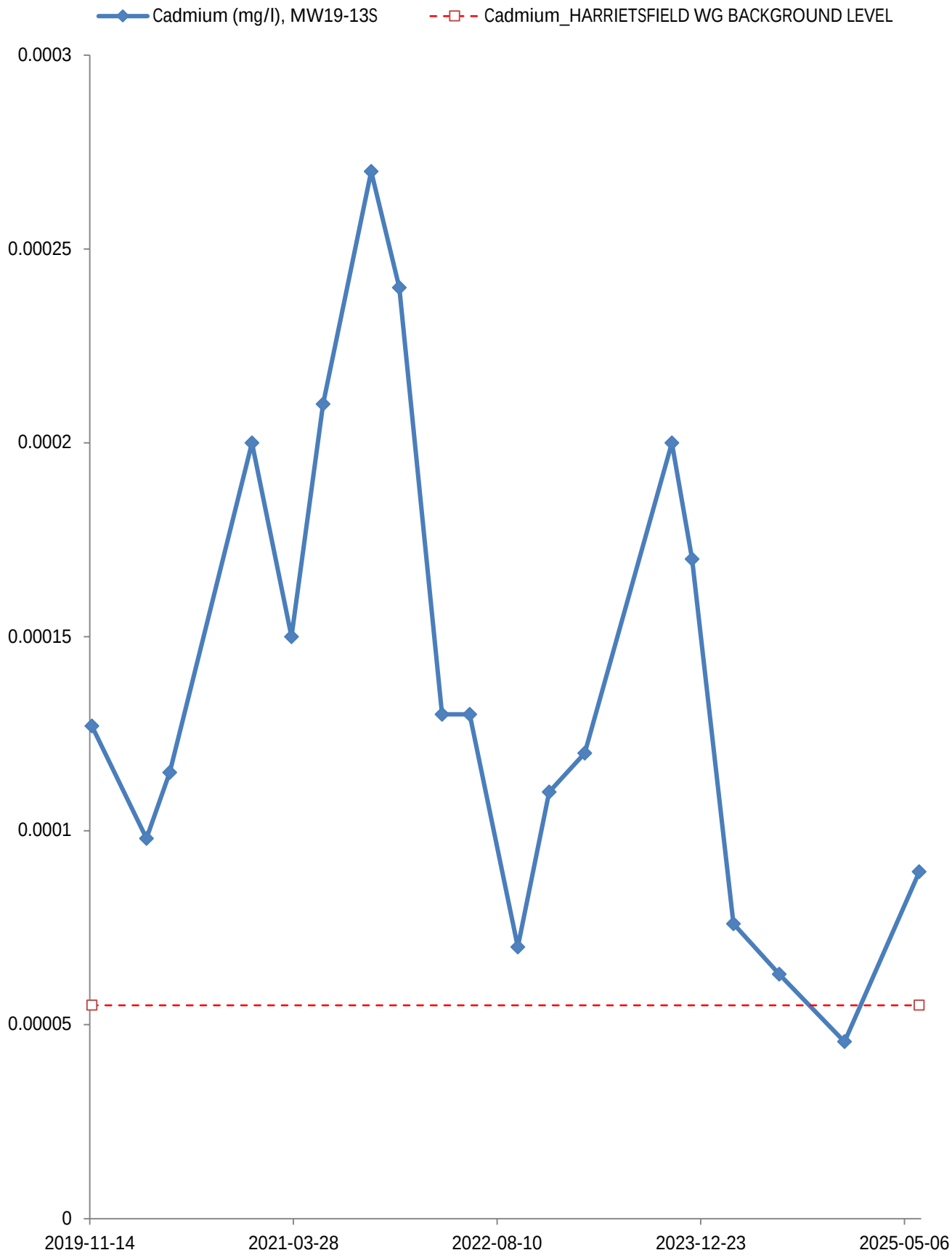
# Arsenic


Arsenic (mg/l), MW19-13S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Boron

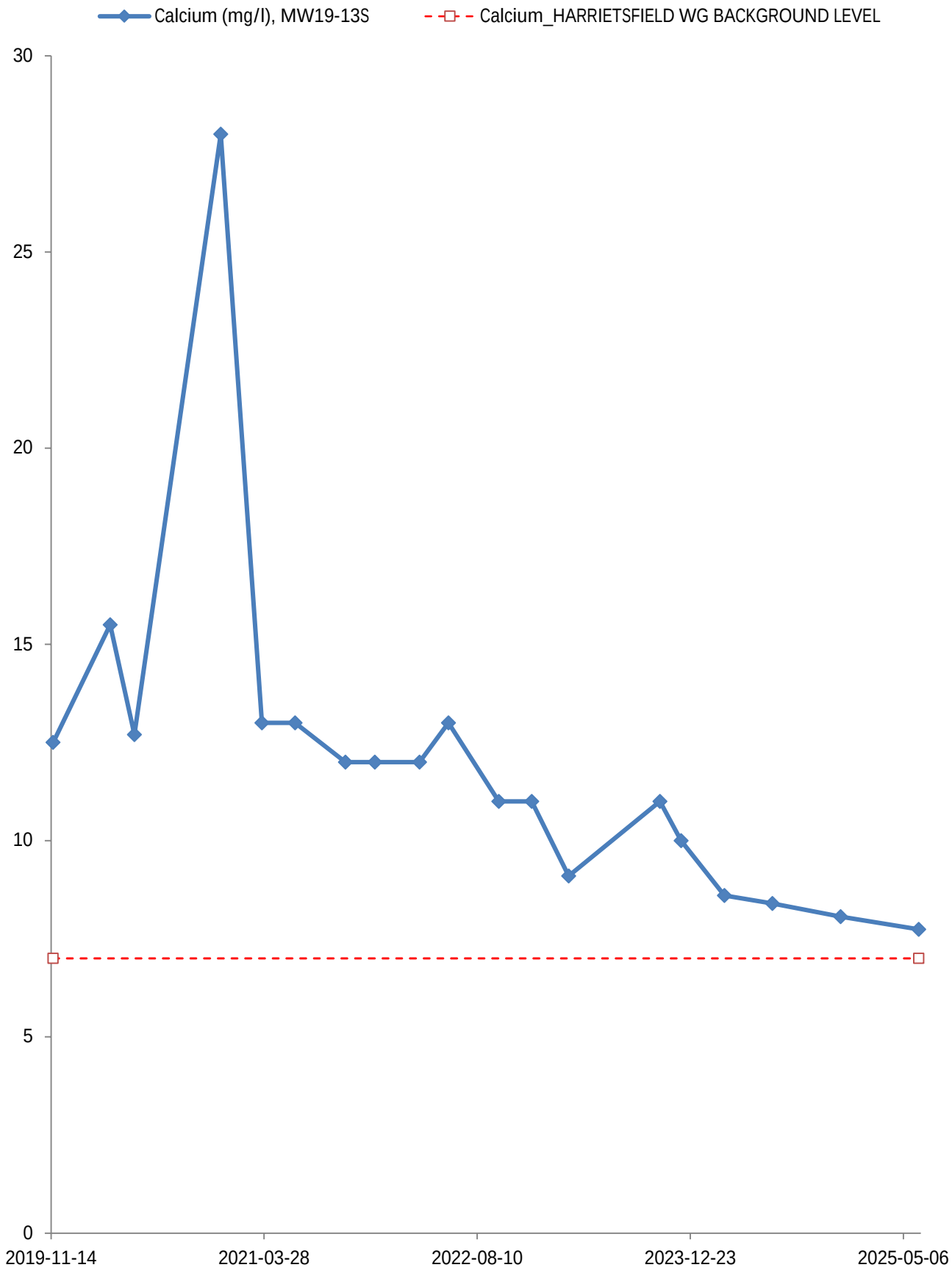

Boron (mg/l), MW19-13S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Cadmium

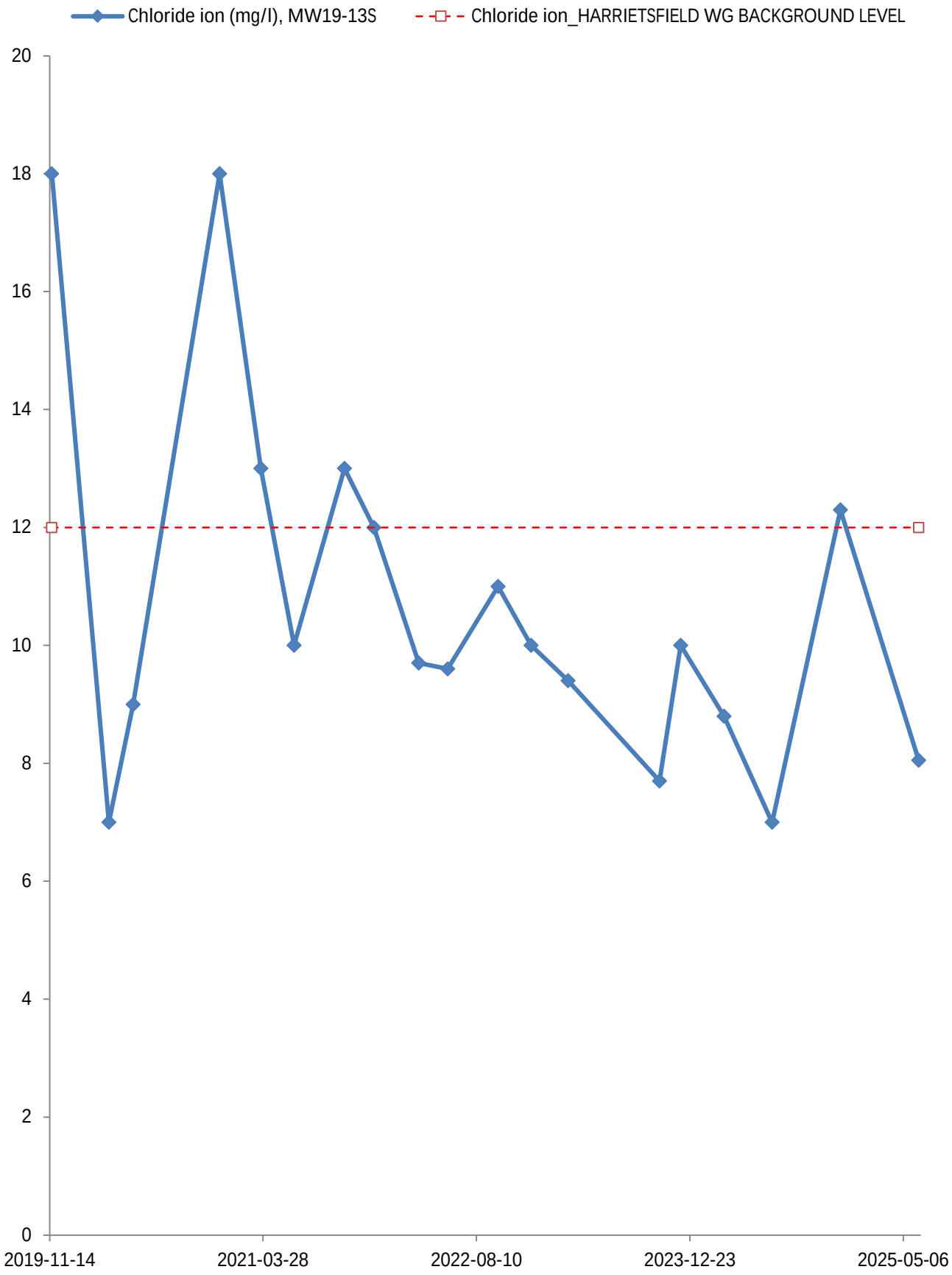

Cadmium (mg/l), MW19-13S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Calcium



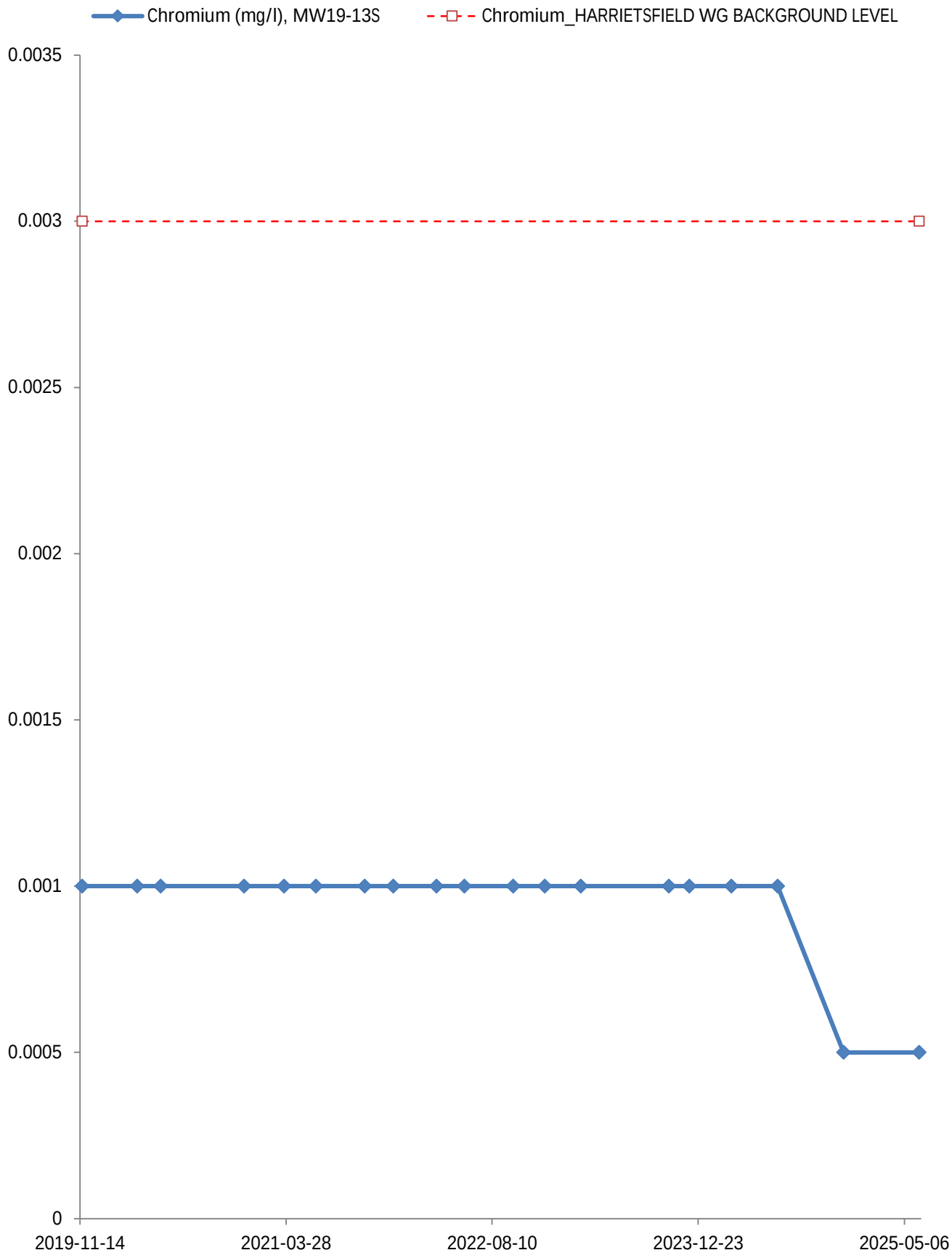

Calcium (mg/l), MW19-13S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Chloride ion

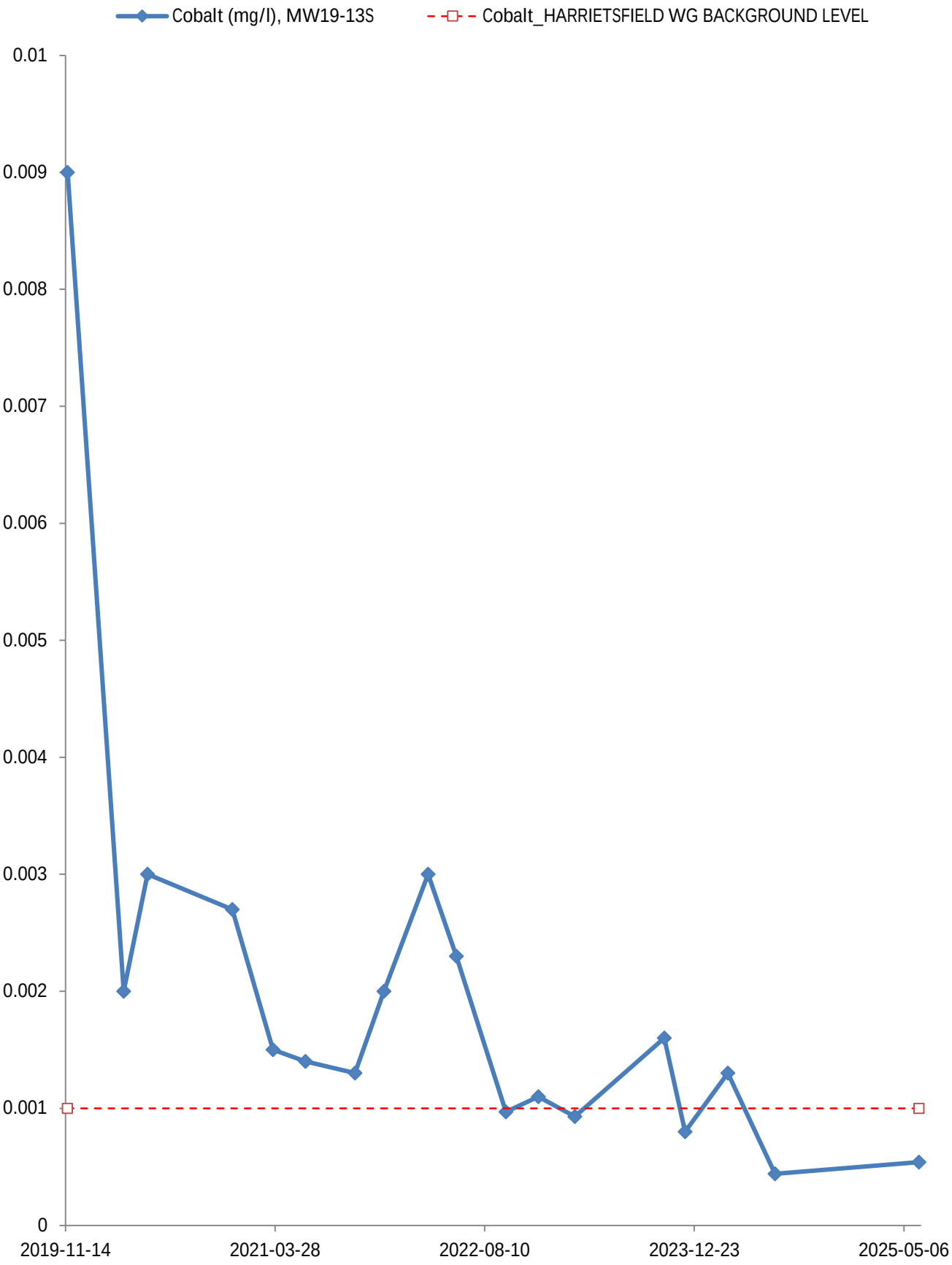


# Chromium



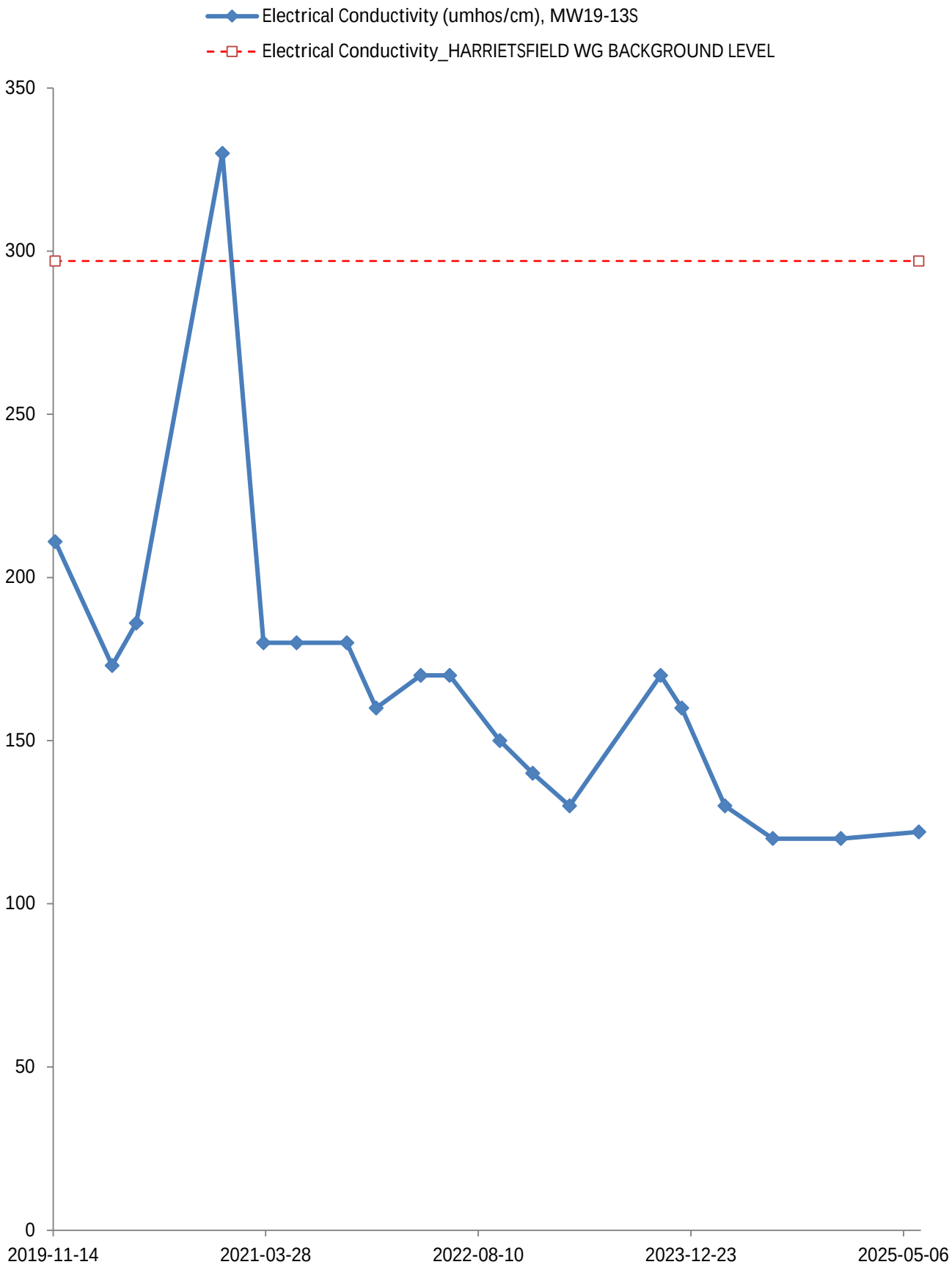

Chromium (mg/l), MW19-13S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Cobalt


Cobalt (mg/l), MW19-13S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

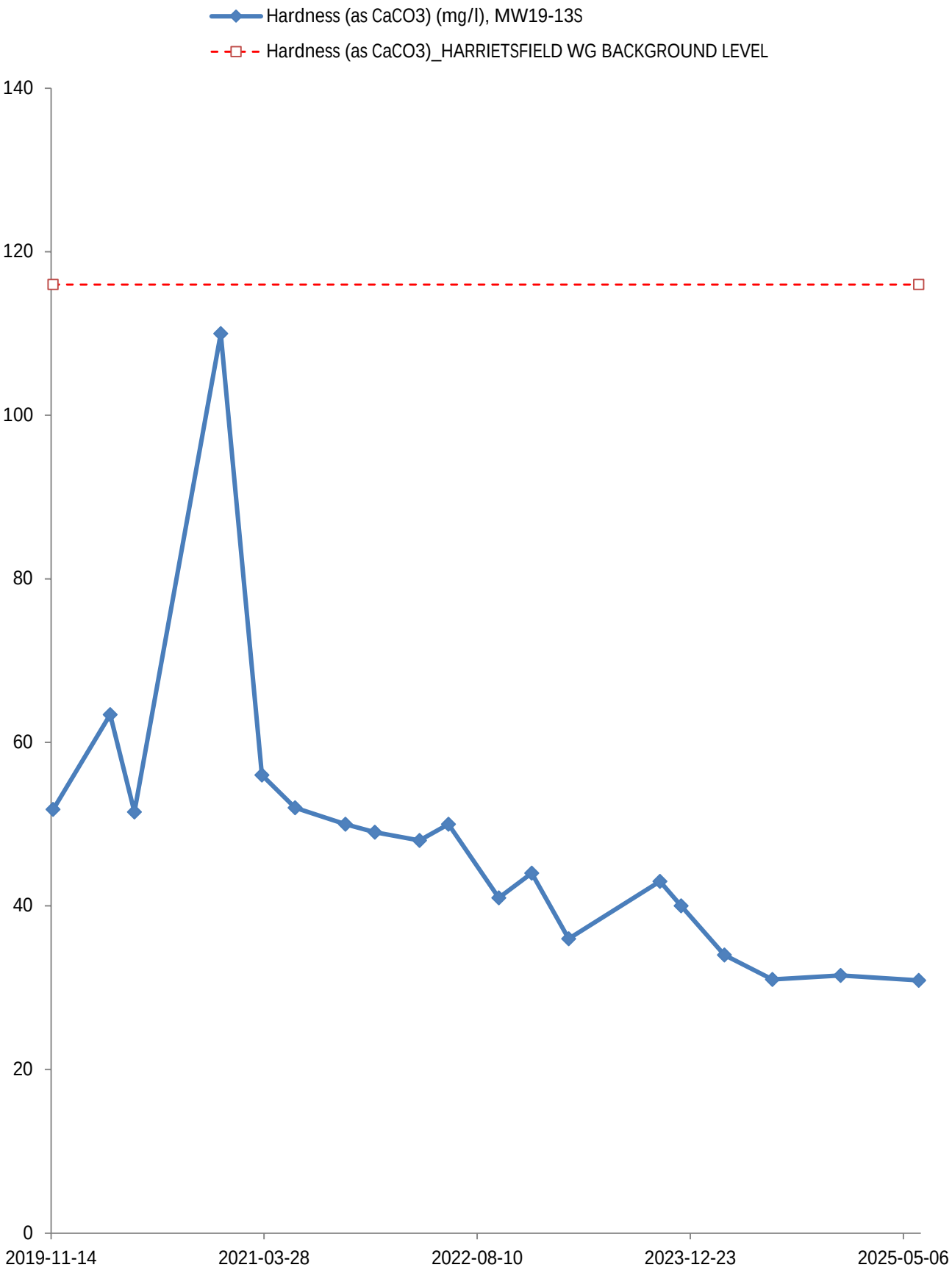
# Electrical Conductivity





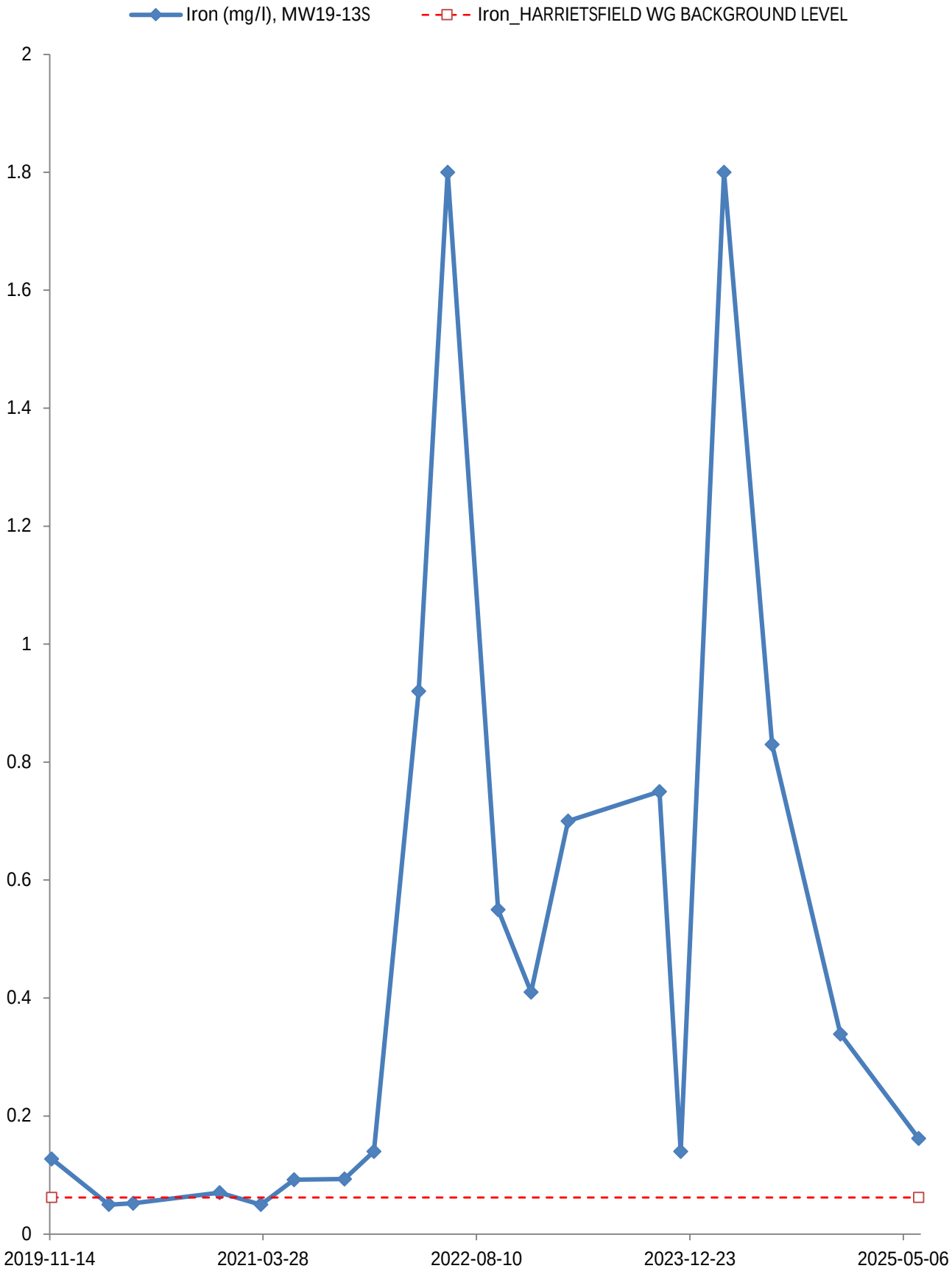
# Hardness (as CaCO3)



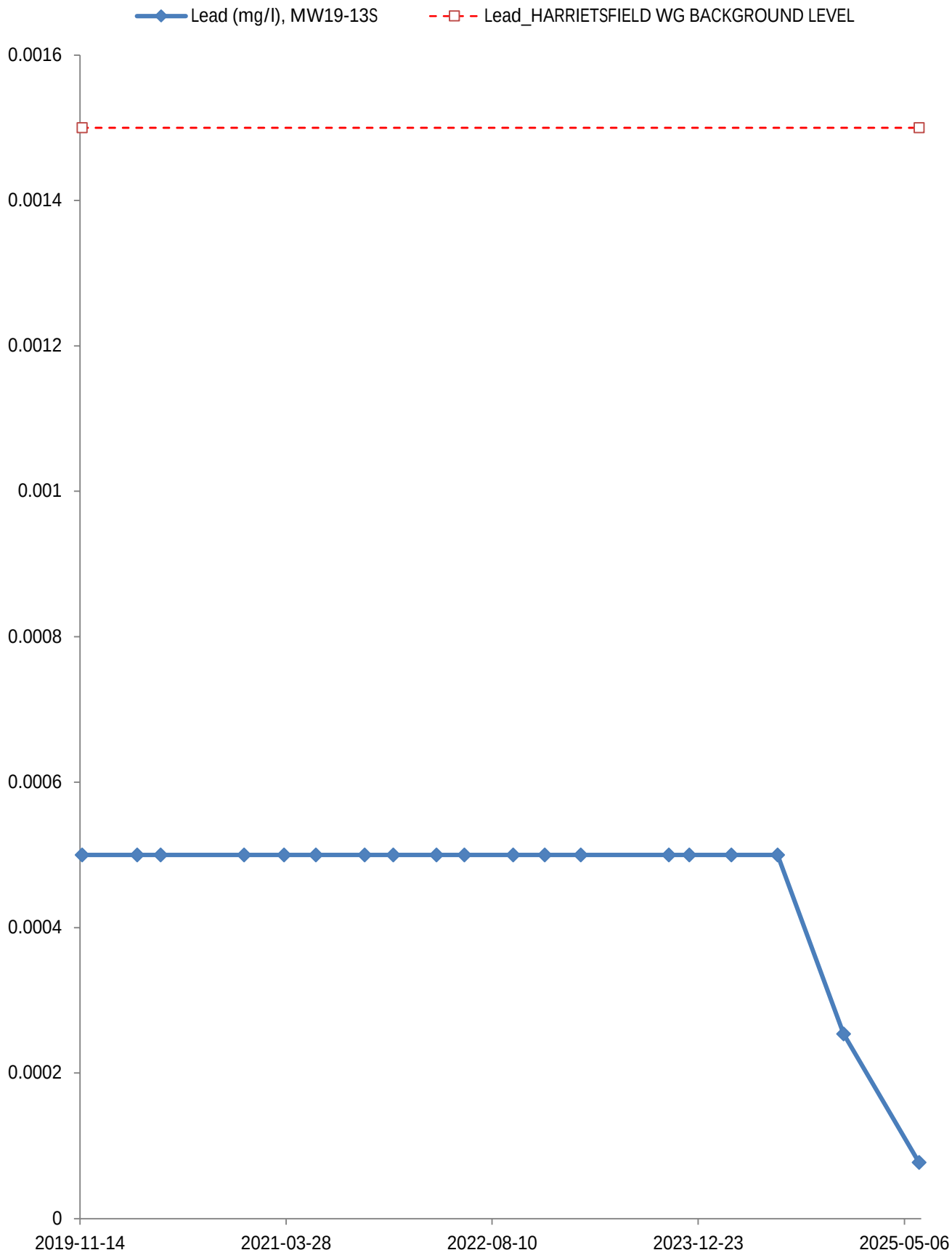


# Iron

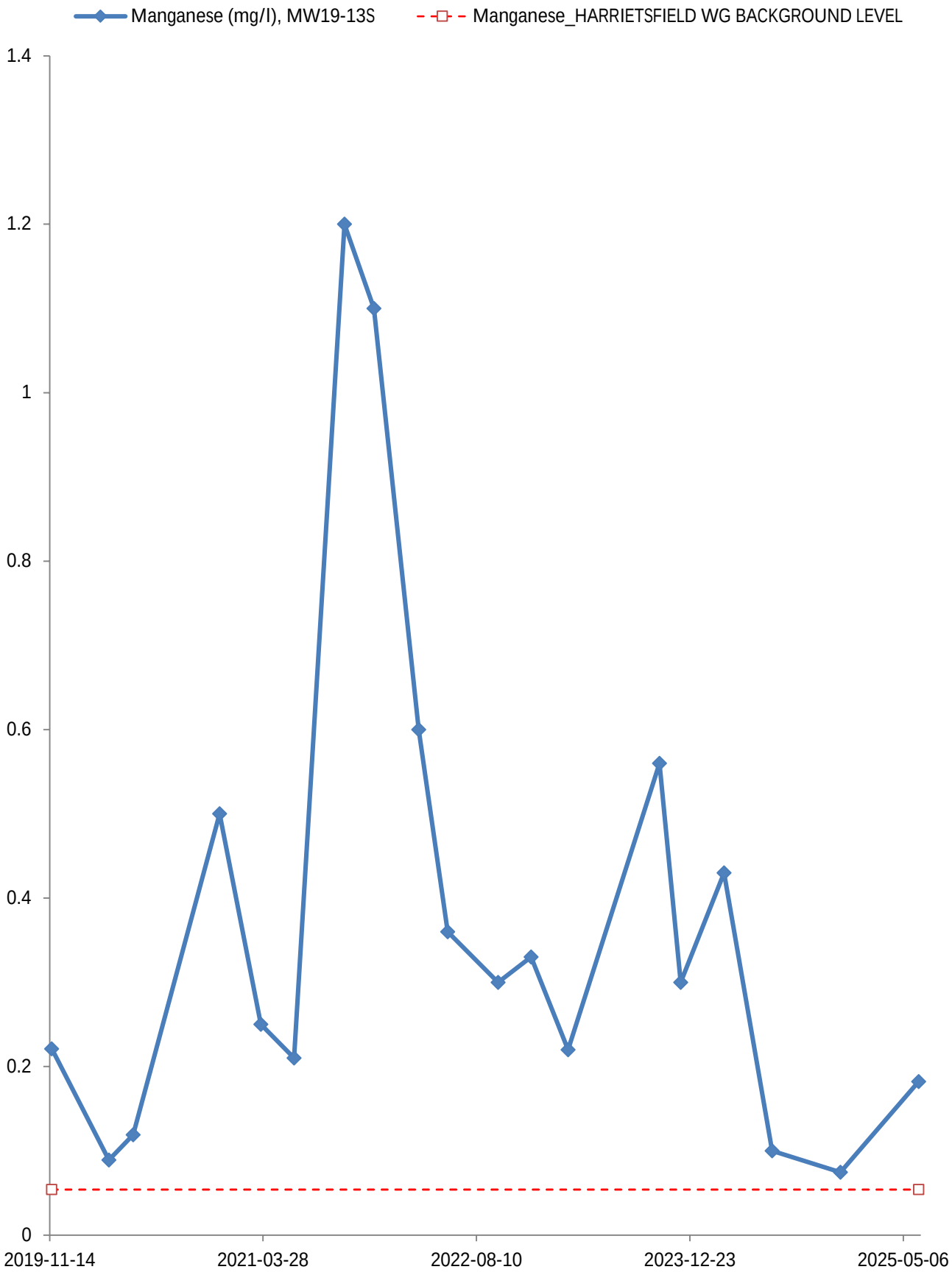



Iron (mg/l), MW19-13S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Lead

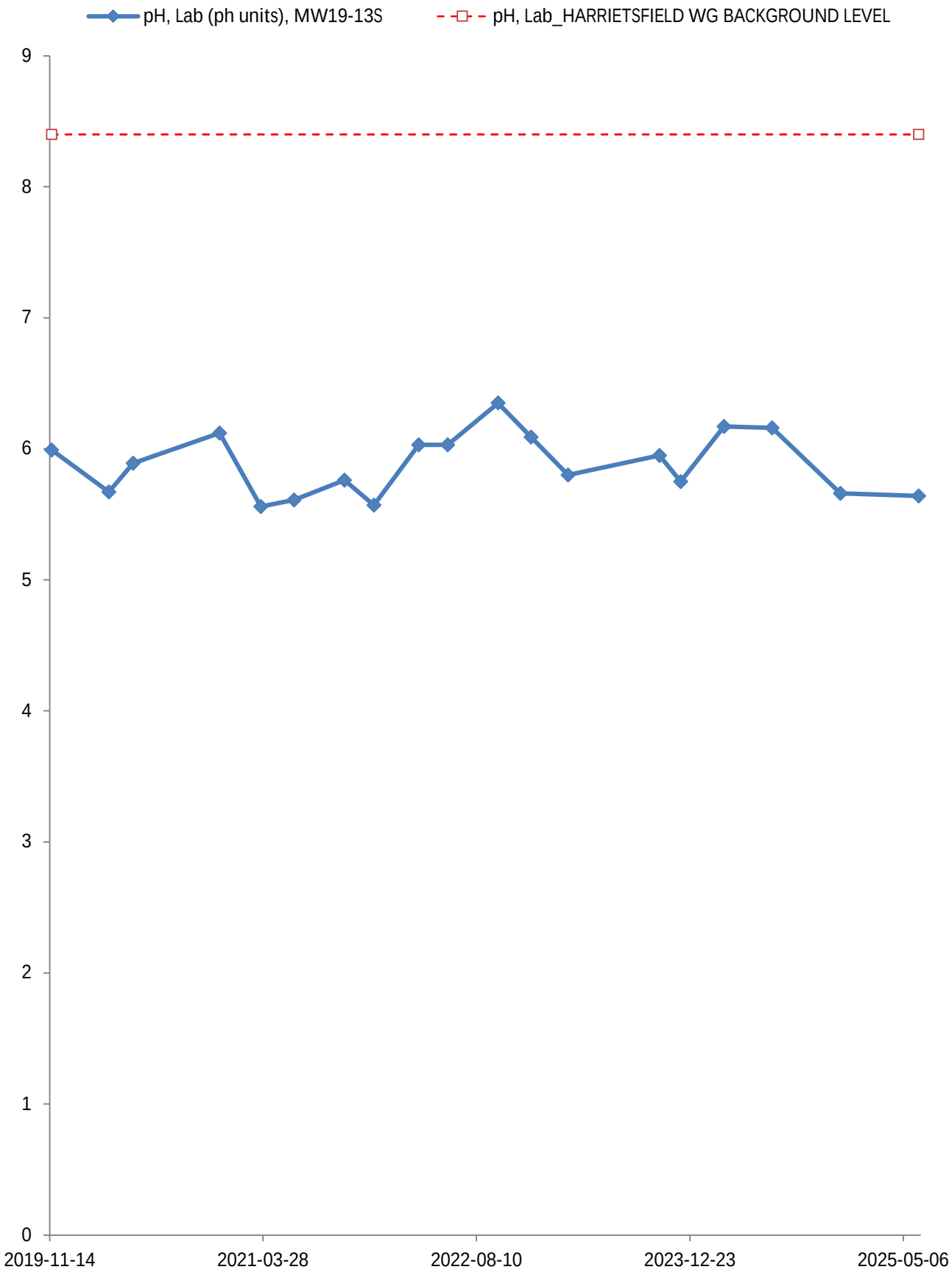

Lead (mg/l), MW19-13S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Manganese

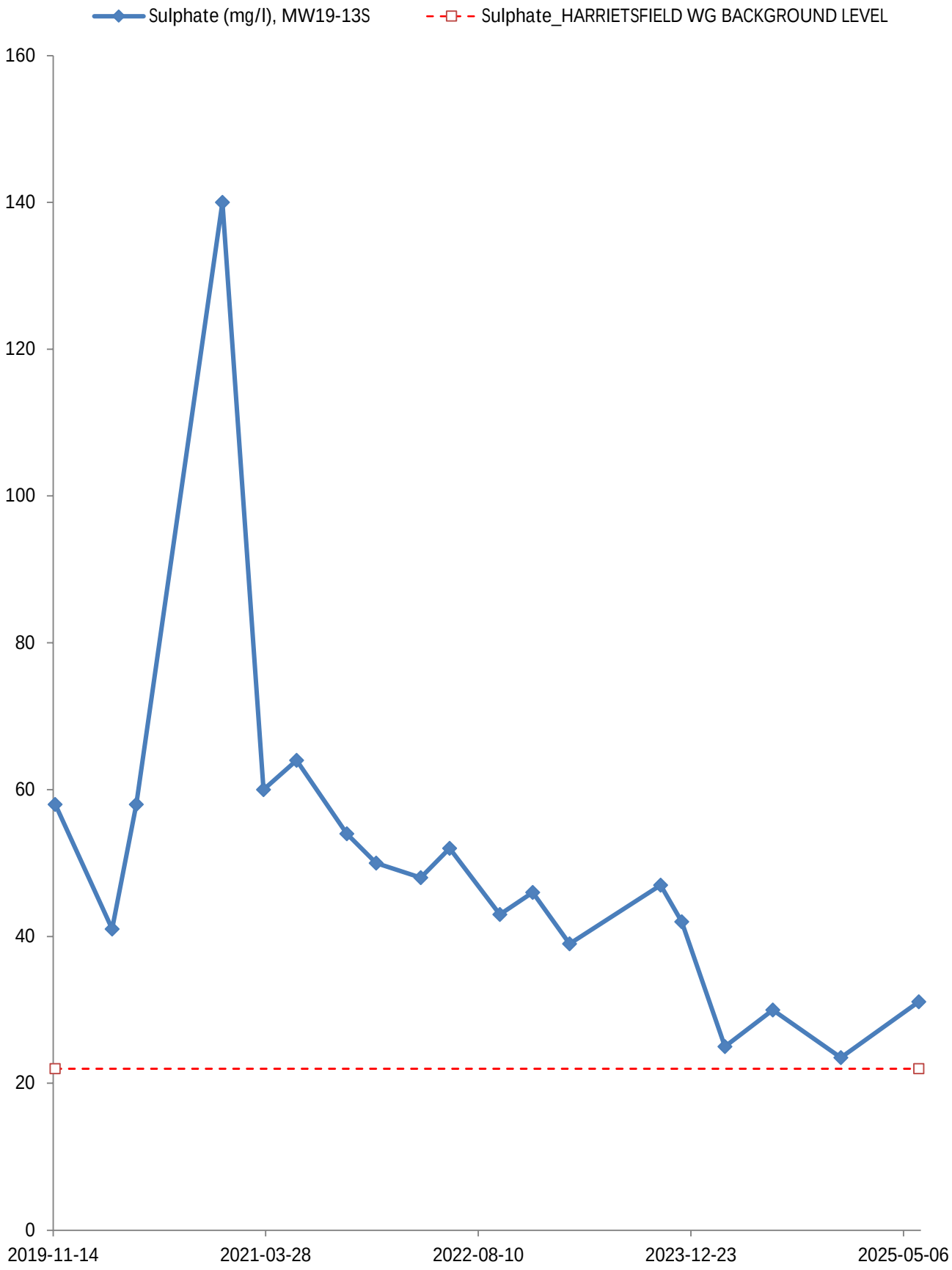

Manganese (mg/l), MW19-13S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# pH, Lab

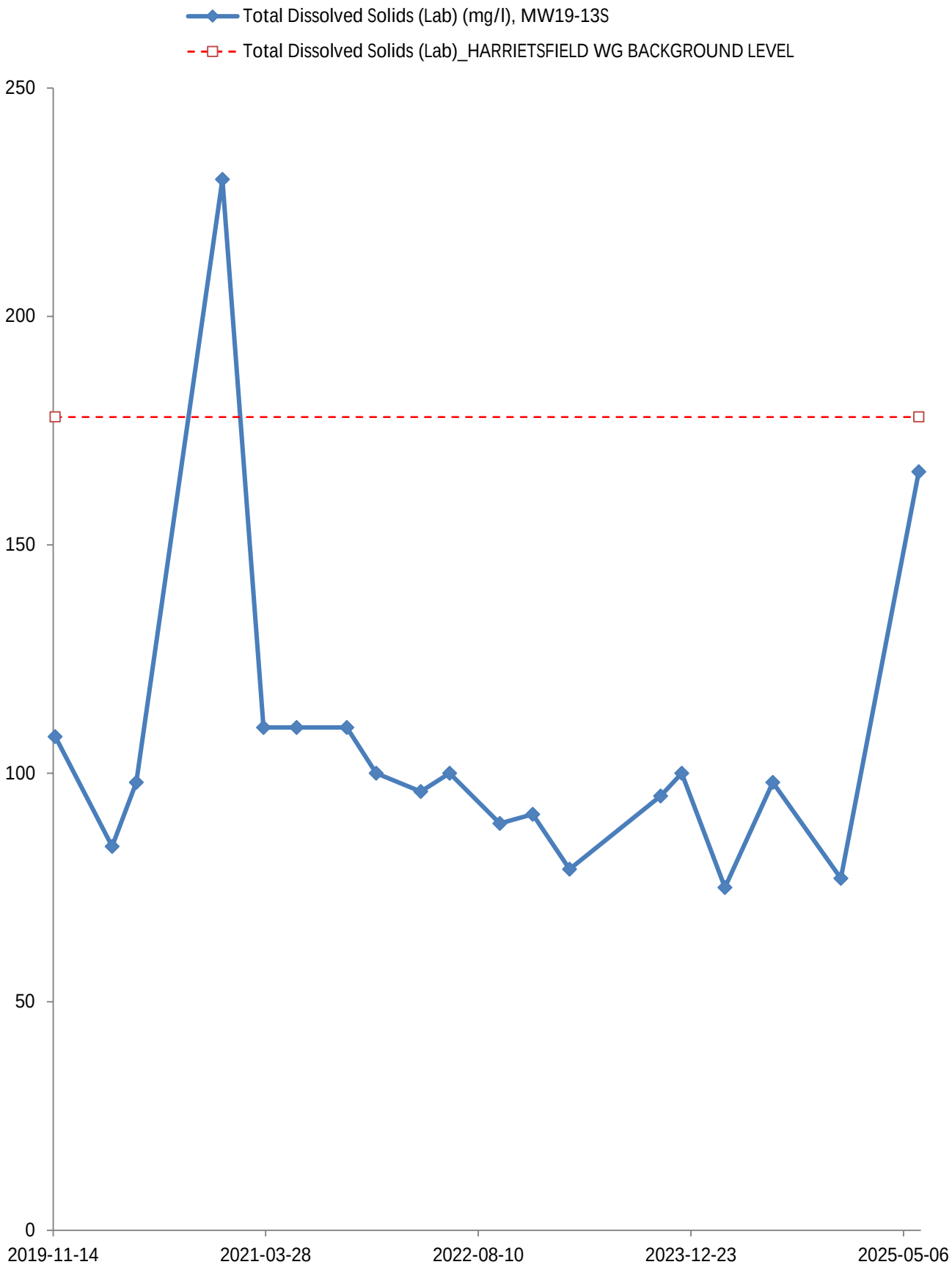



pH, Lab (ph units), MW19-13S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

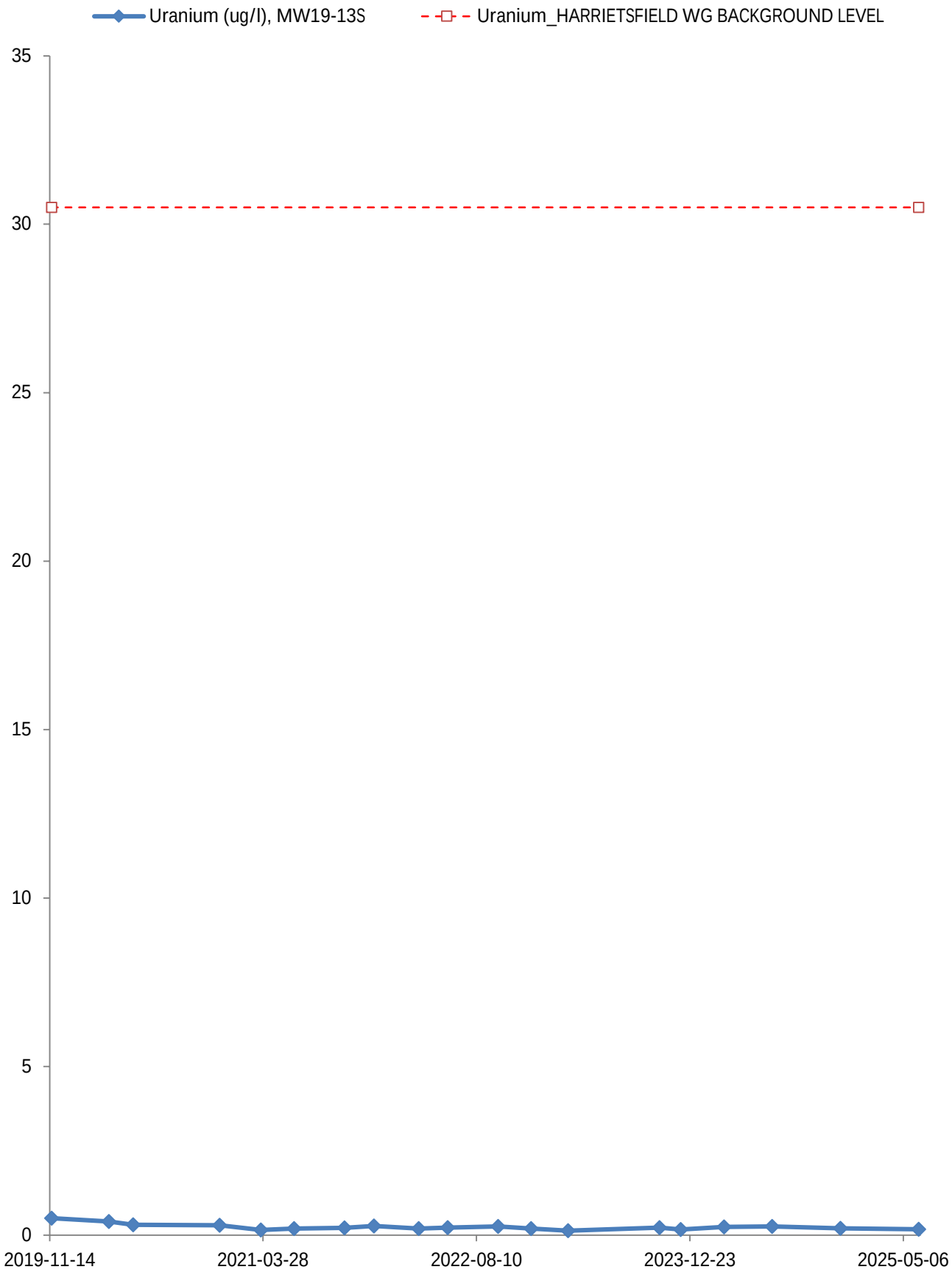
# Sulphate


Sulphate (mg/l), MW19-13S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
160
140
120
100
80
60
40
20
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Total Dissolved Solids (5

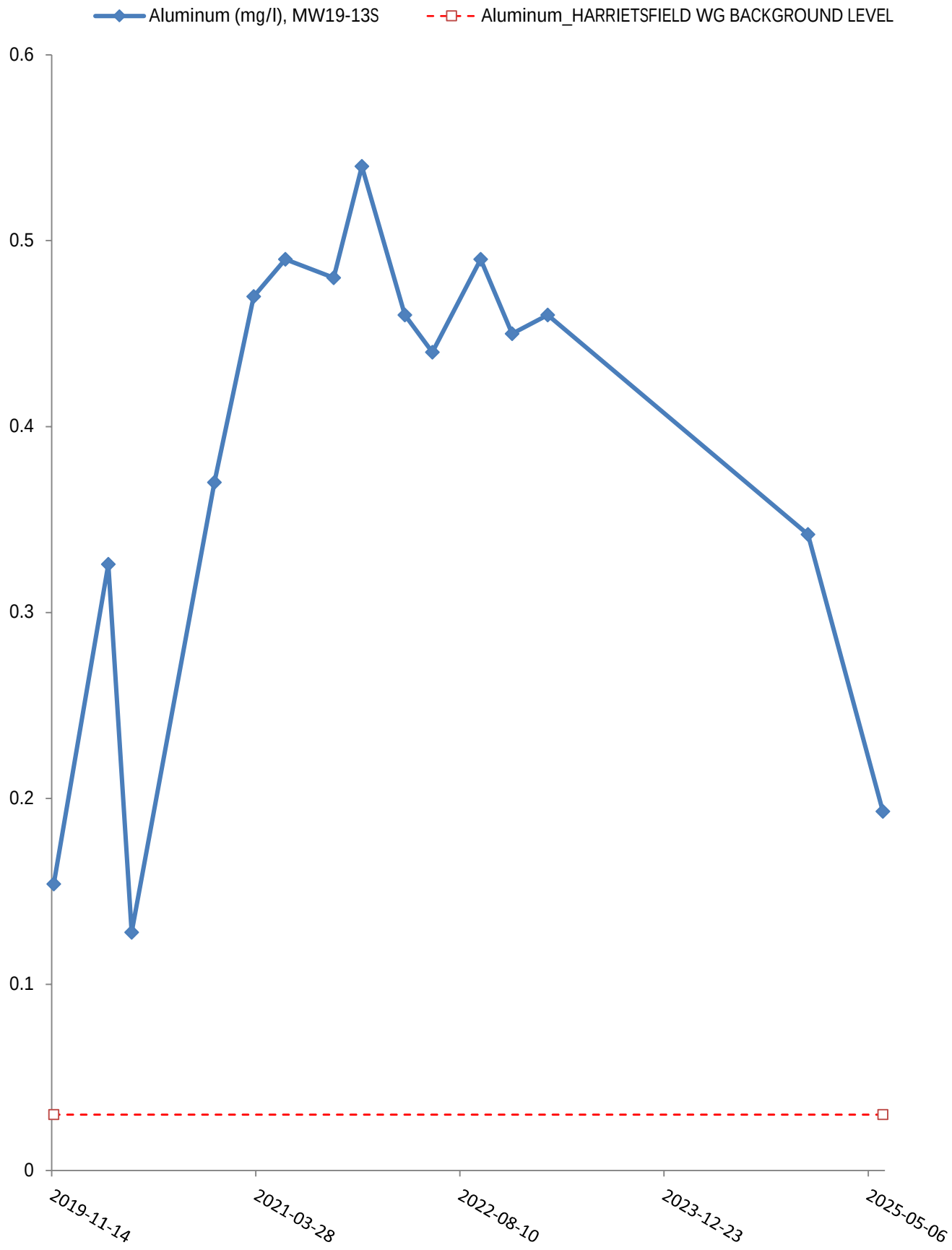


# Uranium

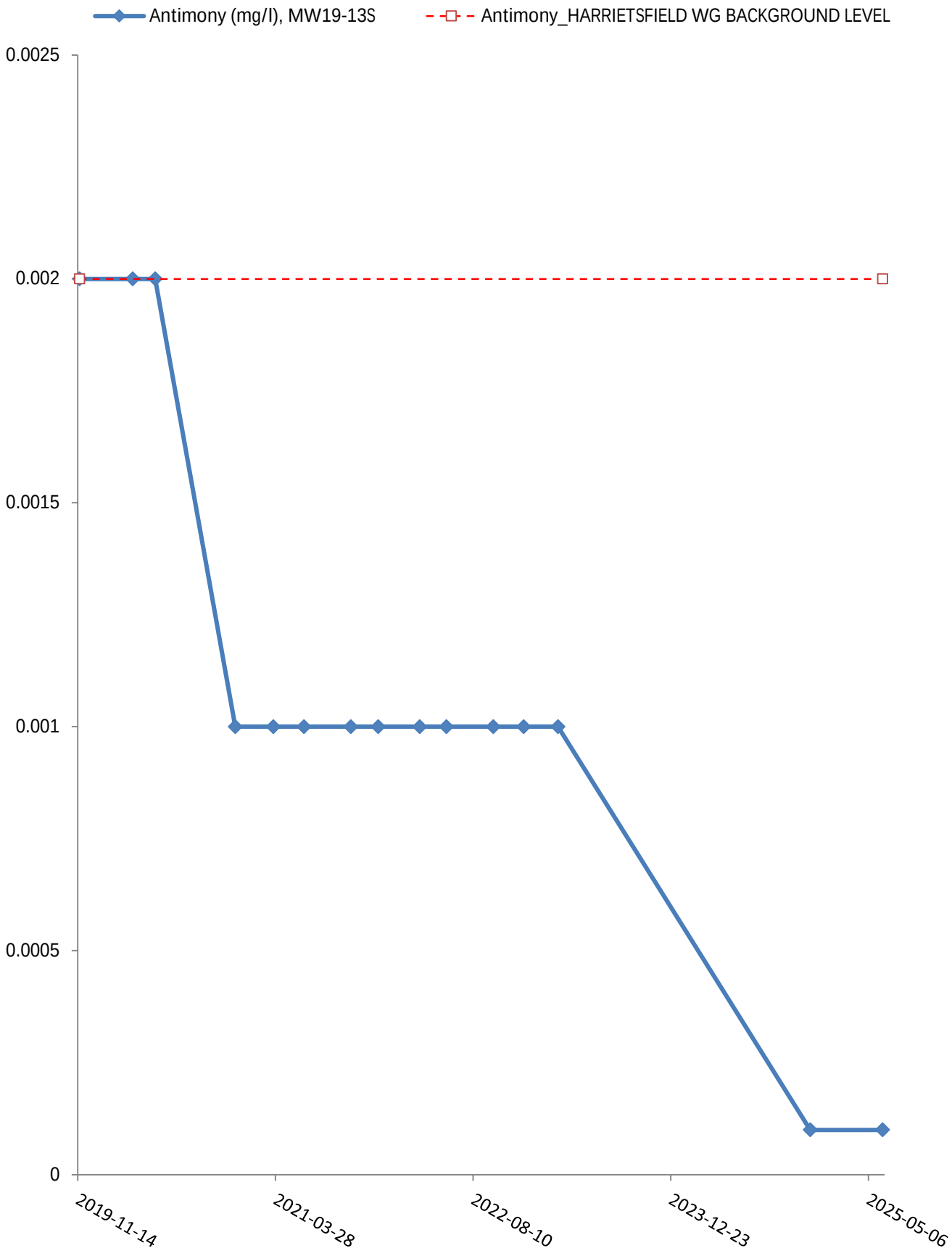

Uranium (ug/l), MW19-13S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Aluminum

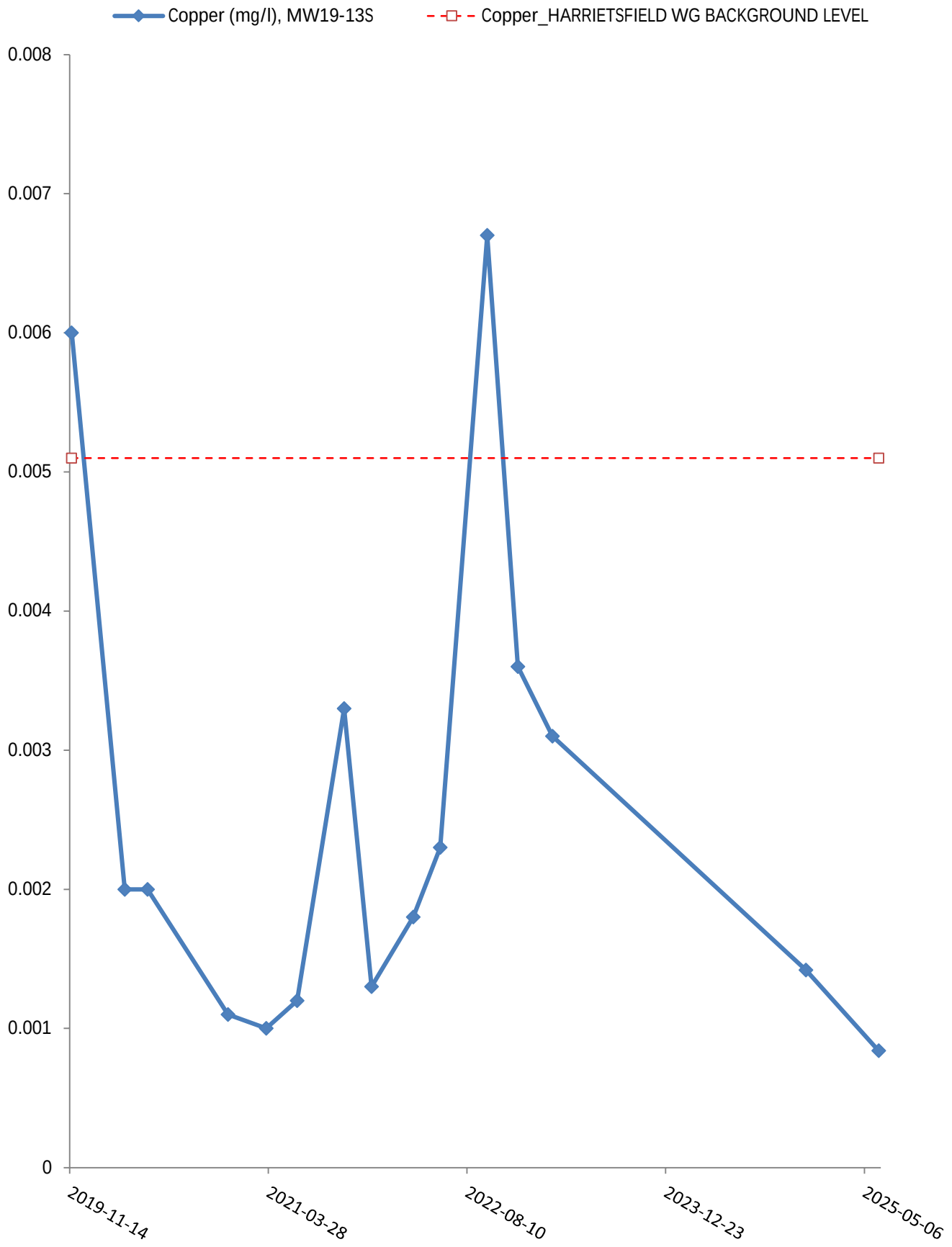



Aluminum (mg/l), MW19-13S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.6
0.5
0.4
0.3
0.2
0.1
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

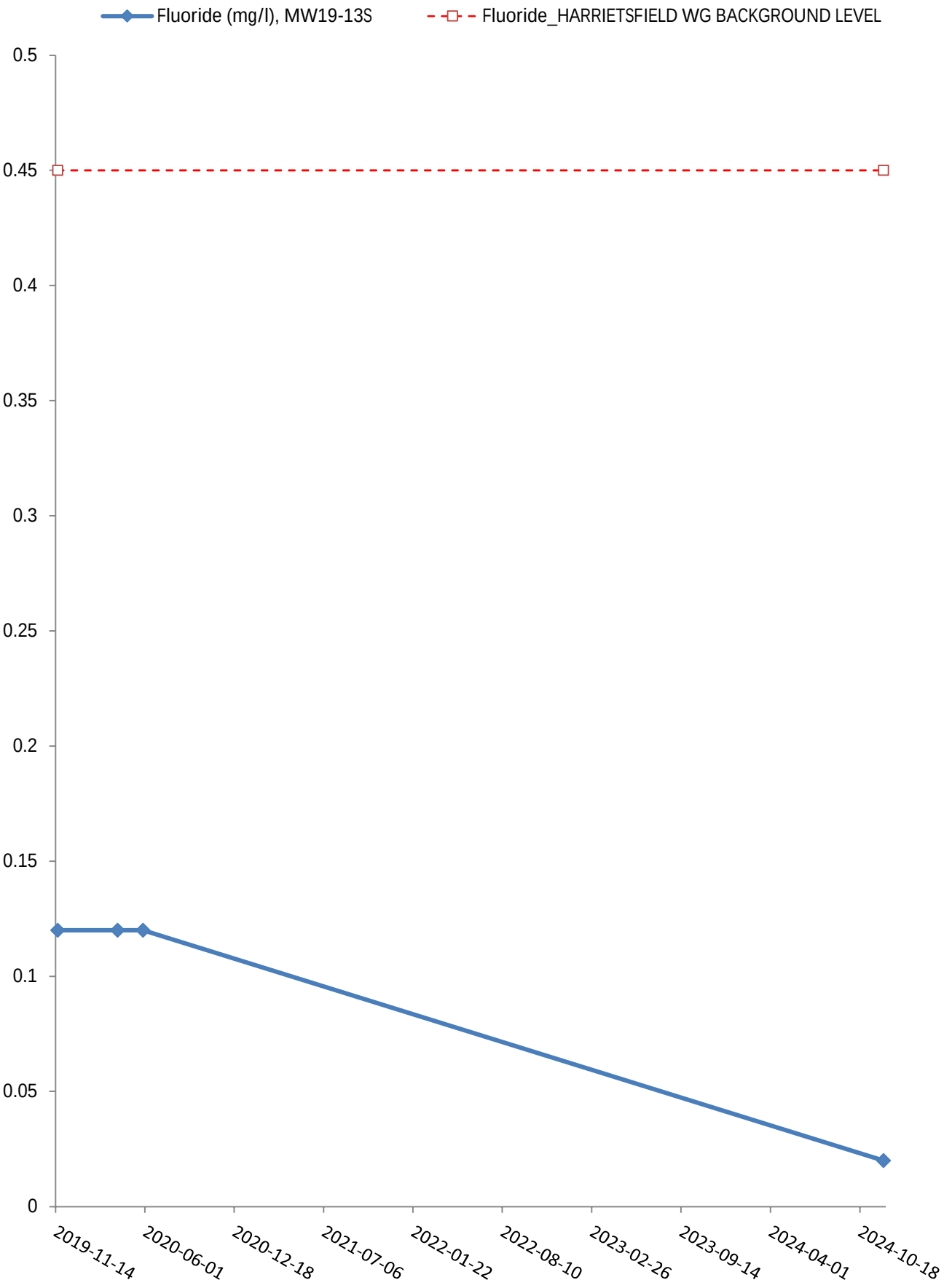
# Antimony


Antimony (mg/l), MW19-13S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Copper

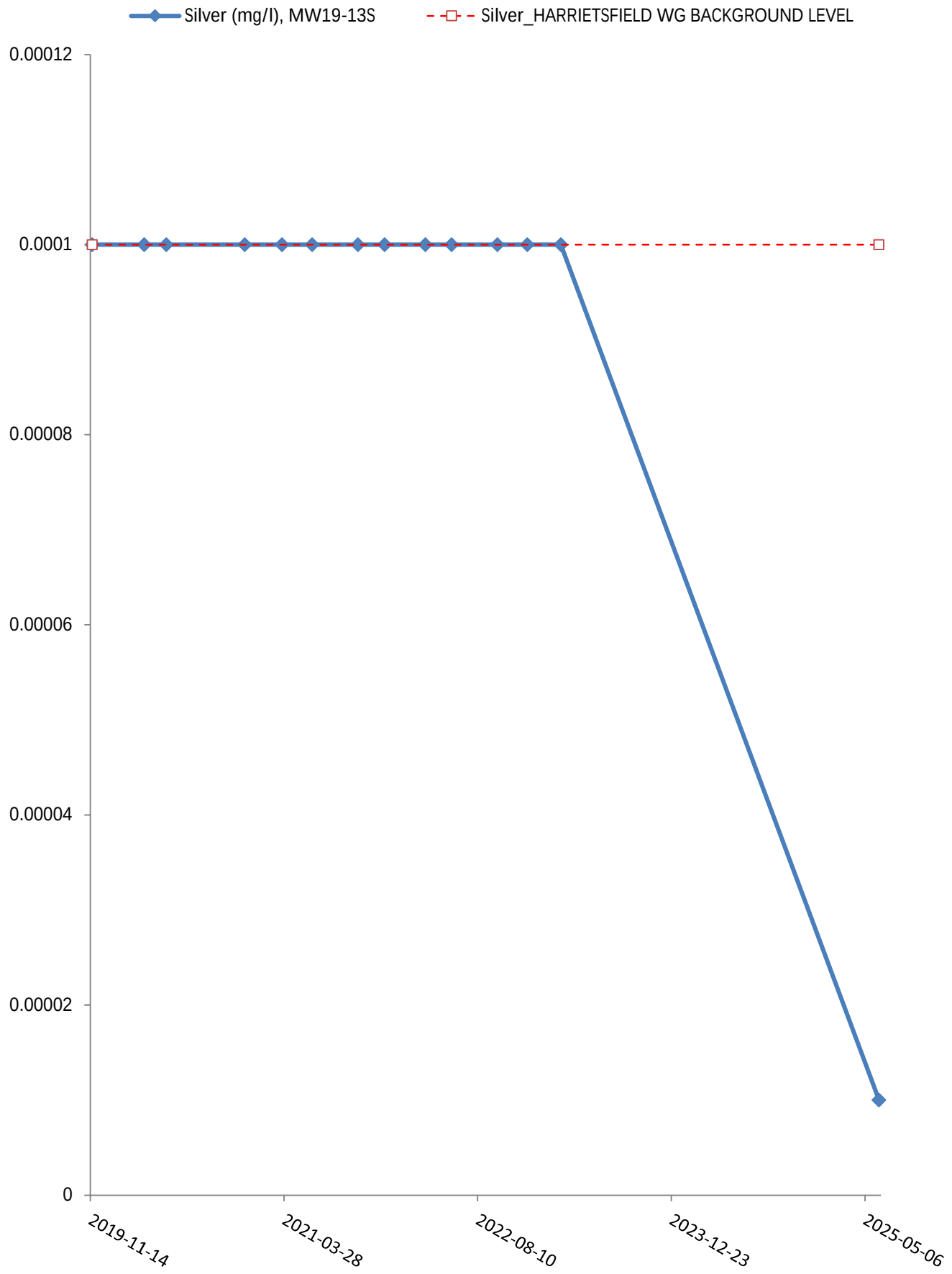

Copper (mg/l), MW19-13S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Fluoride


Fluoride (mg/l), MW19-13S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-11-14
2020-06-01
2020-12-18
2021-07-06
2022-01-22
2022-08-10
2023-02-26
2023-09-14
2024-04-01
2024-10-18

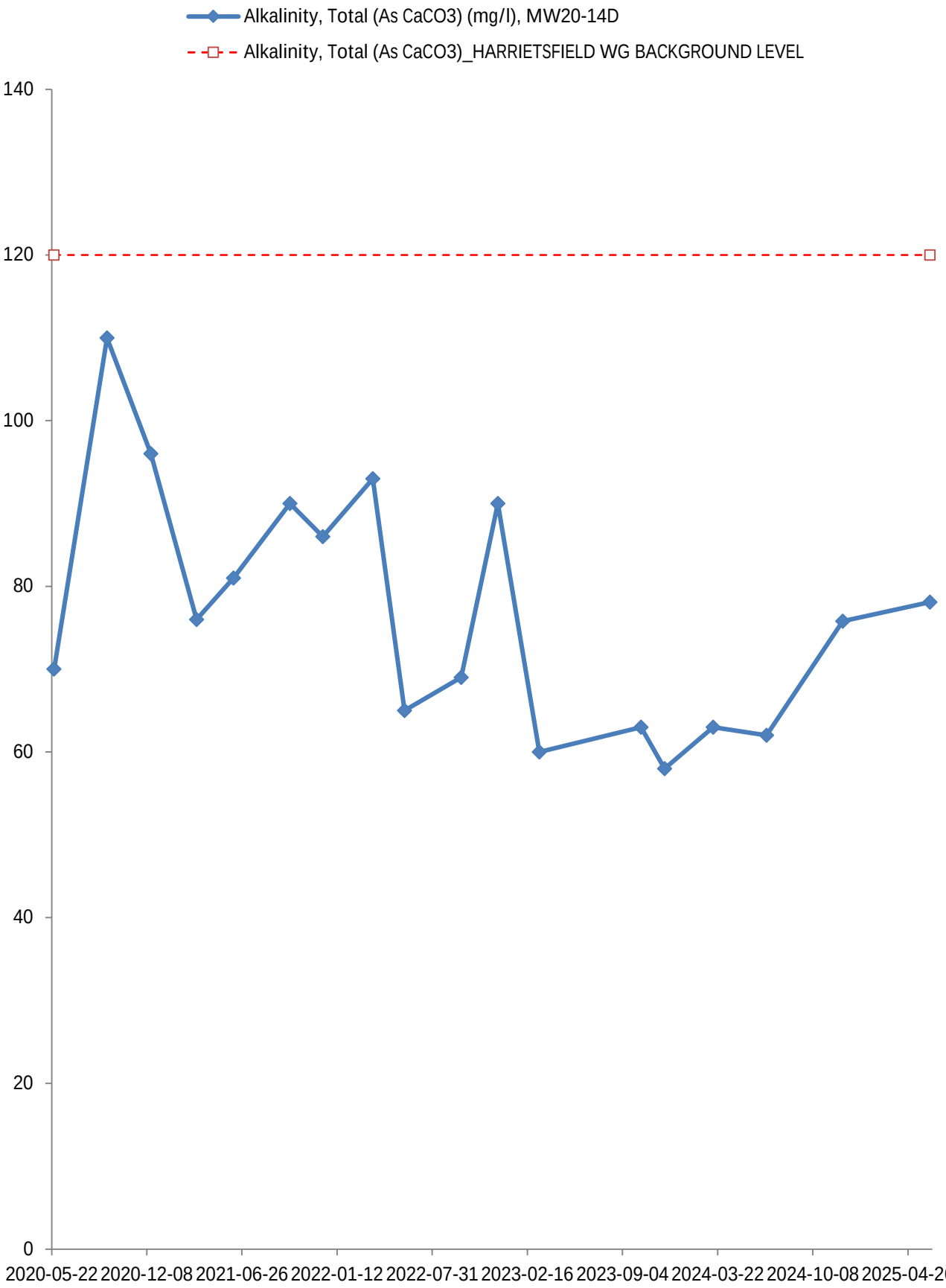
# Fluoride

# Silver

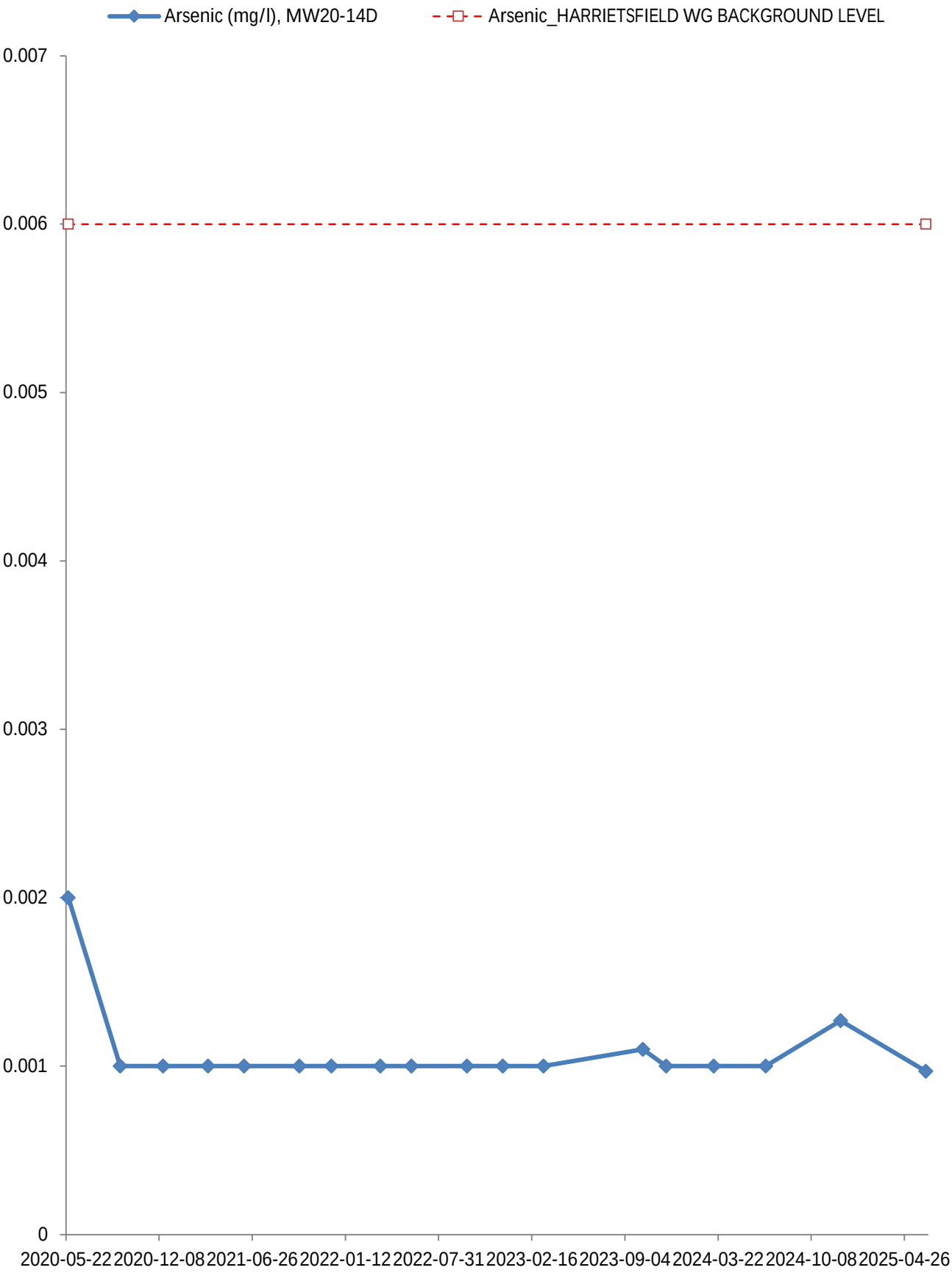

Silver (mg/l), MW19-13S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-11-14
2021-03-28
2022-08-10
2023-12-23
2025-05-06

# Silver

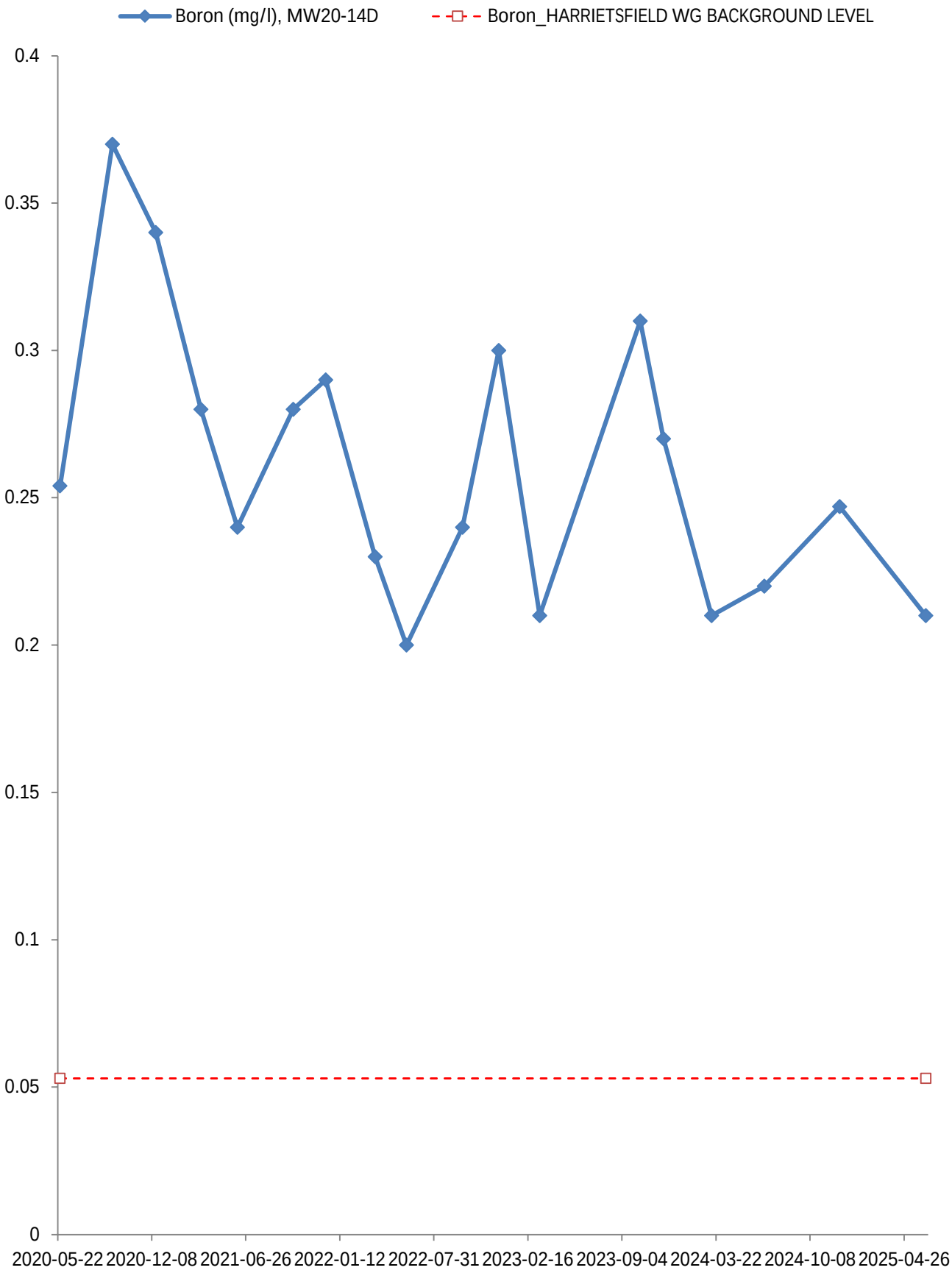
# Alkalinity, Total



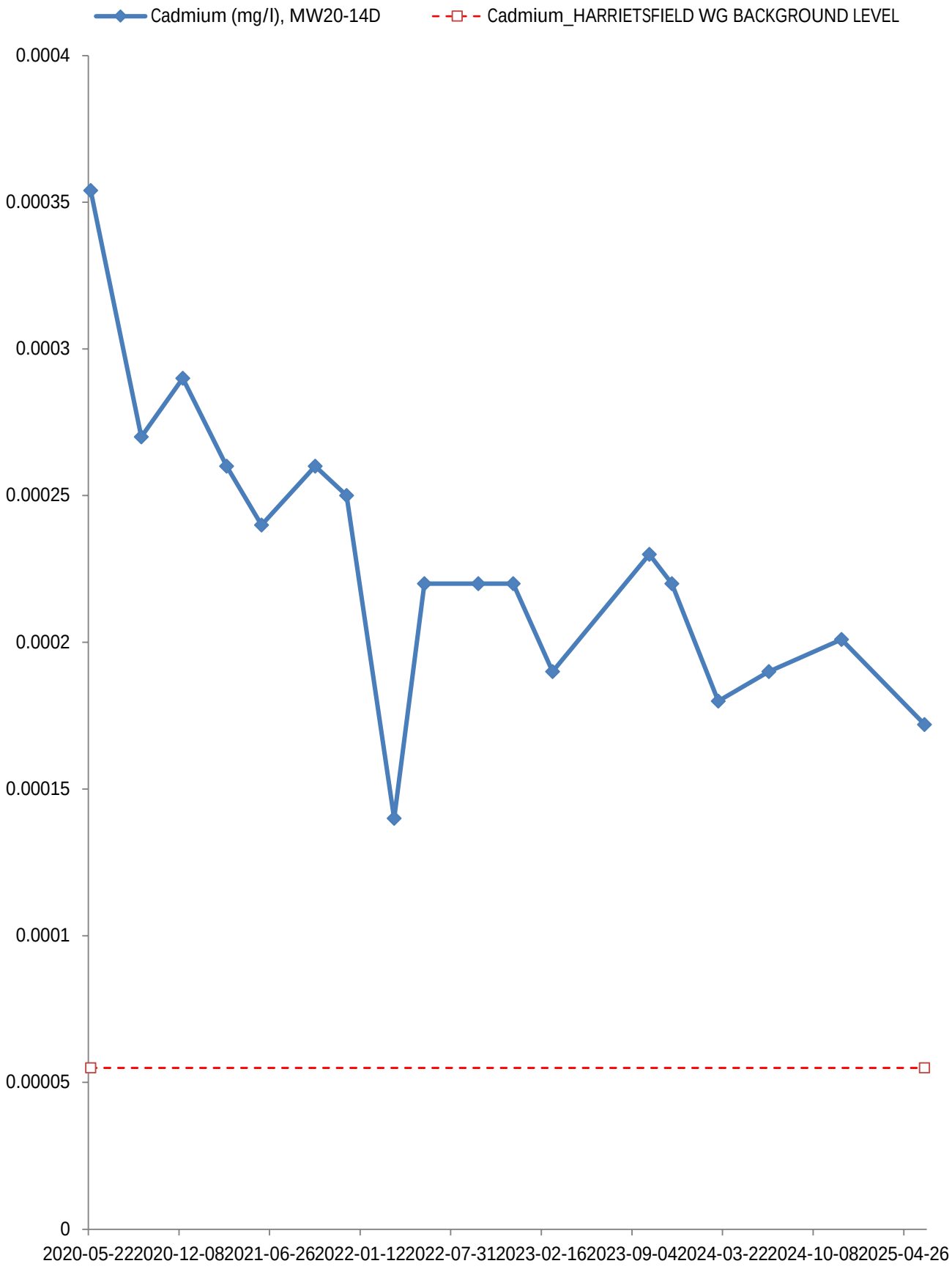
# Arsenic


Arsenic (mg/l), MW20-14D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

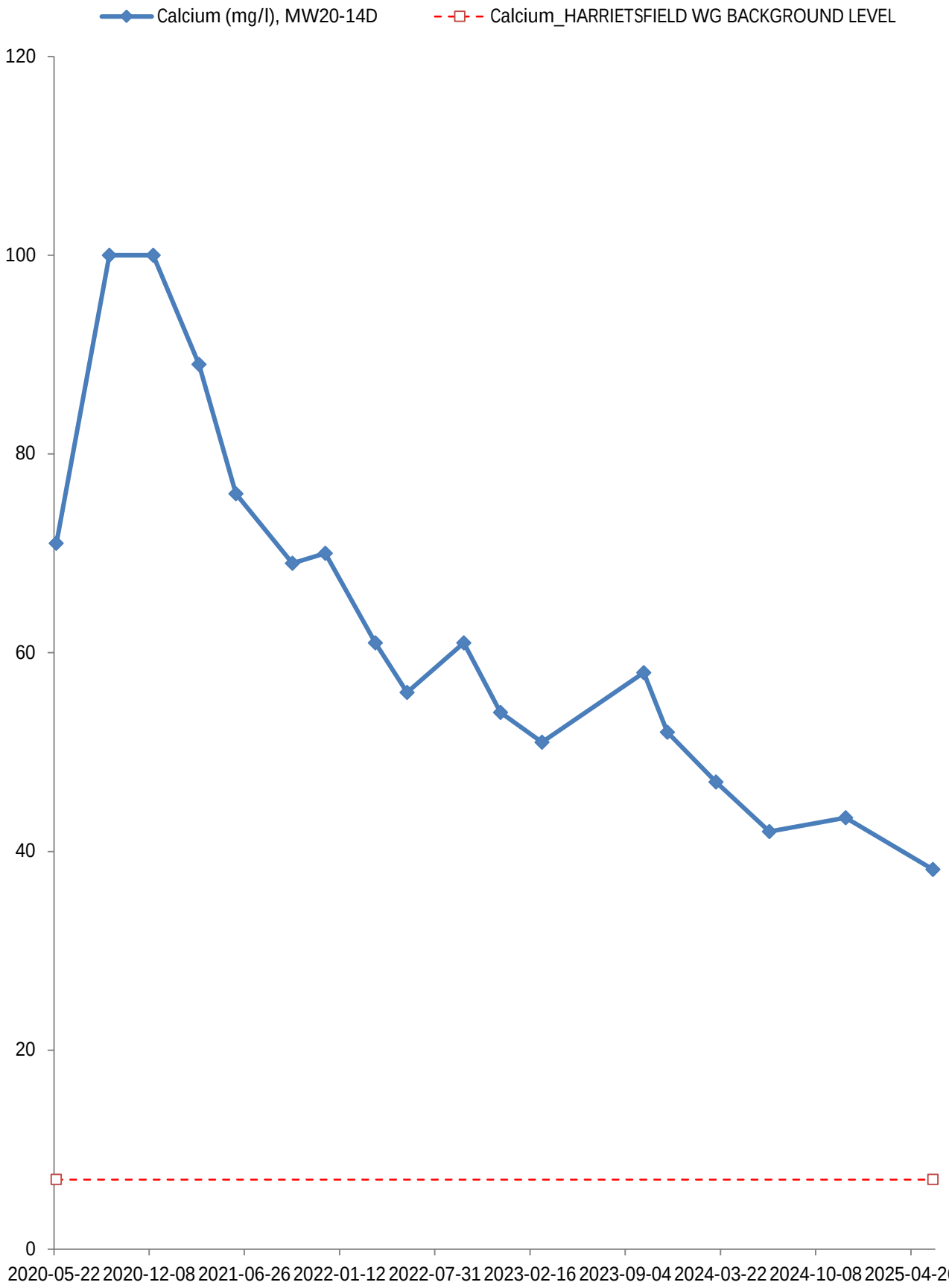
# Boron


Boron (mg/l), MW20-14D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

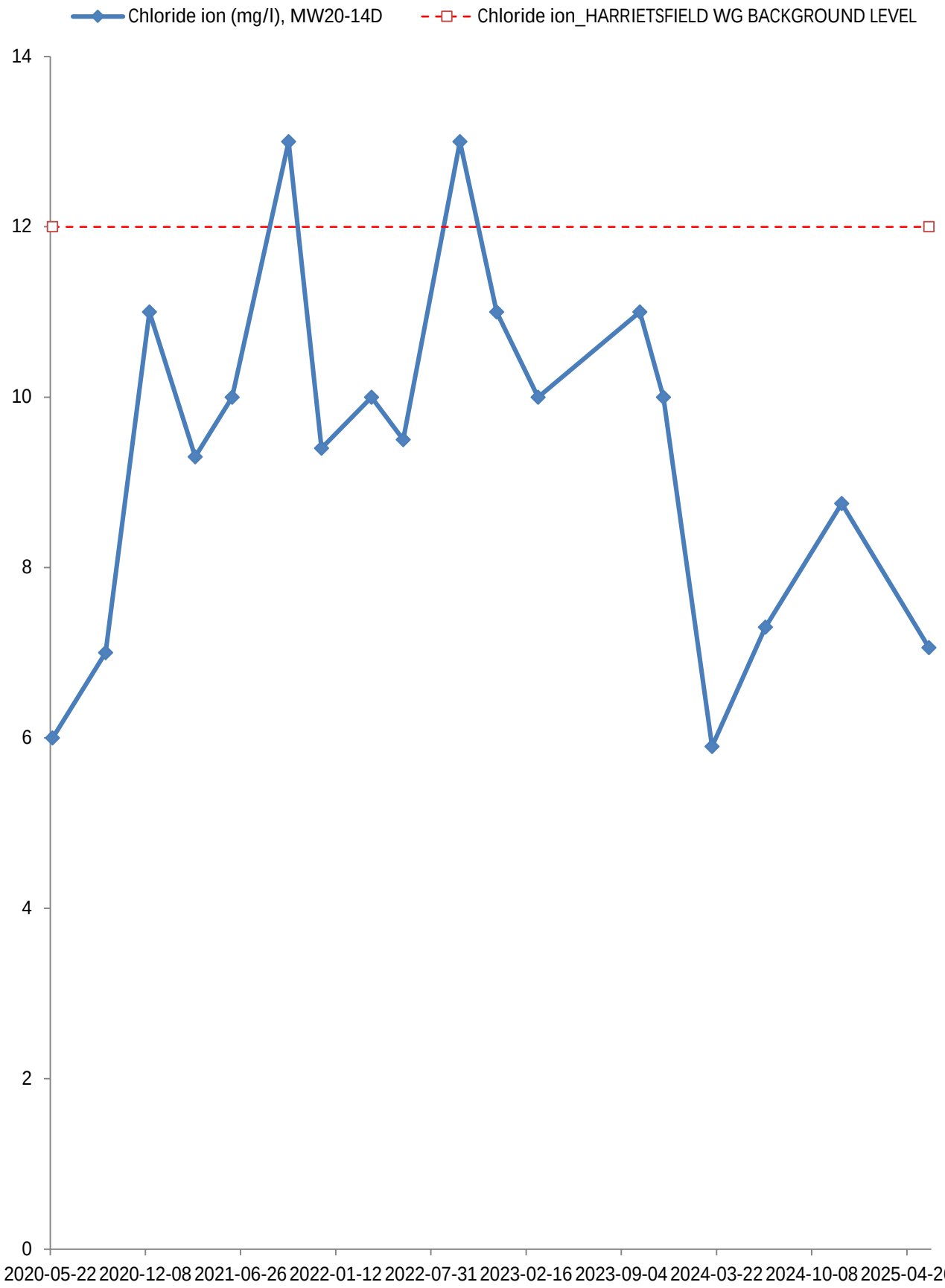
# Cadmium


Cadmium (mg/l), MW20-14D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

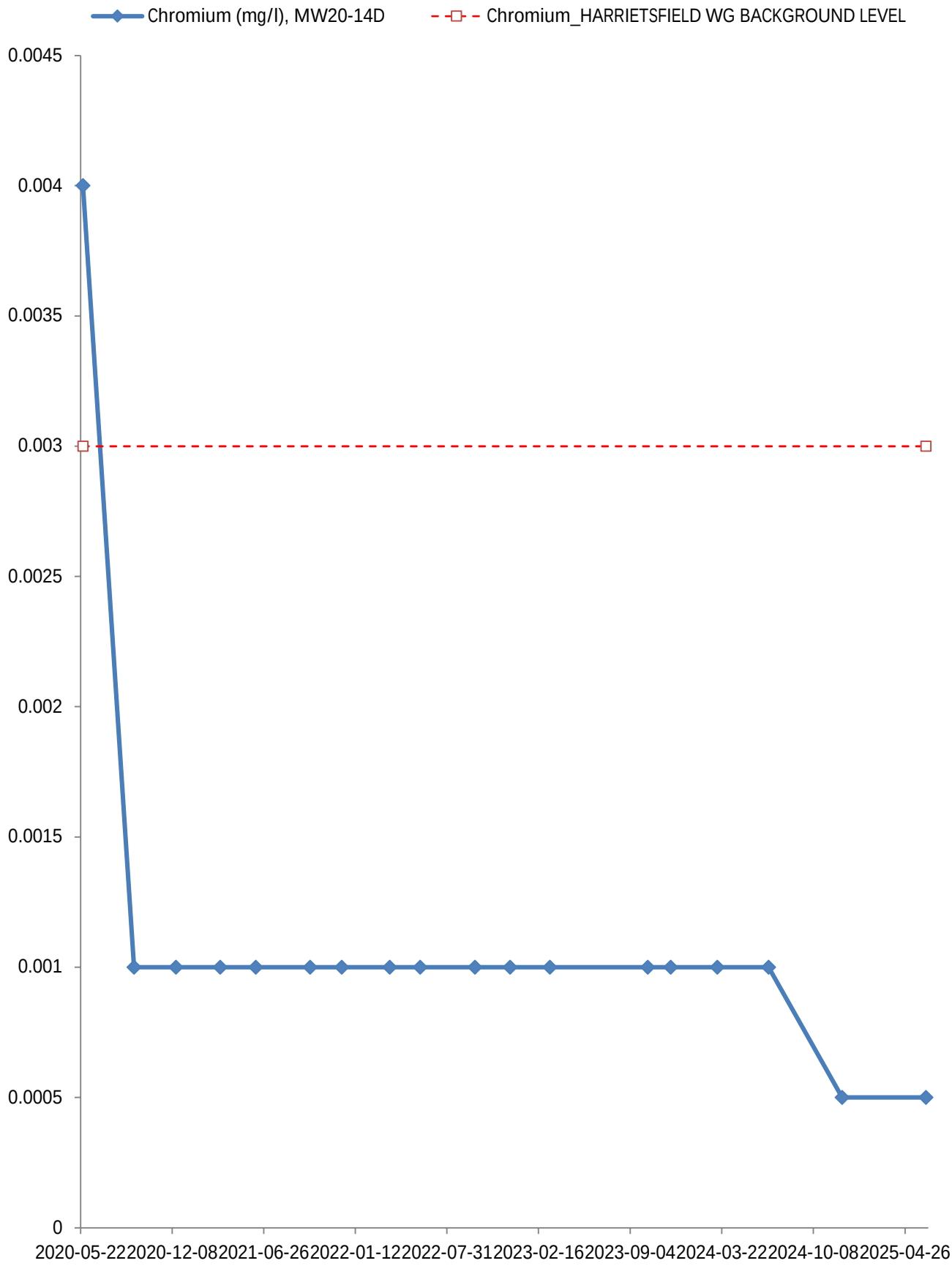
# Calcium


Calcium (mg/l), MW20-14D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
120
100
80
60
40
20
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

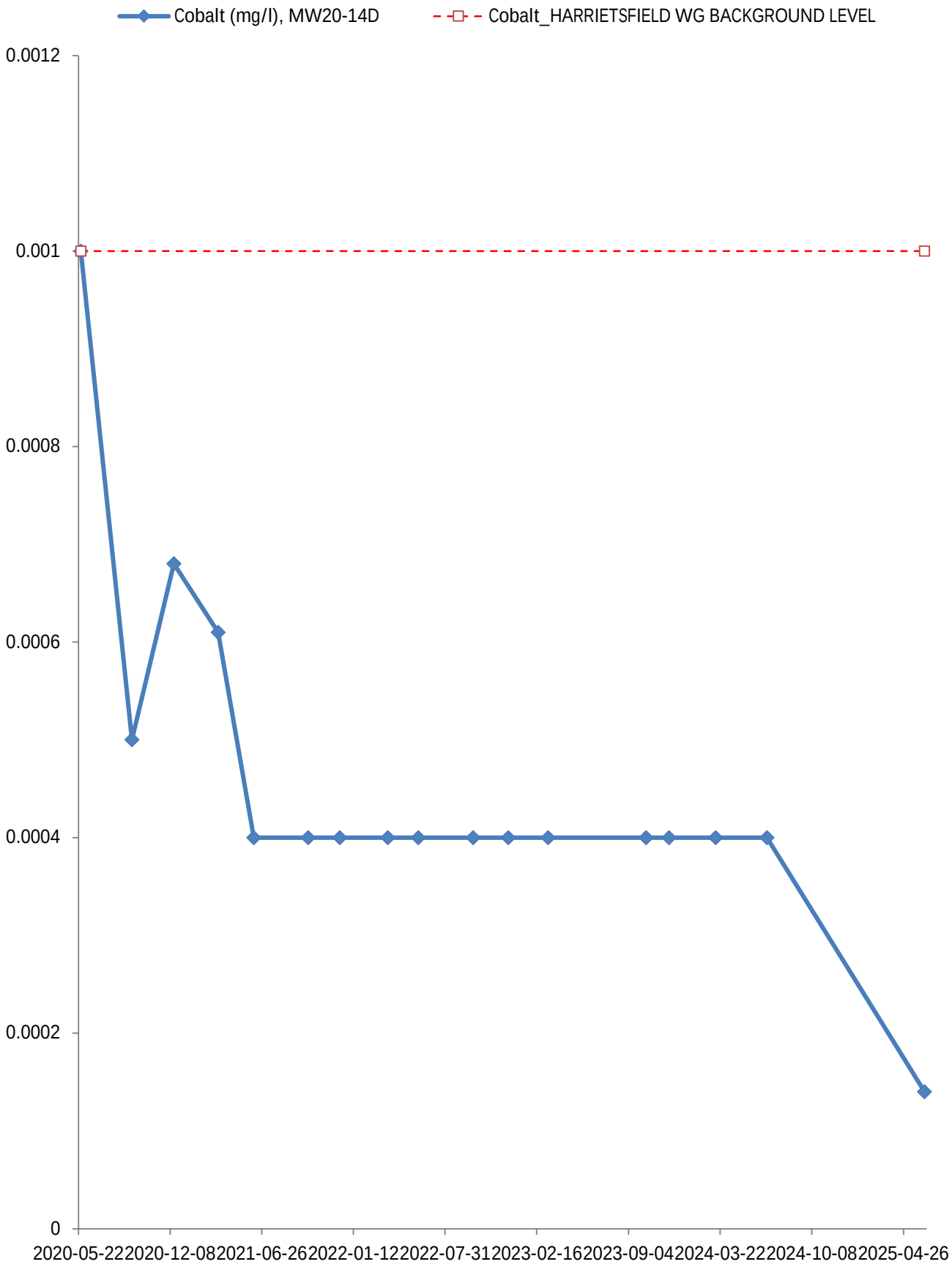
# Chloride ion



# Chromium

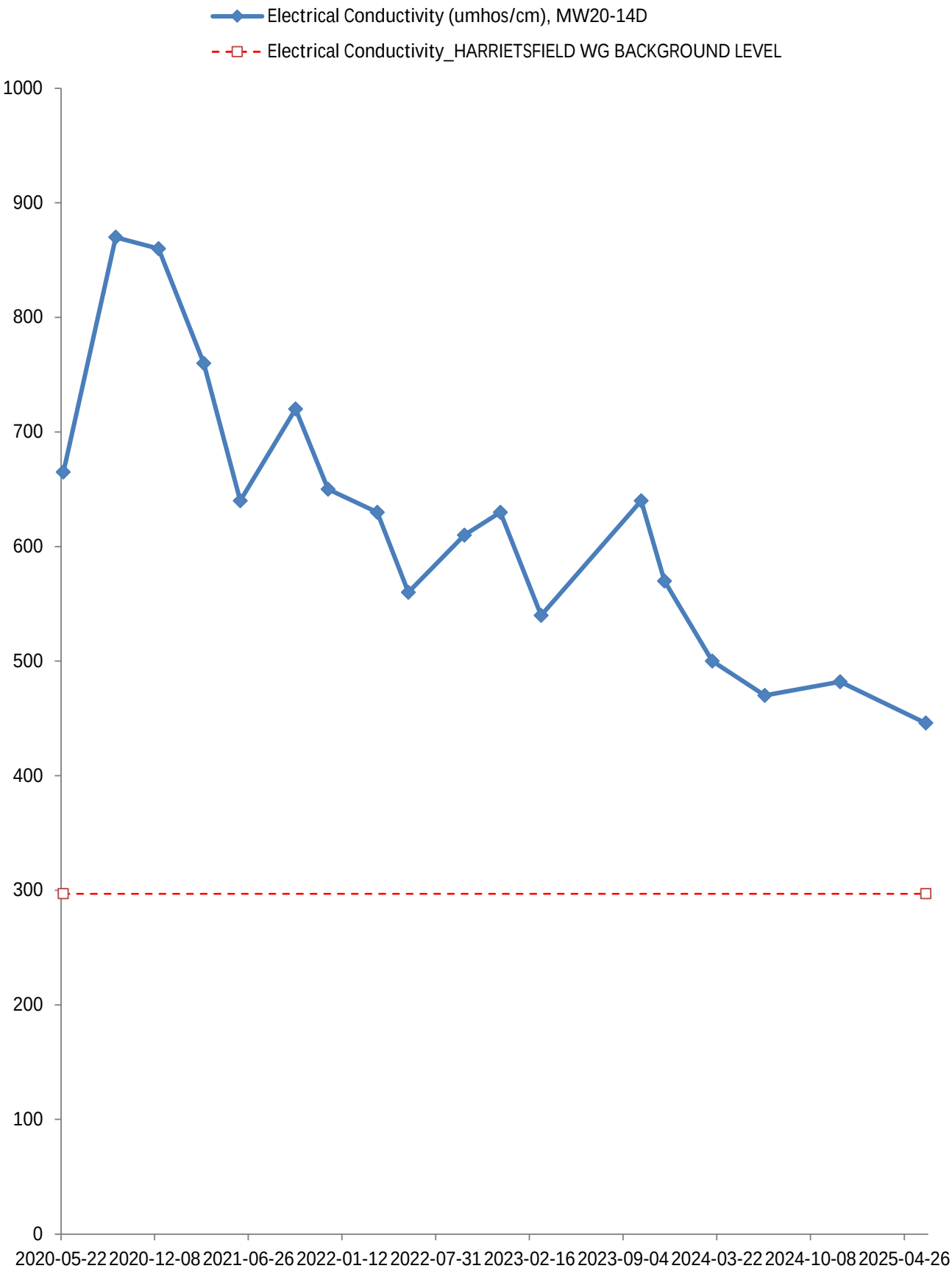

Chromium (mg/l), MW20-14D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt


Cobalt (mg/l), MW20-14D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

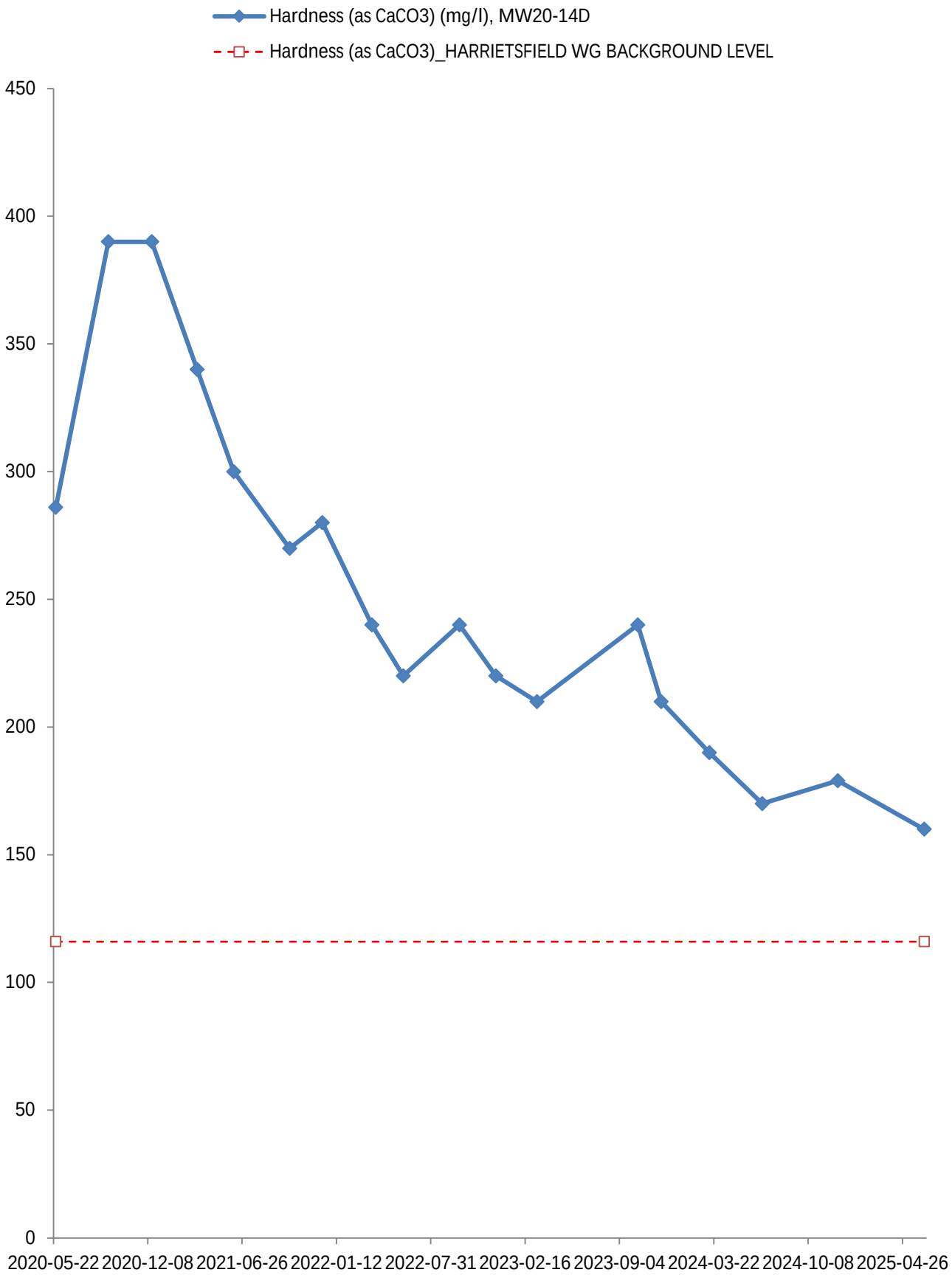
# Electrical Conductivity



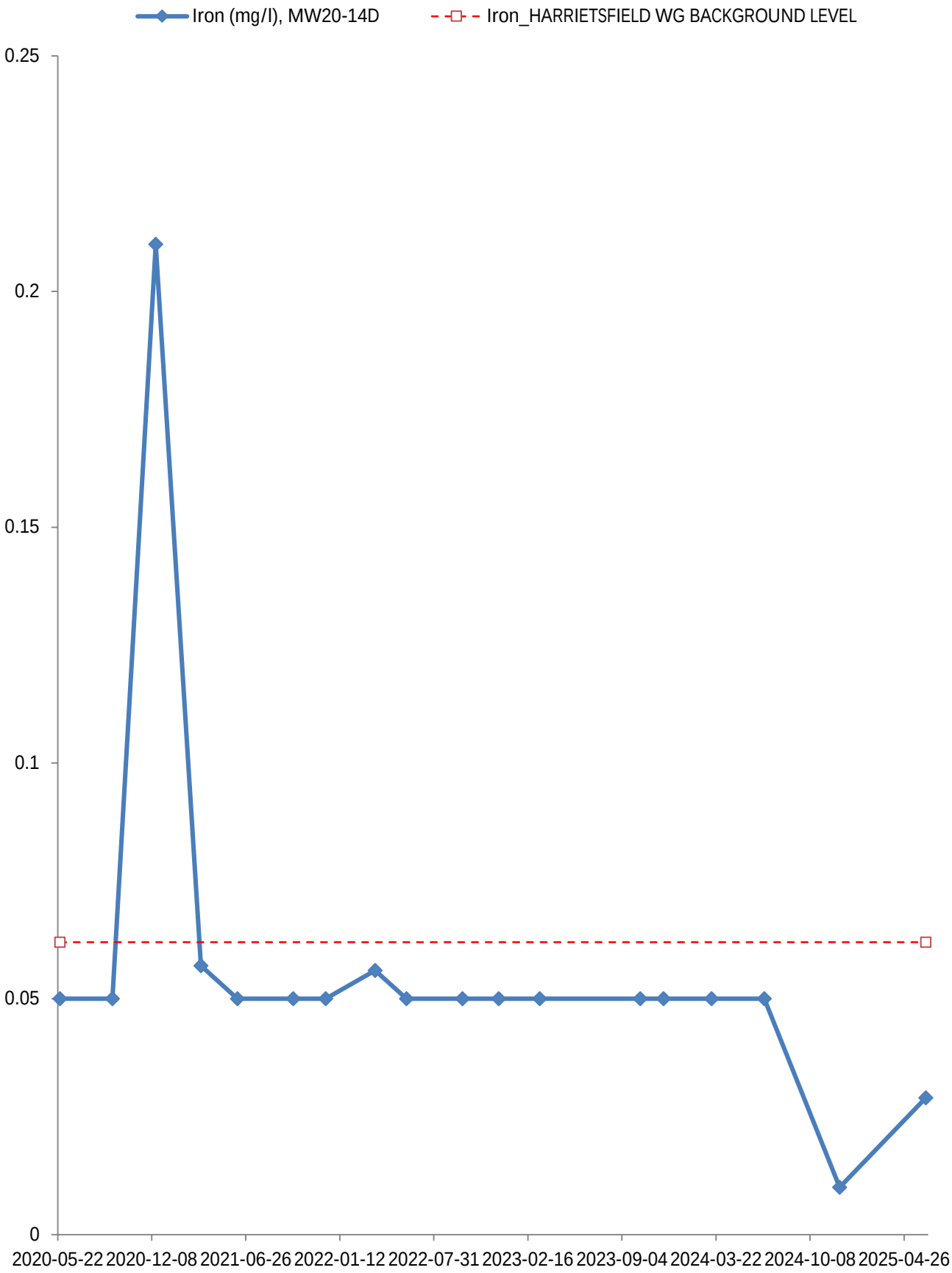


# Hardness (as CaCO3)

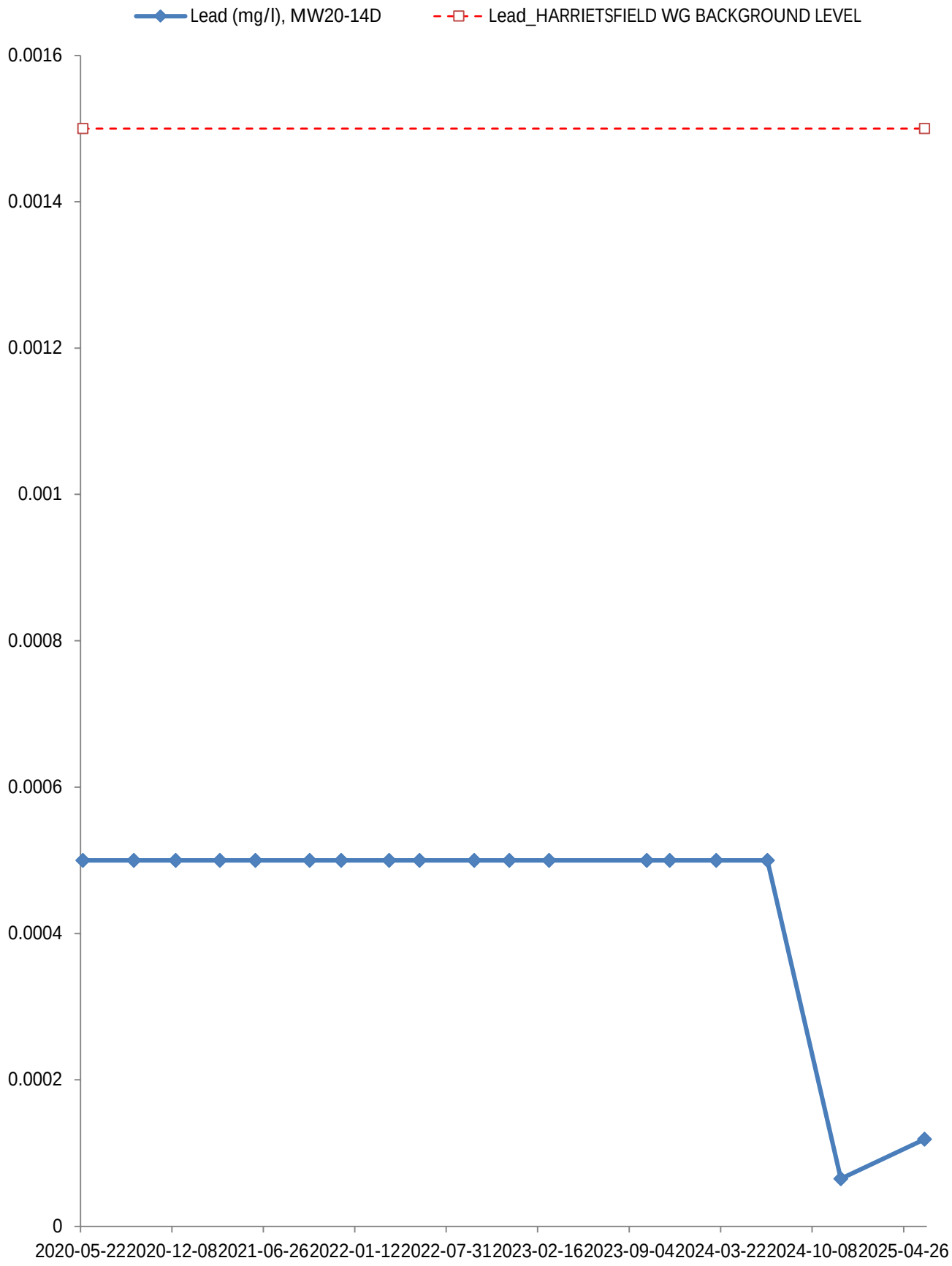




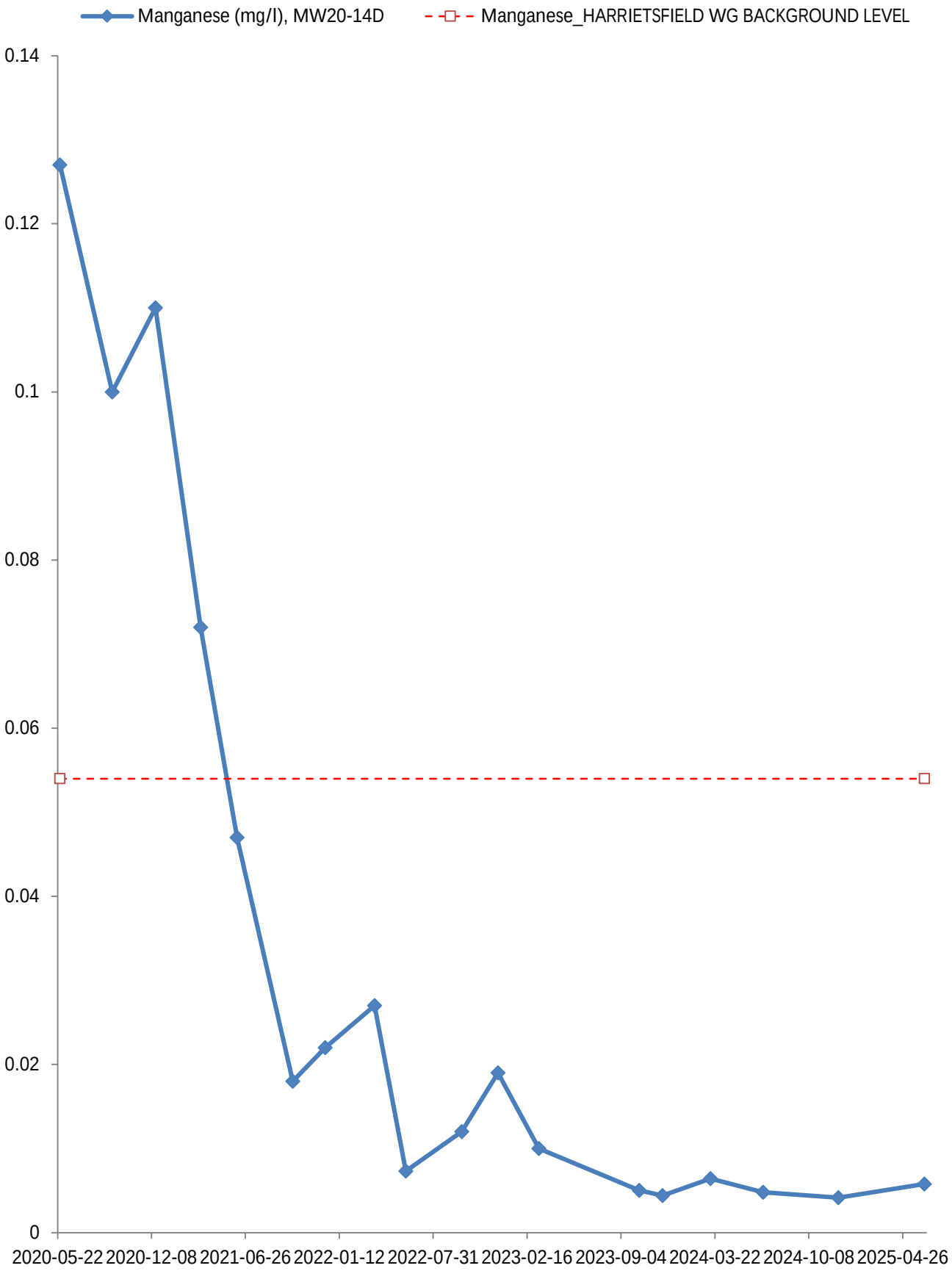
# Iron


Iron (mg/l), MW20-14D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

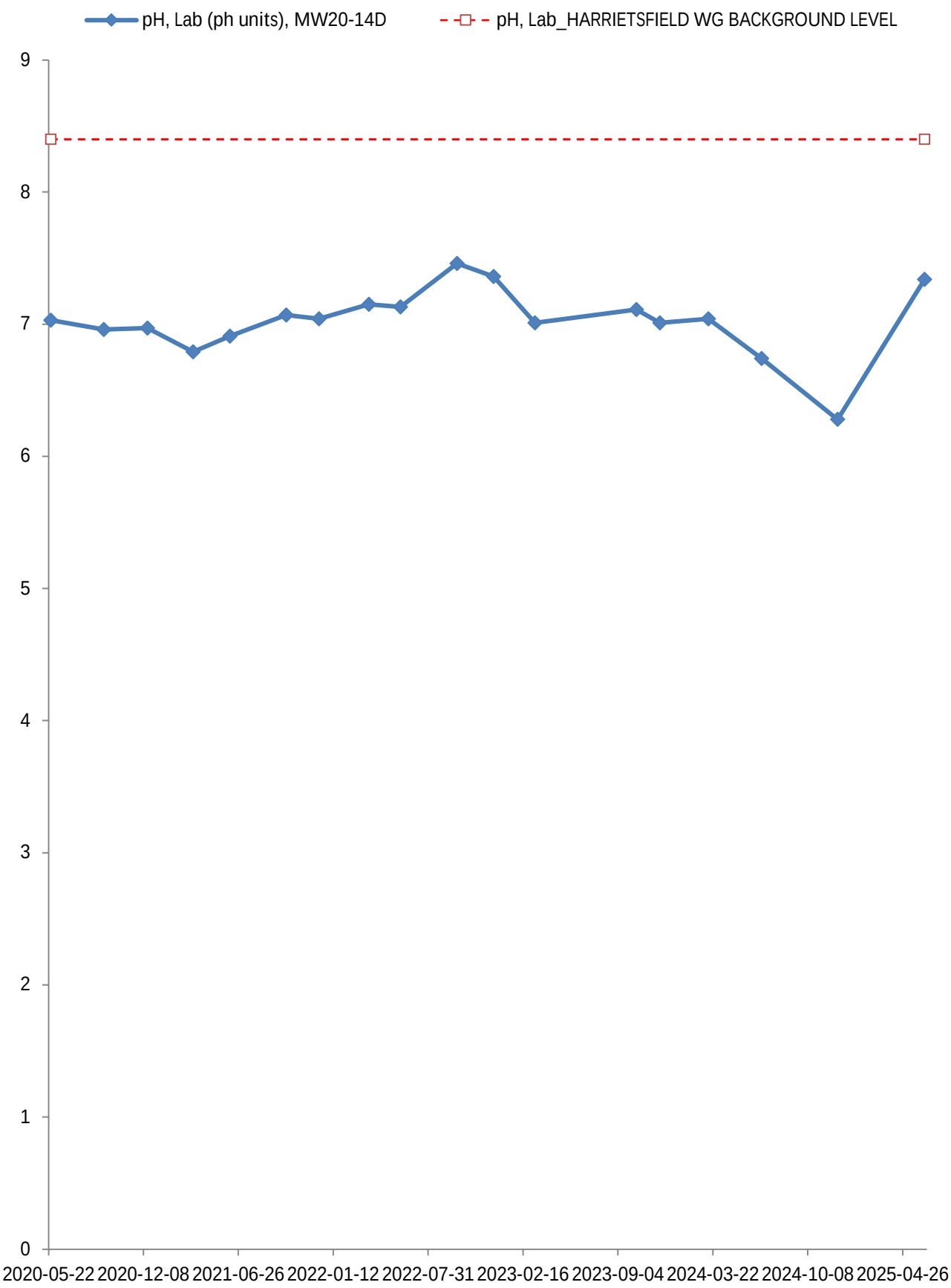
# Lead


Lead (mg/l), MW20-14D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Manganese

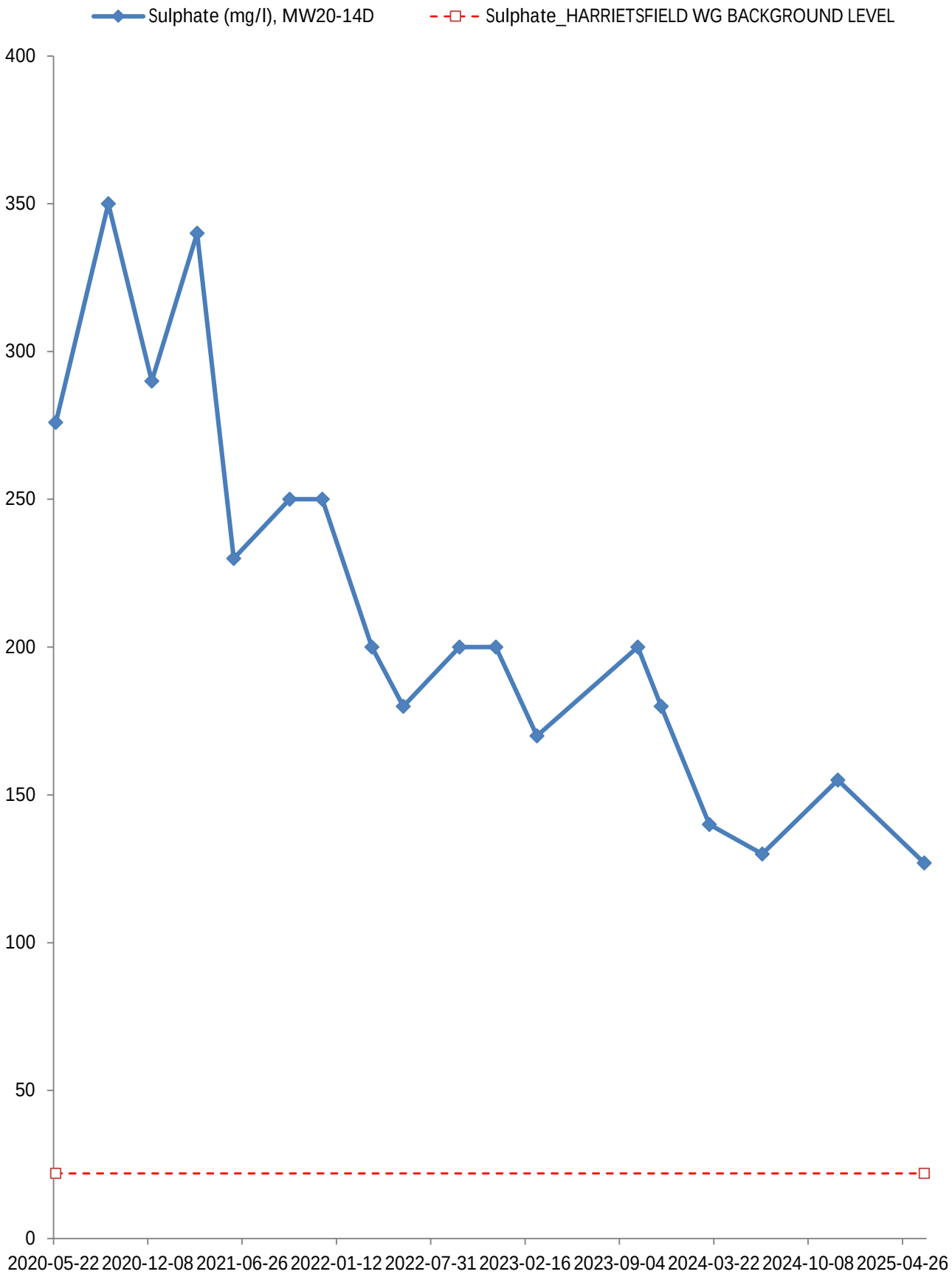

Manganese (mg/l), MW20-14D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# pH, Lab

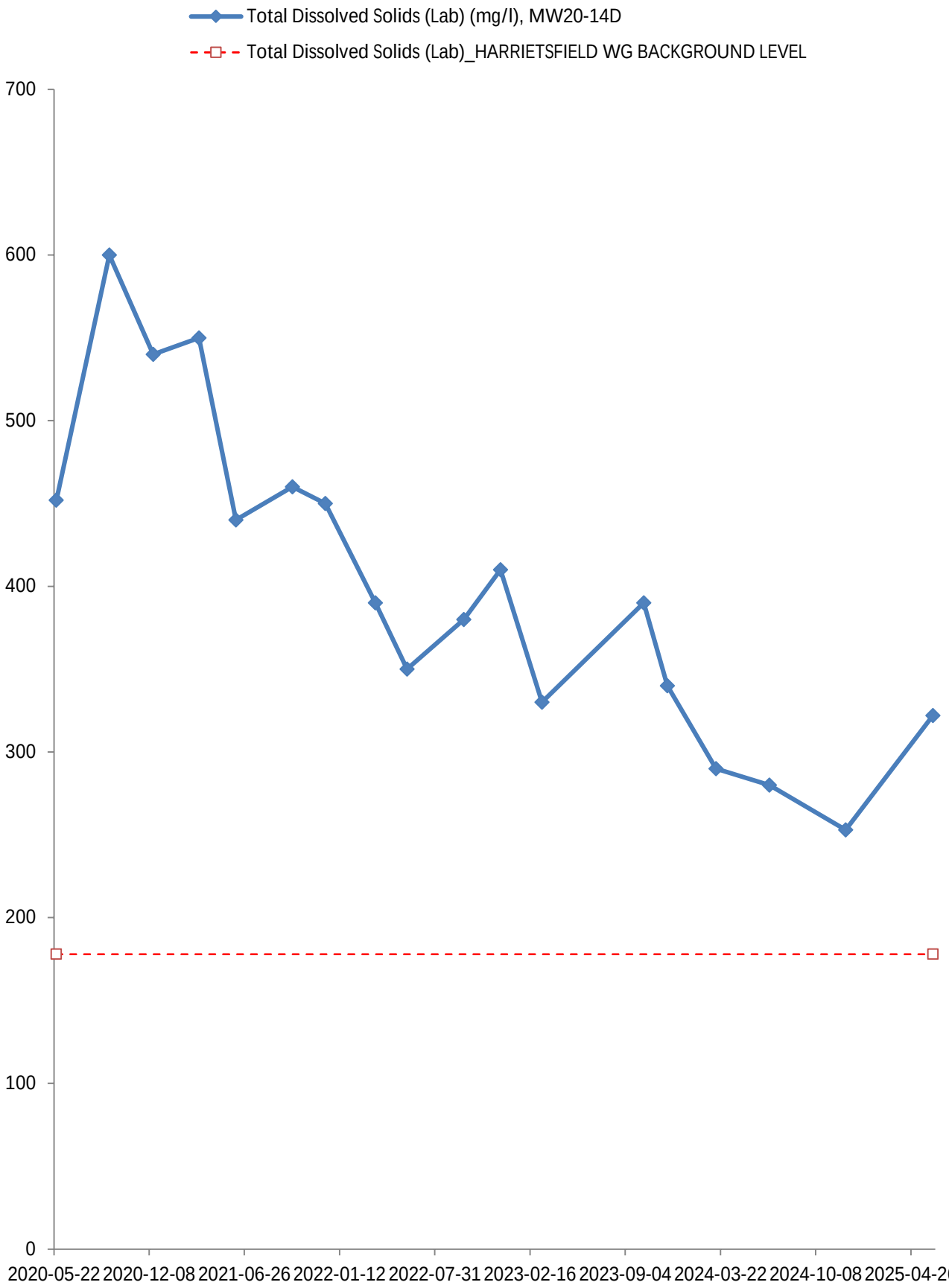

pH, Lab (ph units), MW20-14D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Sulphate

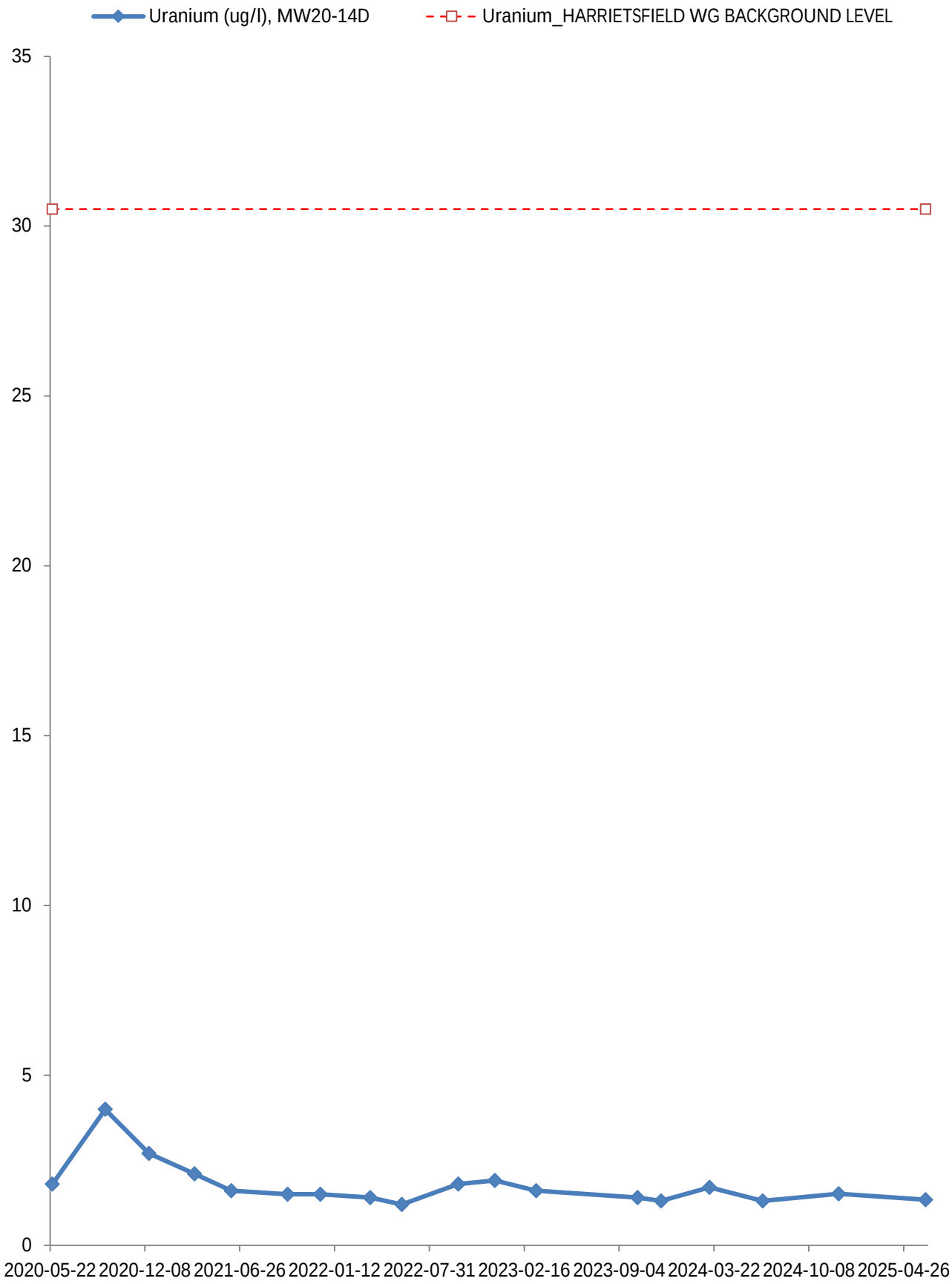



Sulphate (mg/l), MW20-14D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
400
350
300
250
200
150
100
50
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

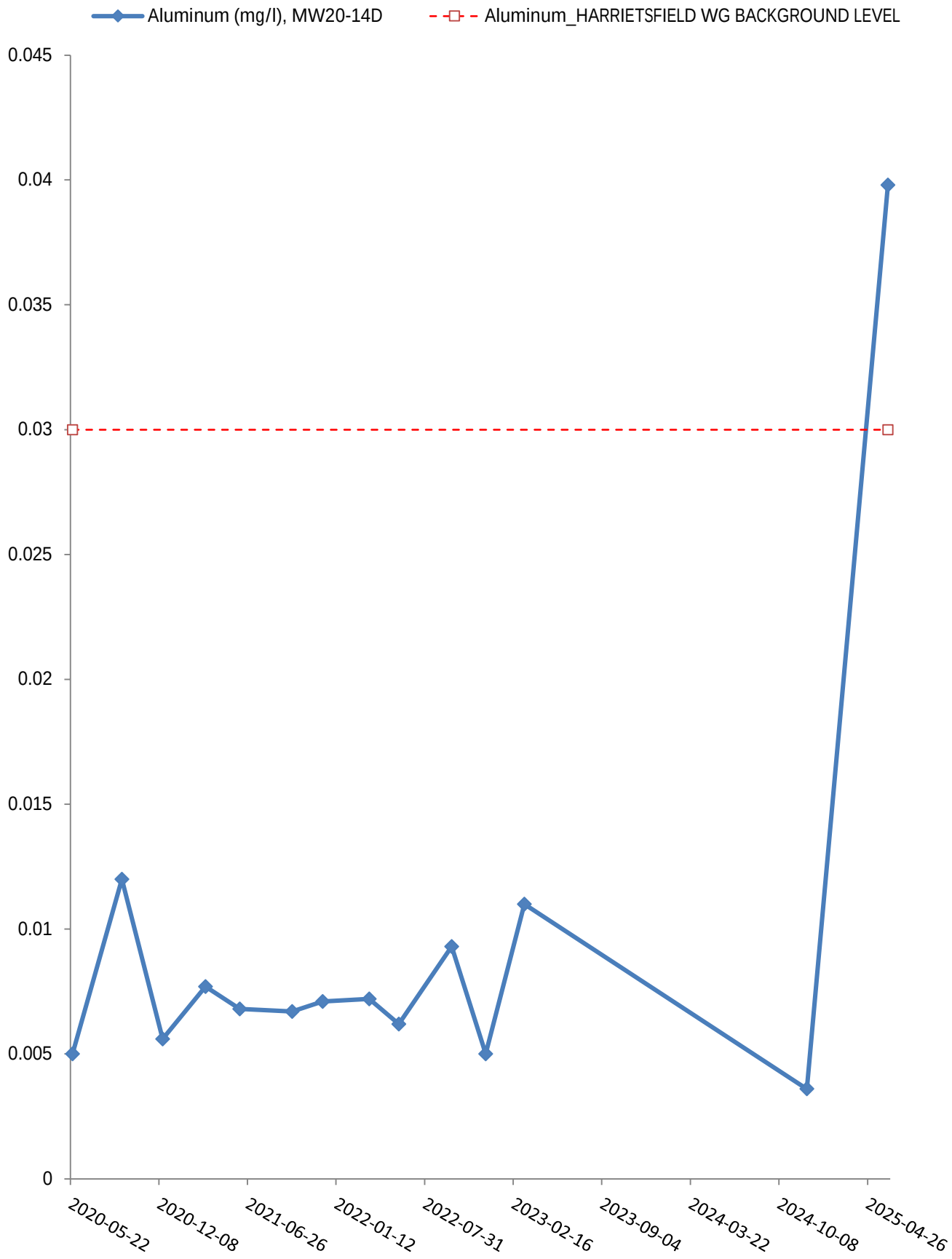
# Total Dissolved Solids (5



# Uranium

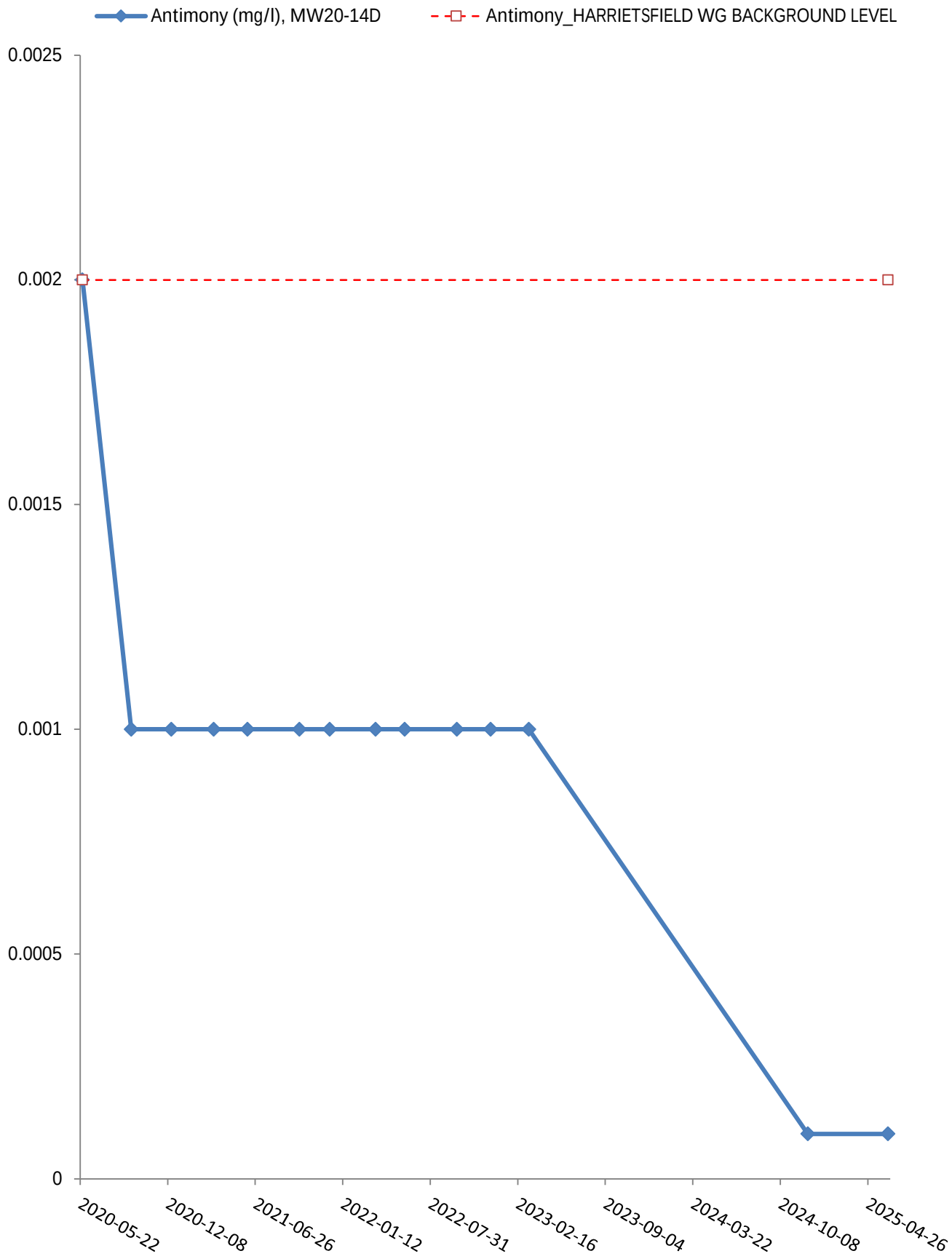

Uranium (ug/l), MW20-14D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Aluminum

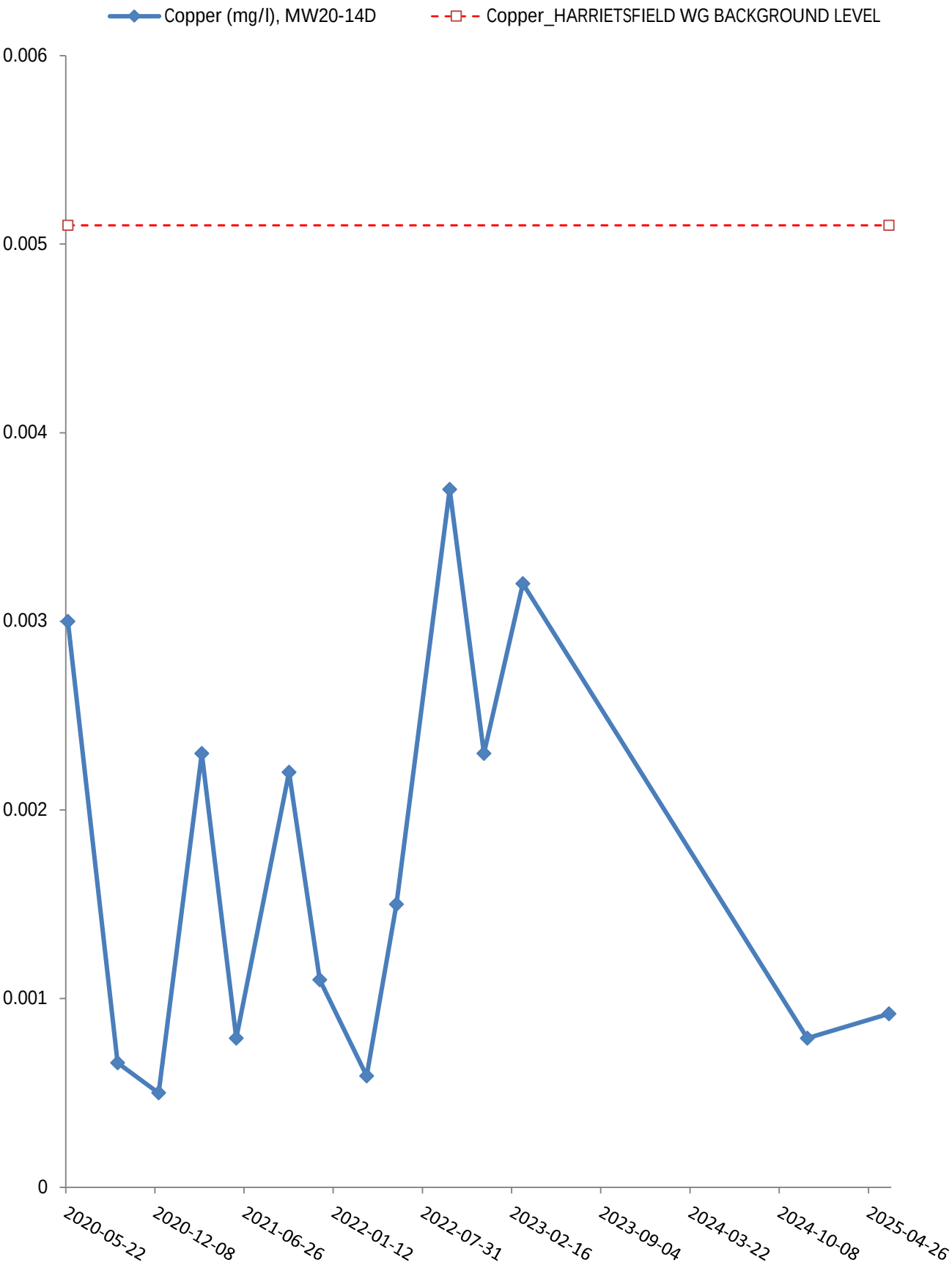

Aluminum (mg/l), MW20-14D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony

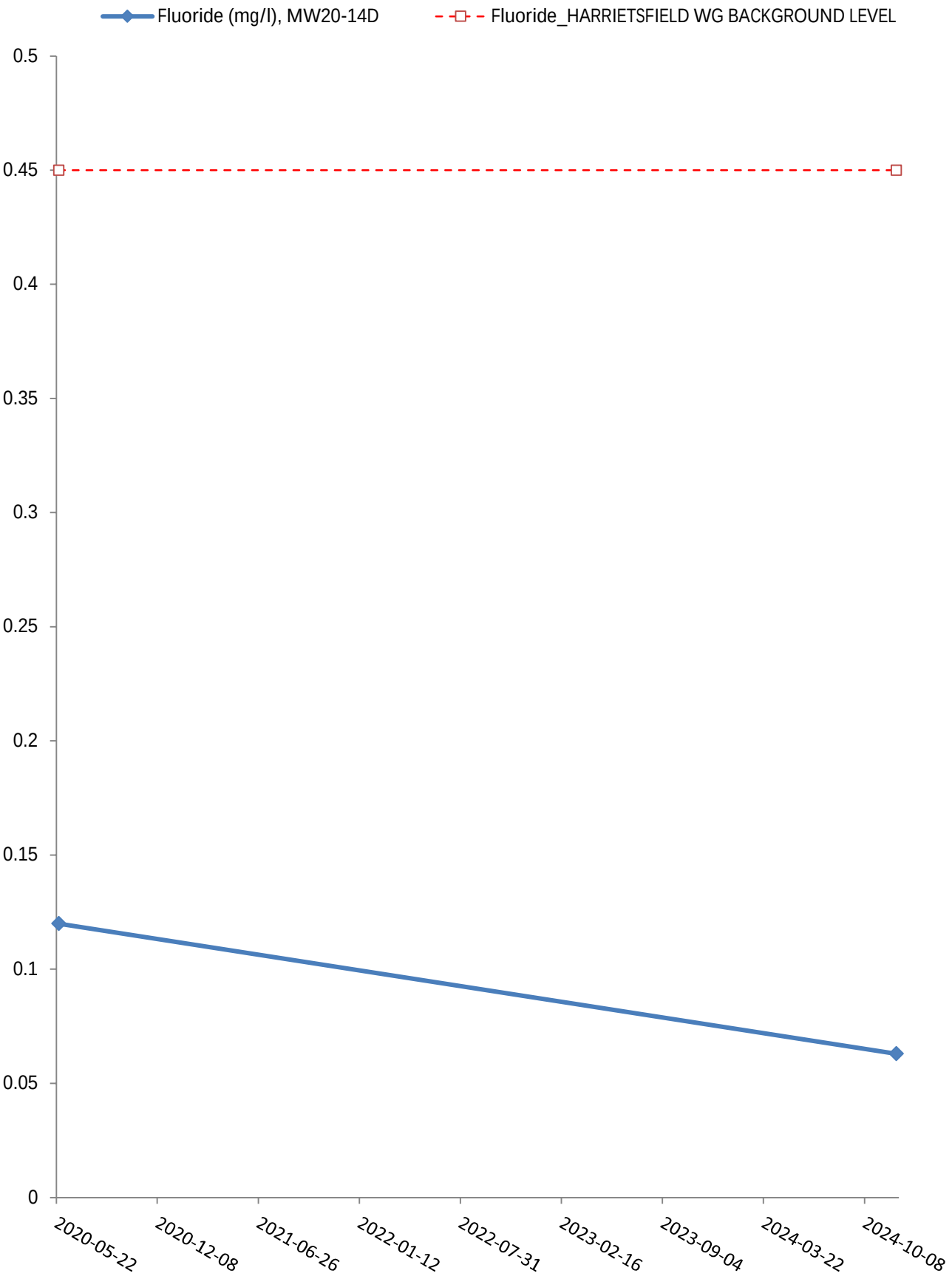



Antimony (mg/l), MW20-14D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

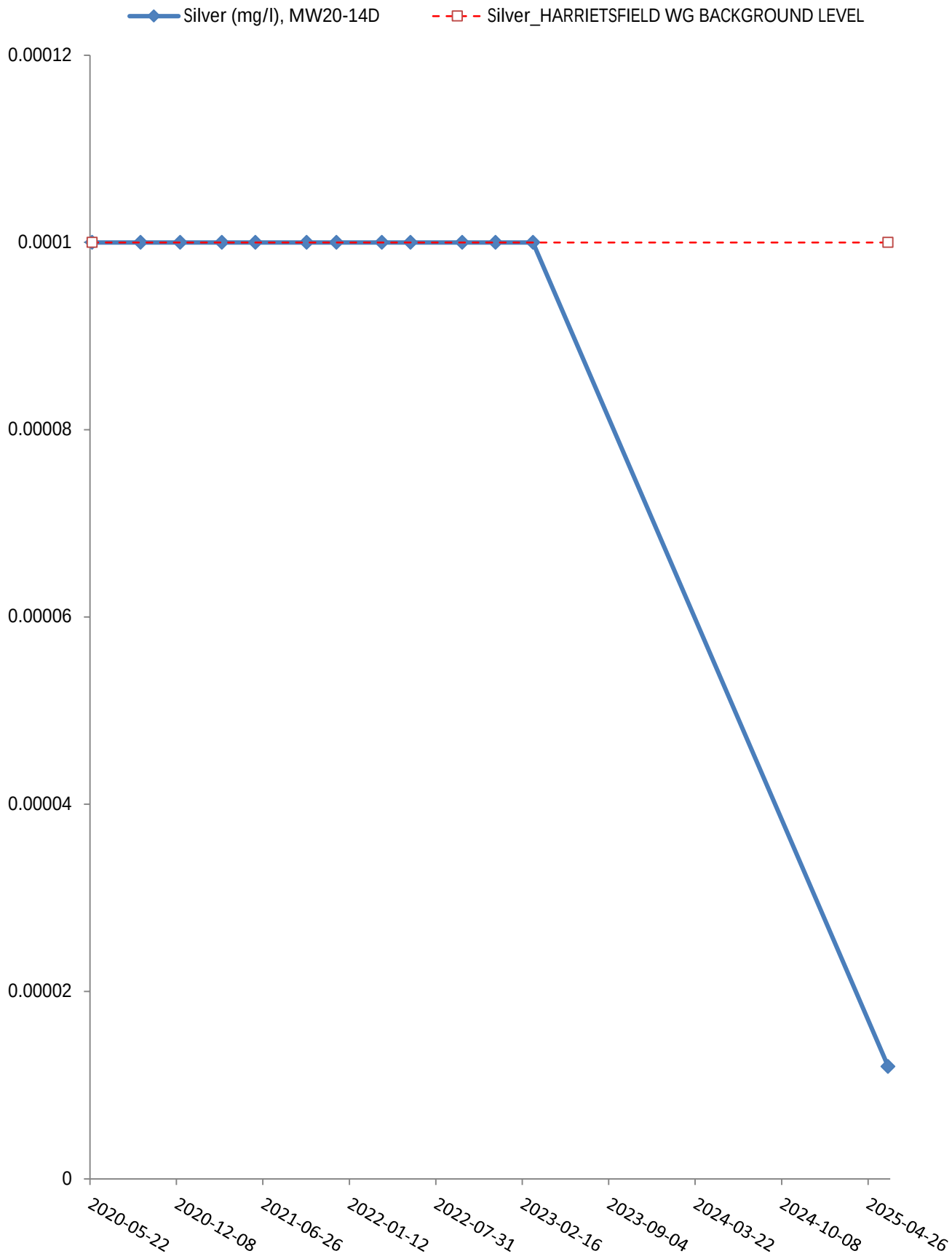
# Copper


Copper (mg/l), MW20-14D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

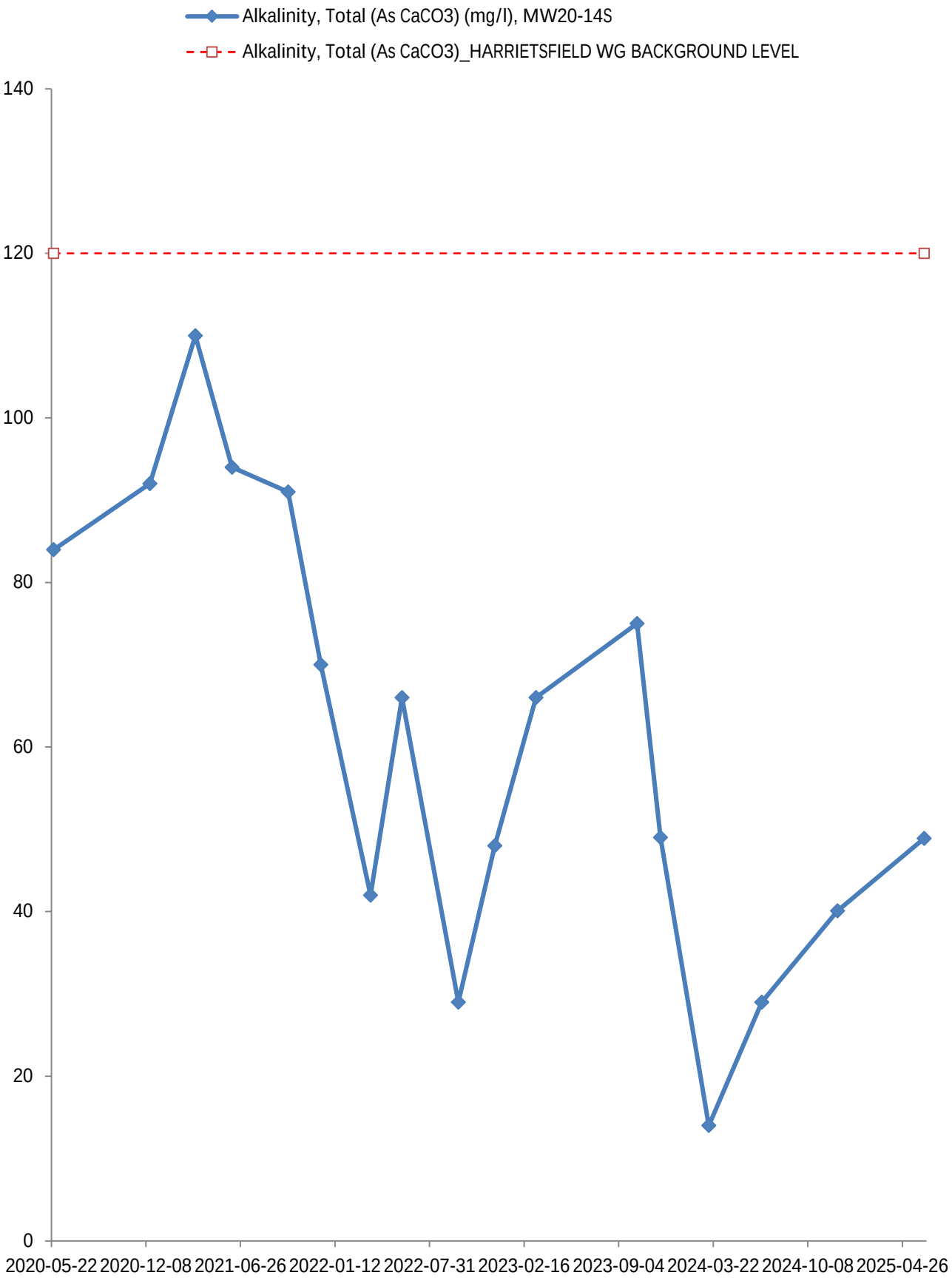
# Fluoride


Fluoride (mg/l), MW20-14D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

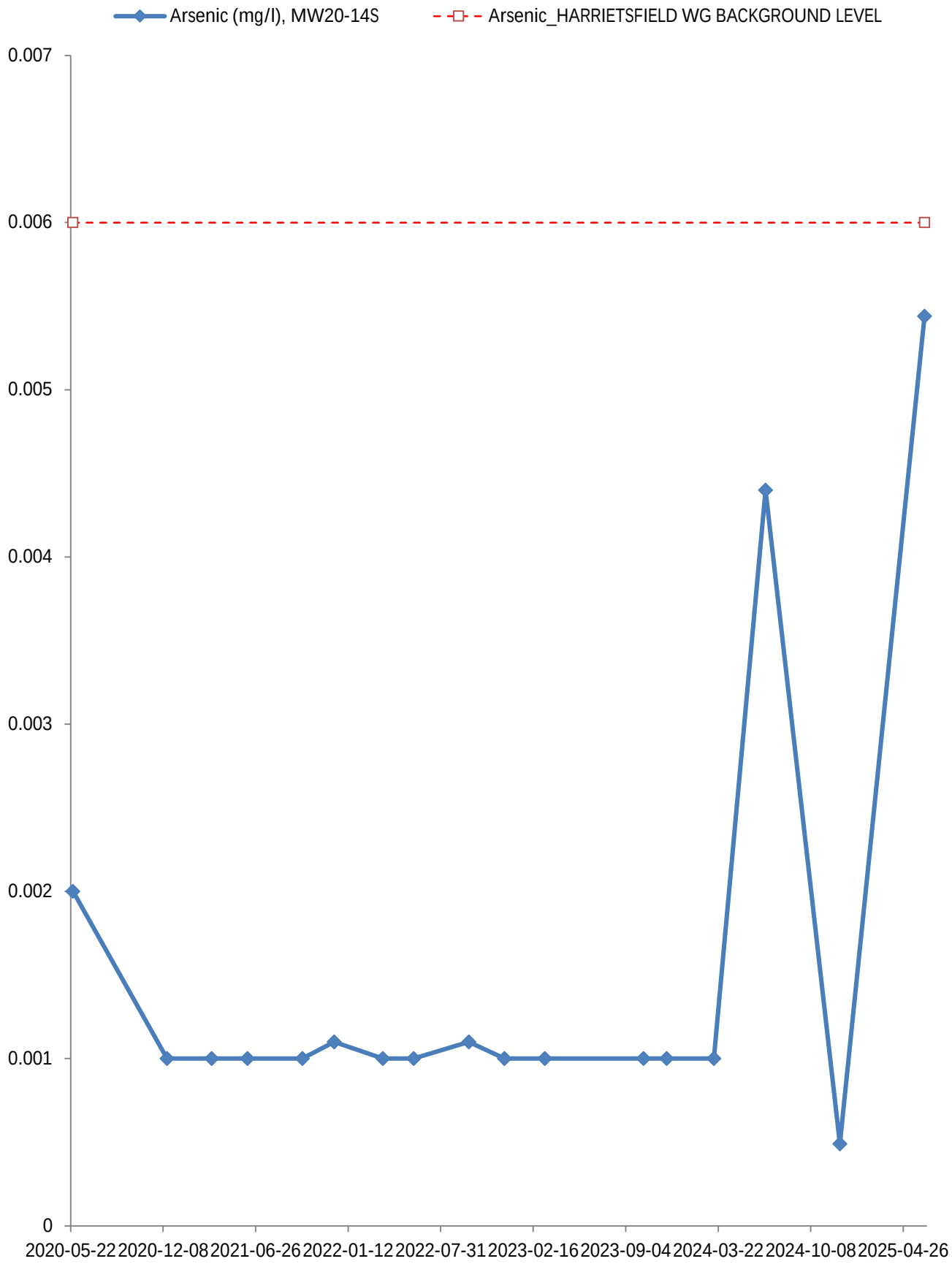
# Silver


Silver (mg/l), MW20-14D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

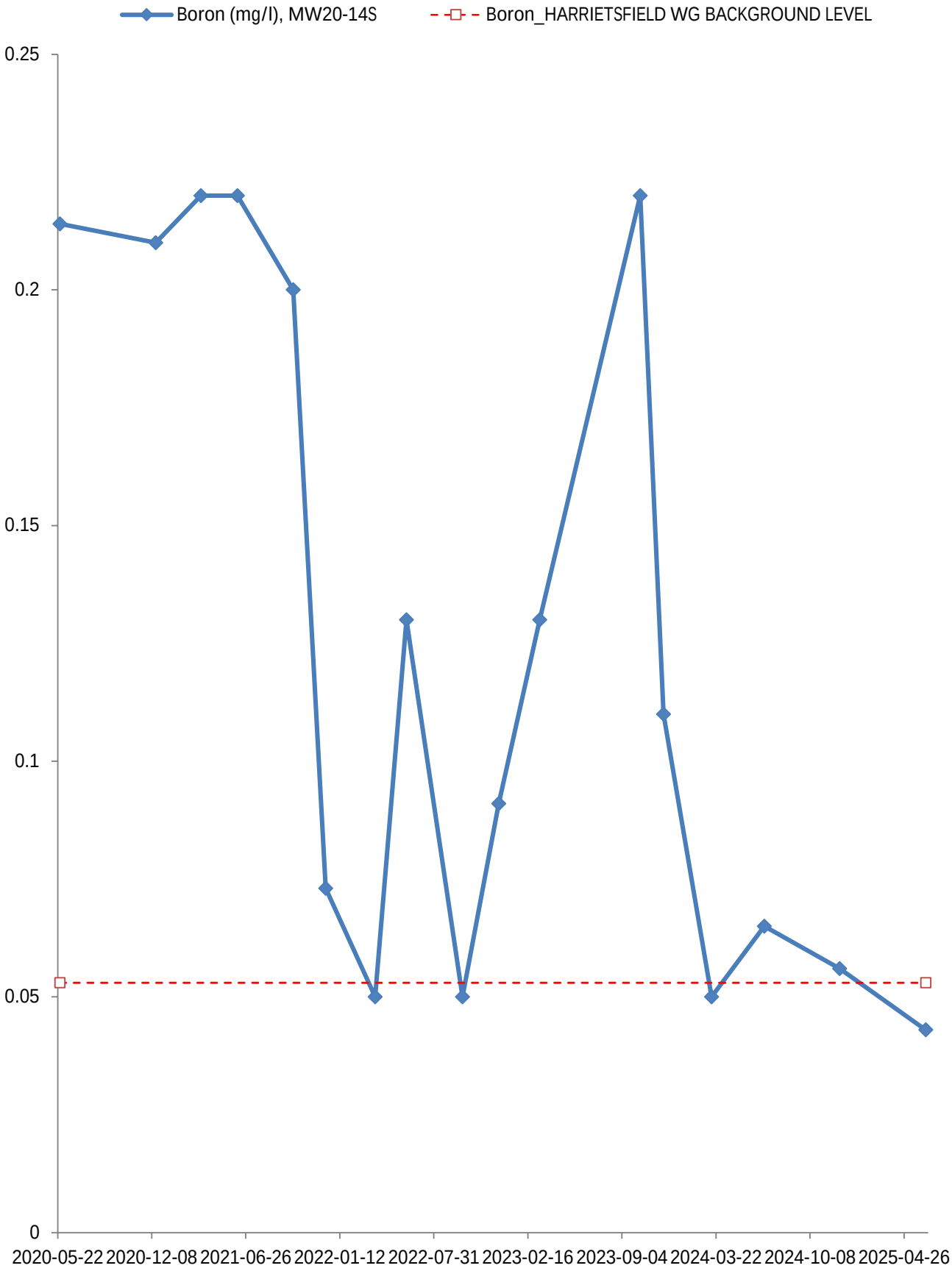
# Alkalinity, Total



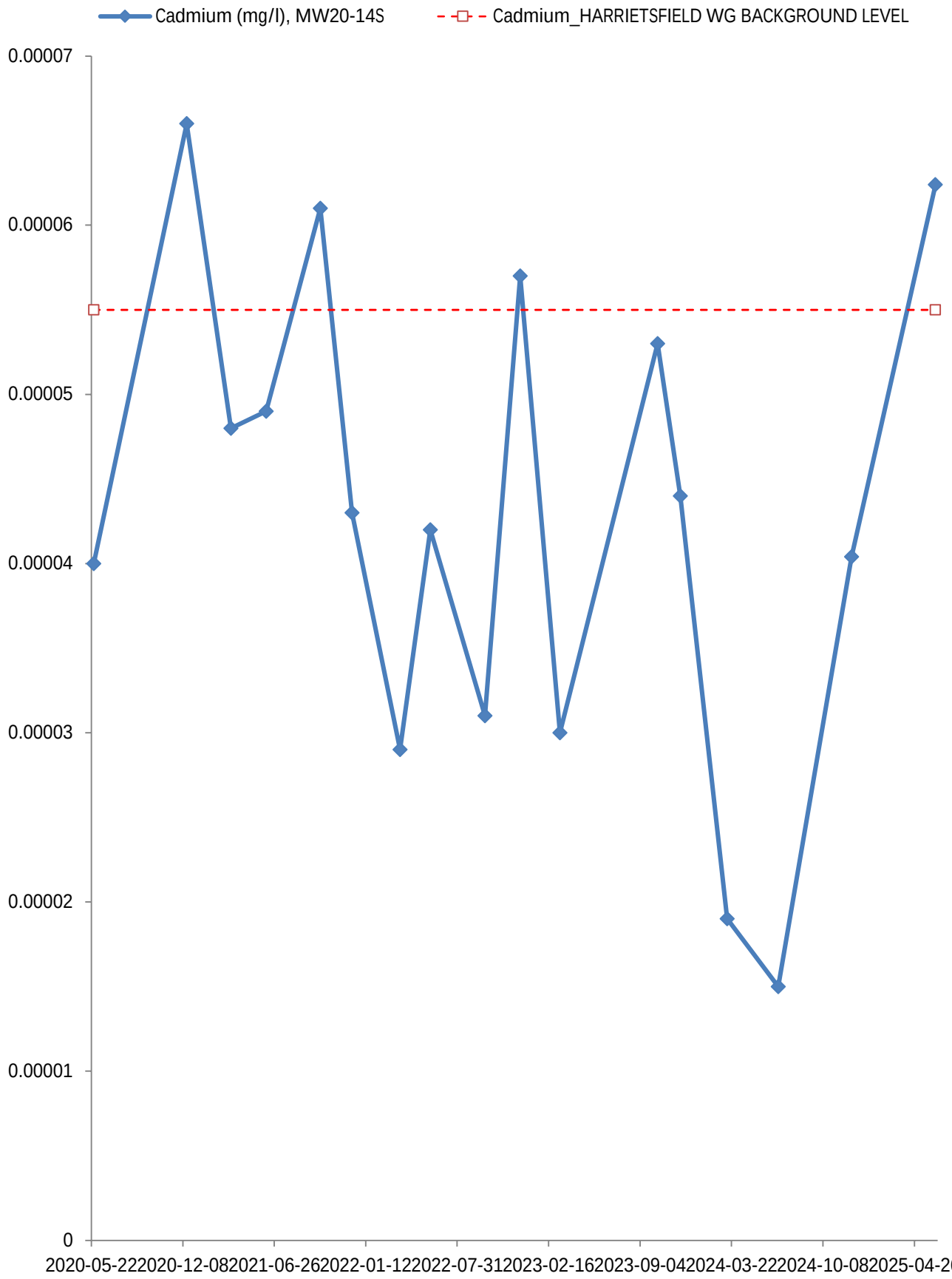
# Arsenic


Arsenic (mg/l), MW20-14S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

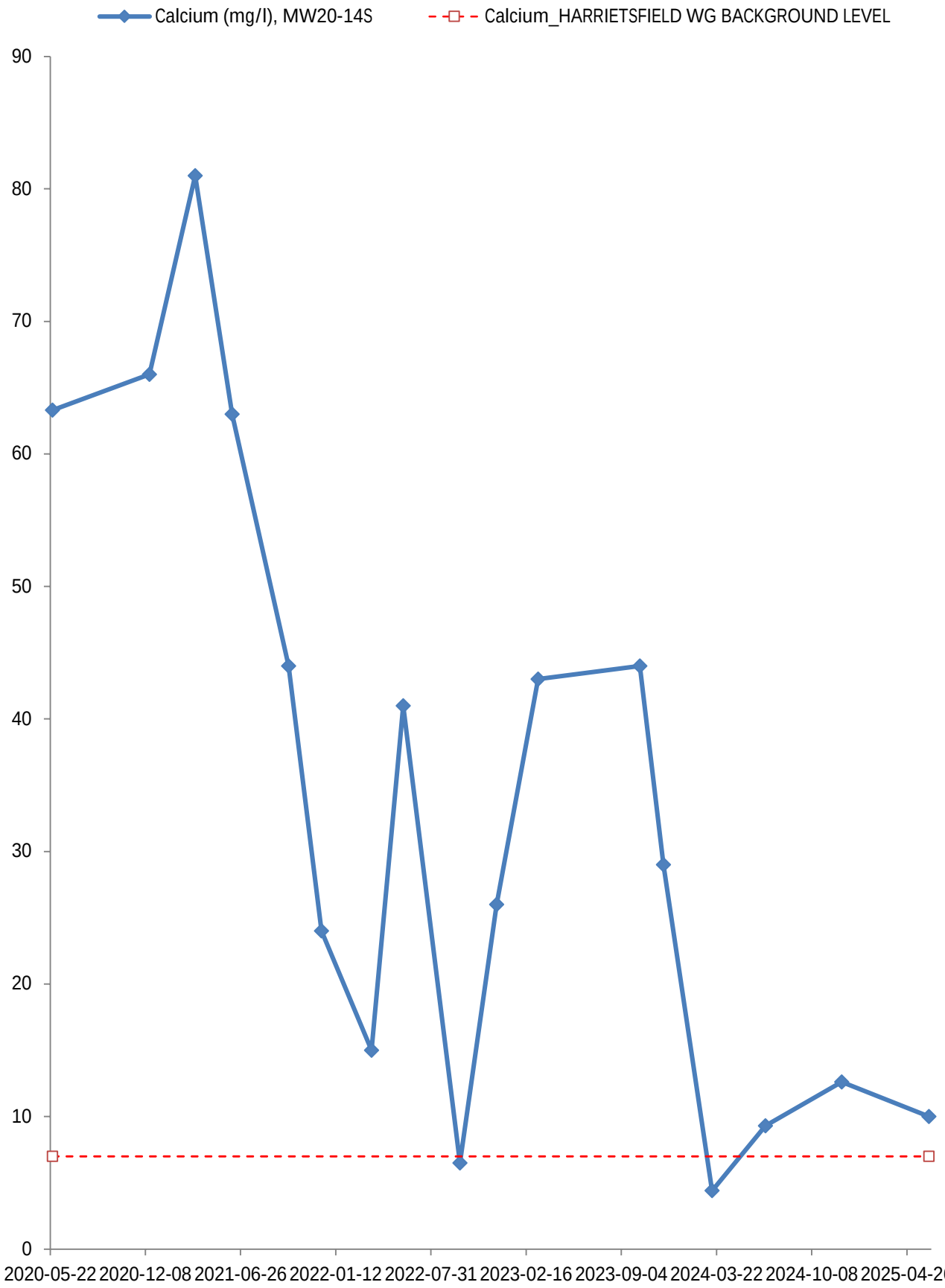
# Boron


Boron (mg/l), MW20-14S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

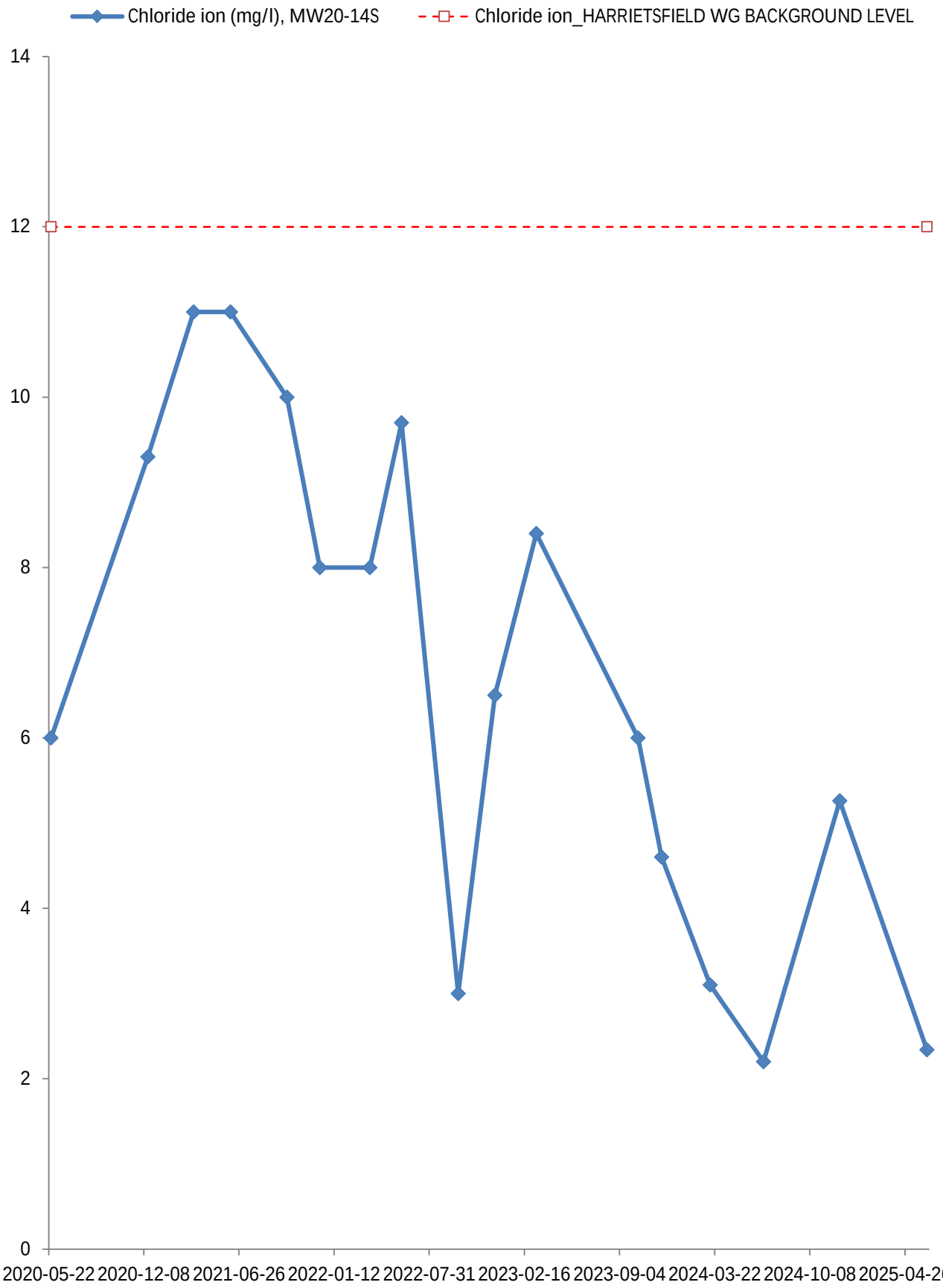
# Cadmium


Cadmium (mg/l), MW20-14S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
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2024-03-22
2024-10-08
2025-04-26

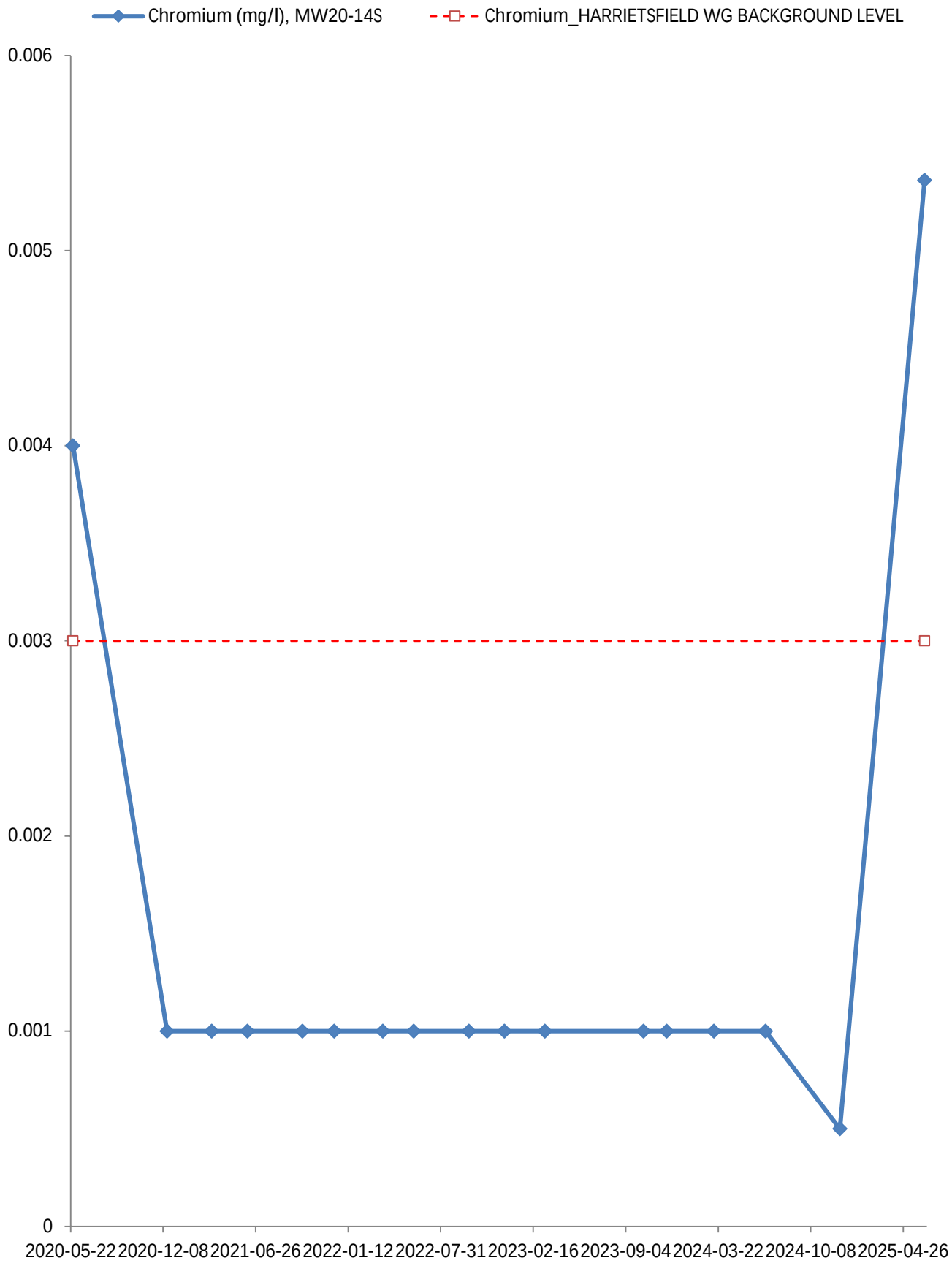
# Calcium


Calcium (mg/l), MW20-14S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
90
80
70
60
50
40
30
20
10
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

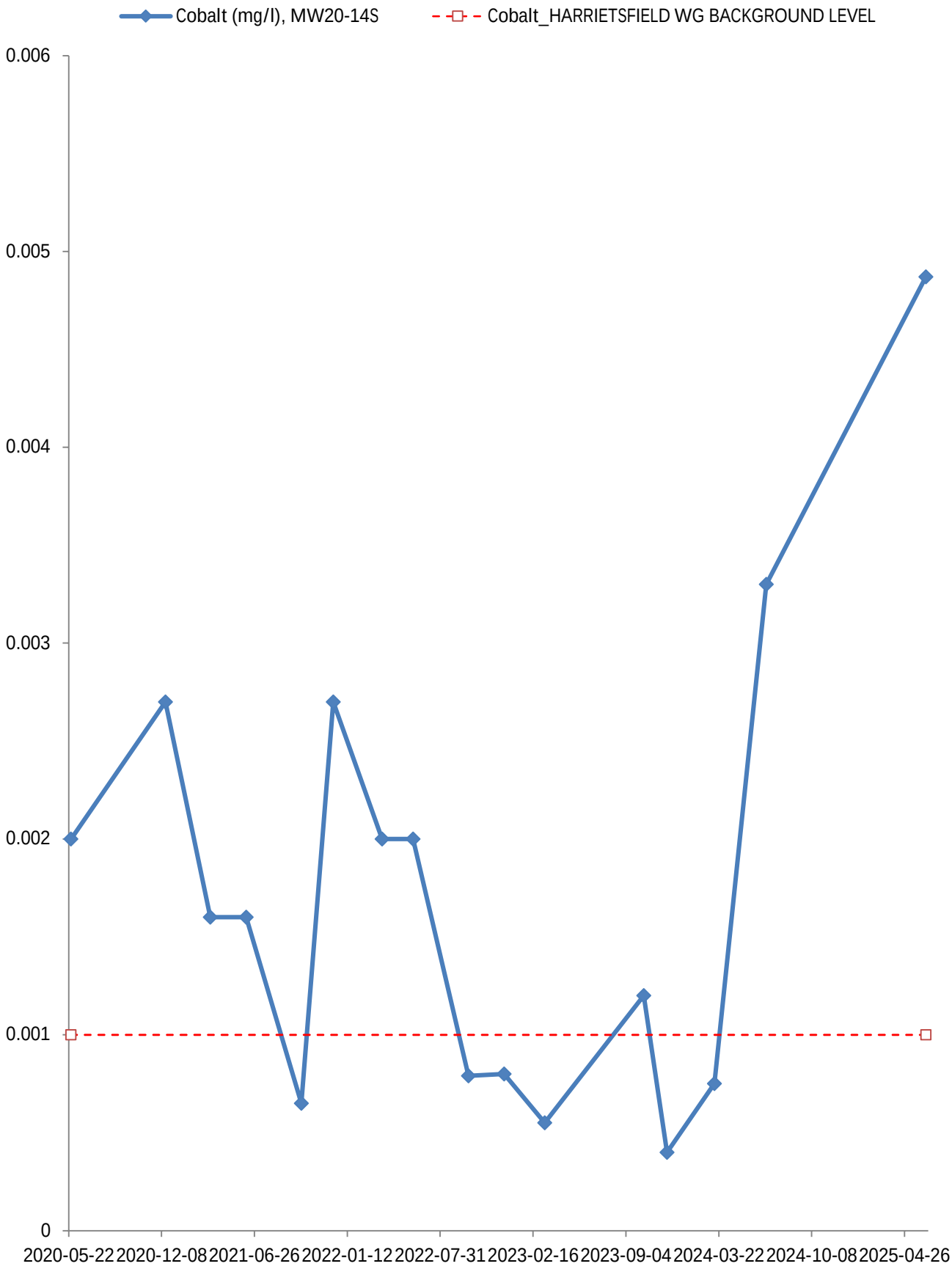
# Chloride ion



# Chromium

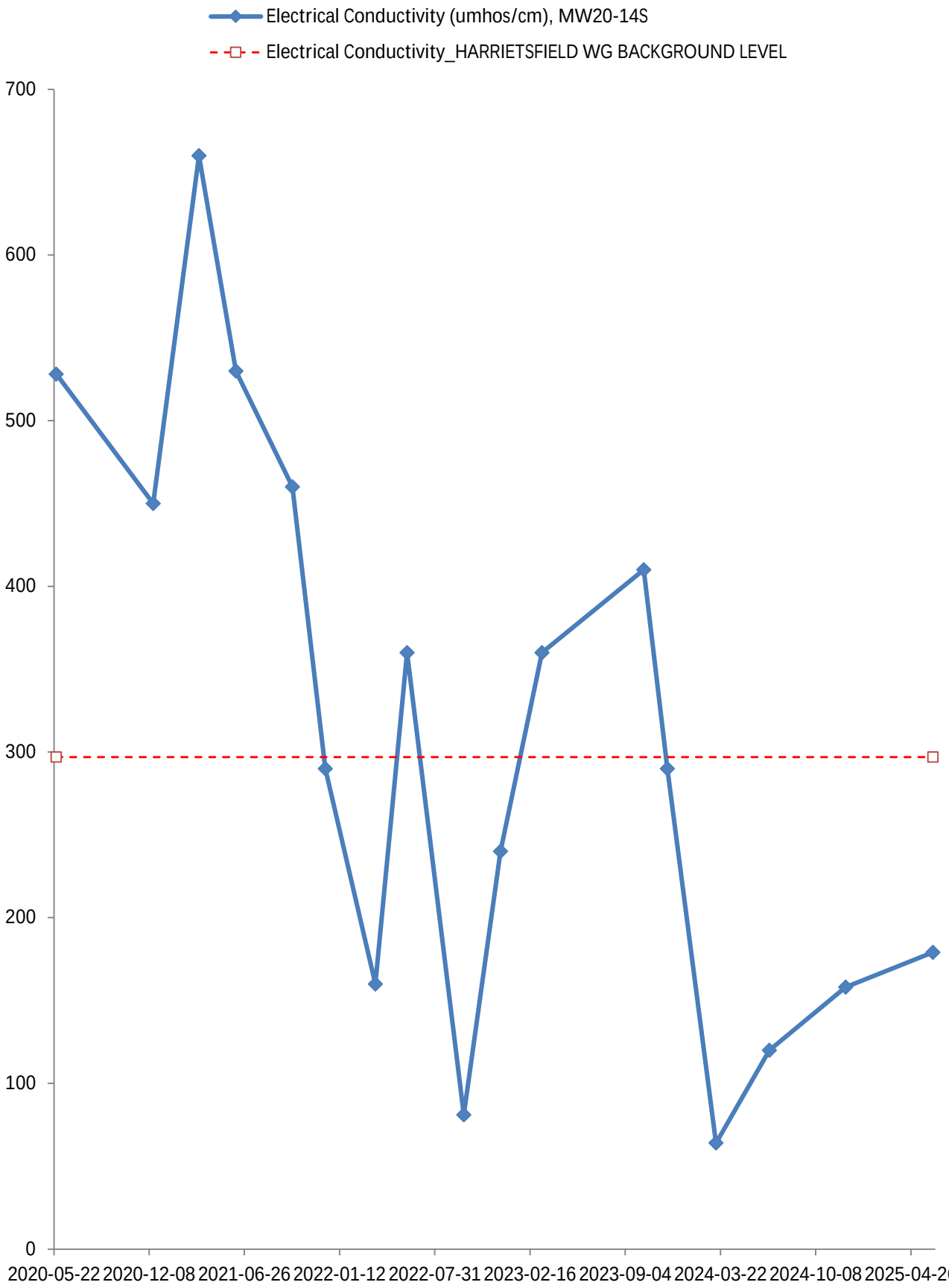

Chromium (mg/l), MW20-14S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt


Cobalt (mg/l), MW20-14S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

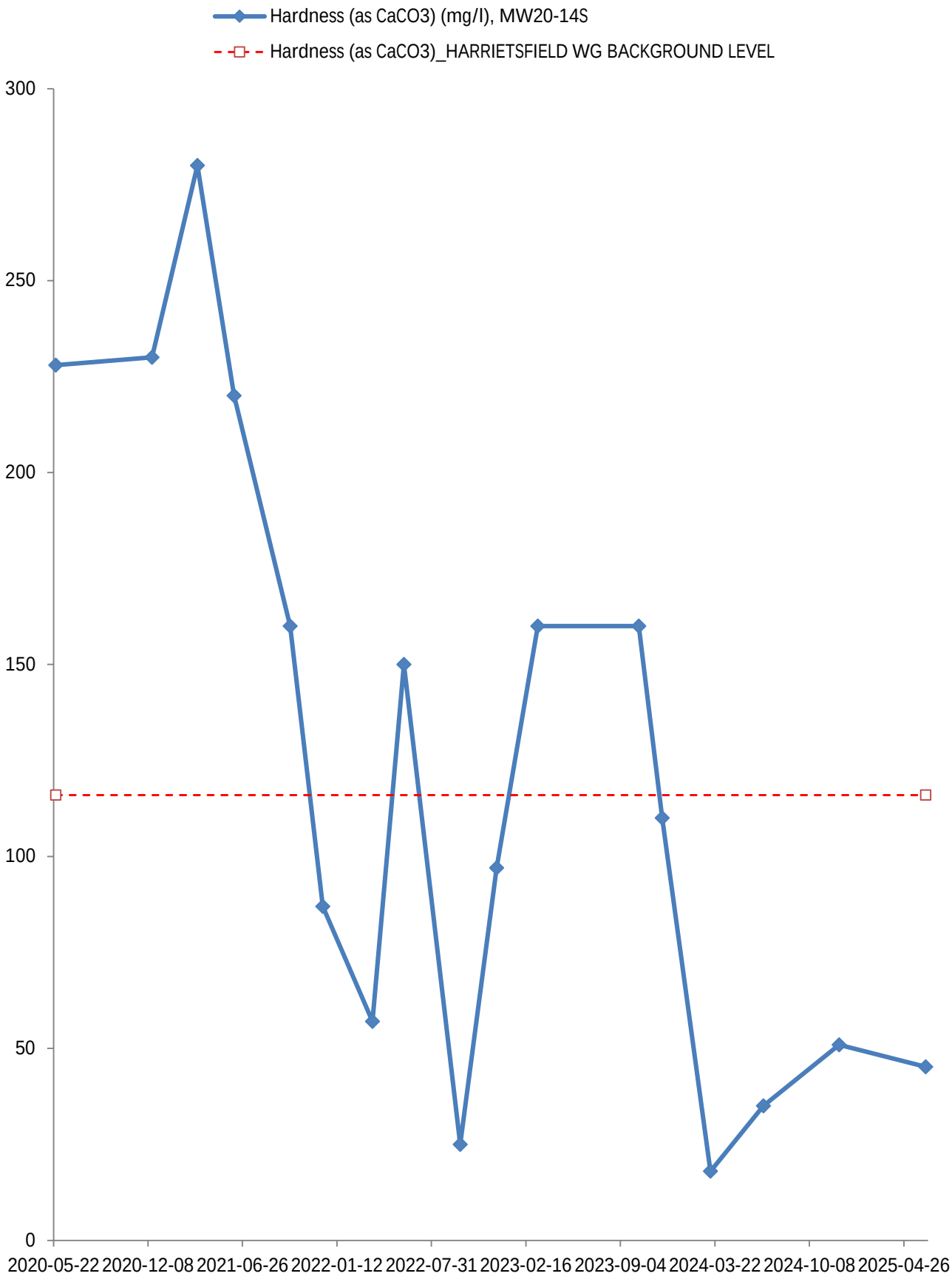
# Electrical Conductivity



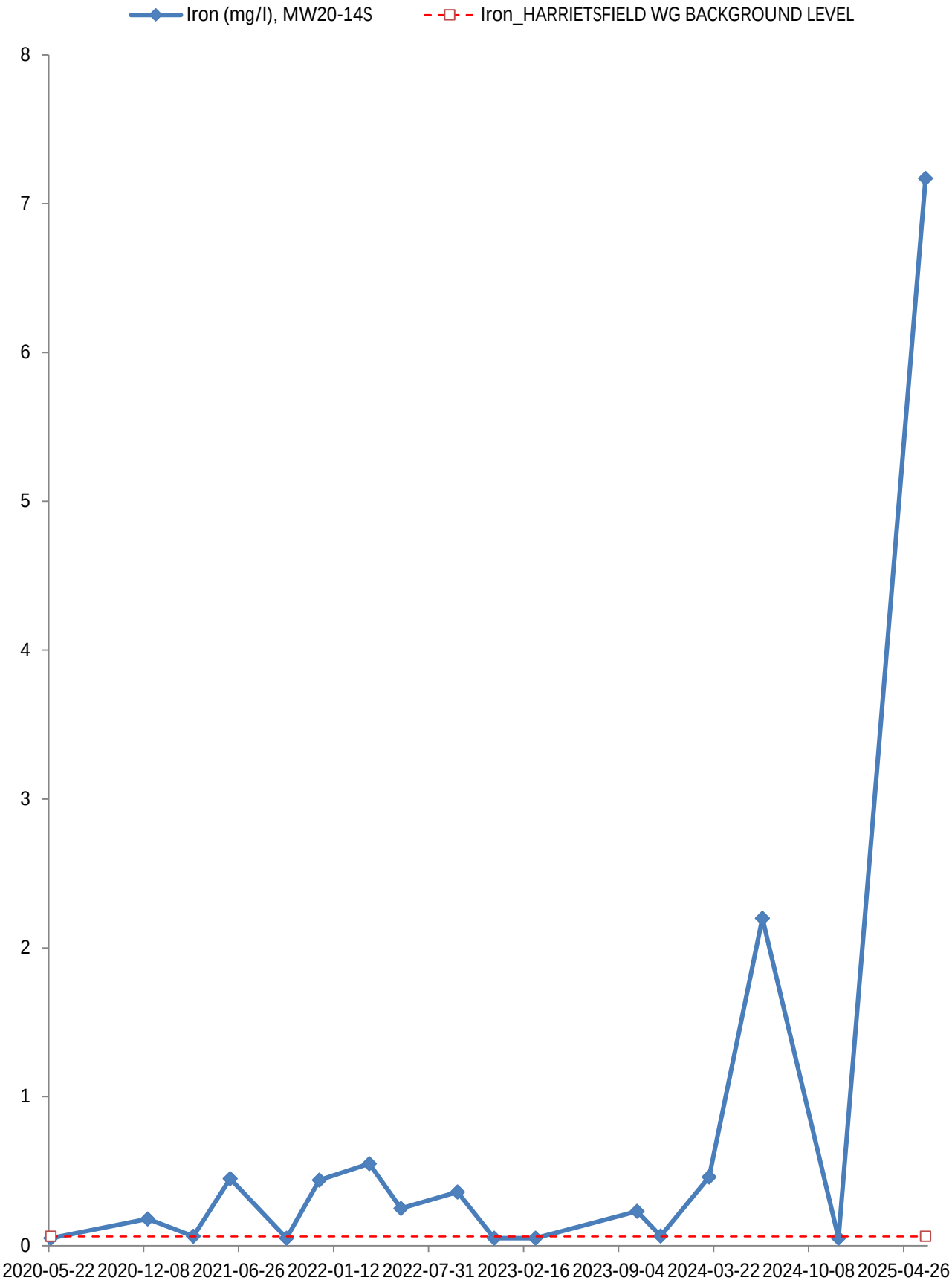


# Hardness (as CaCO3)

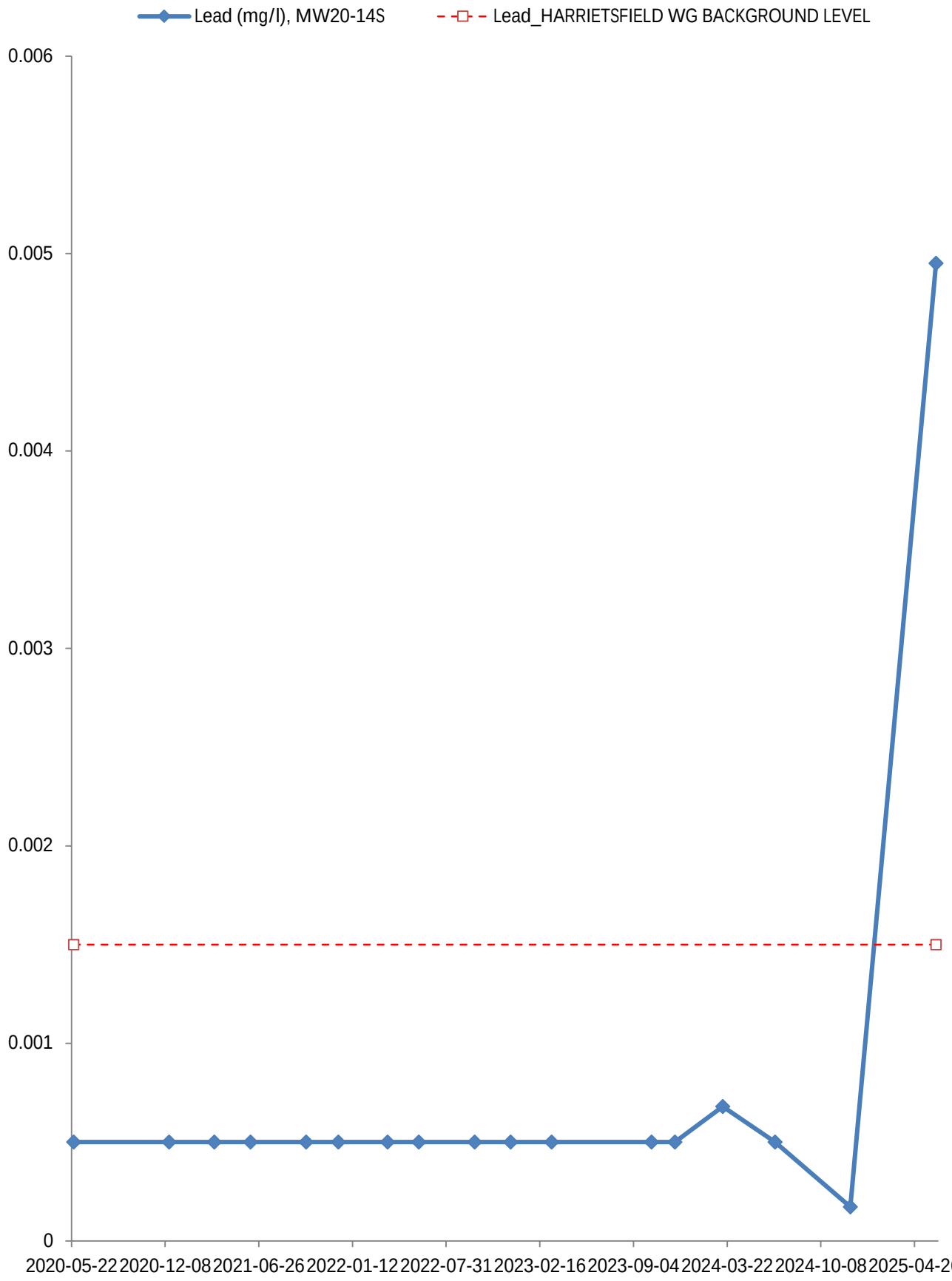




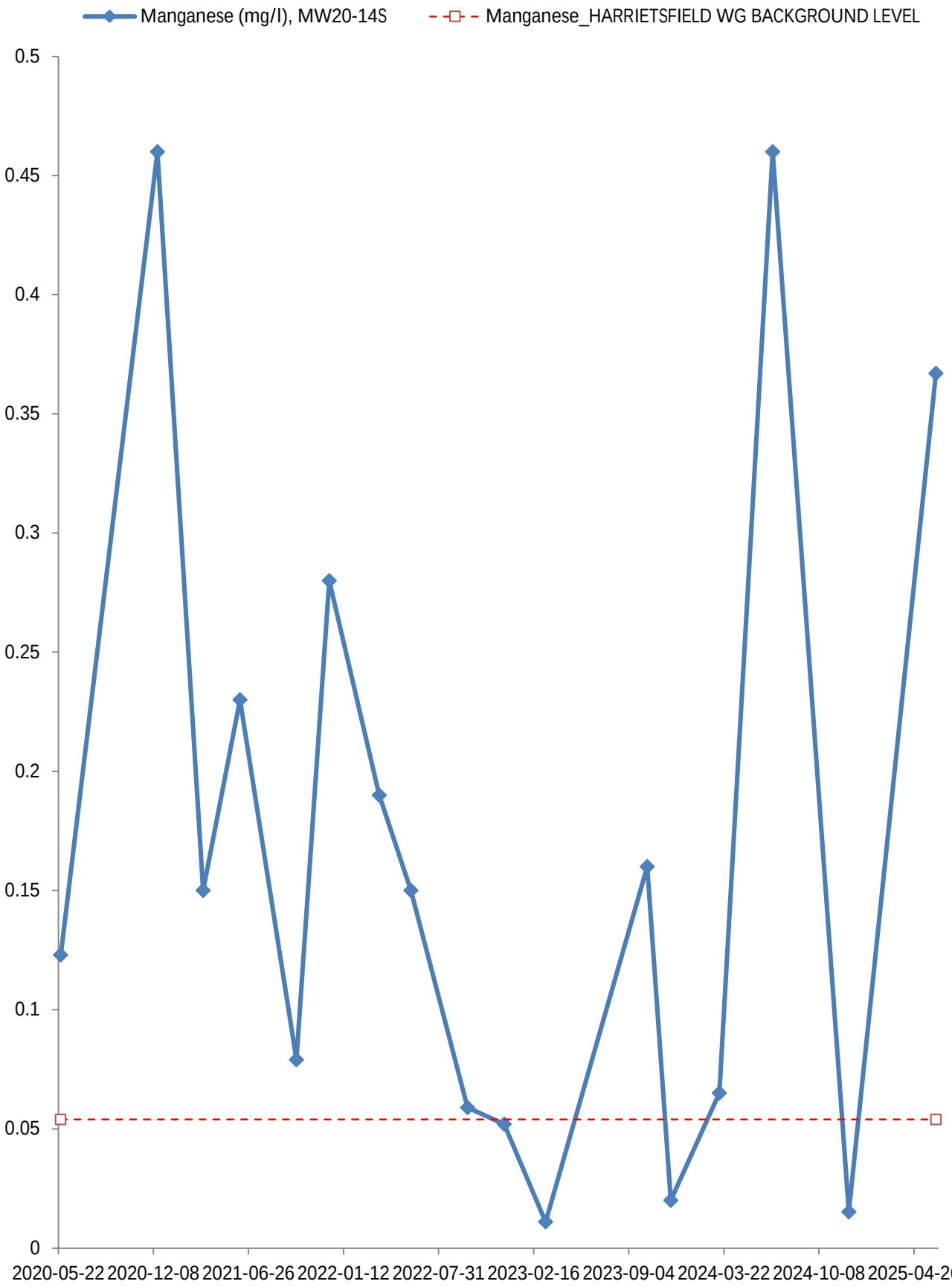
# Iron


Iron (mg/l), MW20-14S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
8
7
6
5
4
3
2
1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Lead

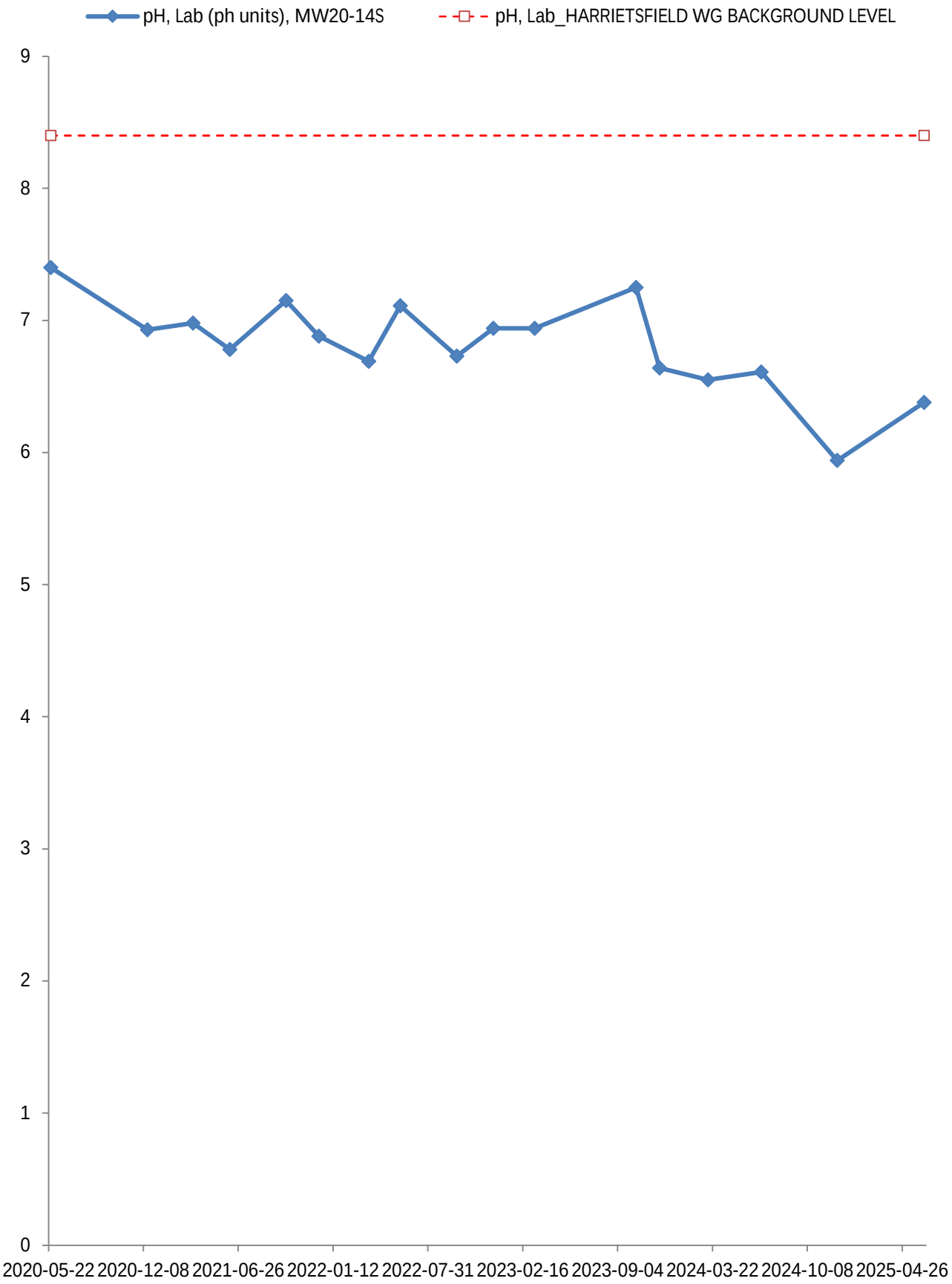

Lead (mg/l), MW20-14S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Manganese

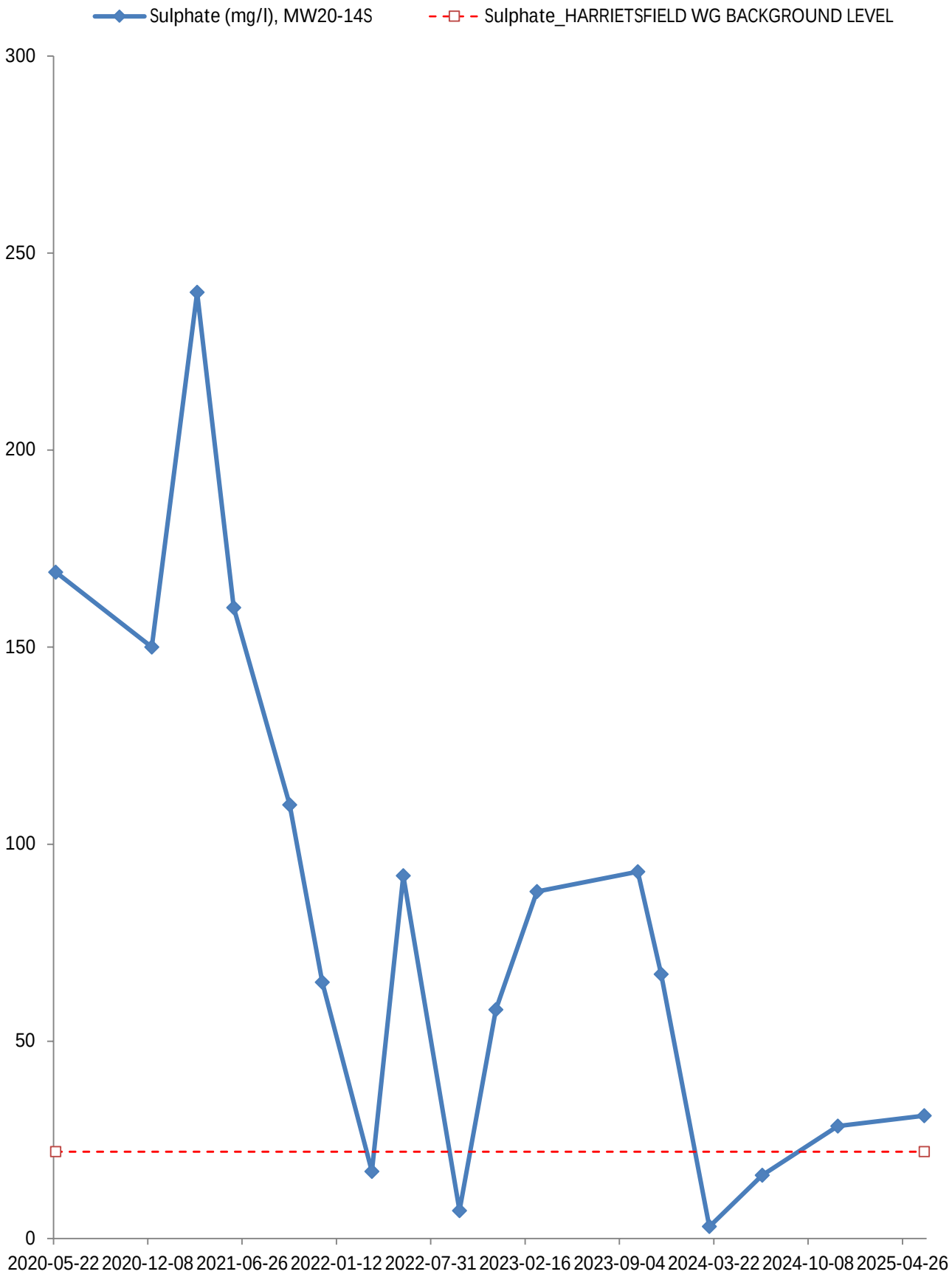

Manganese (mg/l), MW20-14S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# pH, Lab

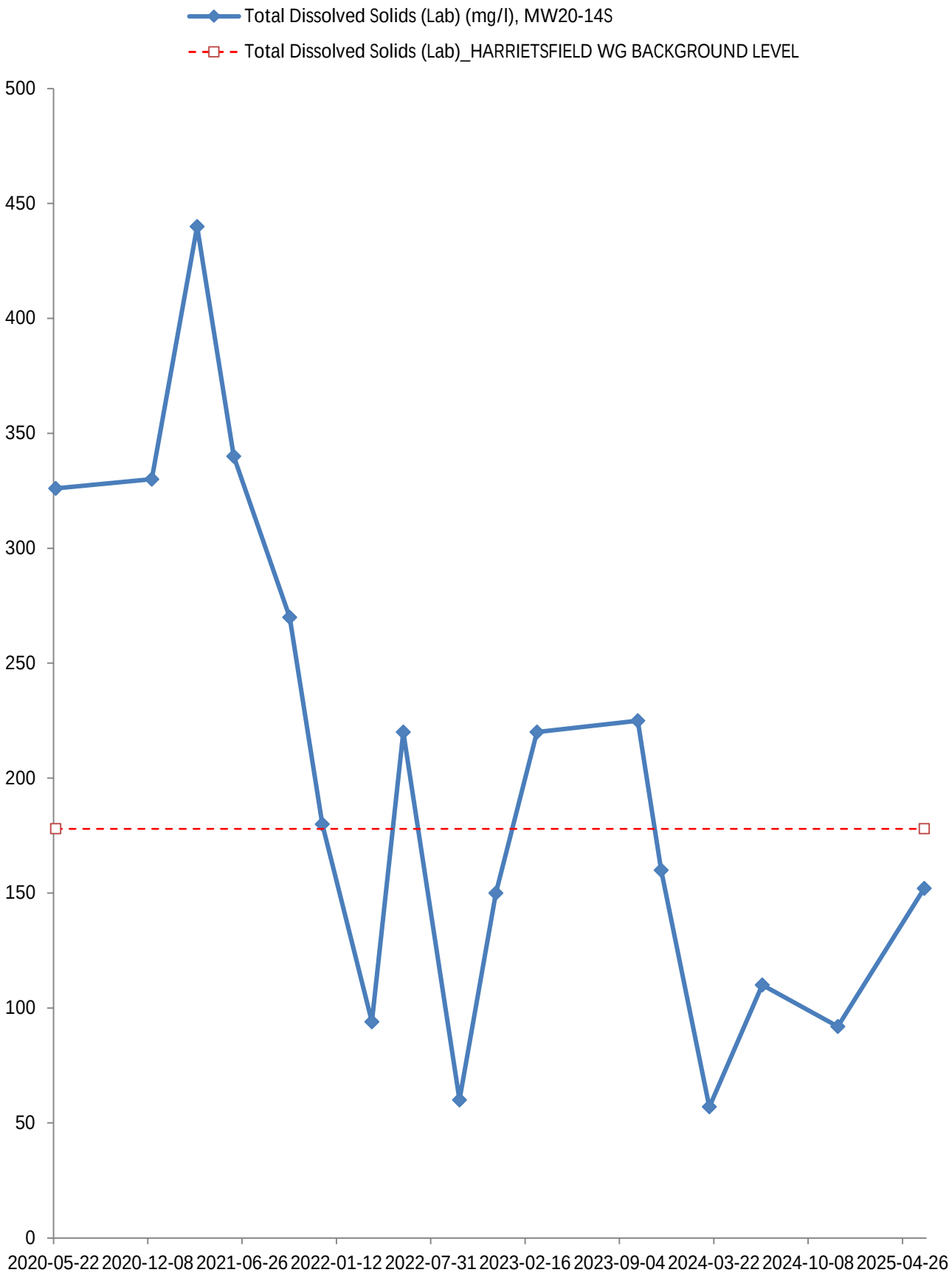



pH, Lab (ph units), MW20-14S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Sulphate


Sulphate (mg/l), MW20-14S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
300
250
200
150
100
50
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

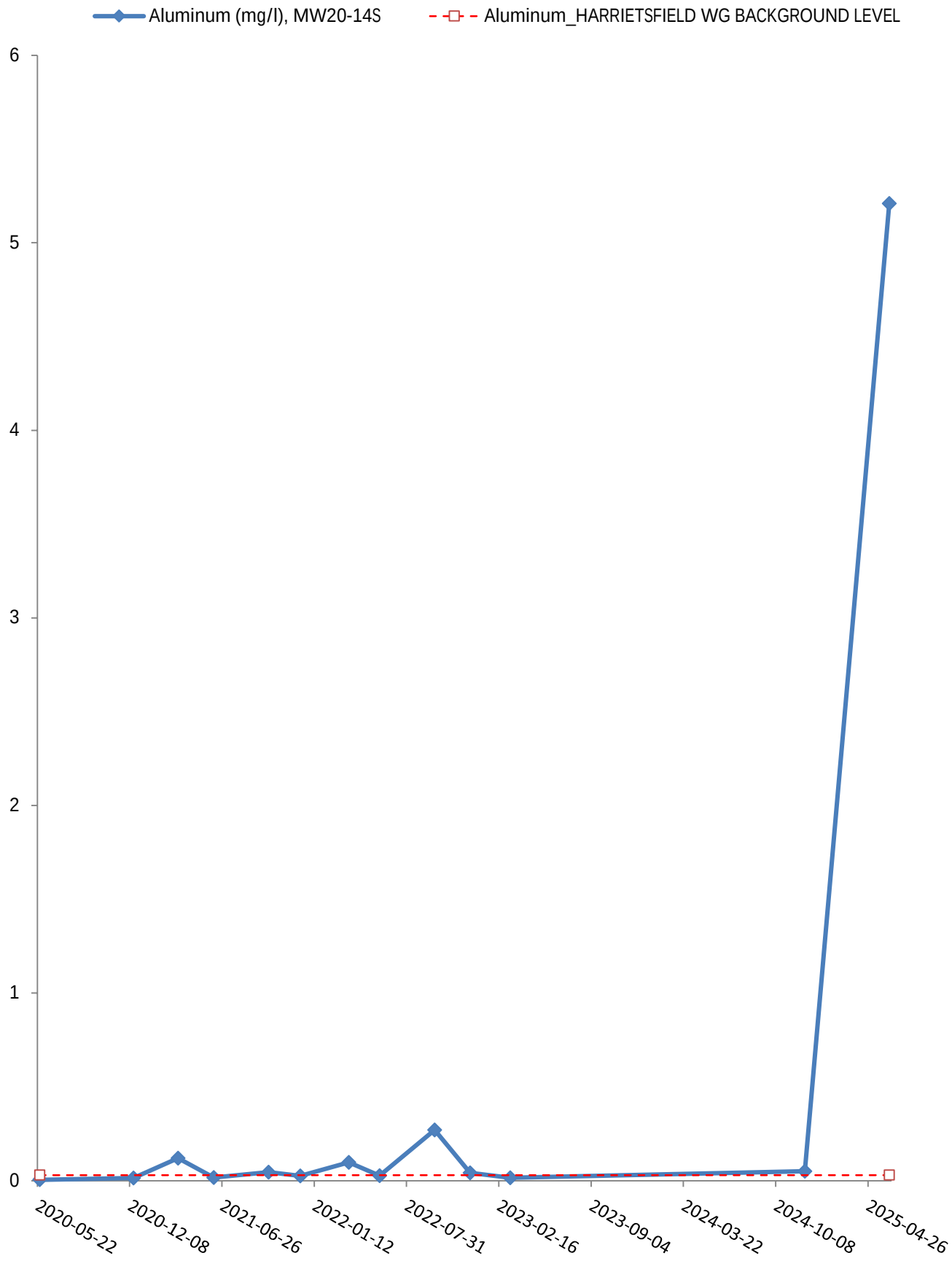
# Total Dissolved Solids (5



# Uranium

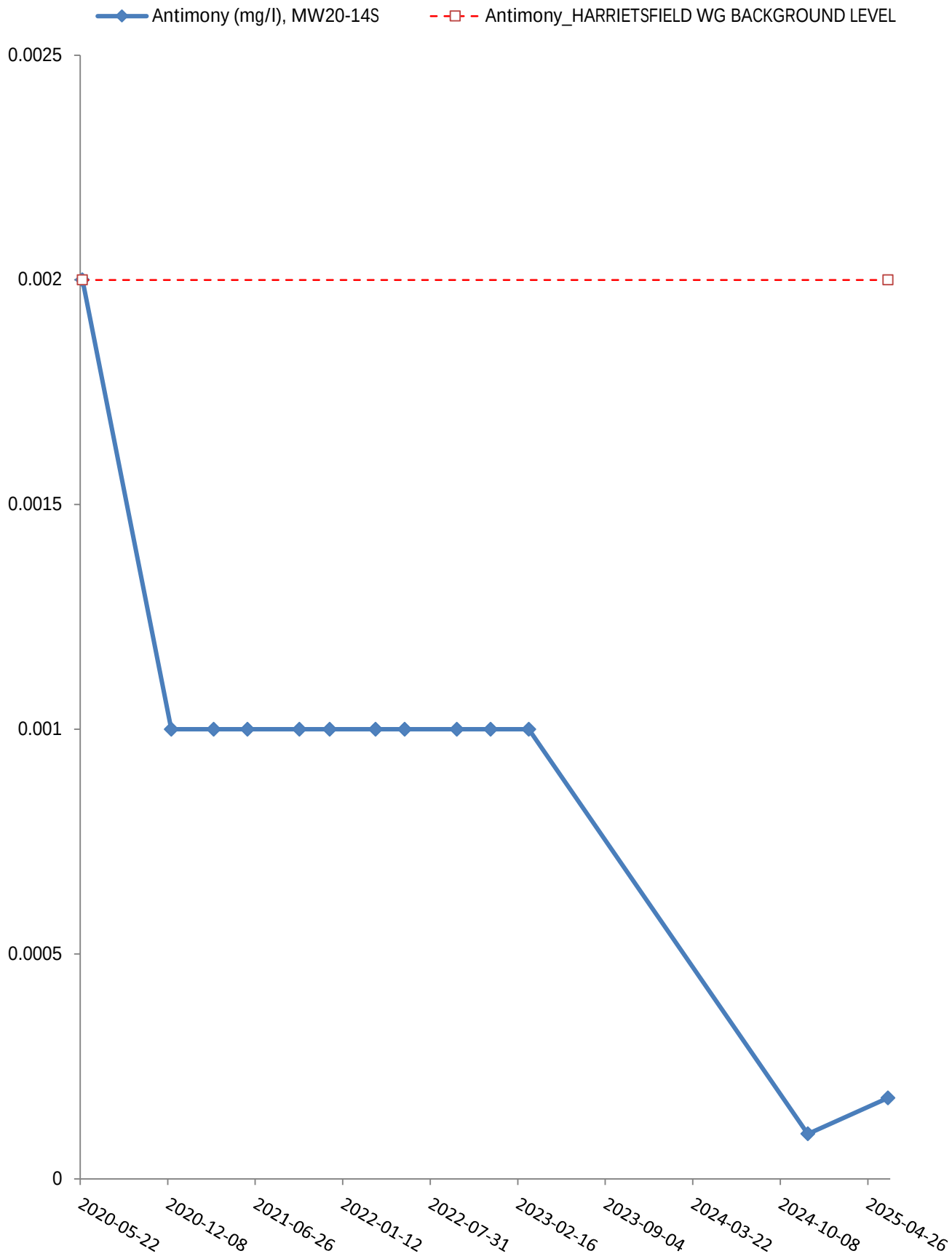

Uranium (ug/l), MW20-14S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Aluminum

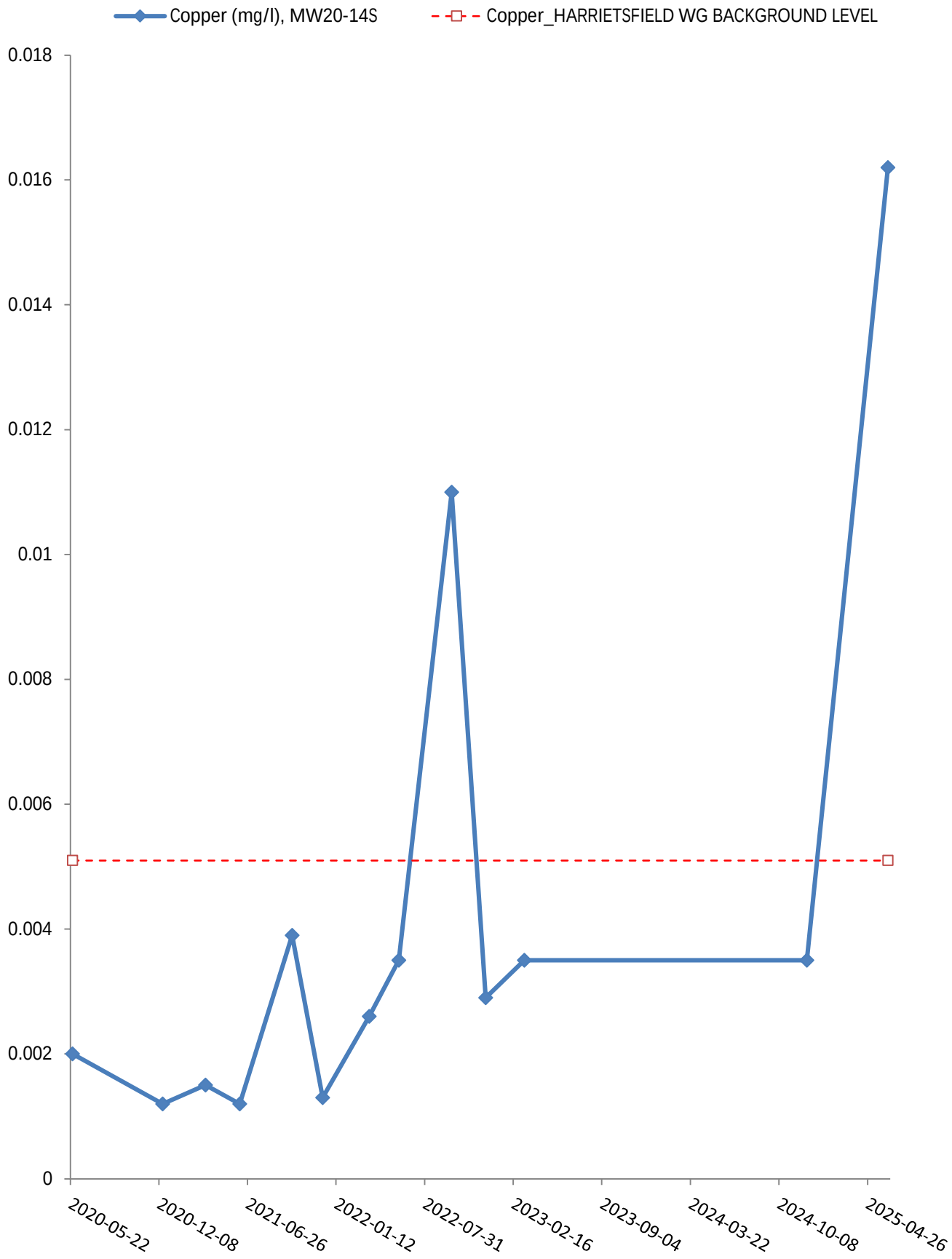

Aluminum (mg/l), MW20-14S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
6
5
4
3
2
1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony

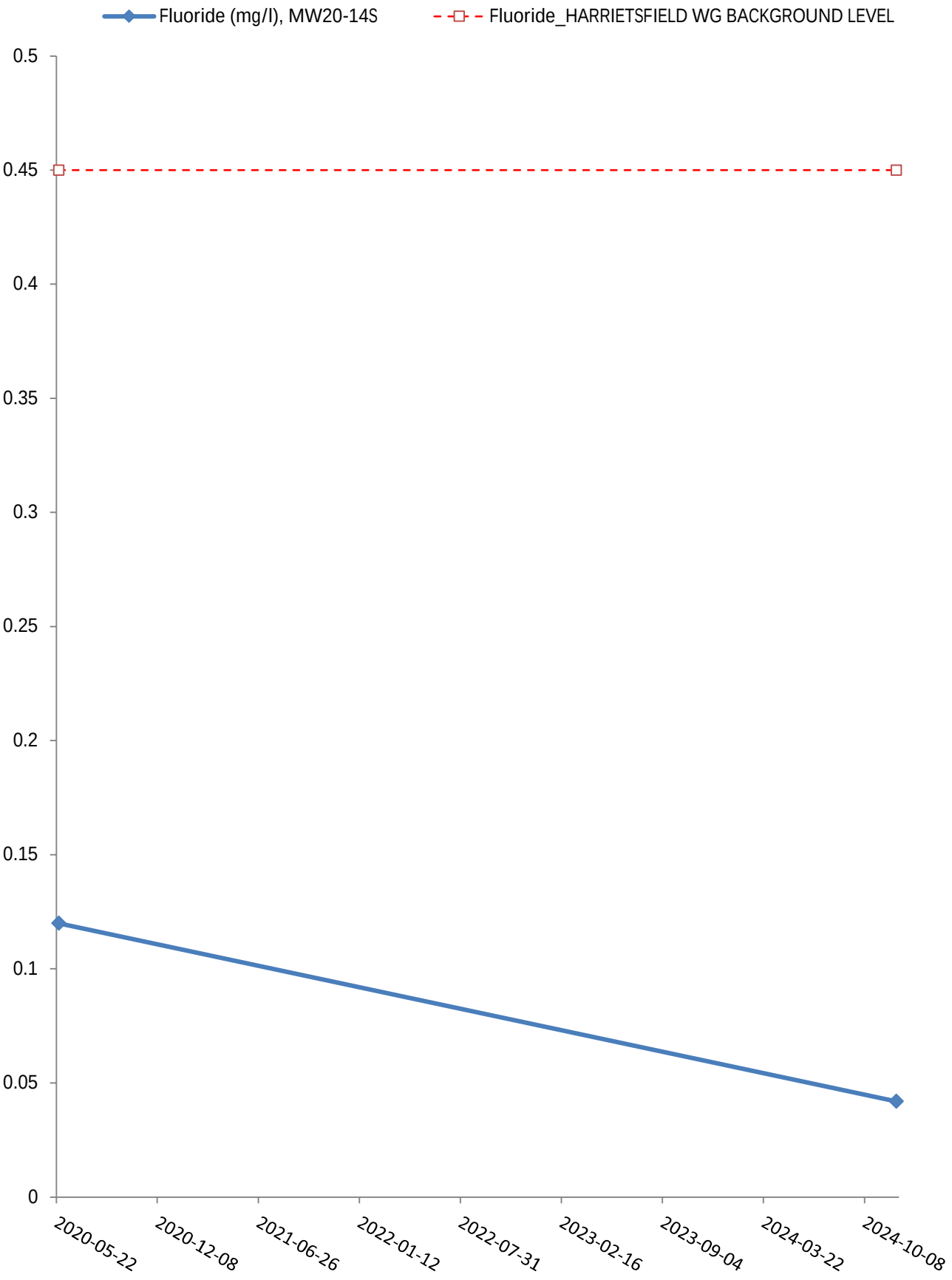



Antimony (mg/l), MW20-14S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

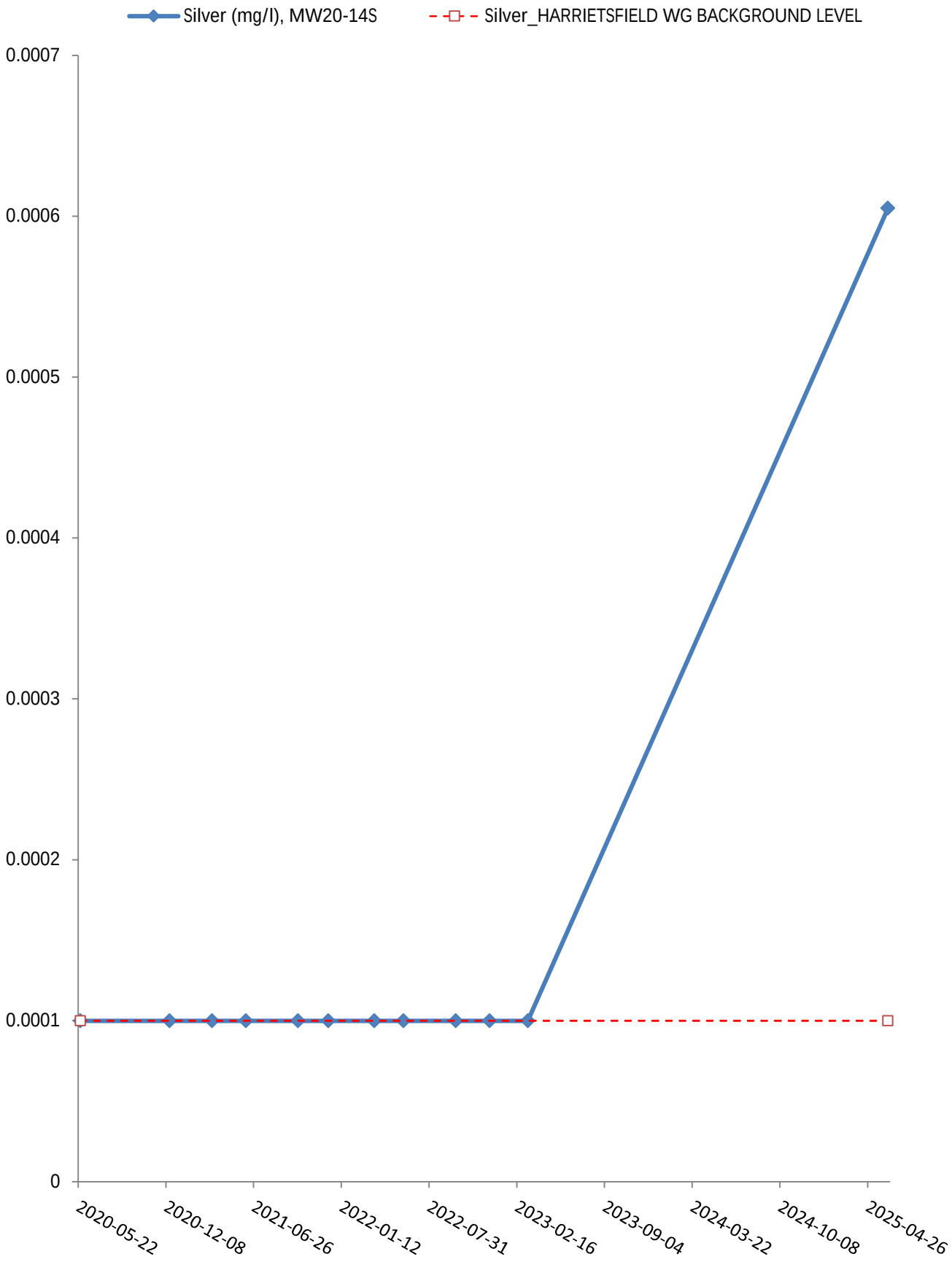
# Copper


Copper (mg/l), MW20-14S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
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2023-09-04
2024-03-22
2024-10-08
2025-04-26

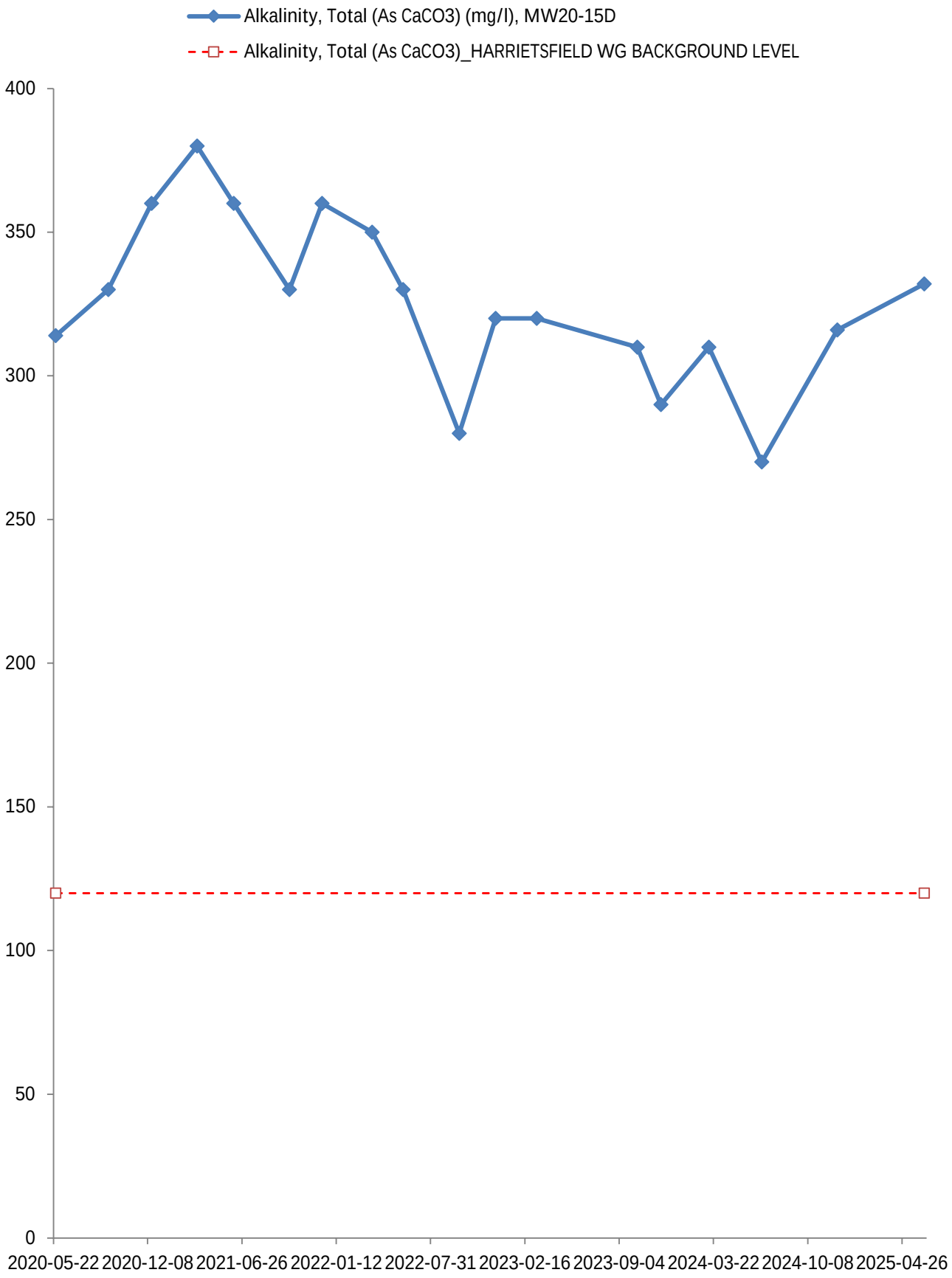
# Fluoride


Fluoride (mg/l), MW20-14S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

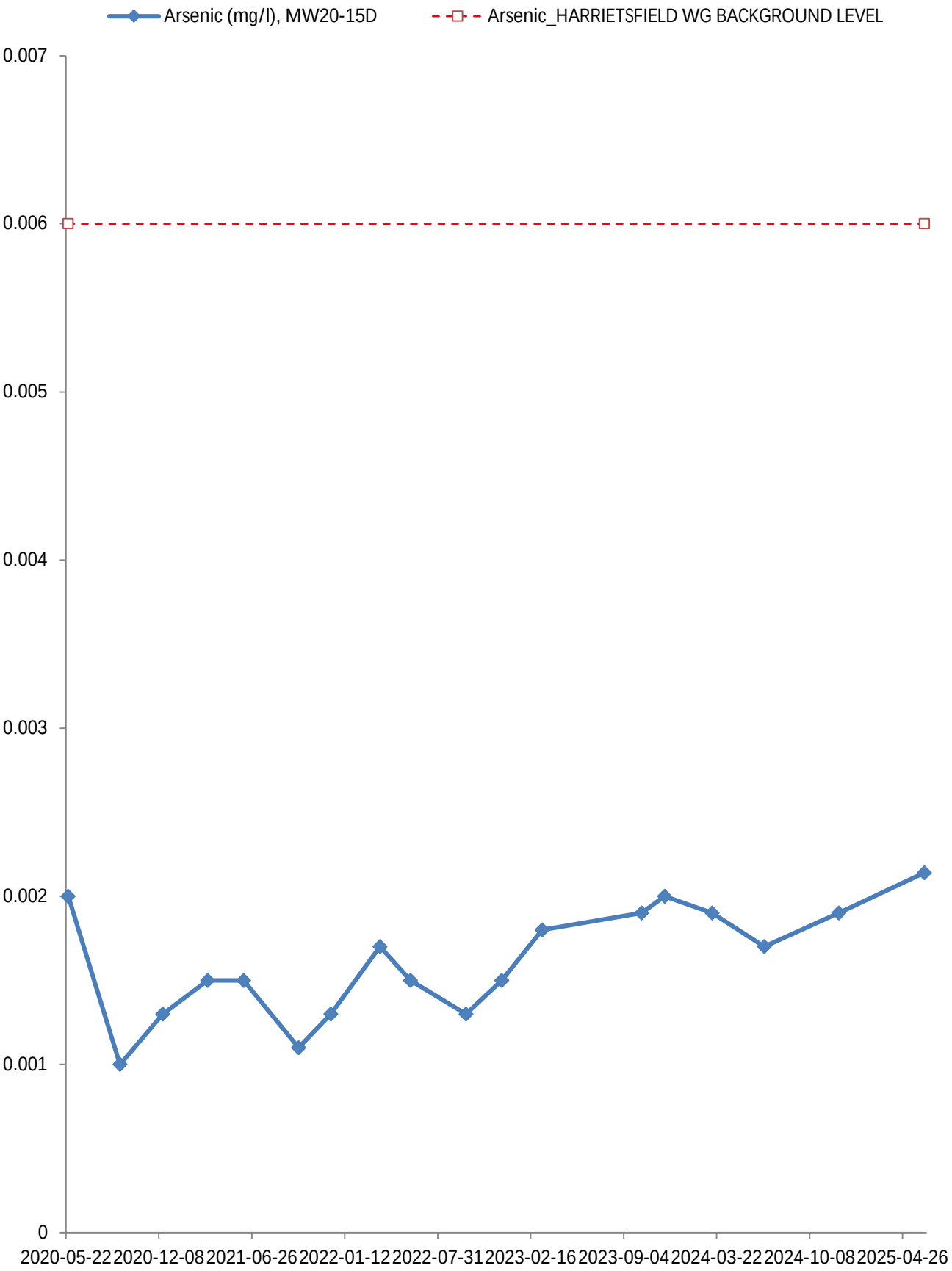
# Silver


Silver (mg/l), MW20-14S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

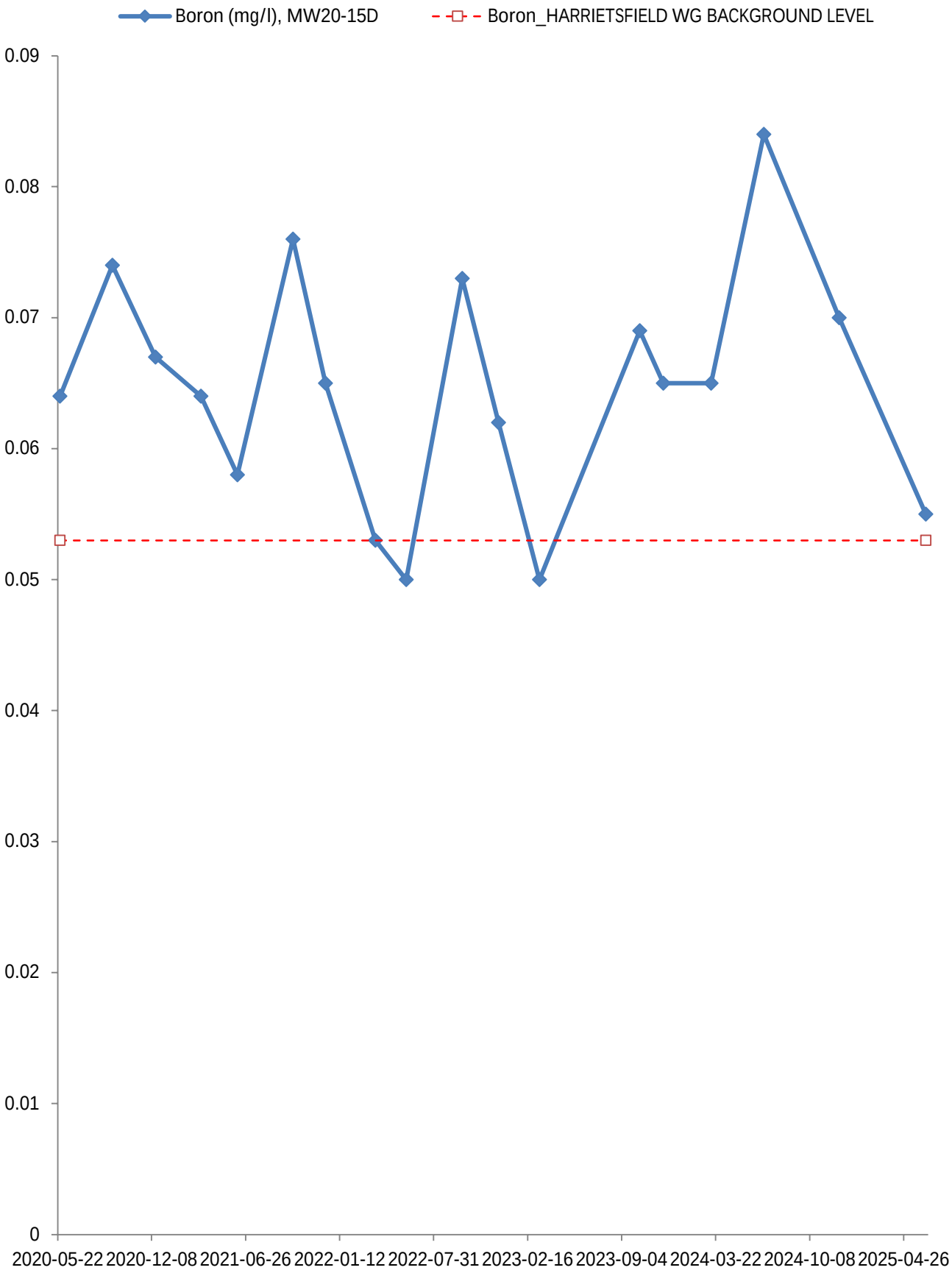
# Alkalinity, Total



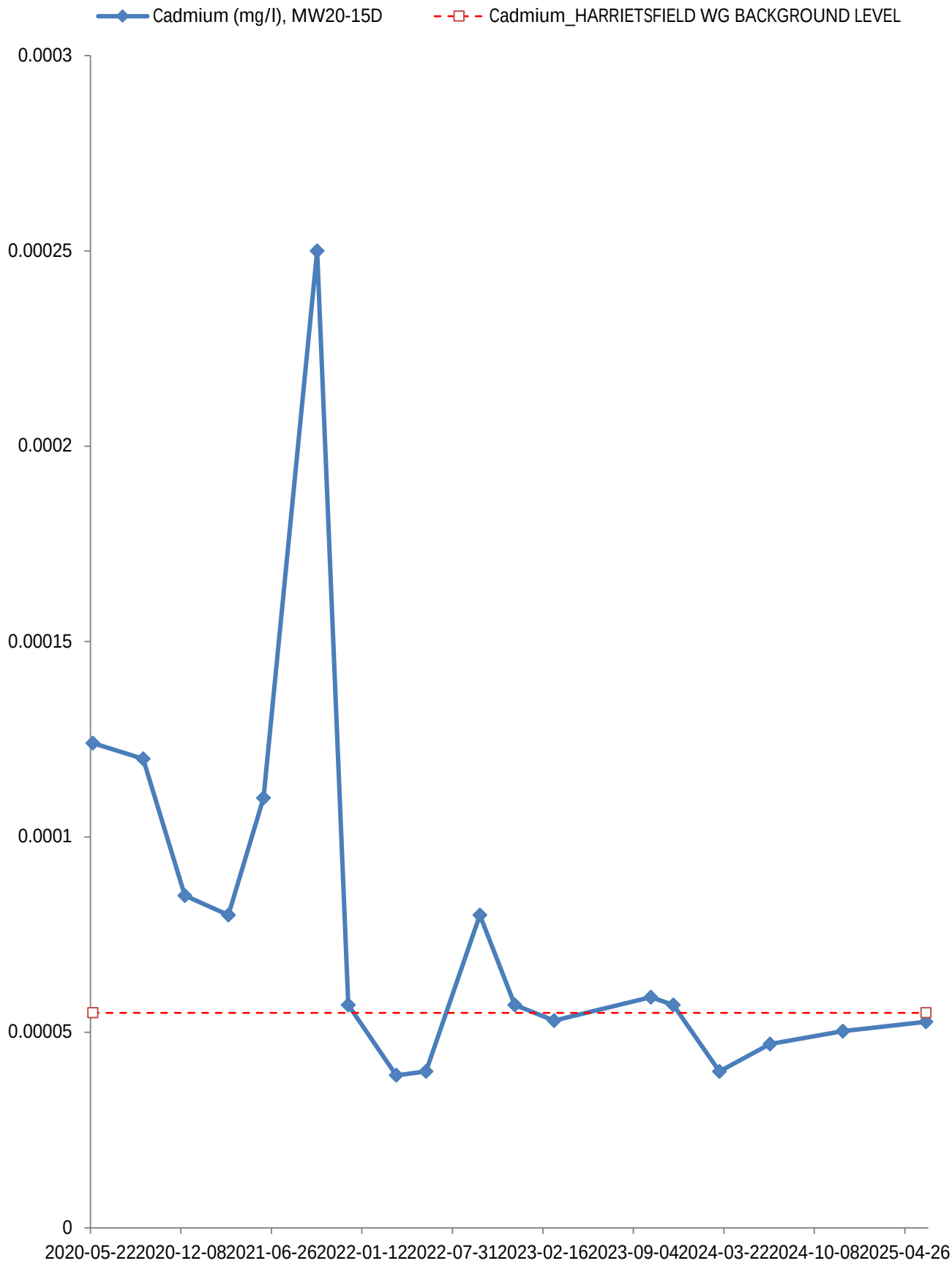
# Arsenic


Arsenic (mg/l), MW20-15D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

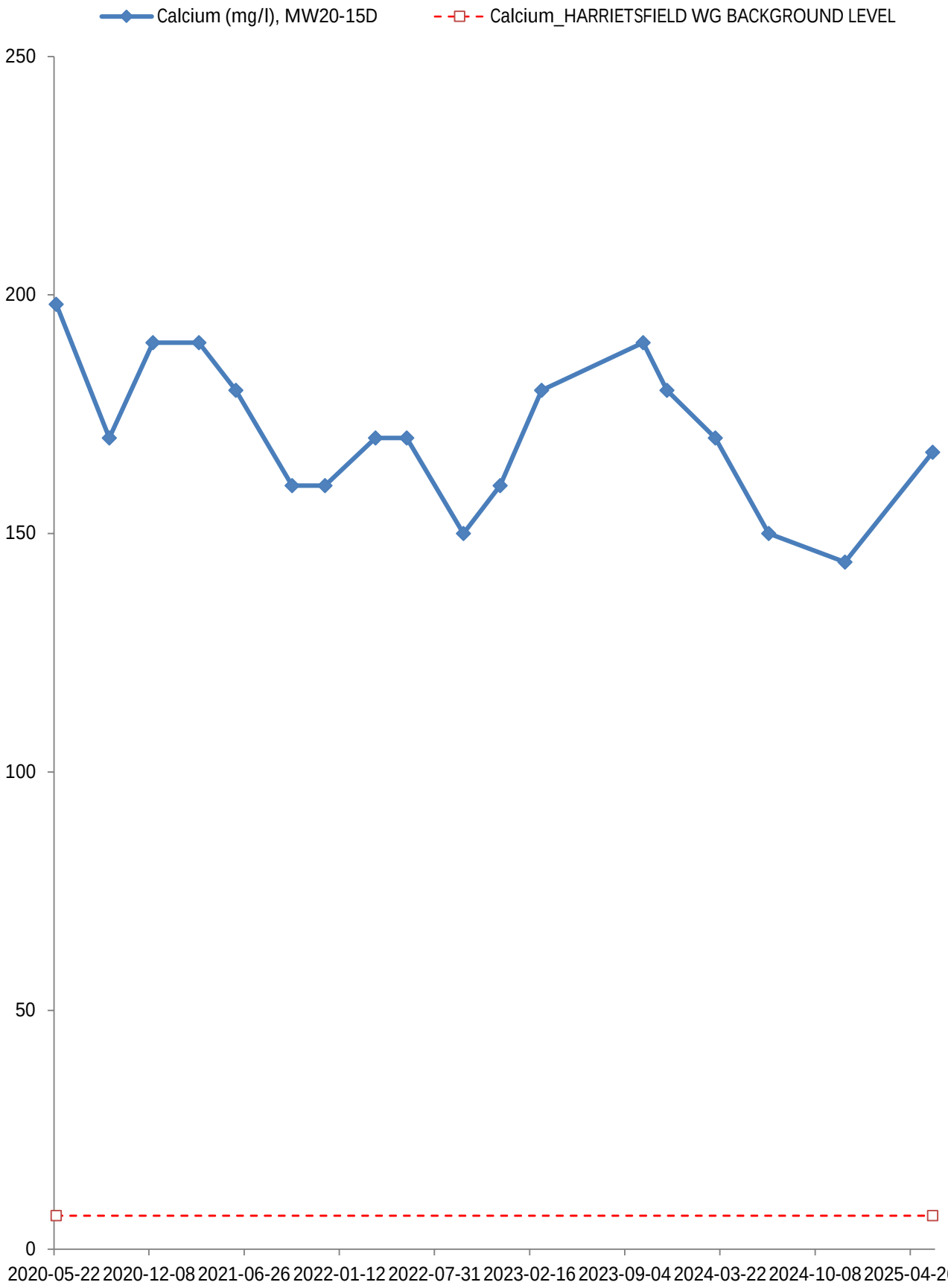
# Boron


Boron (mg/l), MW20-15D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

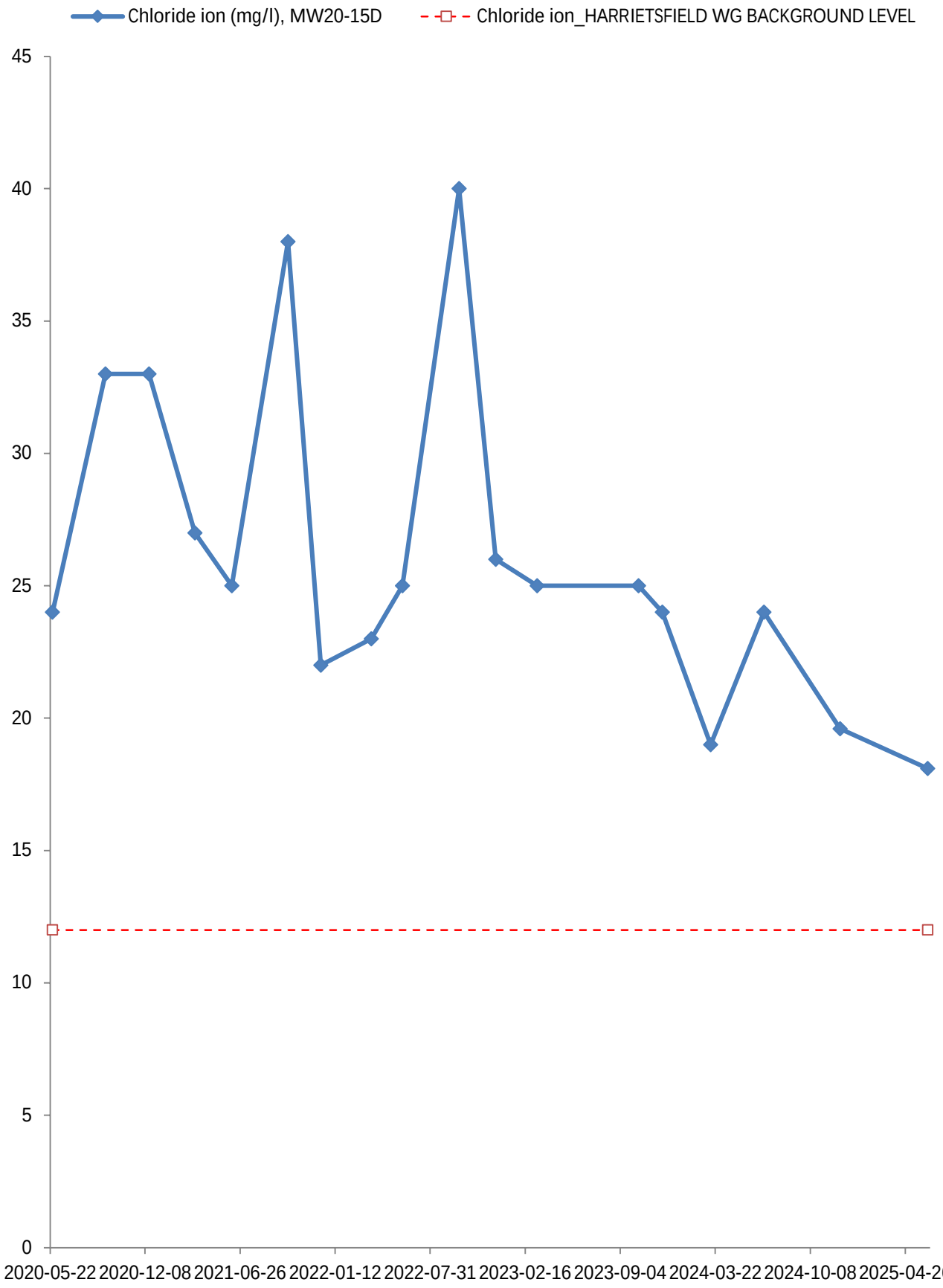
# Cadmium


Cadmium (mg/l), MW20-15D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

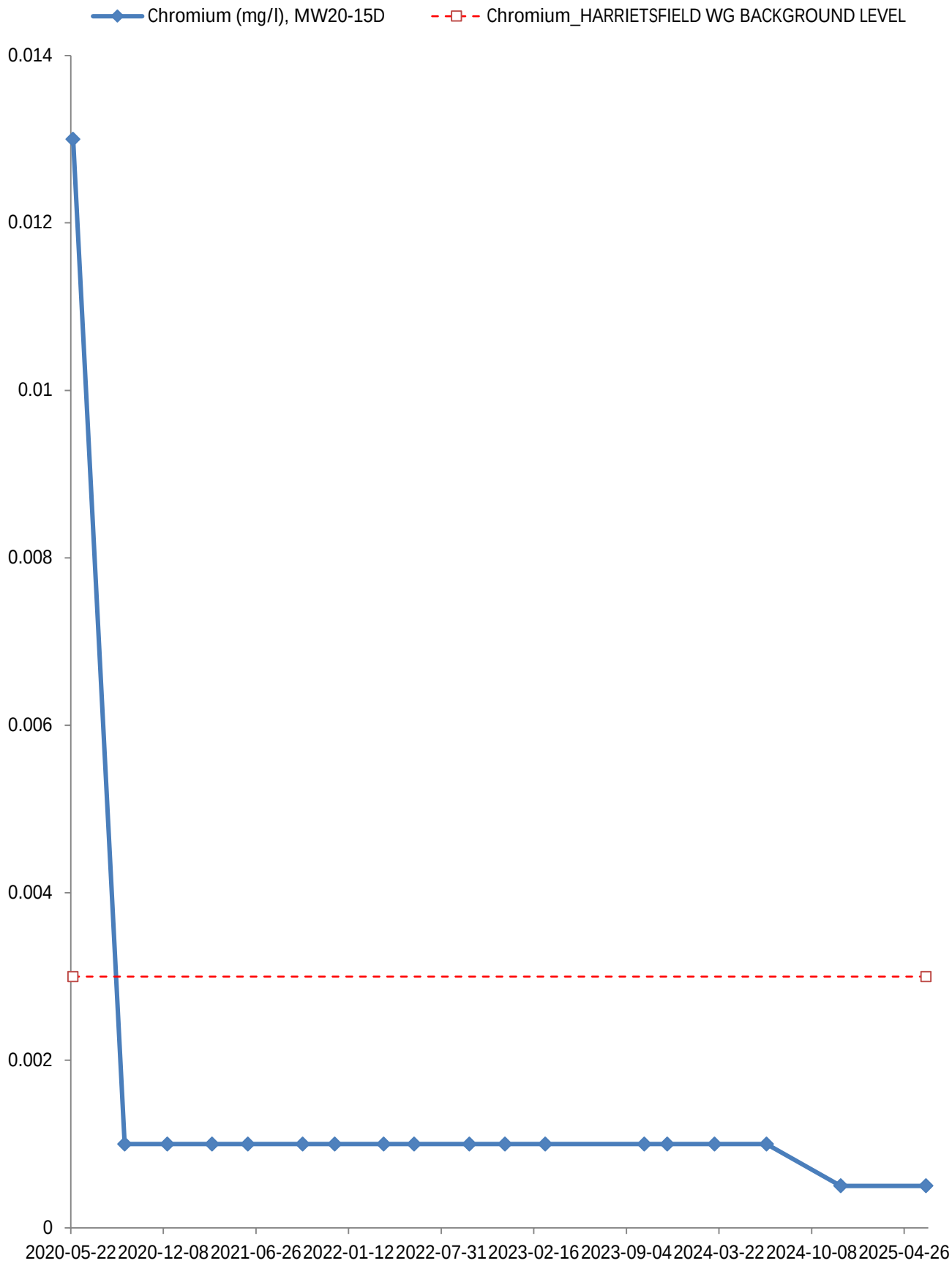
# Calcium


Calcium (mg/l), MW20-15D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
250
200
150
100
50
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

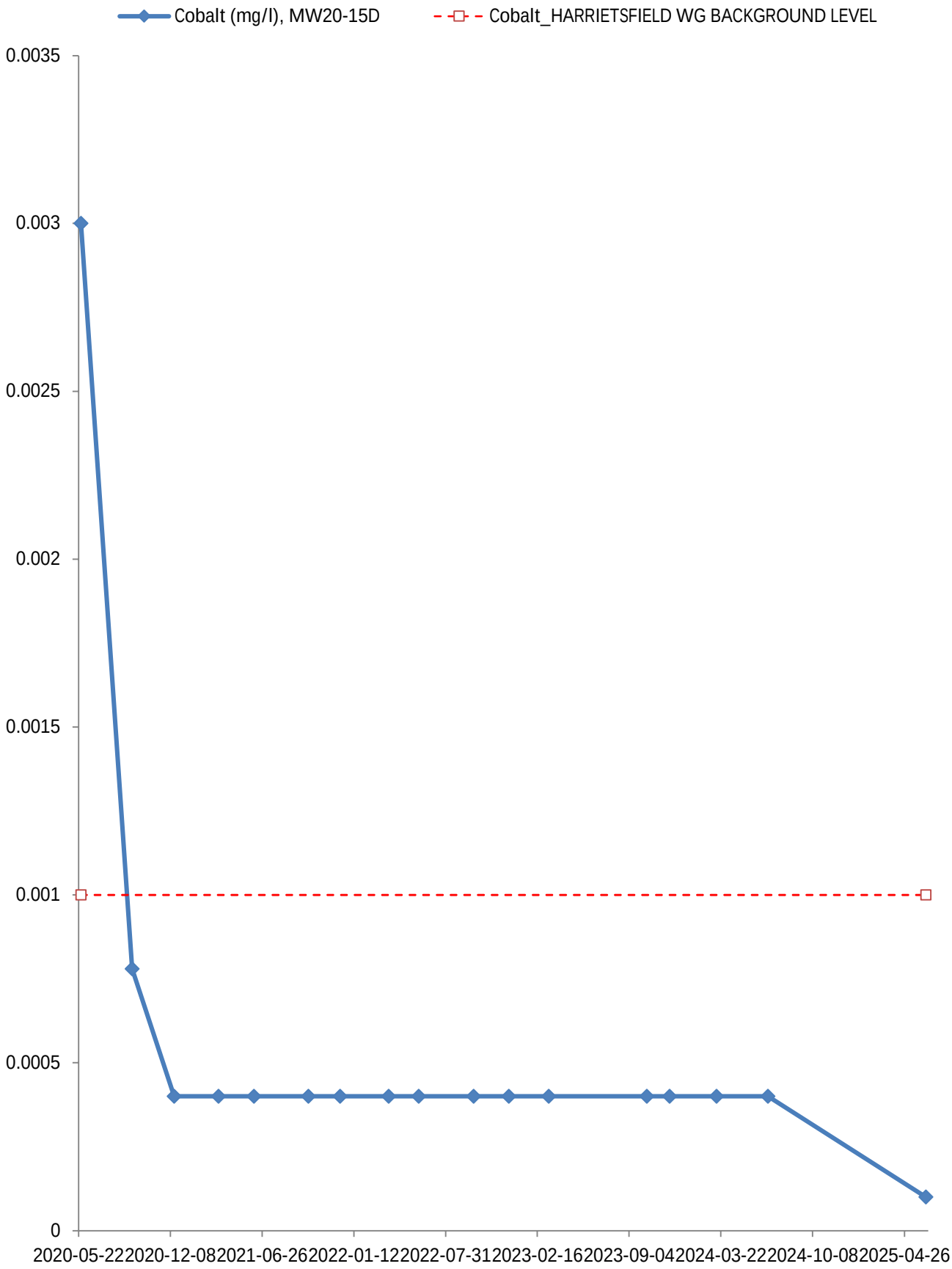
# Chloride ion



# Chromium

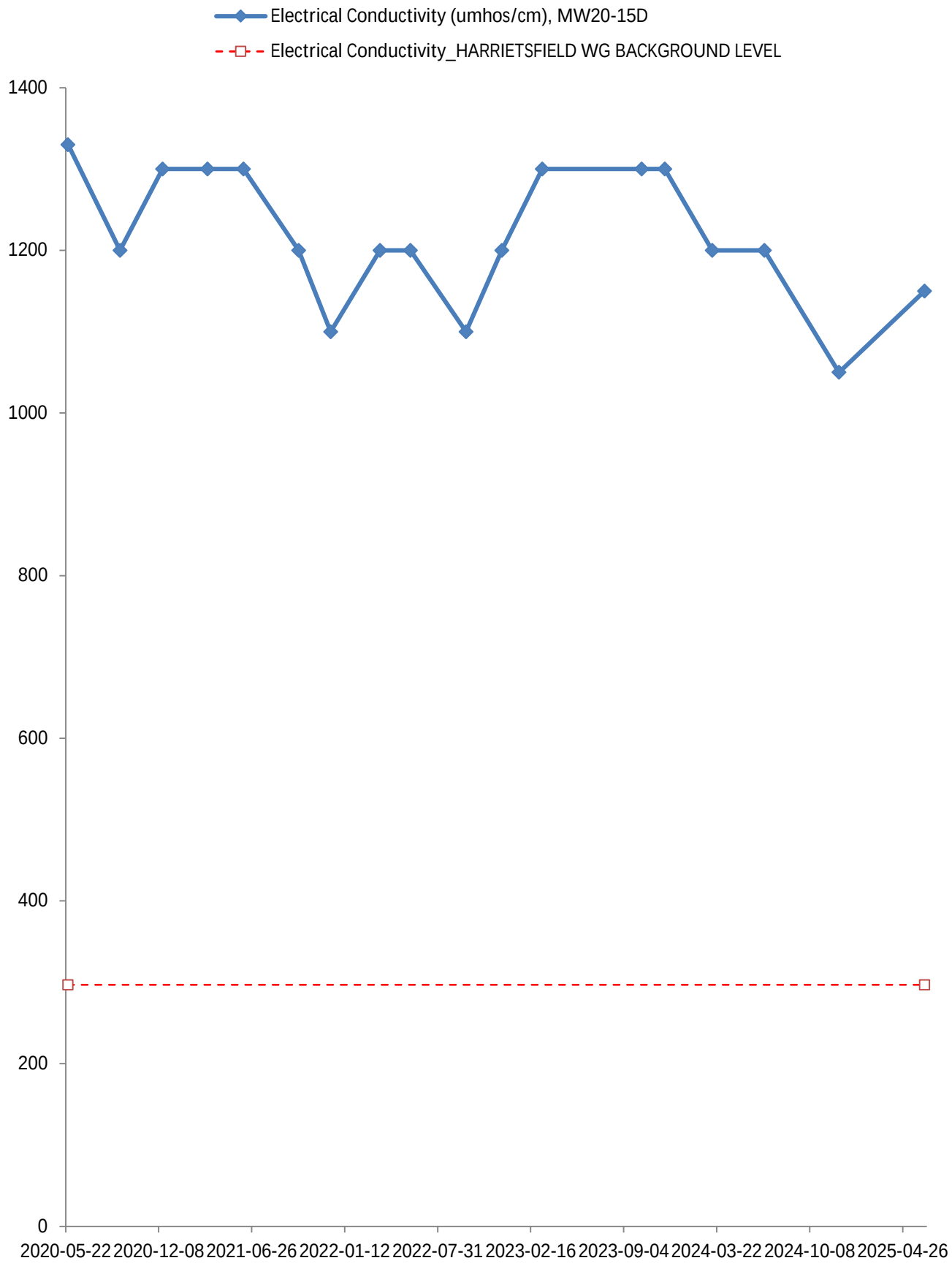

Chromium (mg/l), MW20-15D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt


Cobalt (mg/l), MW20-15D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

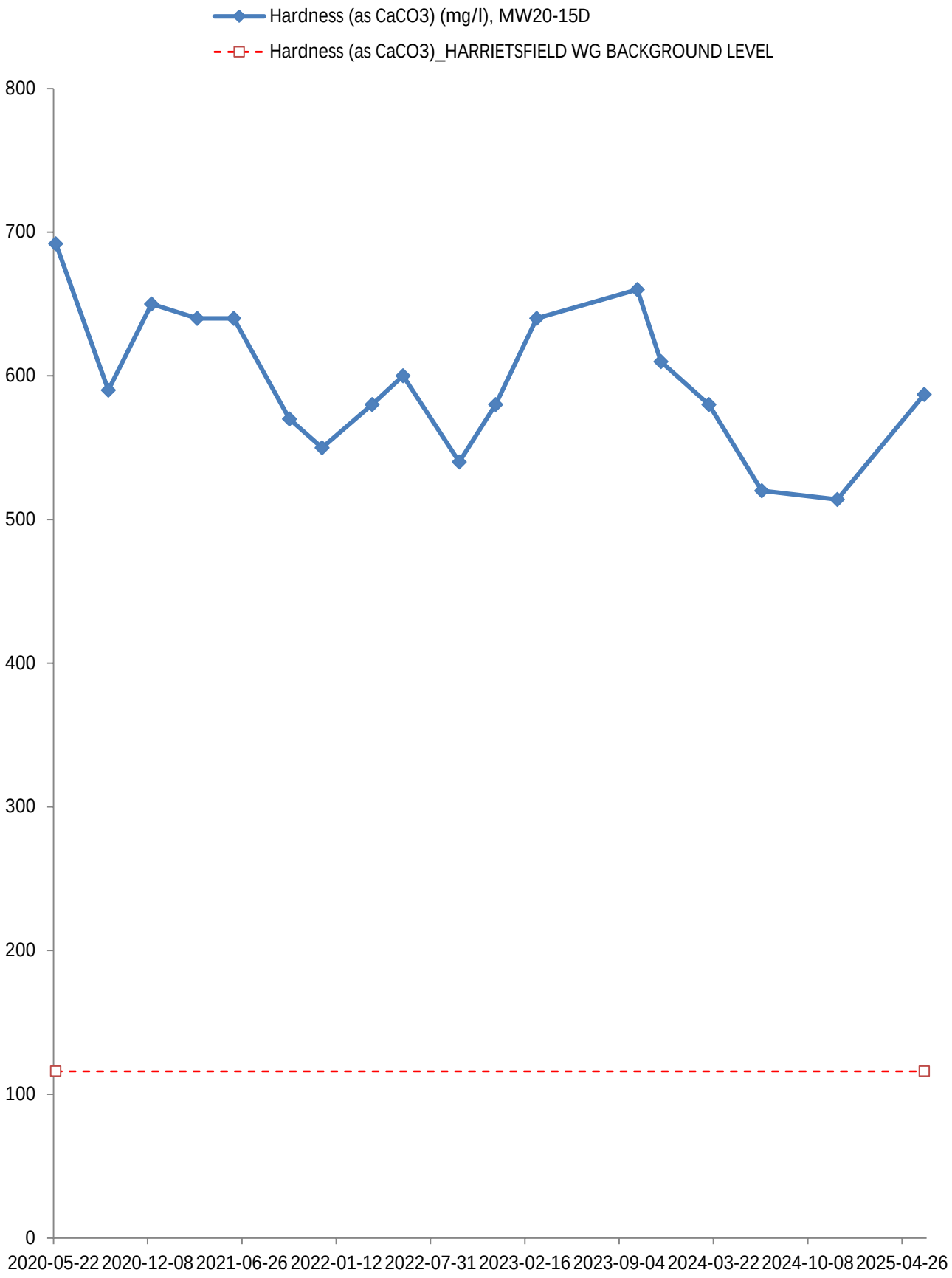
# Electrical Conductivity



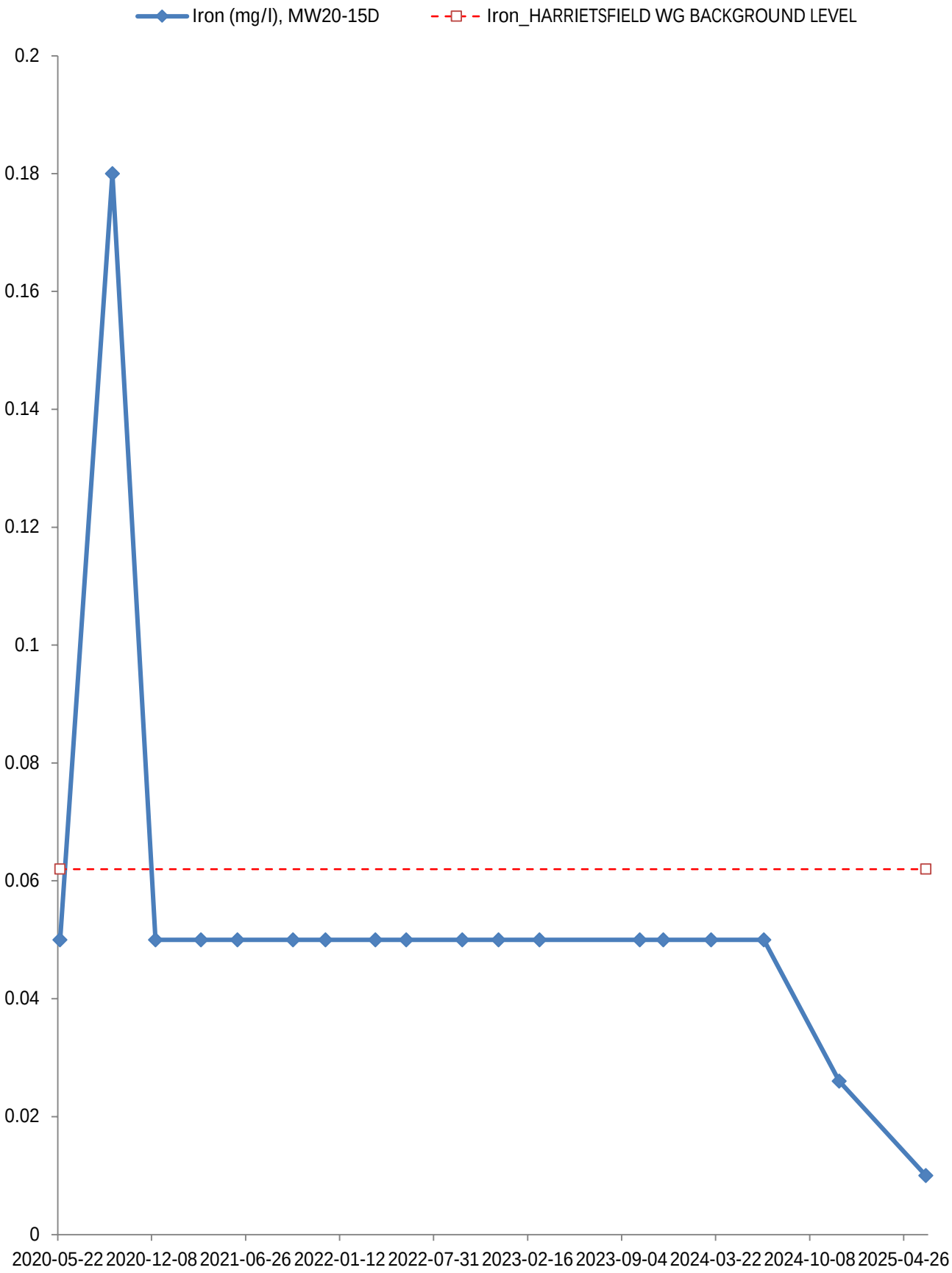


# Hardness (as CaCO3)

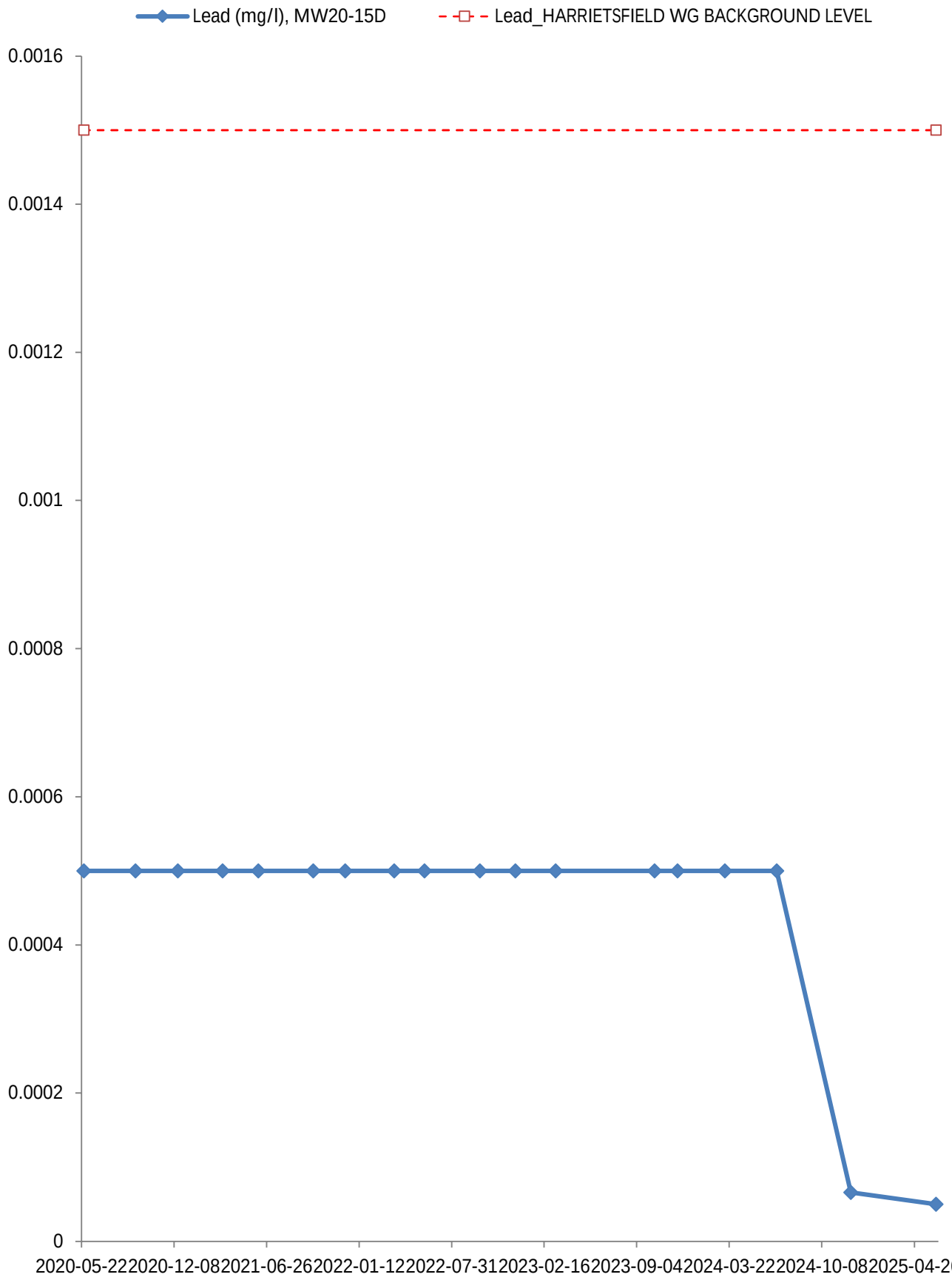




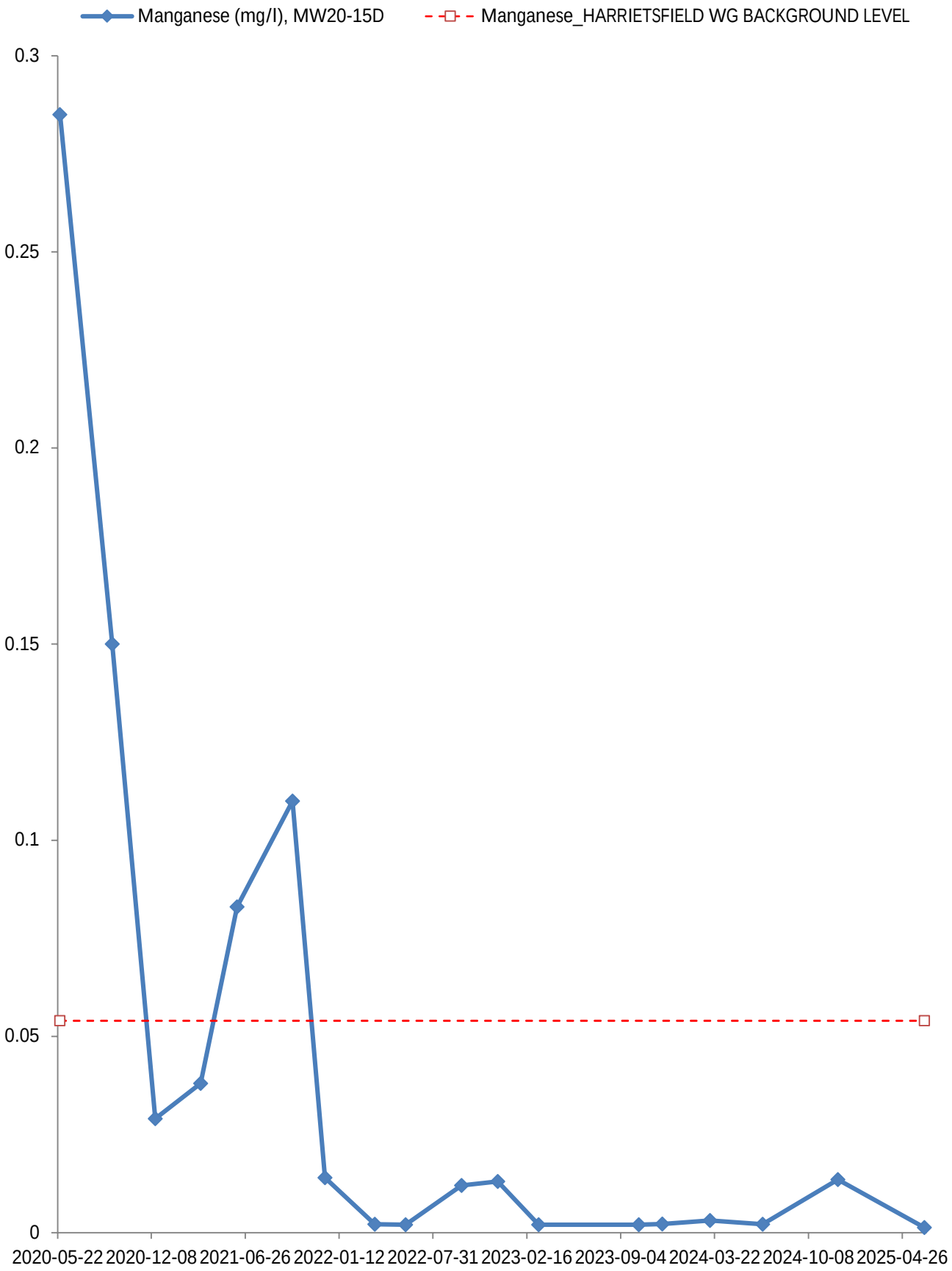
# Iron


Iron (mg/l), MW20-15D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Lead

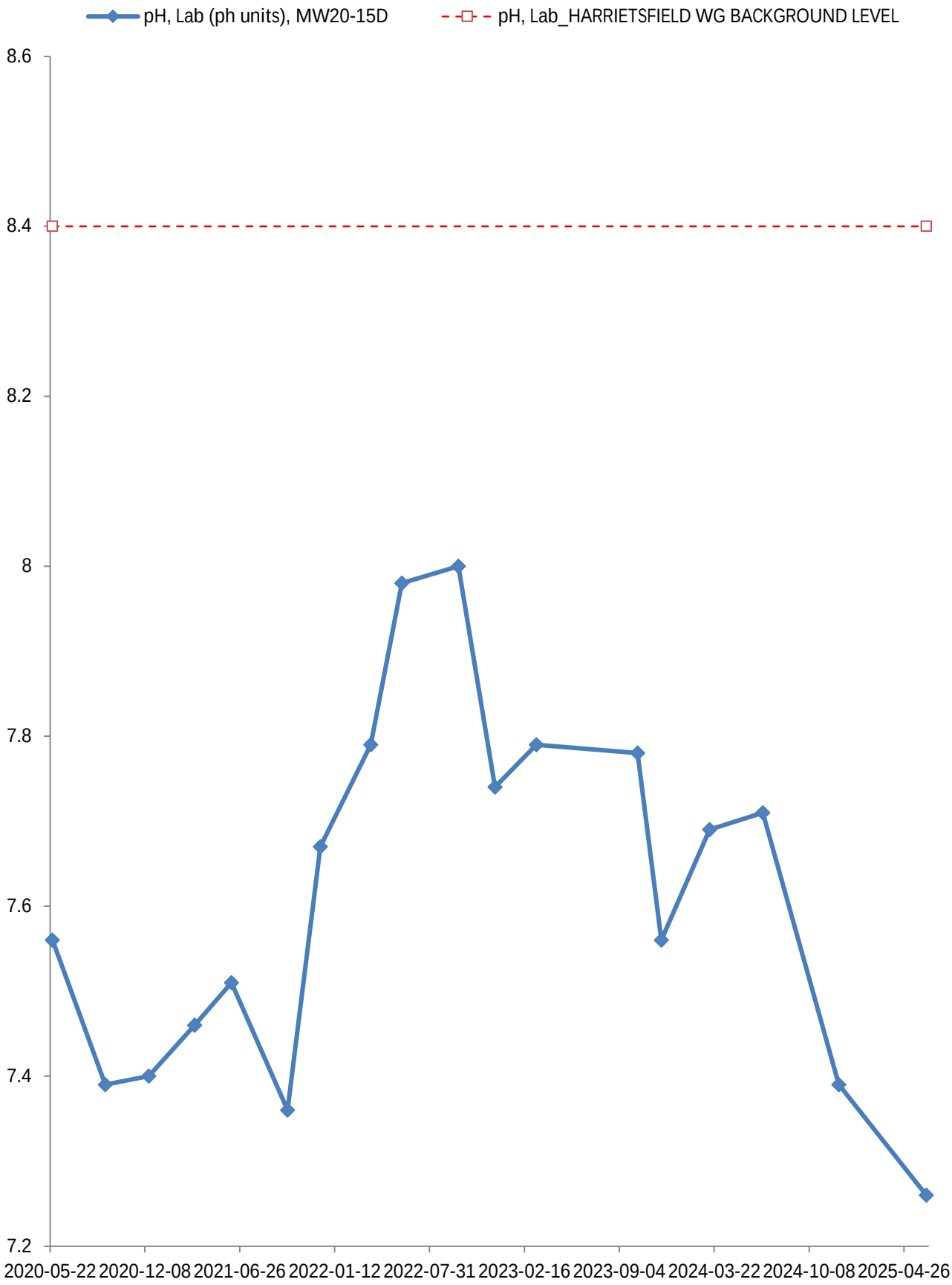

Lead (mg/l), MW20-15D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Manganese

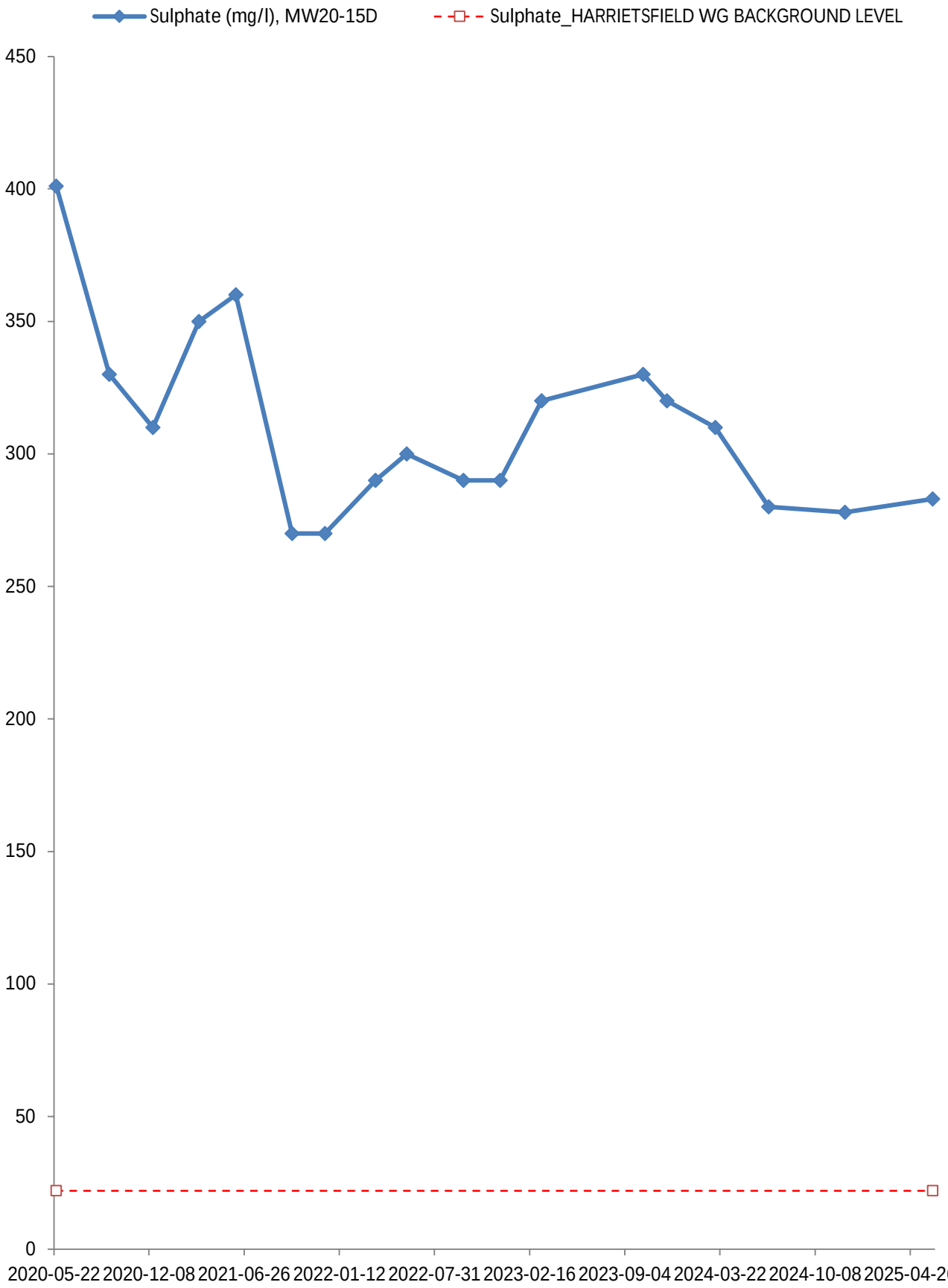

Manganese (mg/l), MW20-15D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# pH, Lab

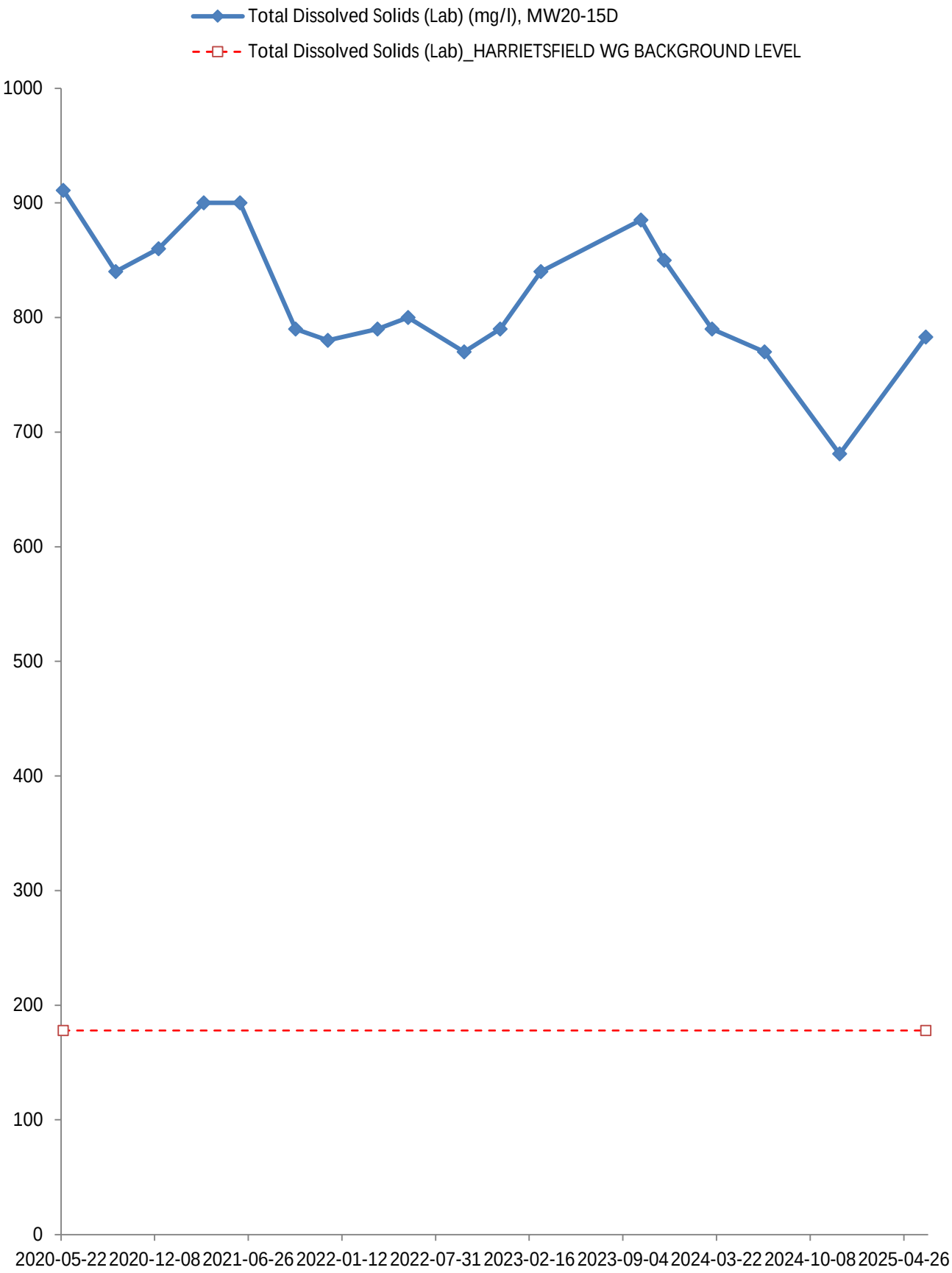


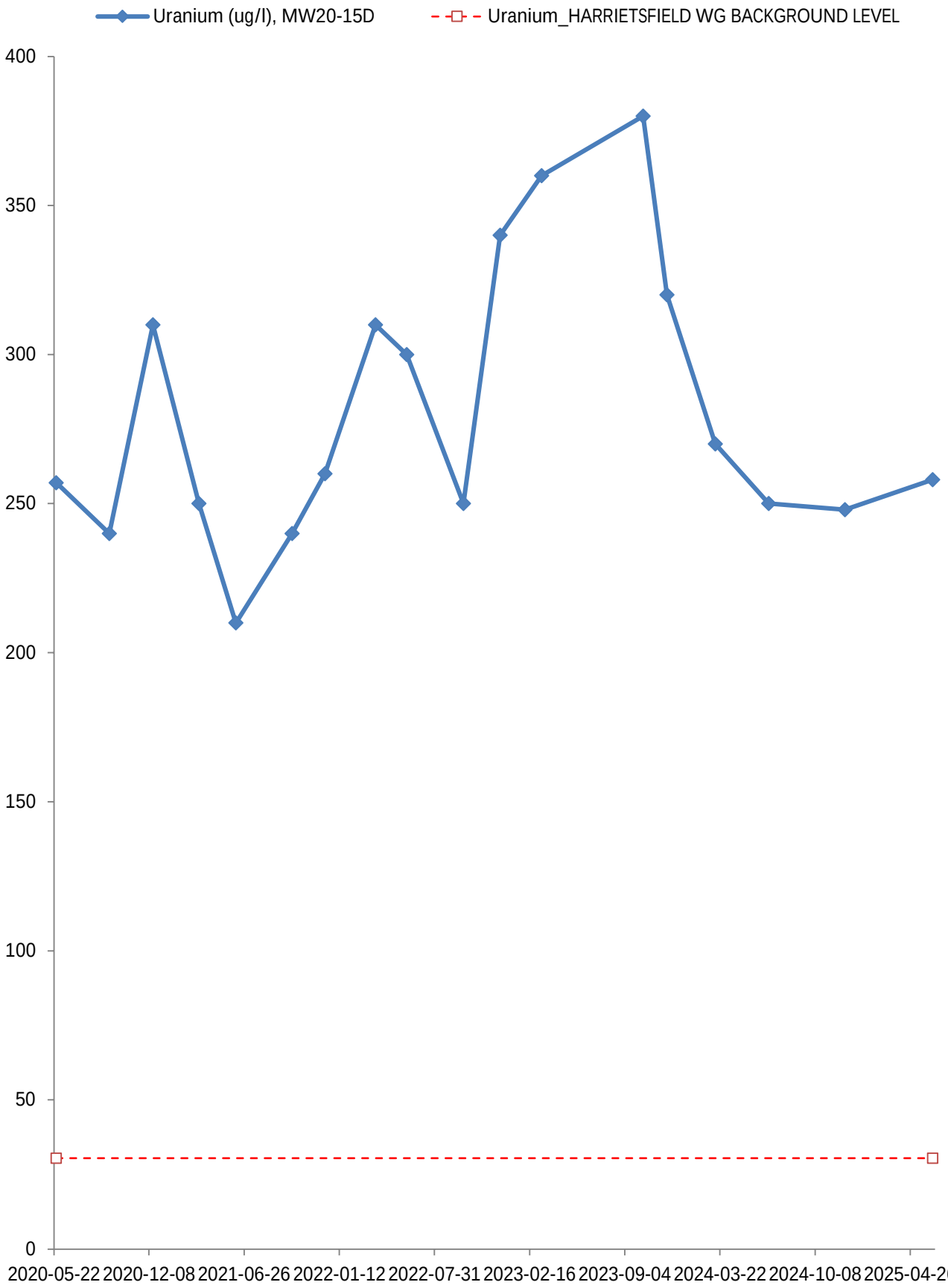

pH, Lab (ph units), MW20-15D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Sulphate

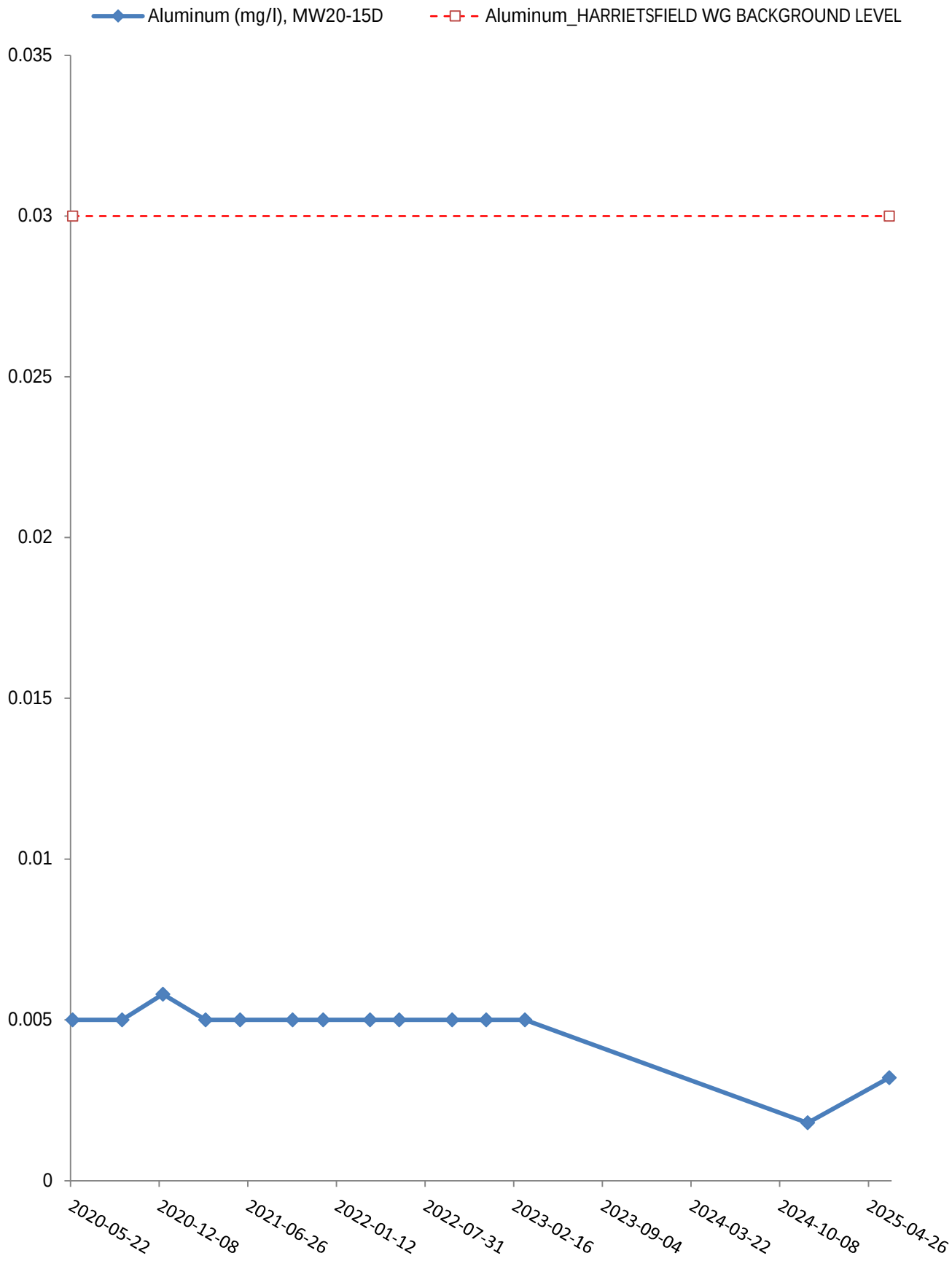

Sulphate (mg/l), MW20-15D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
450
400
350
300
250
200
150
100
50
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Total Dissolved Solids (5

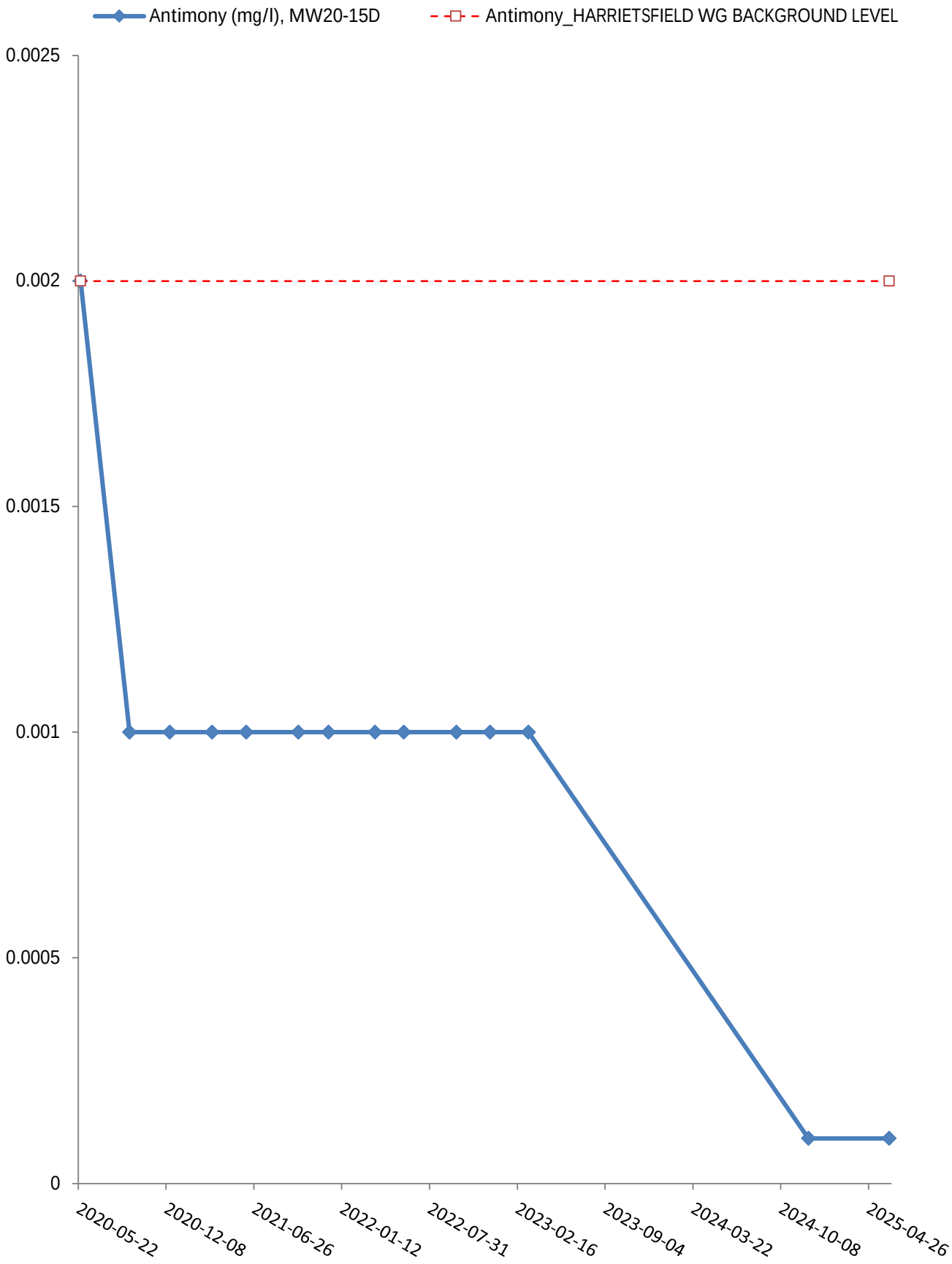



Uranium (ug/l), MW20-15D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
400
350
300
250
200
150
100
50
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

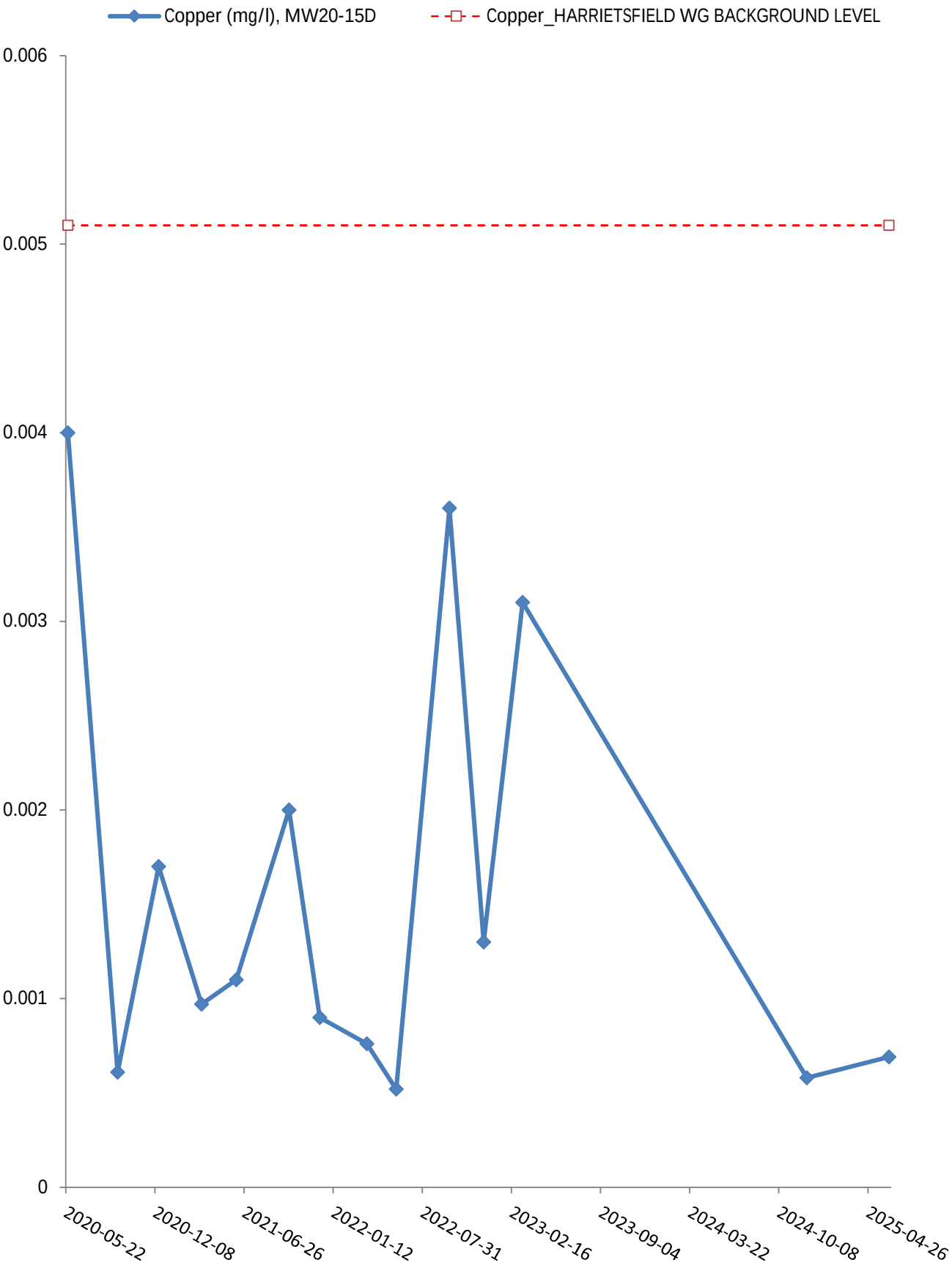
# Aluminum


Aluminum (mg/l), MW20-15D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony

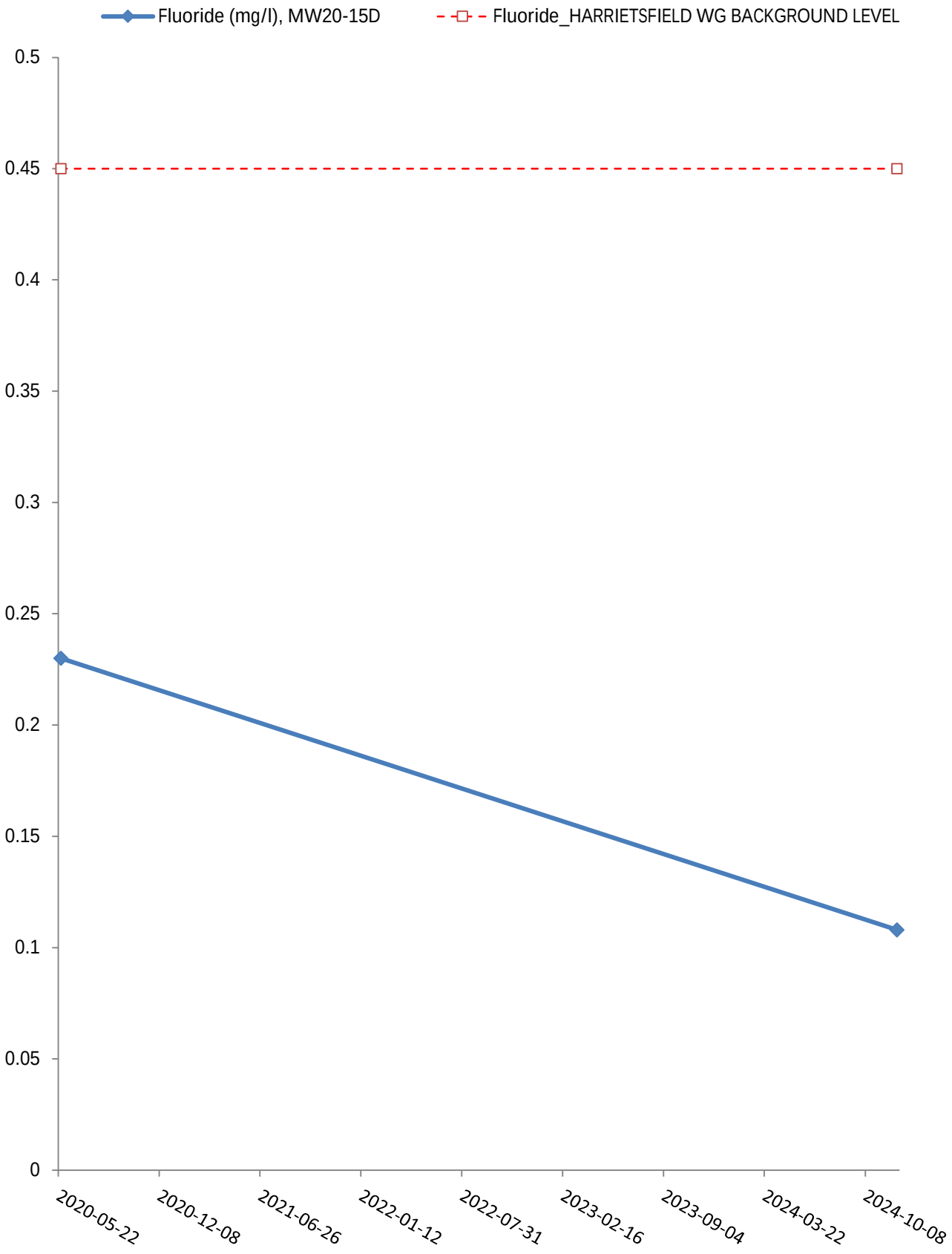

Antimony (mg/l), MW20-15D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Copper

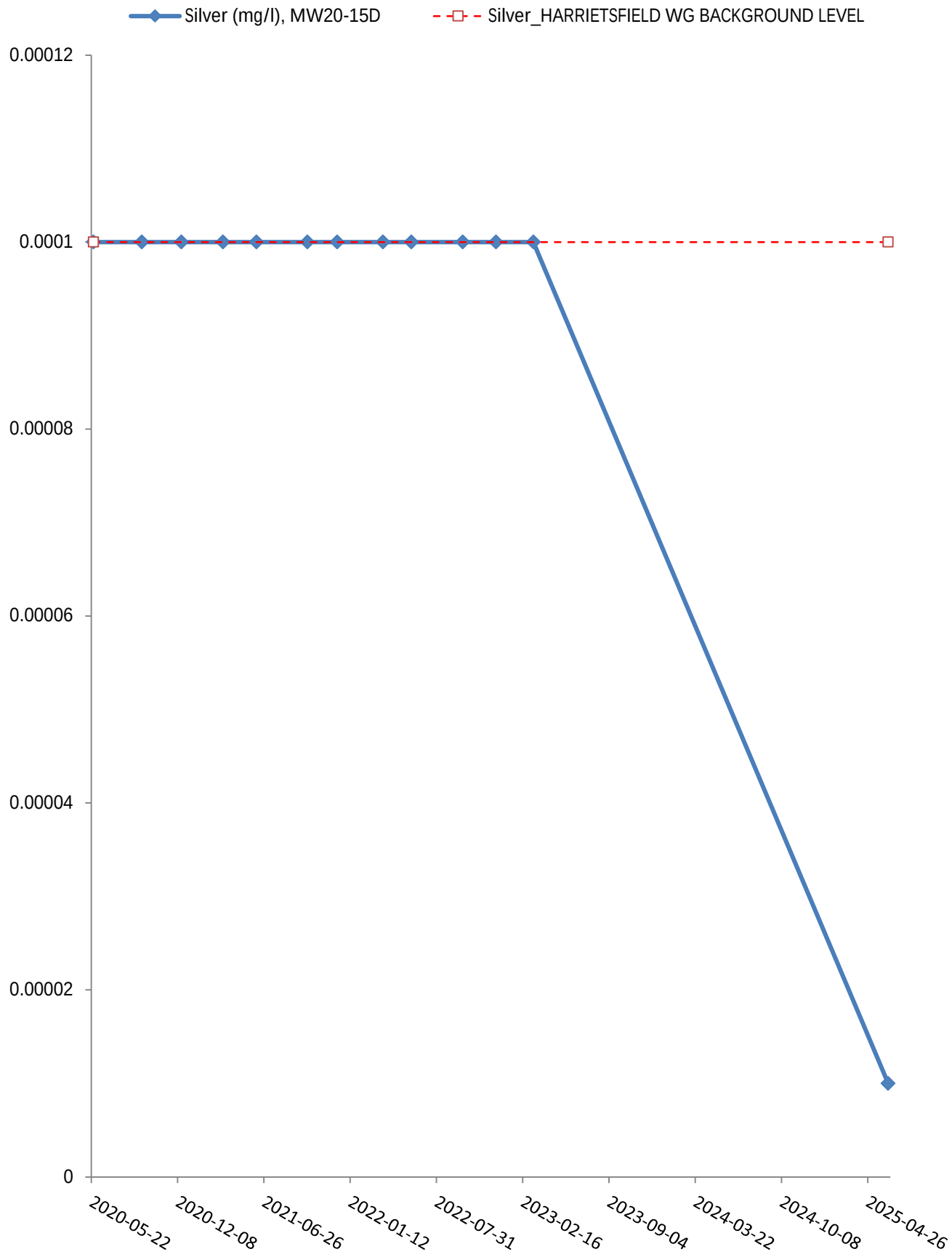

Copper (mg/l), MW20-15D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Fluoride

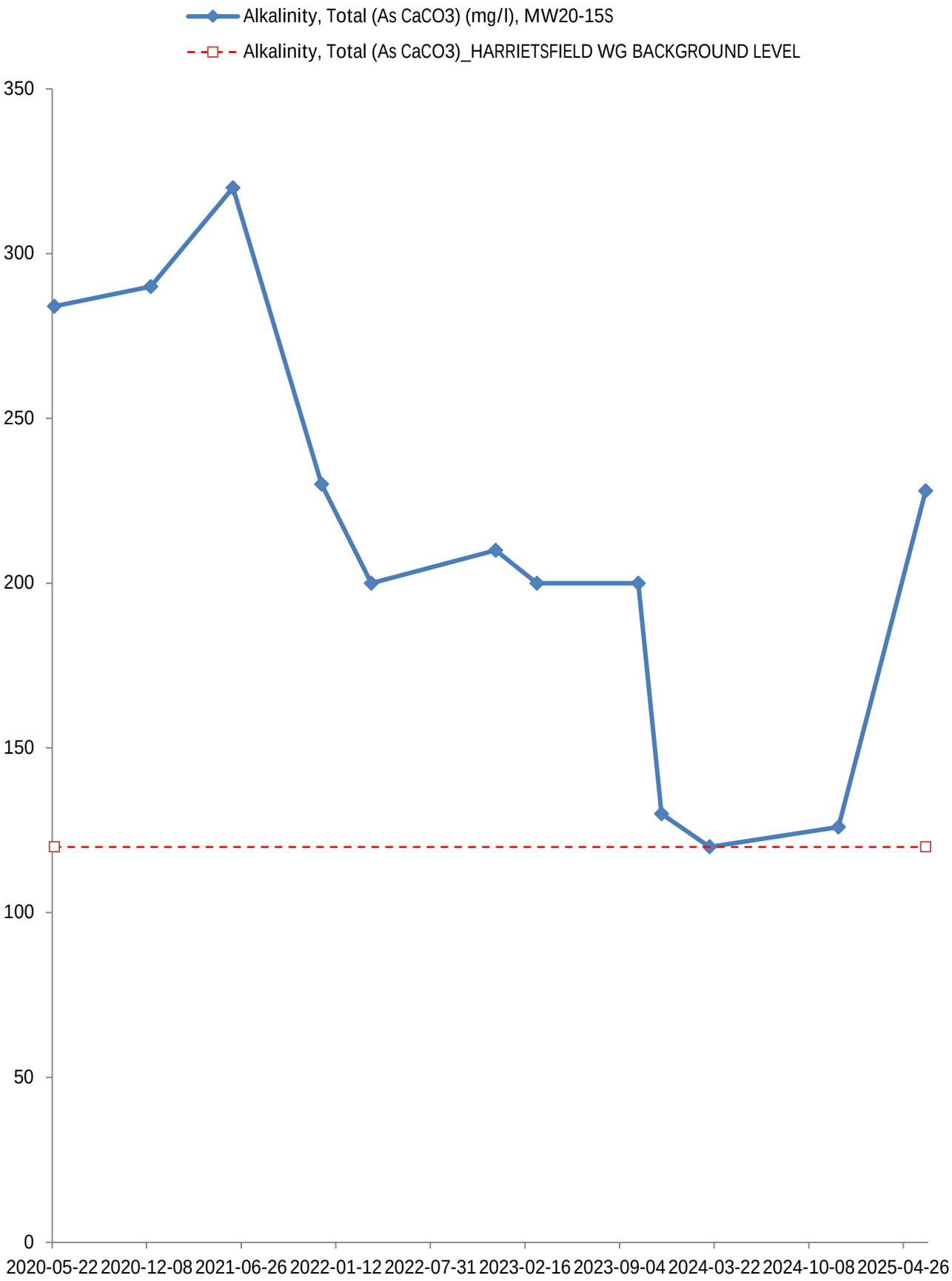



Fluoride (mg/l), MW20-15D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

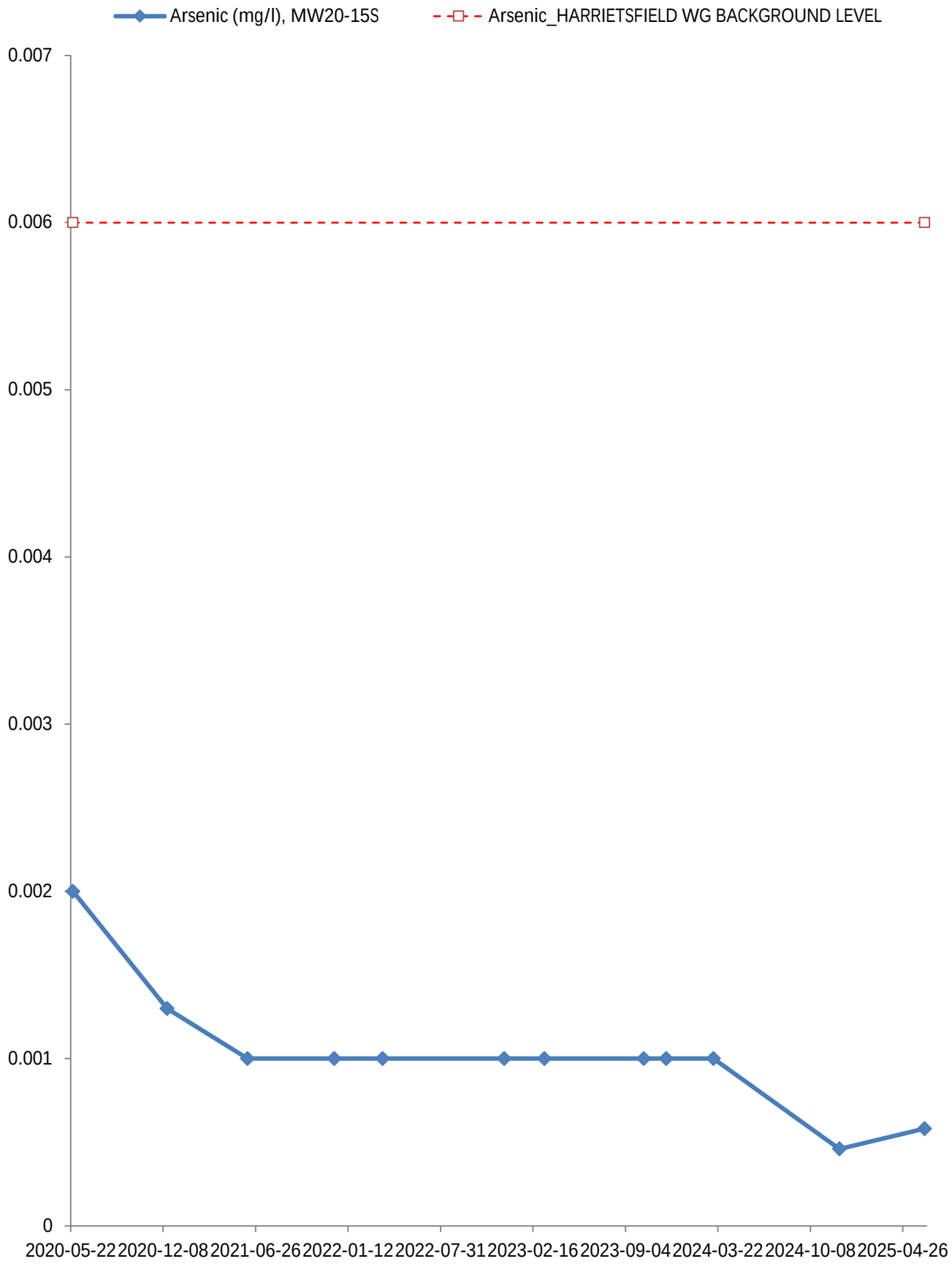
# Silver


Silver (mg/l), MW20-15D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Alkalinity, Total

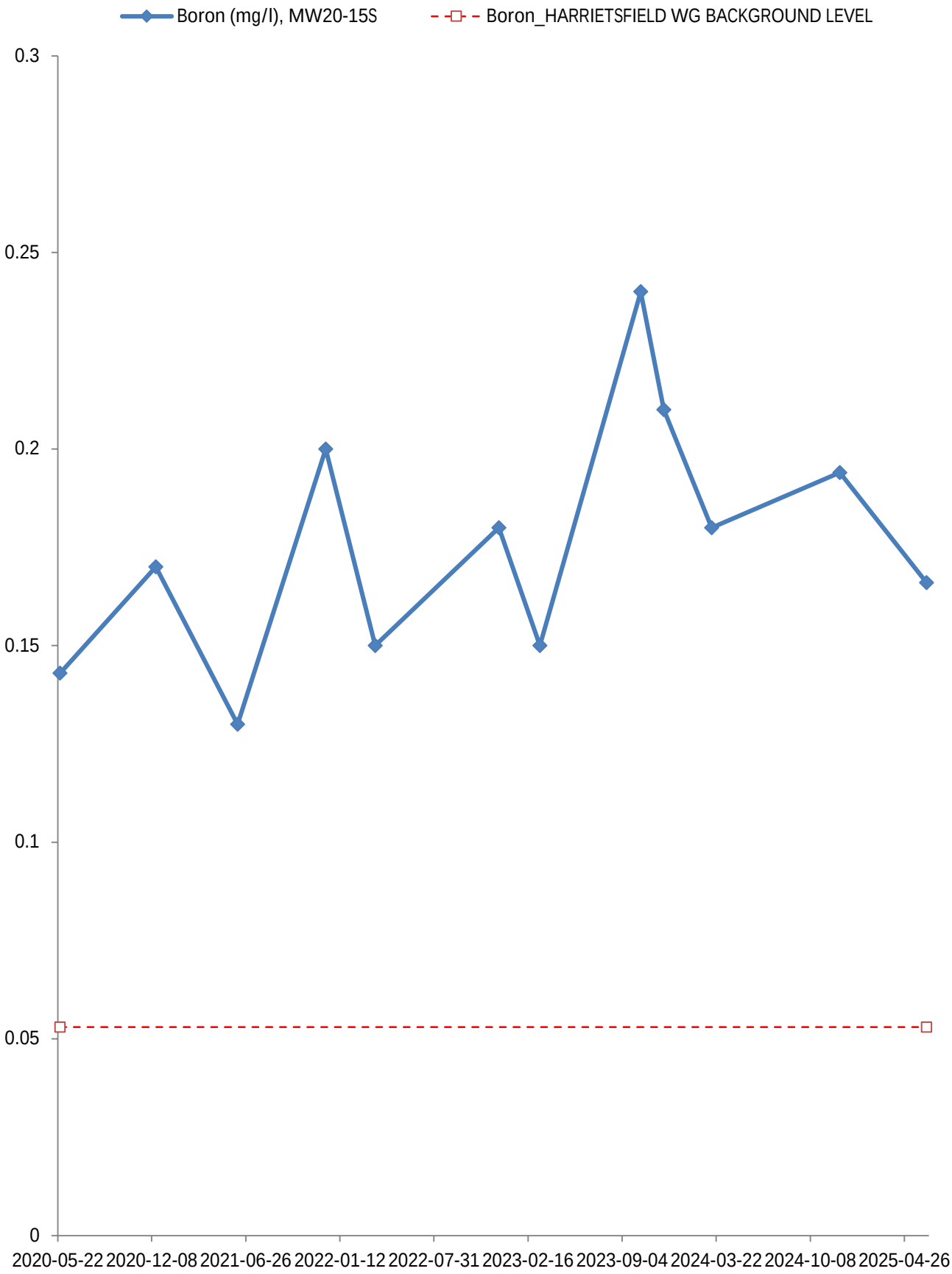


# Arsenic

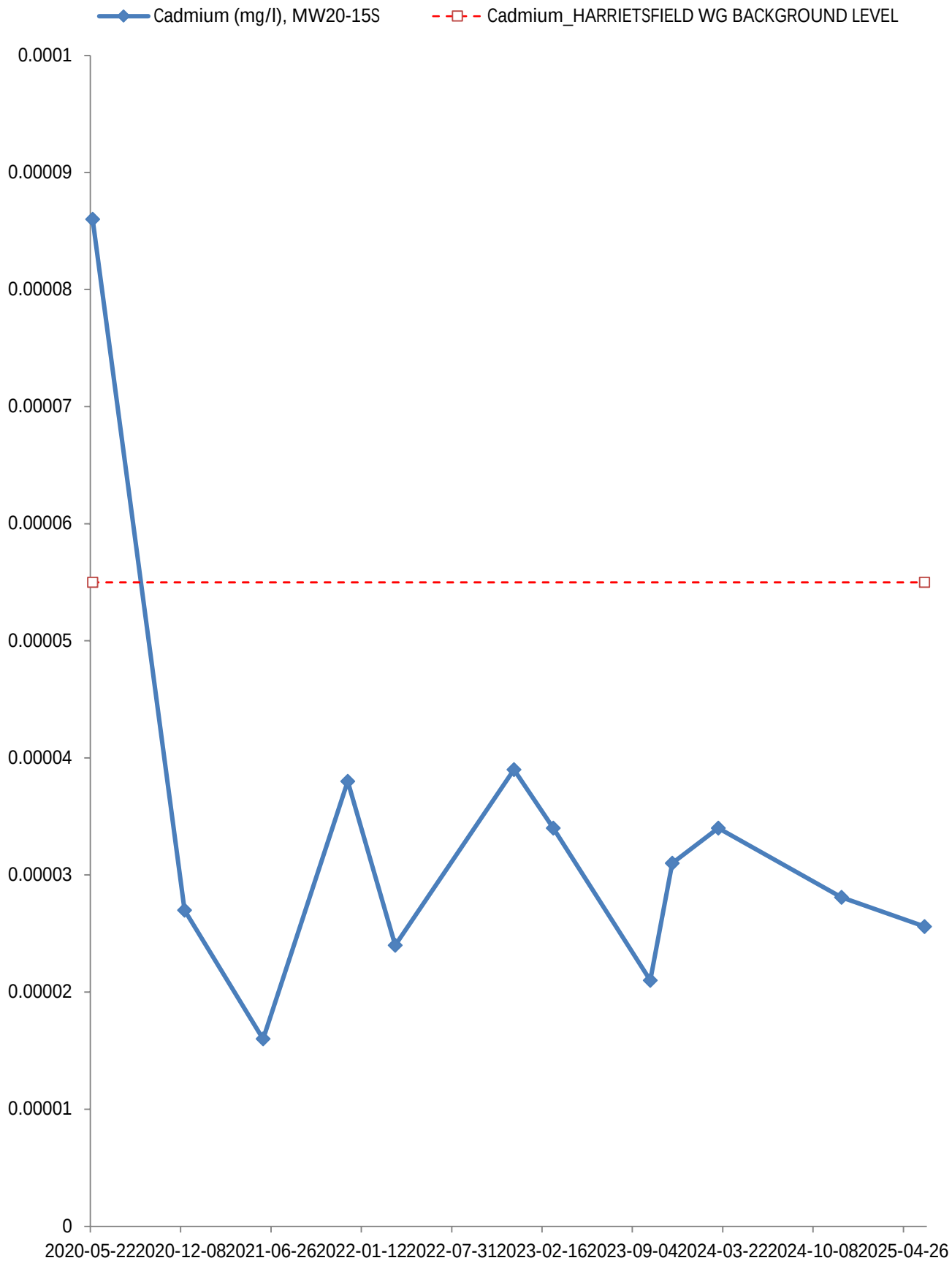

Arsenic (mg/l), MW20-15S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Boron



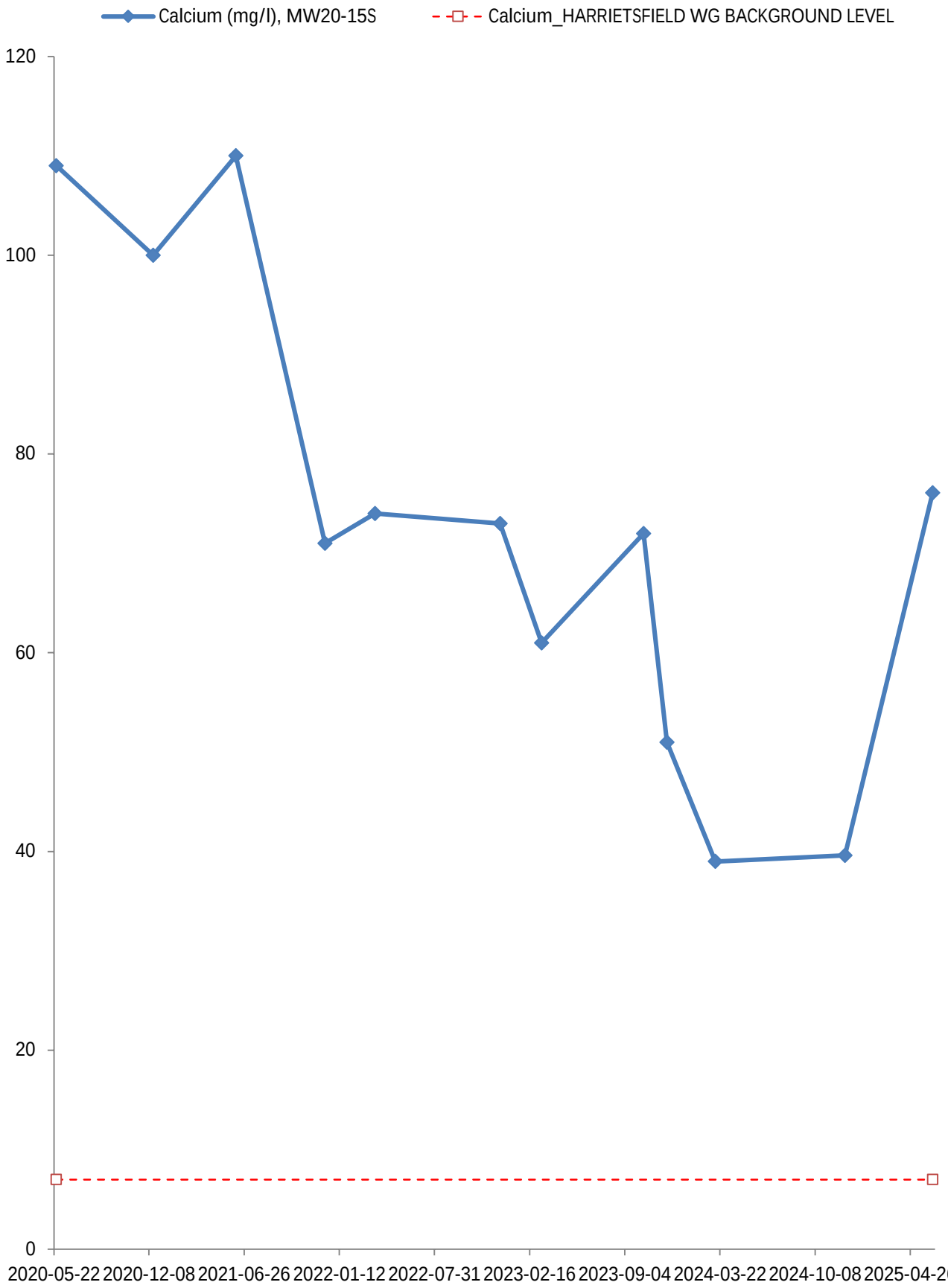

Boron (mg/l), MW20-15S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cadmium

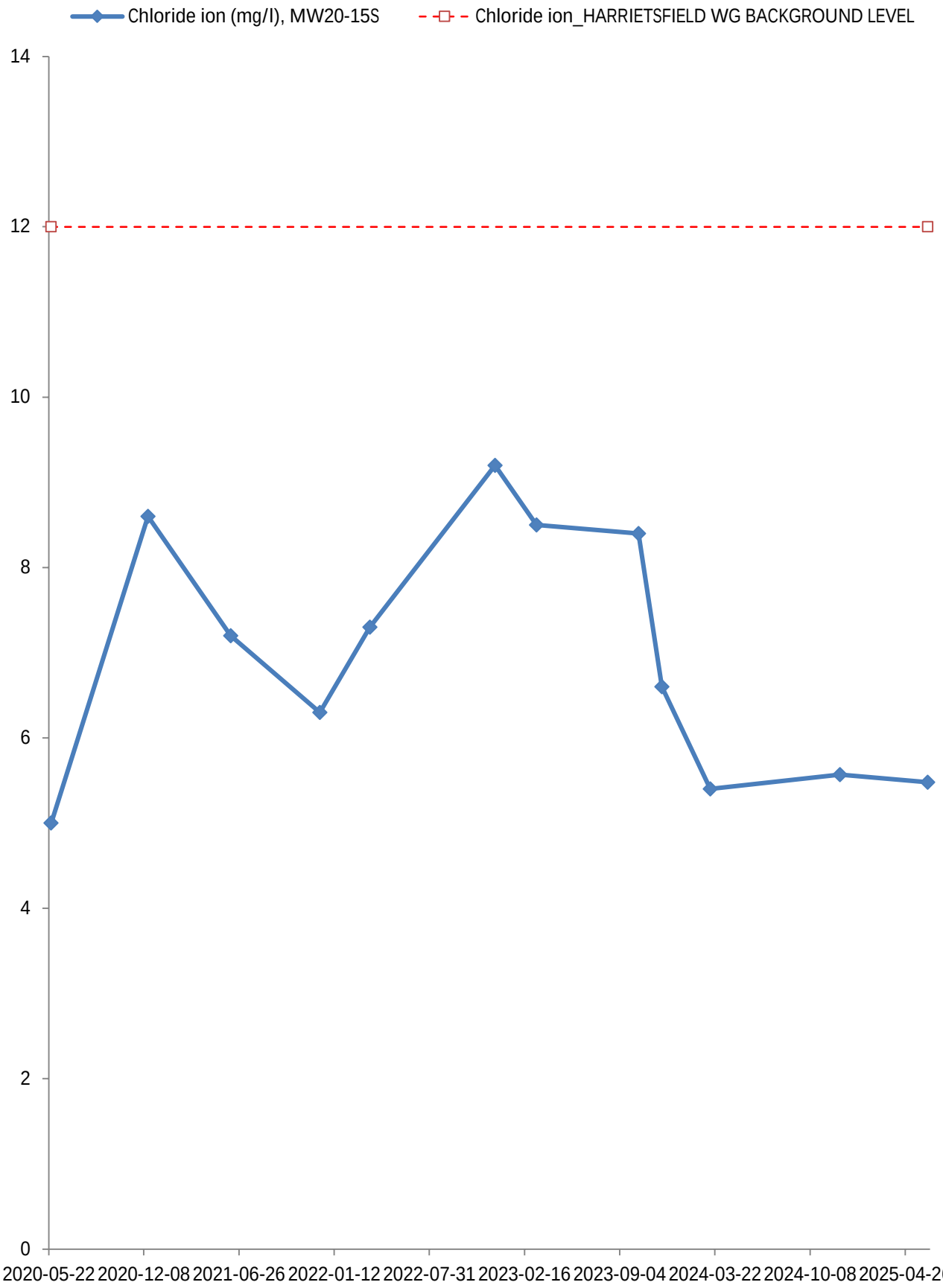

Cadmium (mg/l), MW20-15S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0001
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Calcium



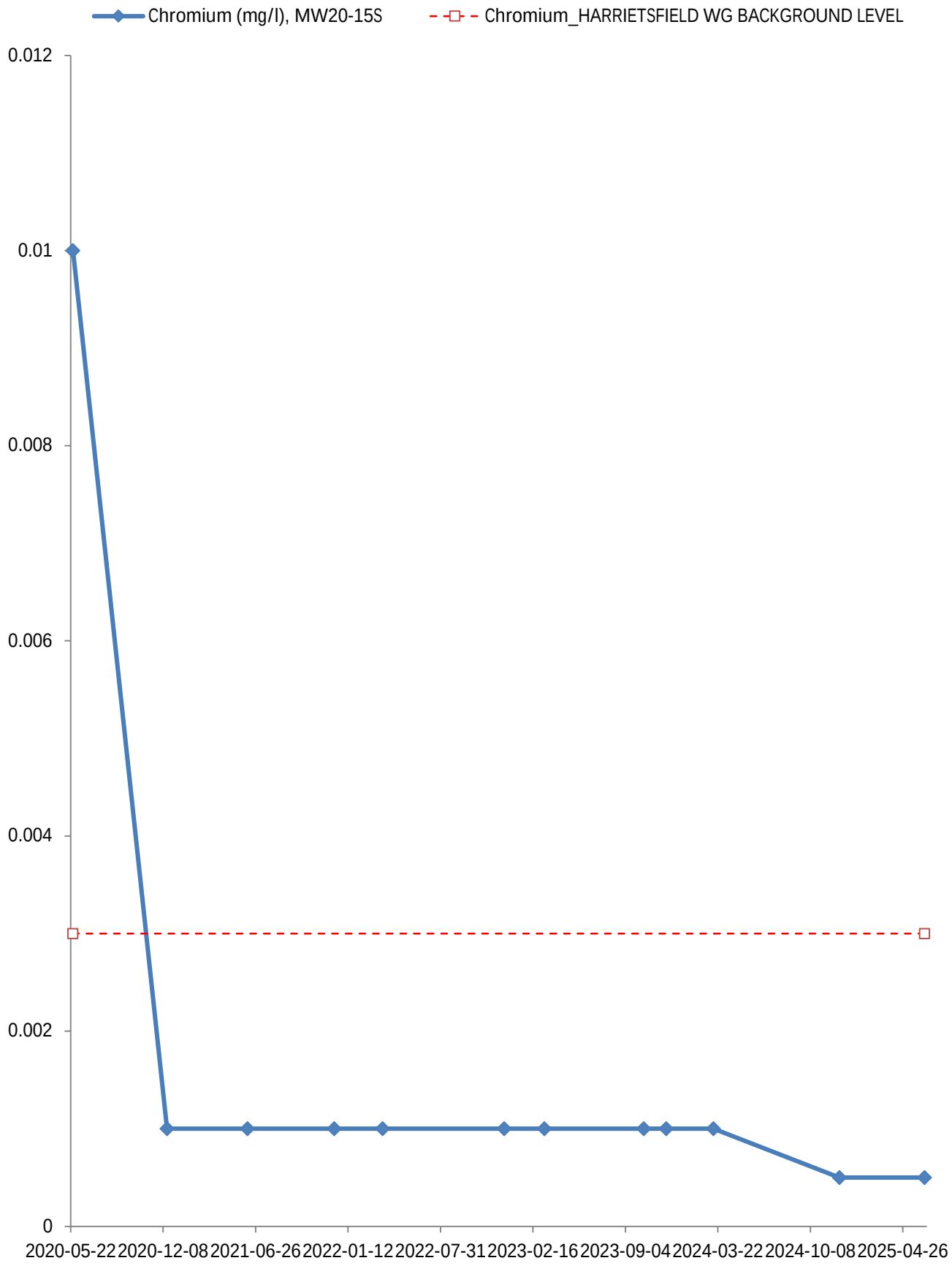

Calcium (mg/l), MW20-15S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
120
100
80
60
40
20
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Chloride ion

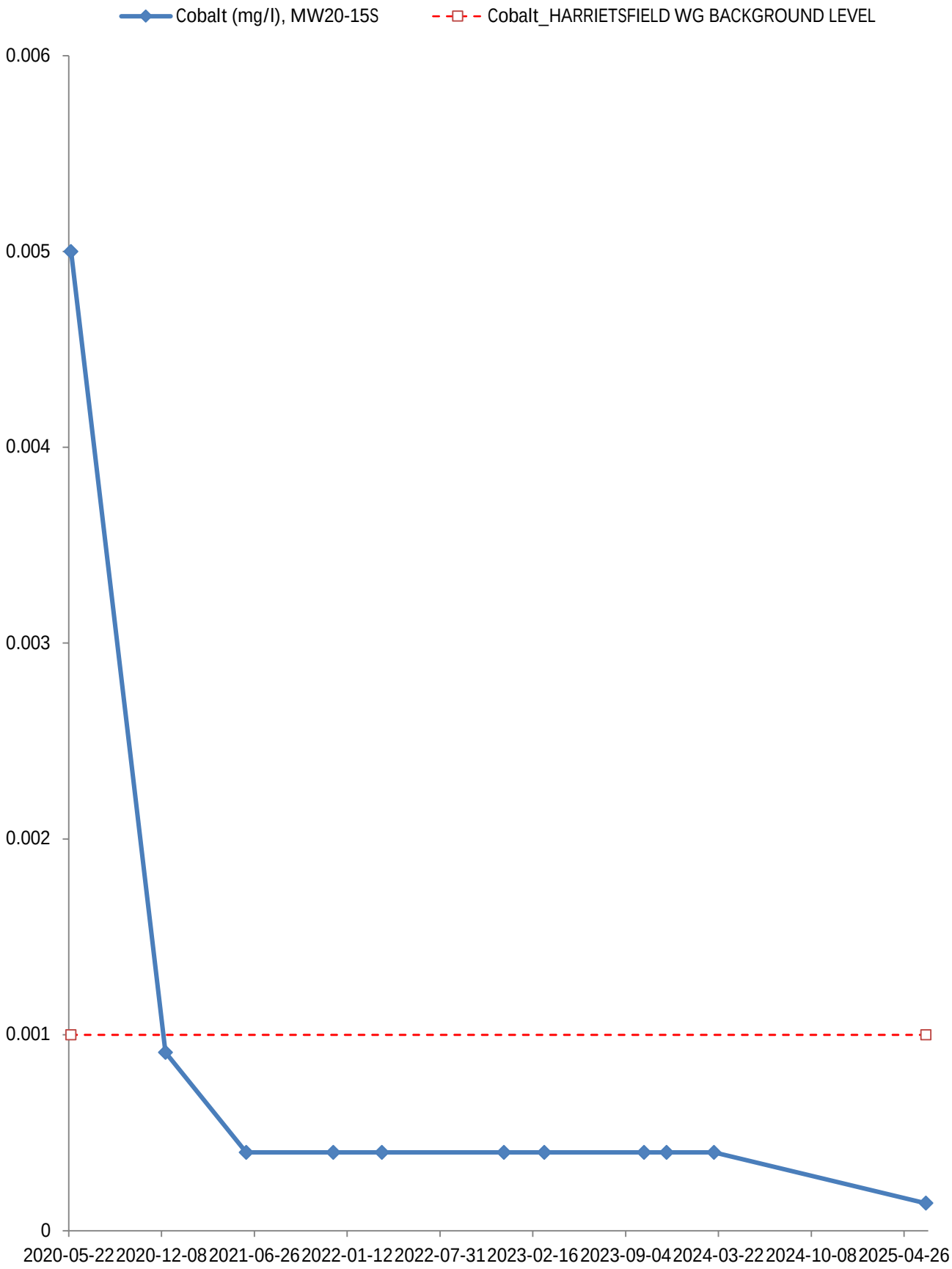


# Chromium



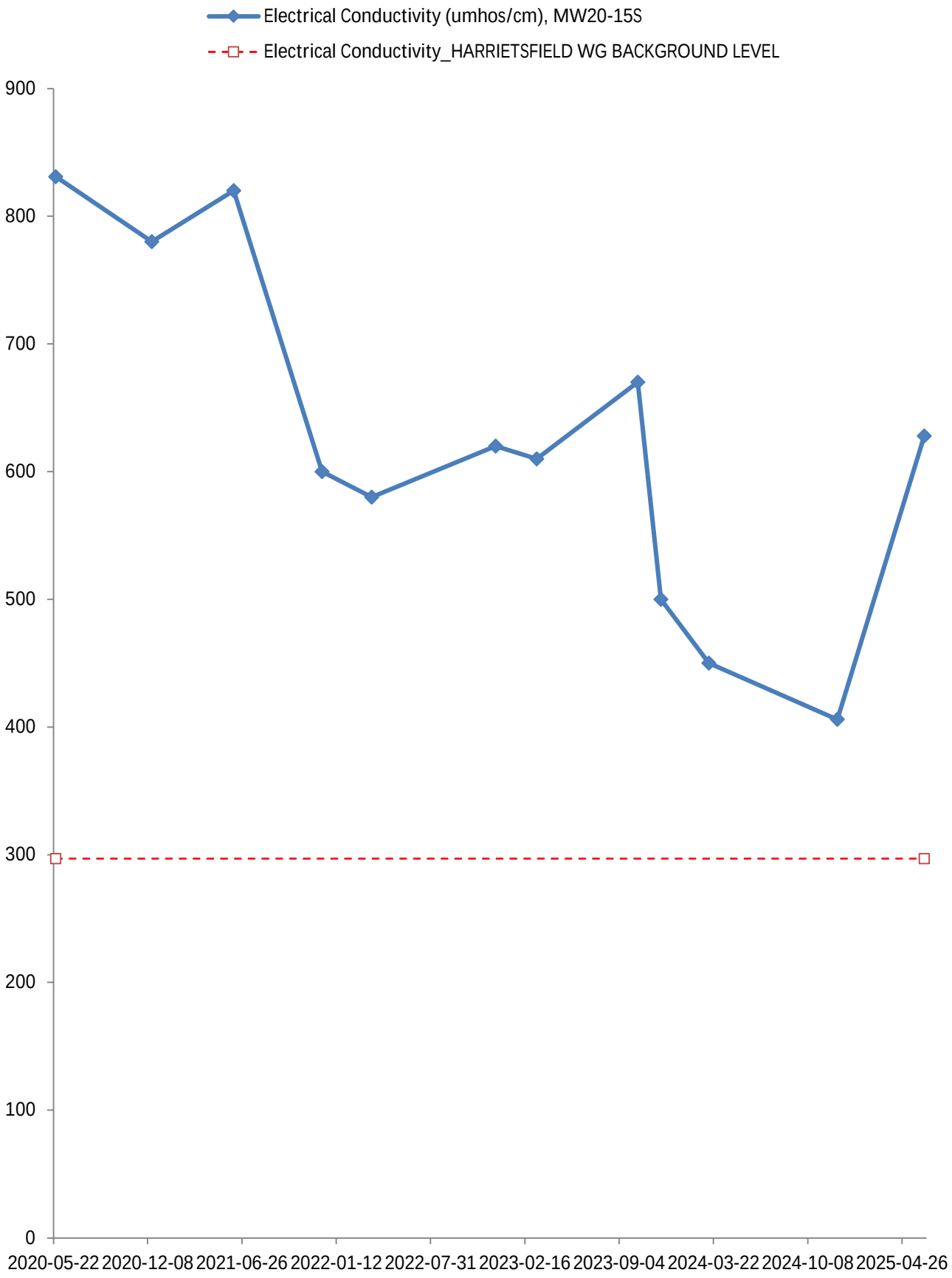

Chromium (mg/l), MW20-15S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt


Cobalt (mg/l), MW20-15S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

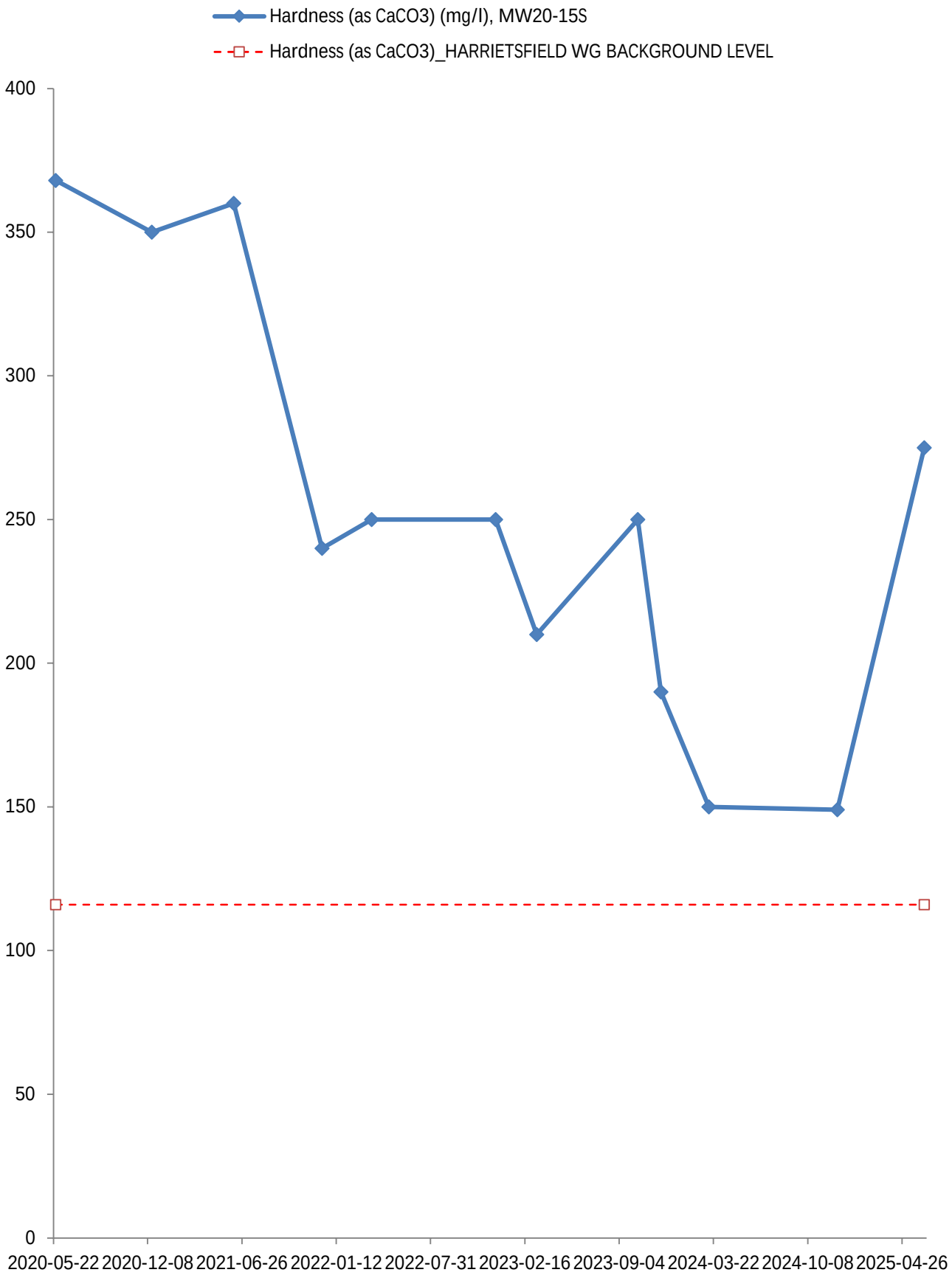
# Electrical Conductivity



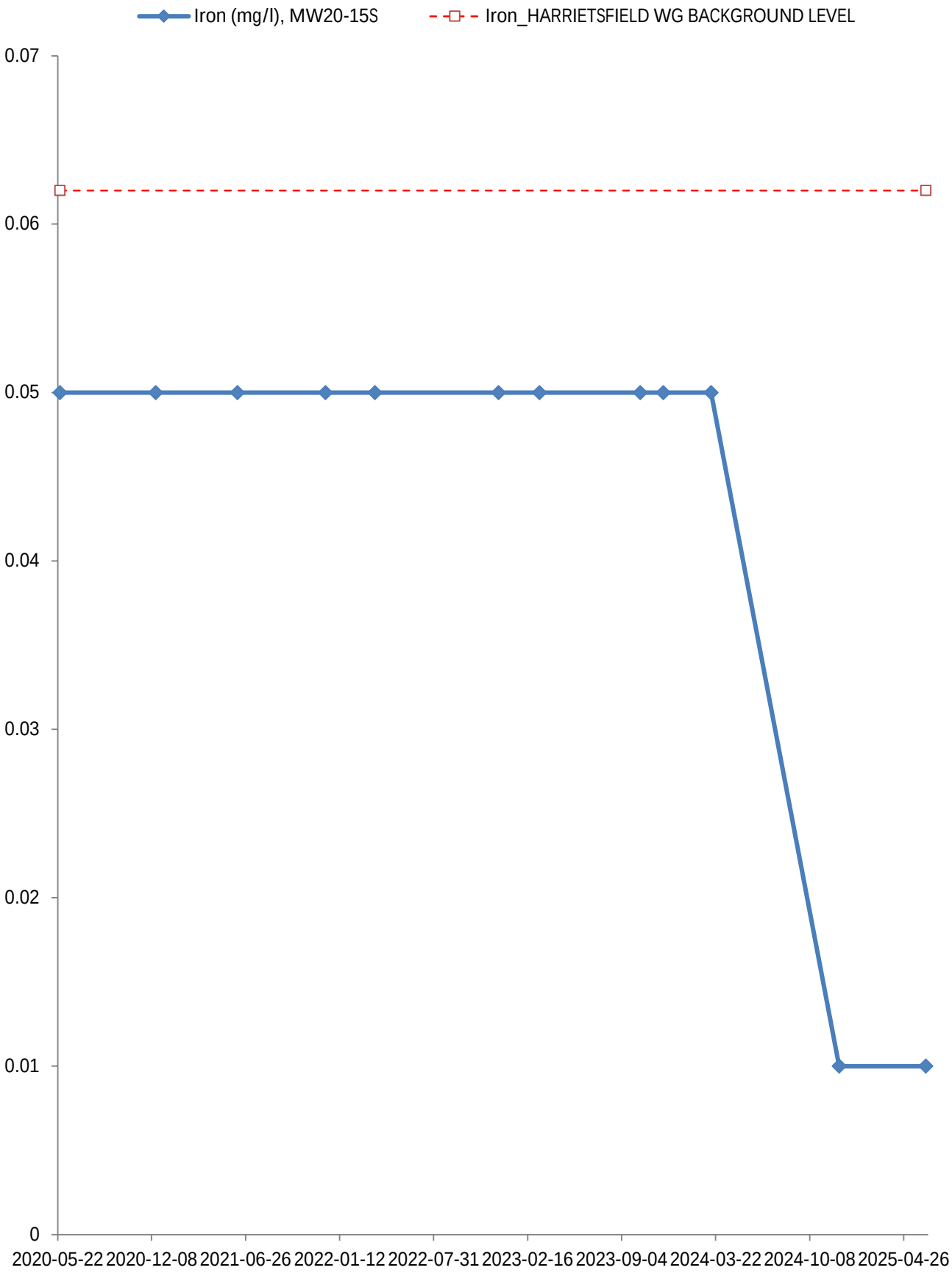


# Hardness (as CaCO3)

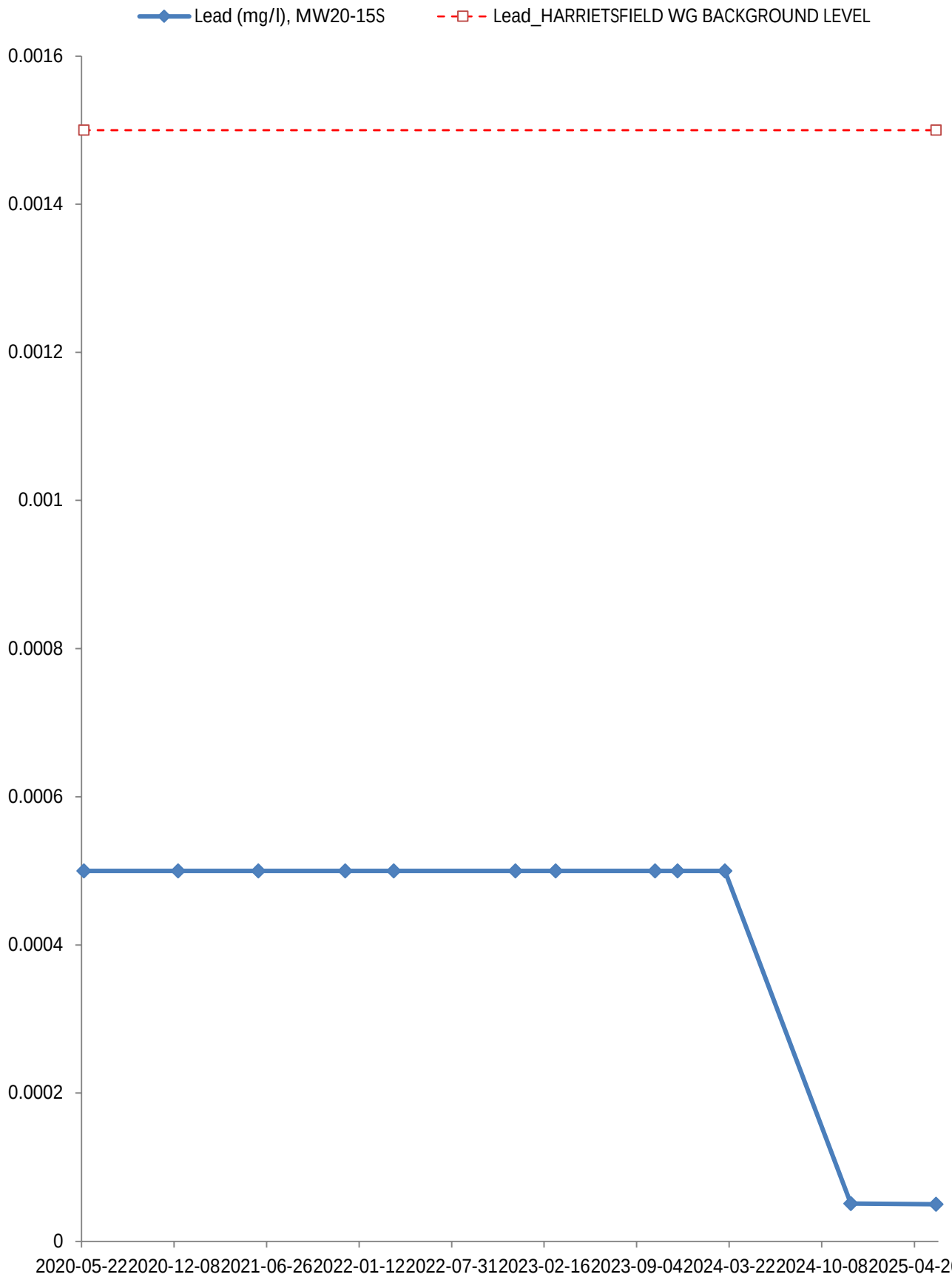




# Iron

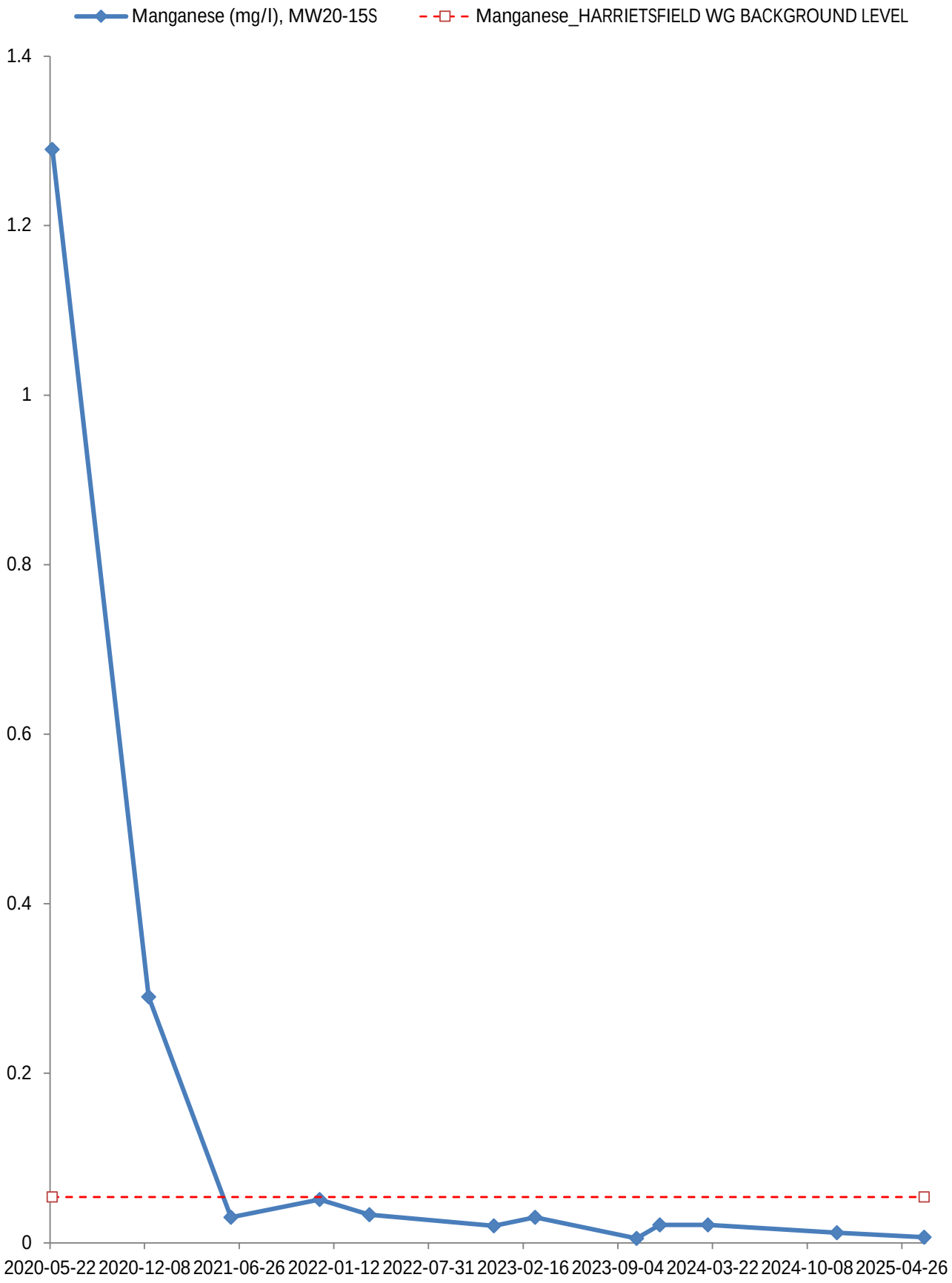

Iron (mg/l), MW20-15S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Lead


Lead (mg/l), MW20-15S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

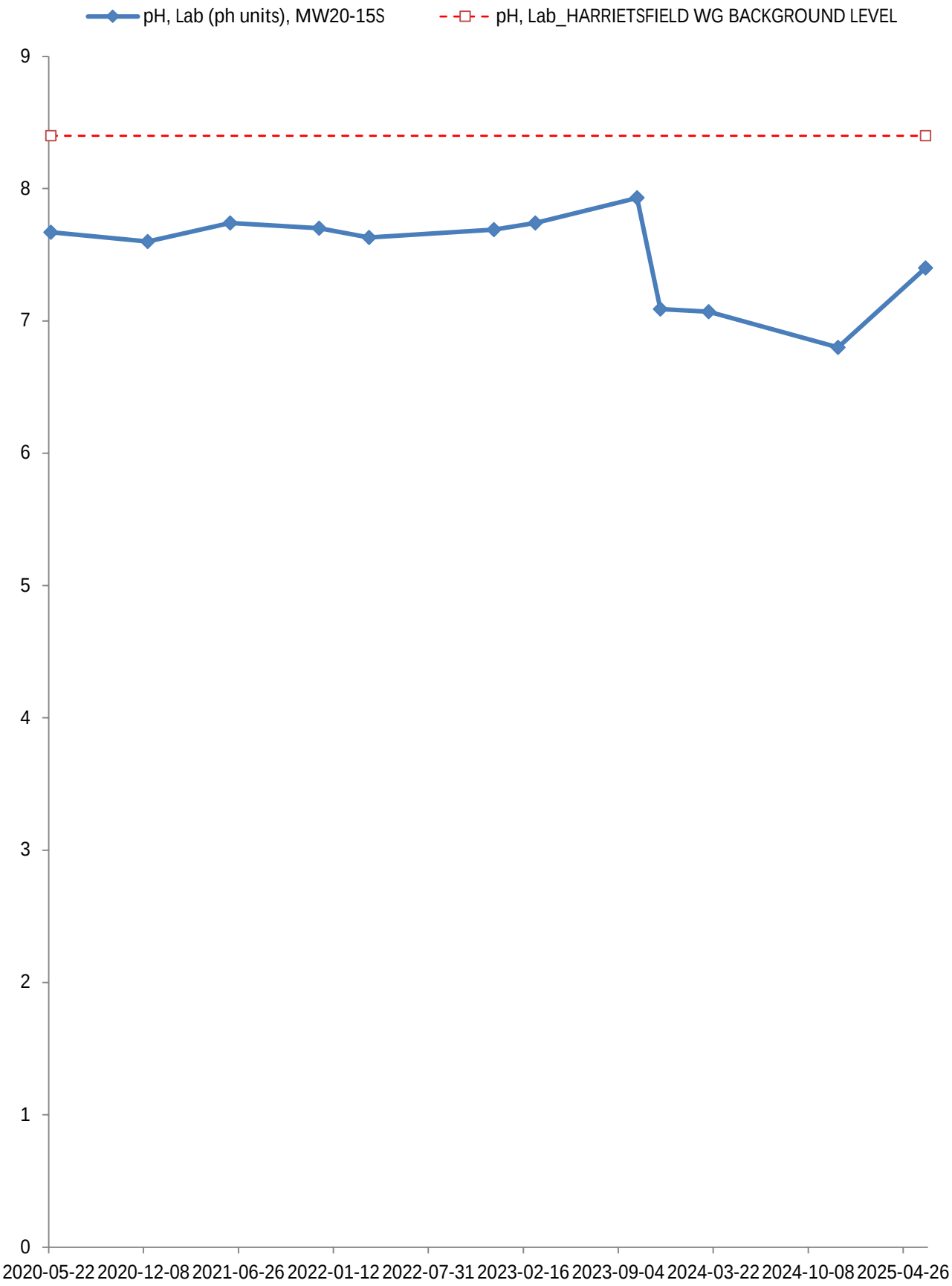
# Manganese




Manganese (mg/l), MW20-15S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

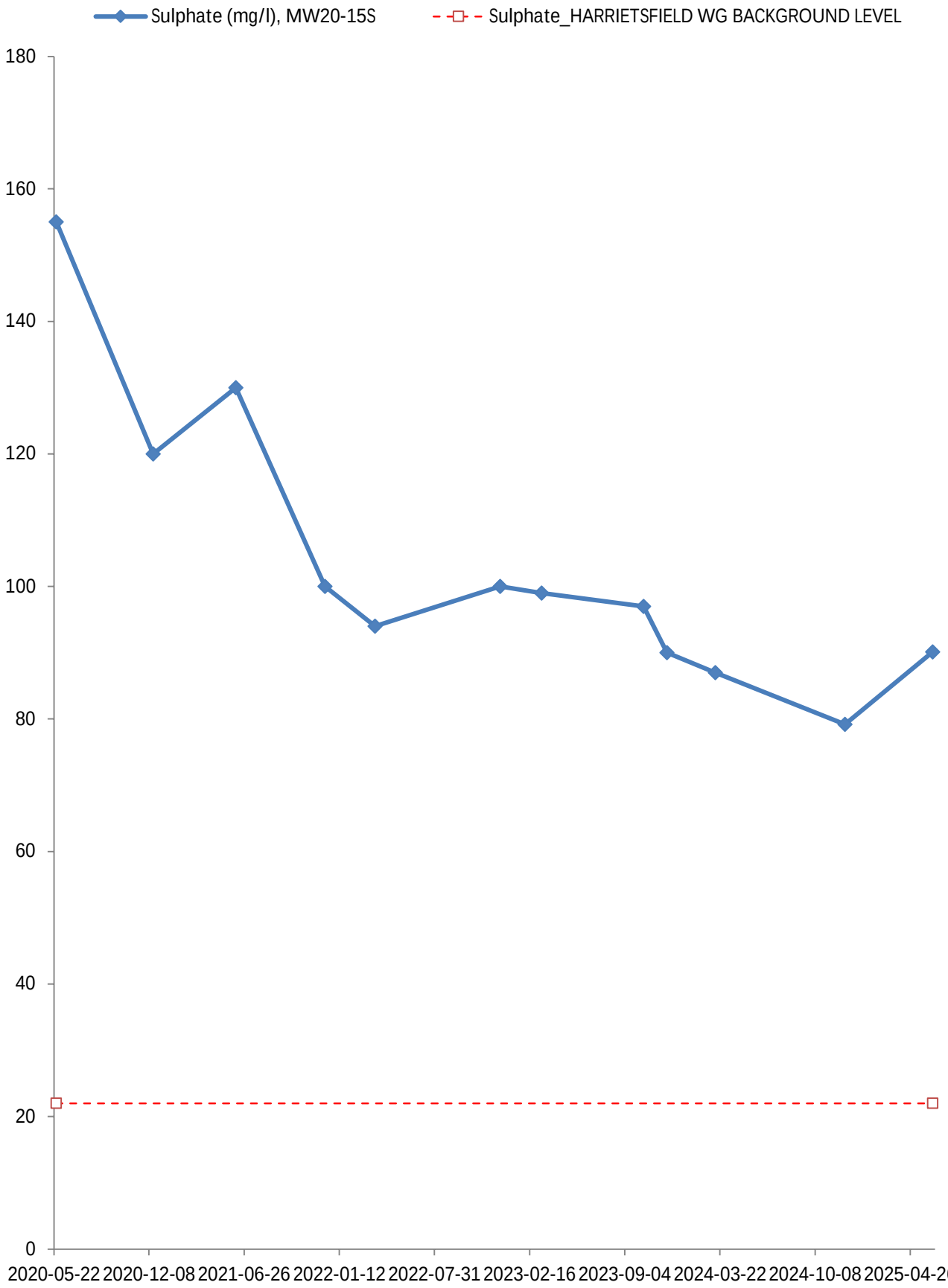
# pH, Lab



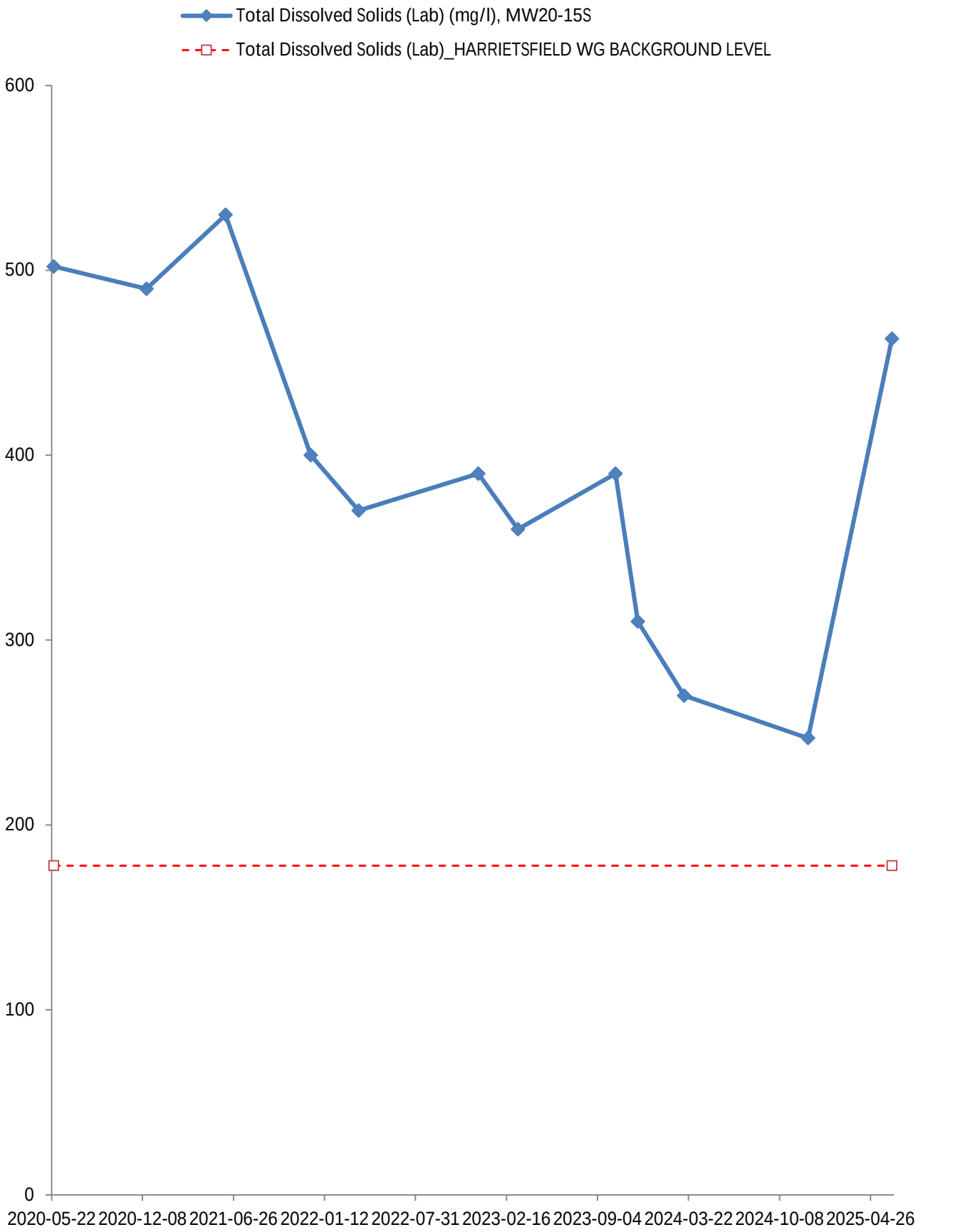

pH, Lab (ph units), MW20-15S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

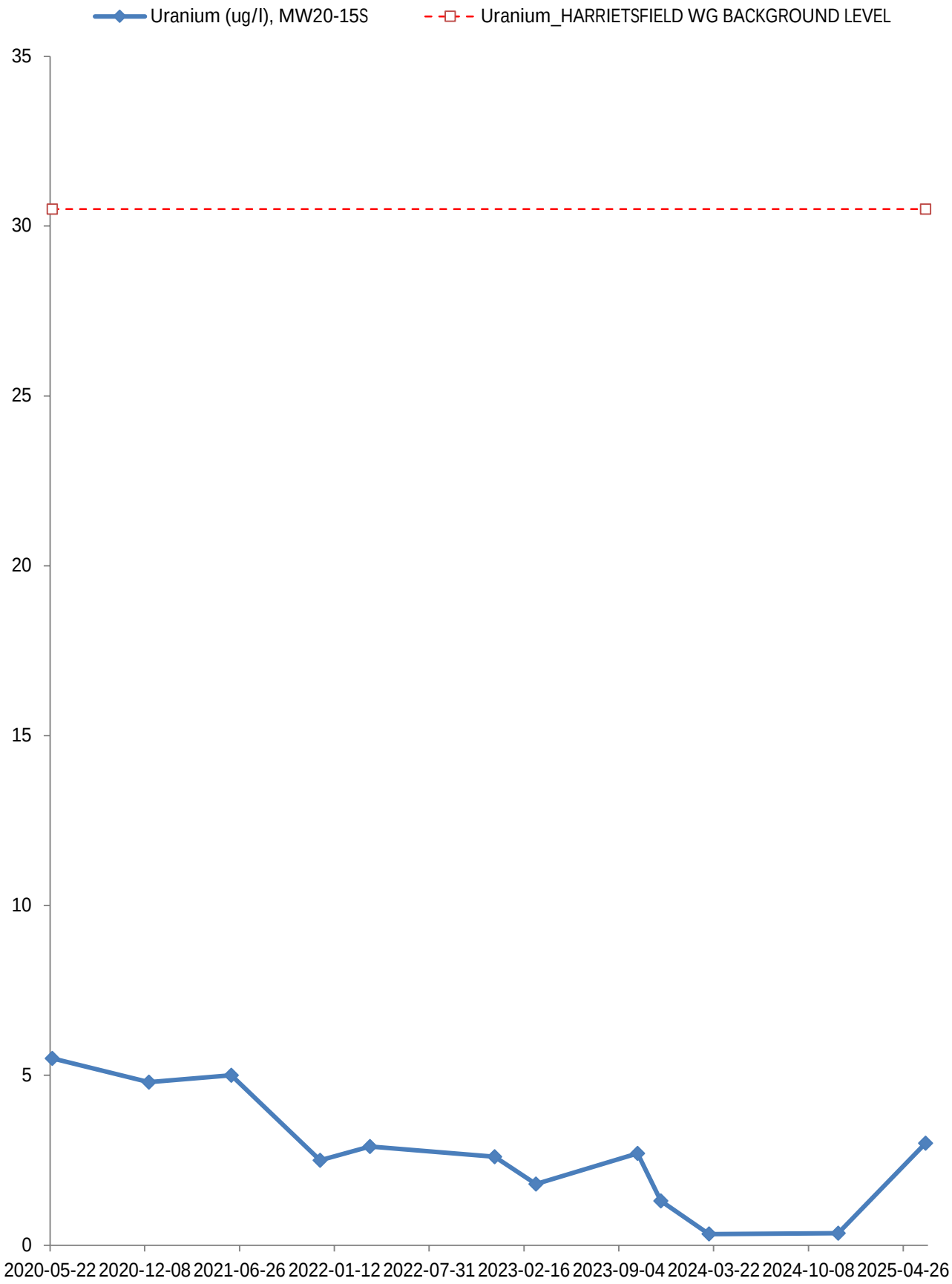
# Sulphate



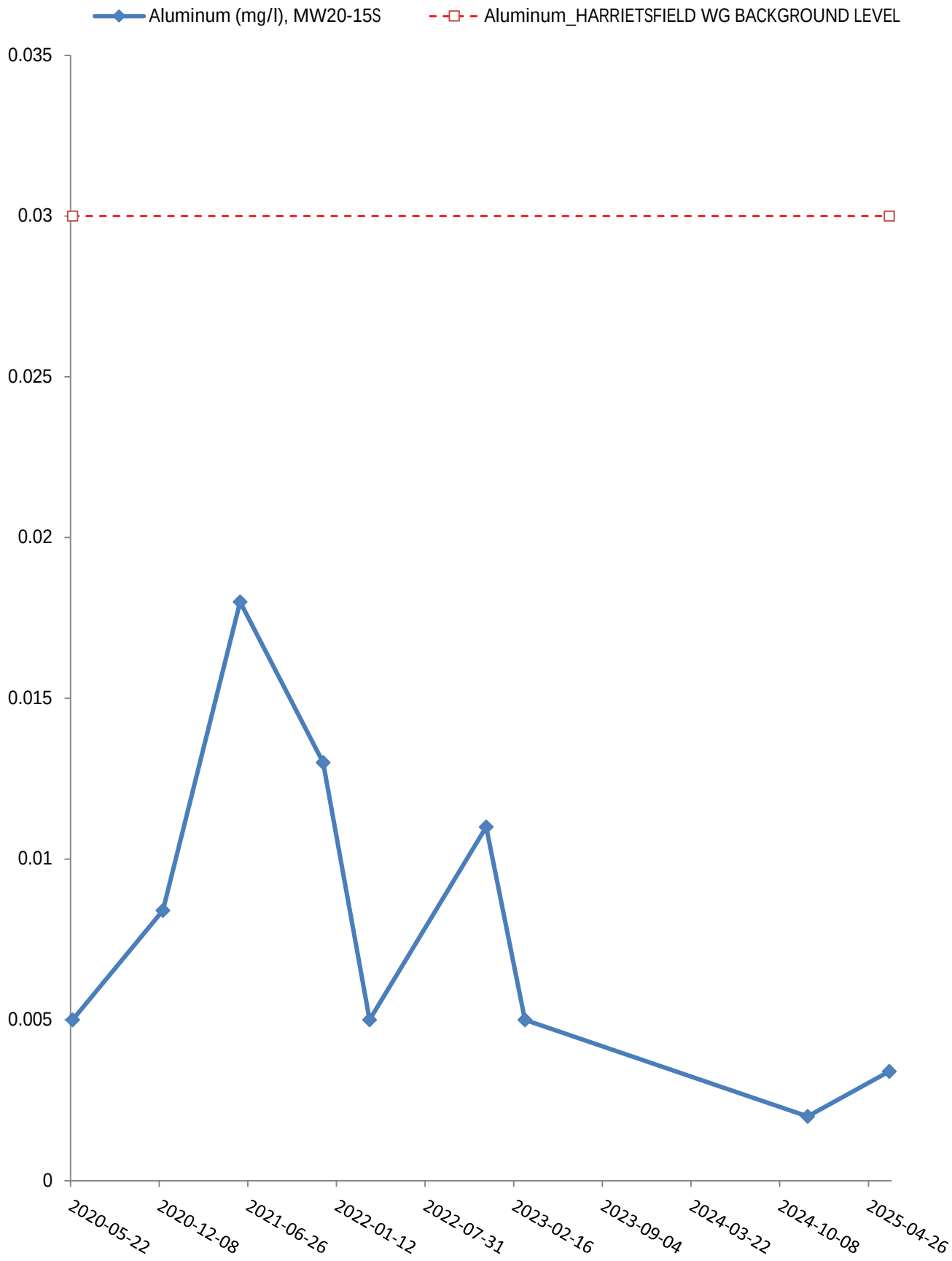

Sulphate (mg/l), MW20-15S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
180
160
140
120
100
80
60
40
20
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Total Dissolved Solids (5



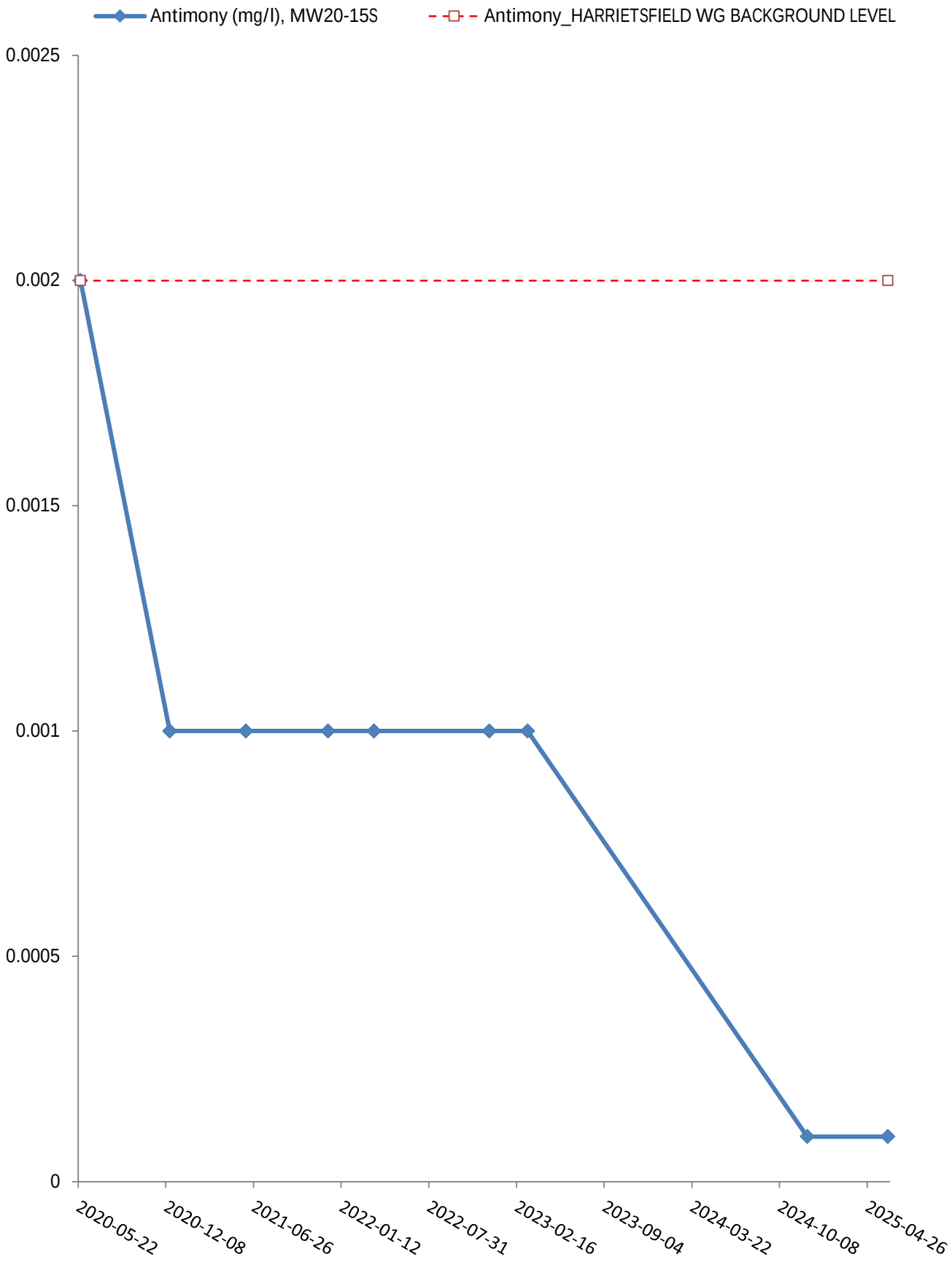

Uranium (ug/l), MW20-15S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Aluminum

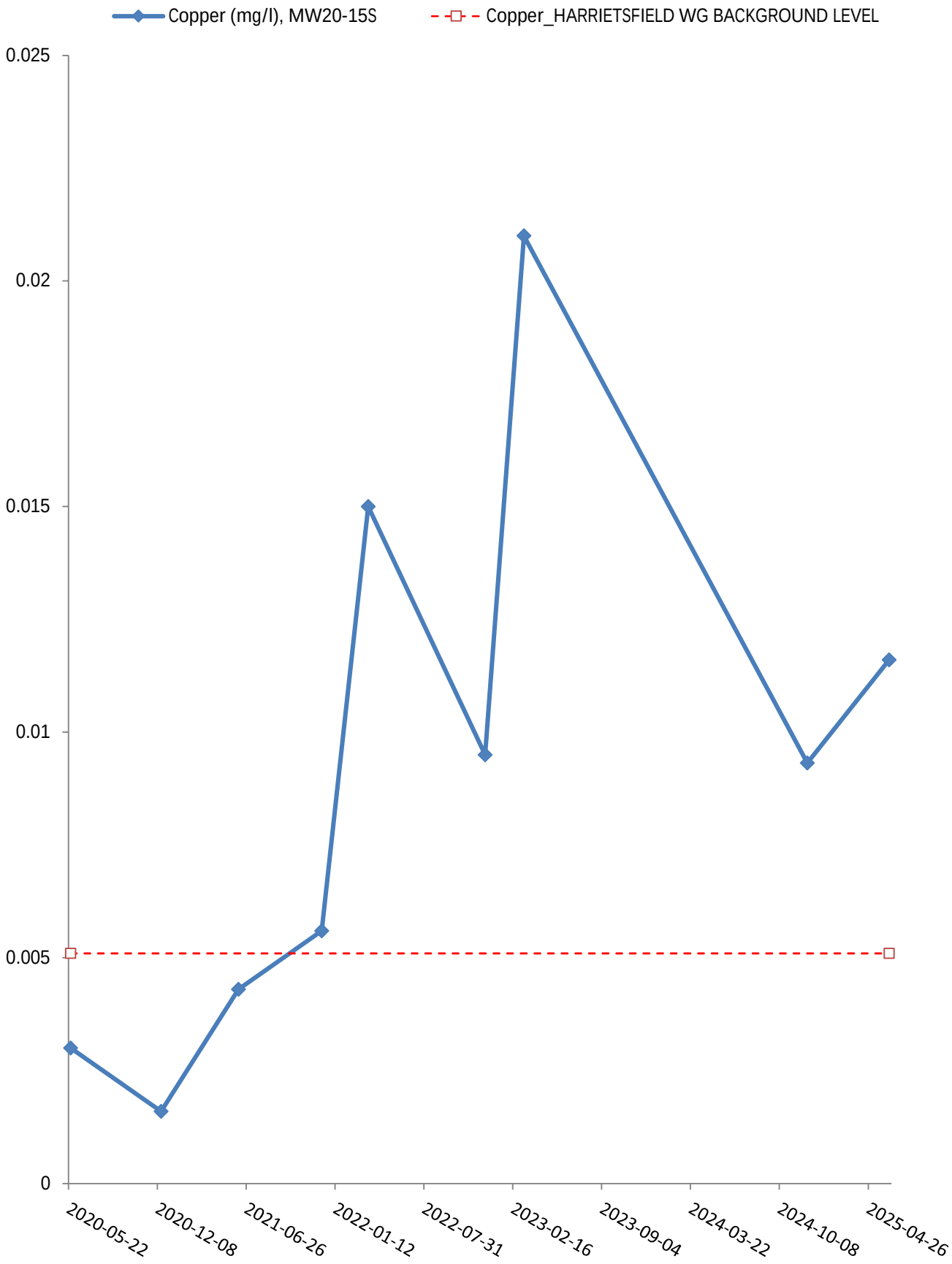

Aluminum (mg/l), MW20-15S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony

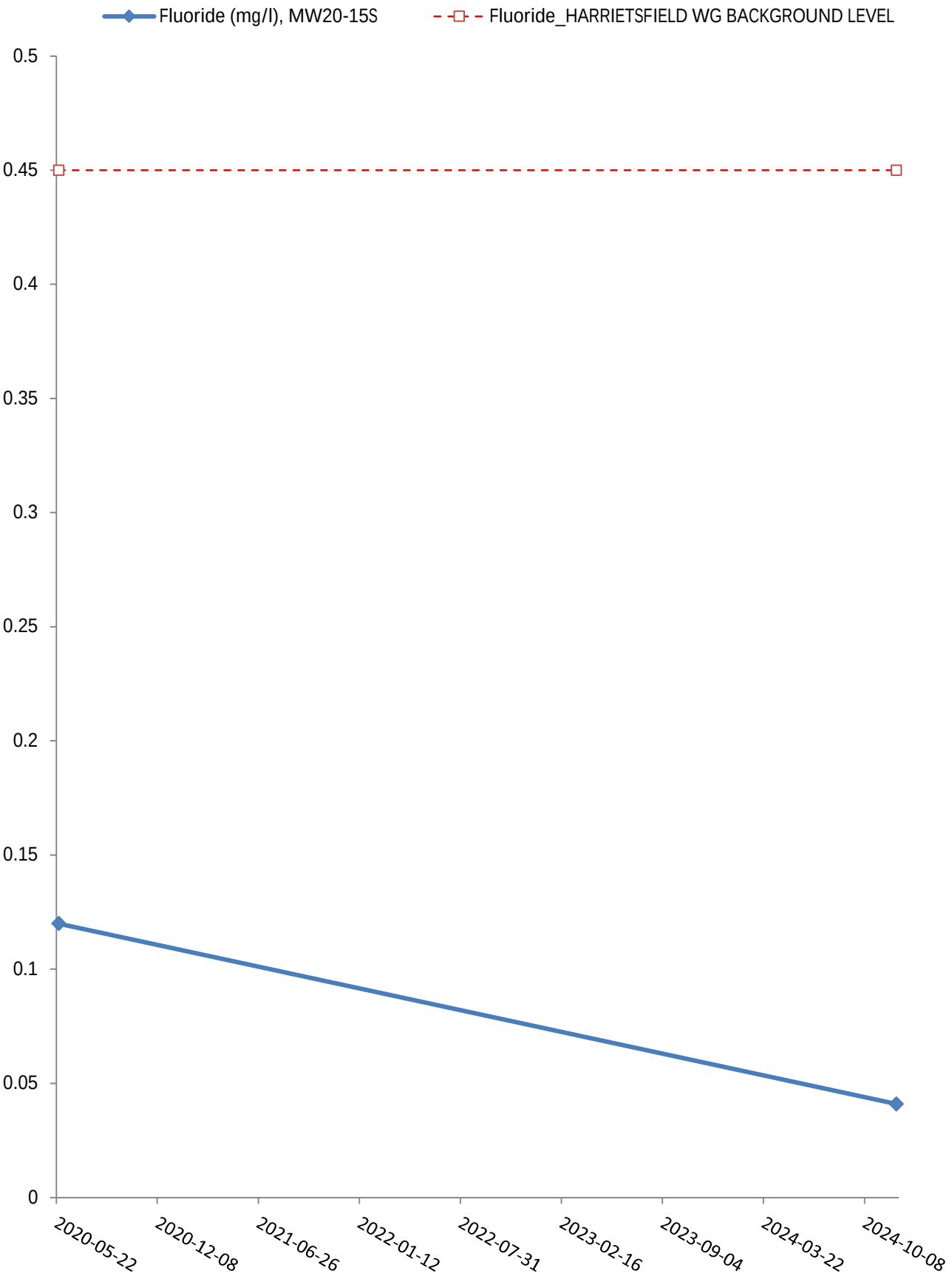



Antimony (mg/l), MW20-15S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

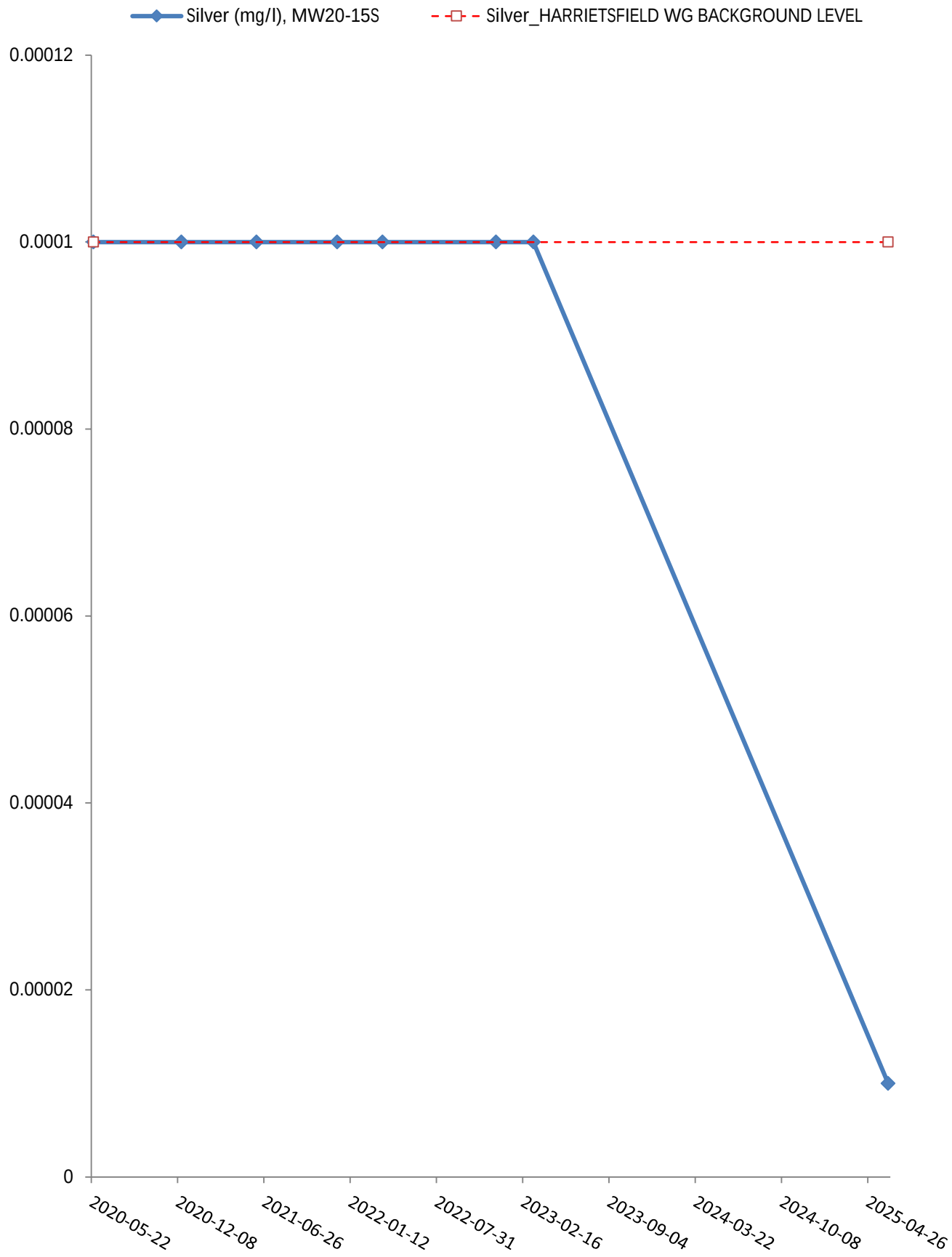
# Copper


Copper (mg/l), MW20-15S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

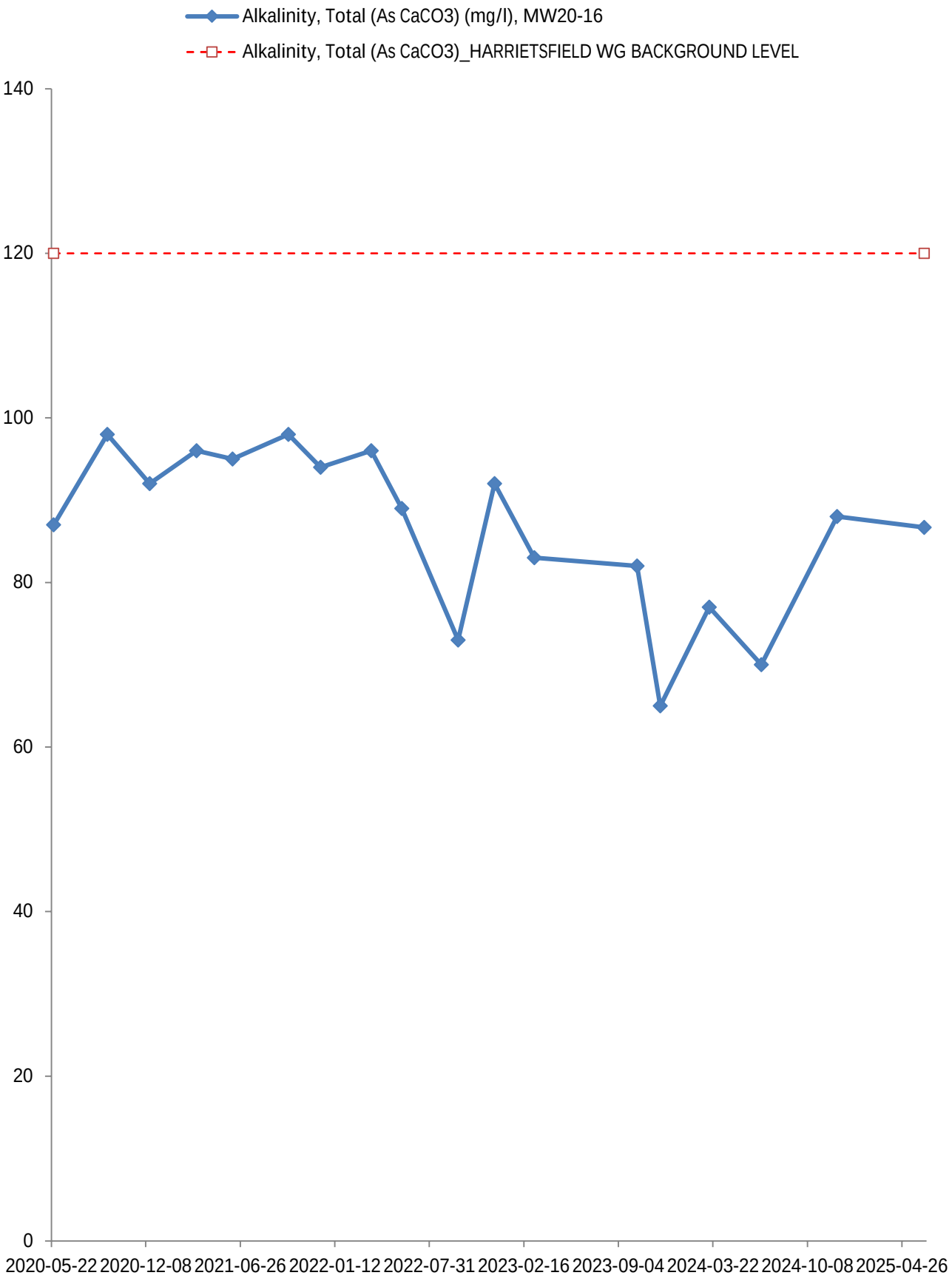
# Fluoride


Fluoride (mg/l), MW20-15S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

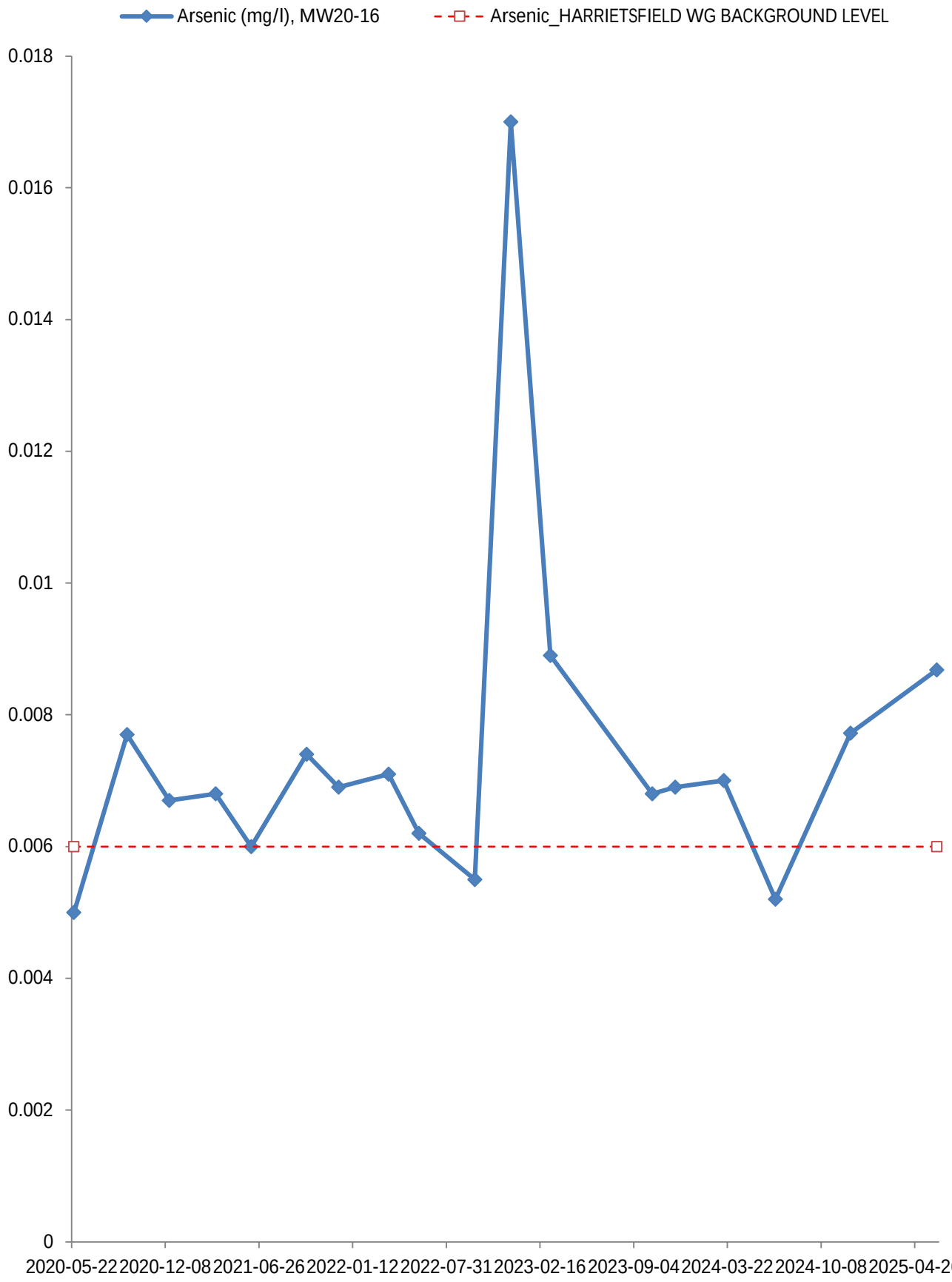
# Silver


Silver (mg/l), MW20-15S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

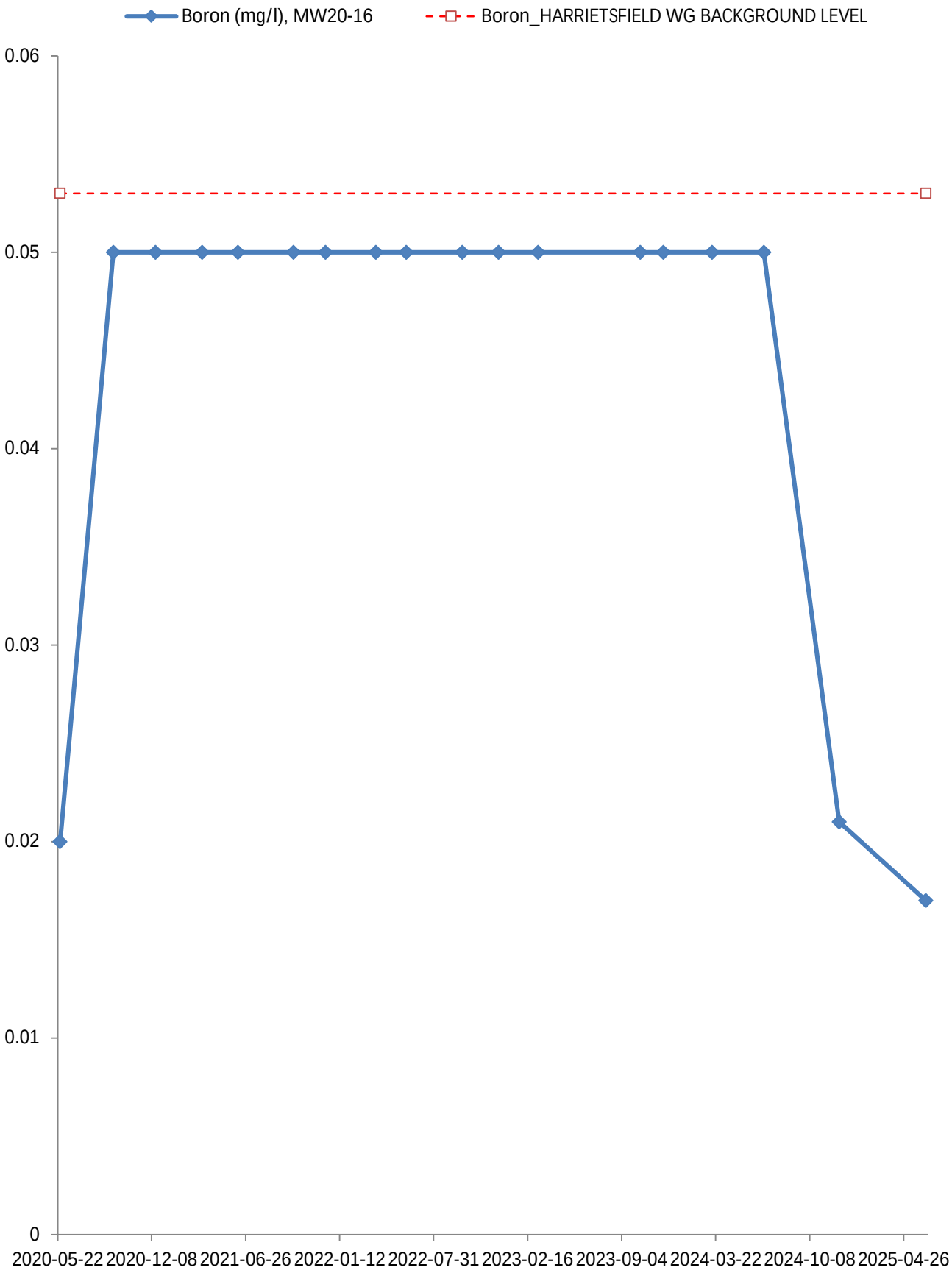
# Alkalinity, Total



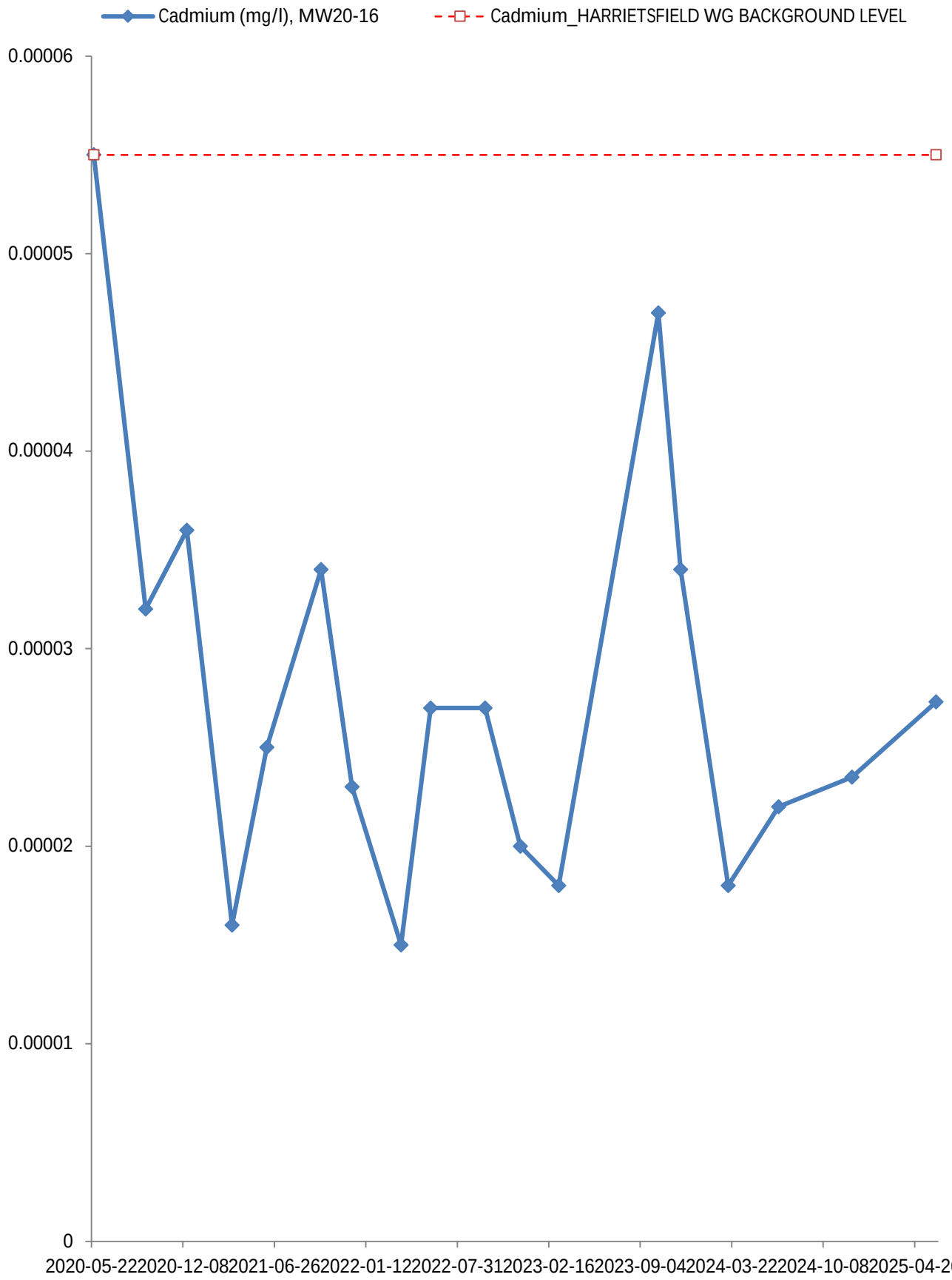
# Arsenic


Arsenic (mg/l), MW20-16
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Boron

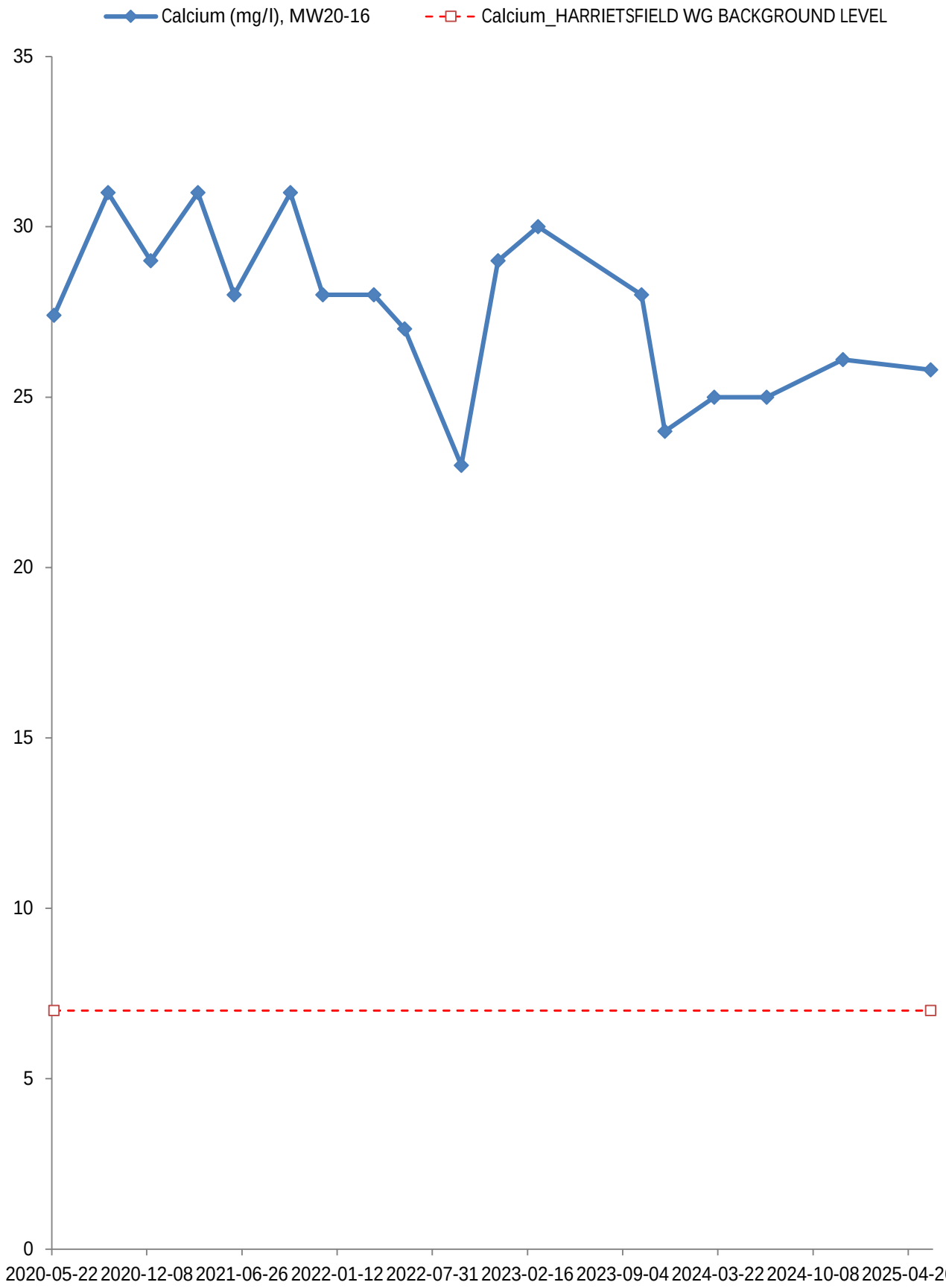

Boron (mg/l), MW20-16
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cadmium


Cadmium (mg/l), MW20-16
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

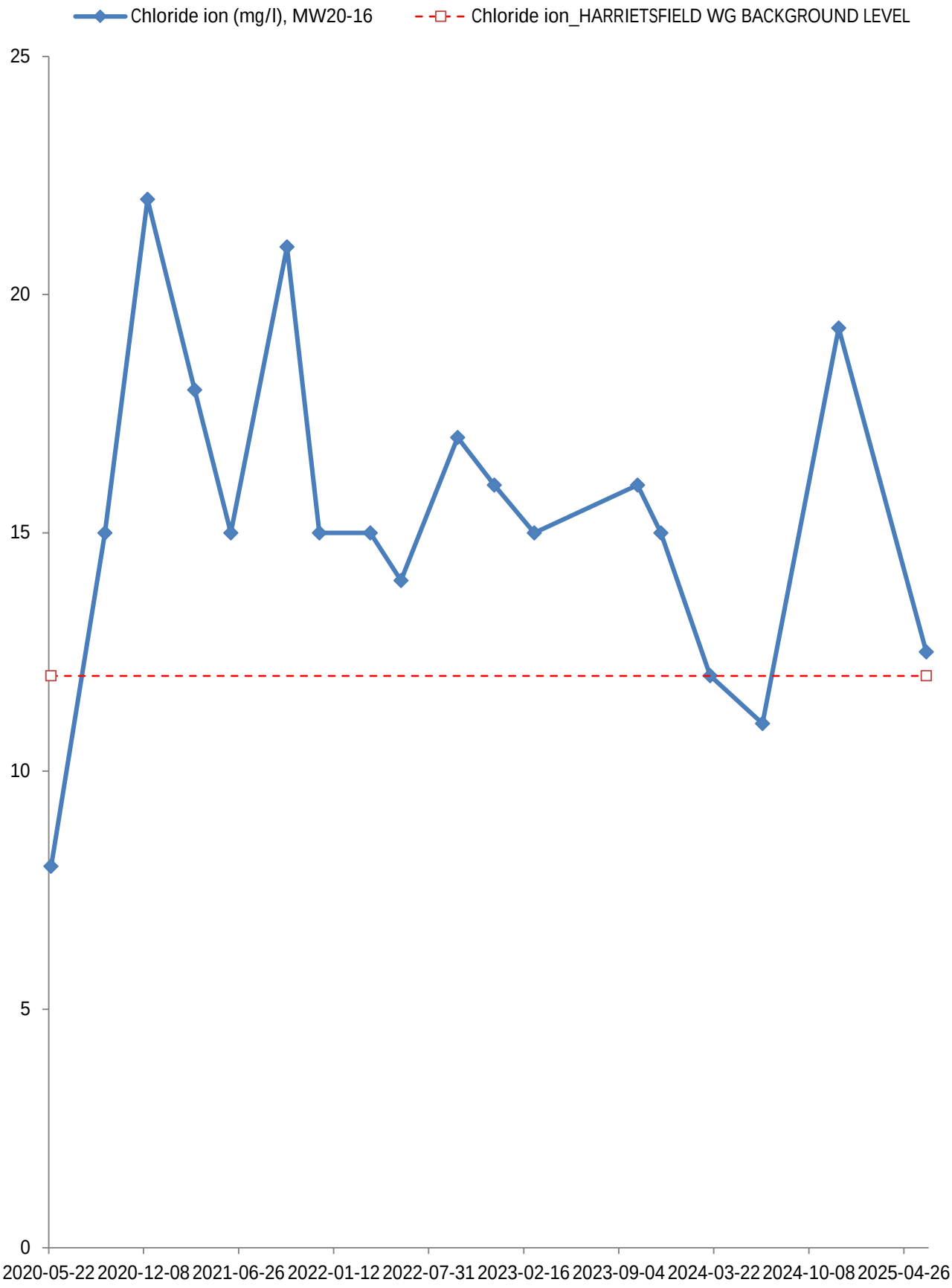
# Calcium




Calcium (mg/l), MW20-16
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

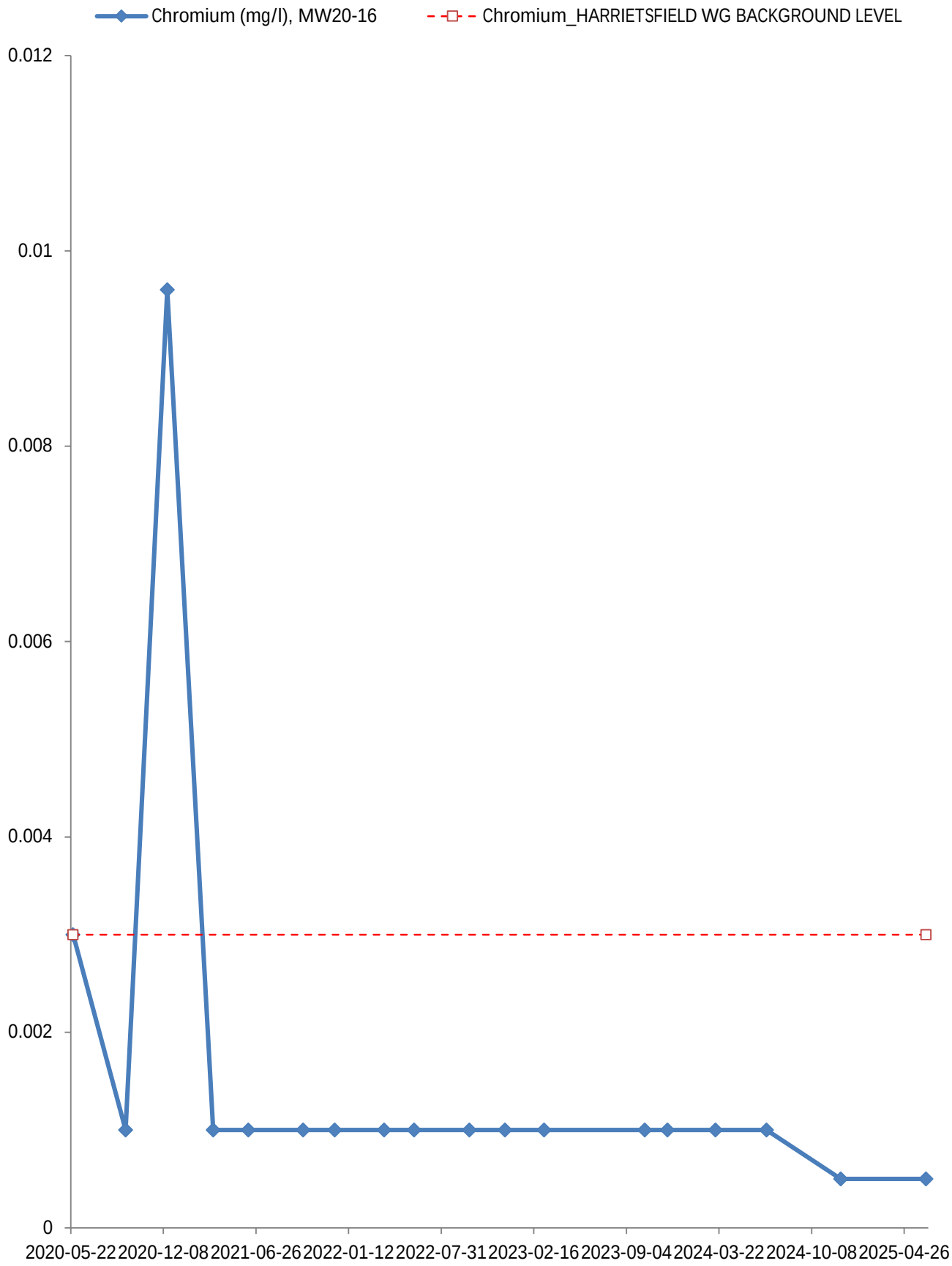
# Chloride ion



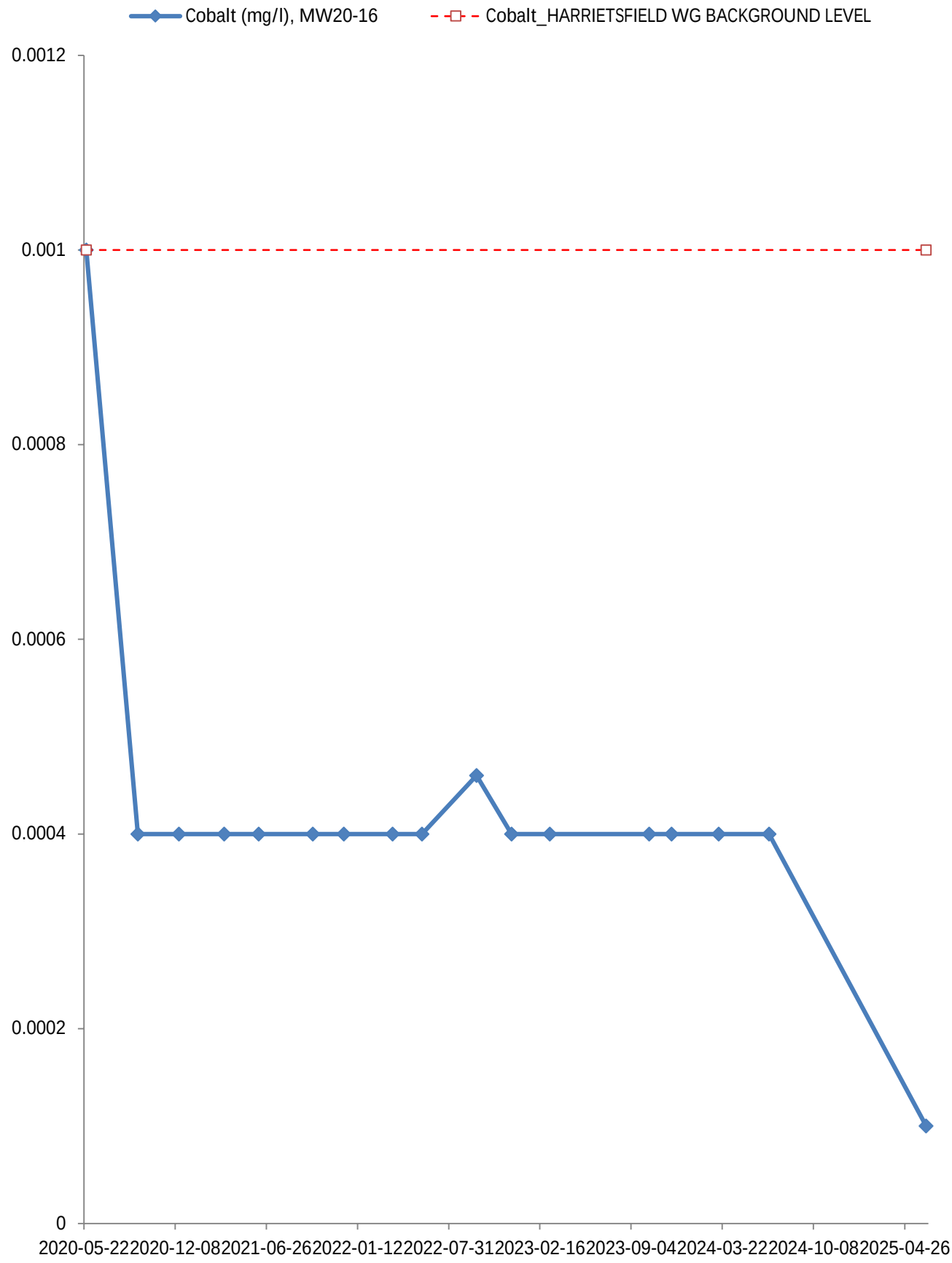


# Chromium



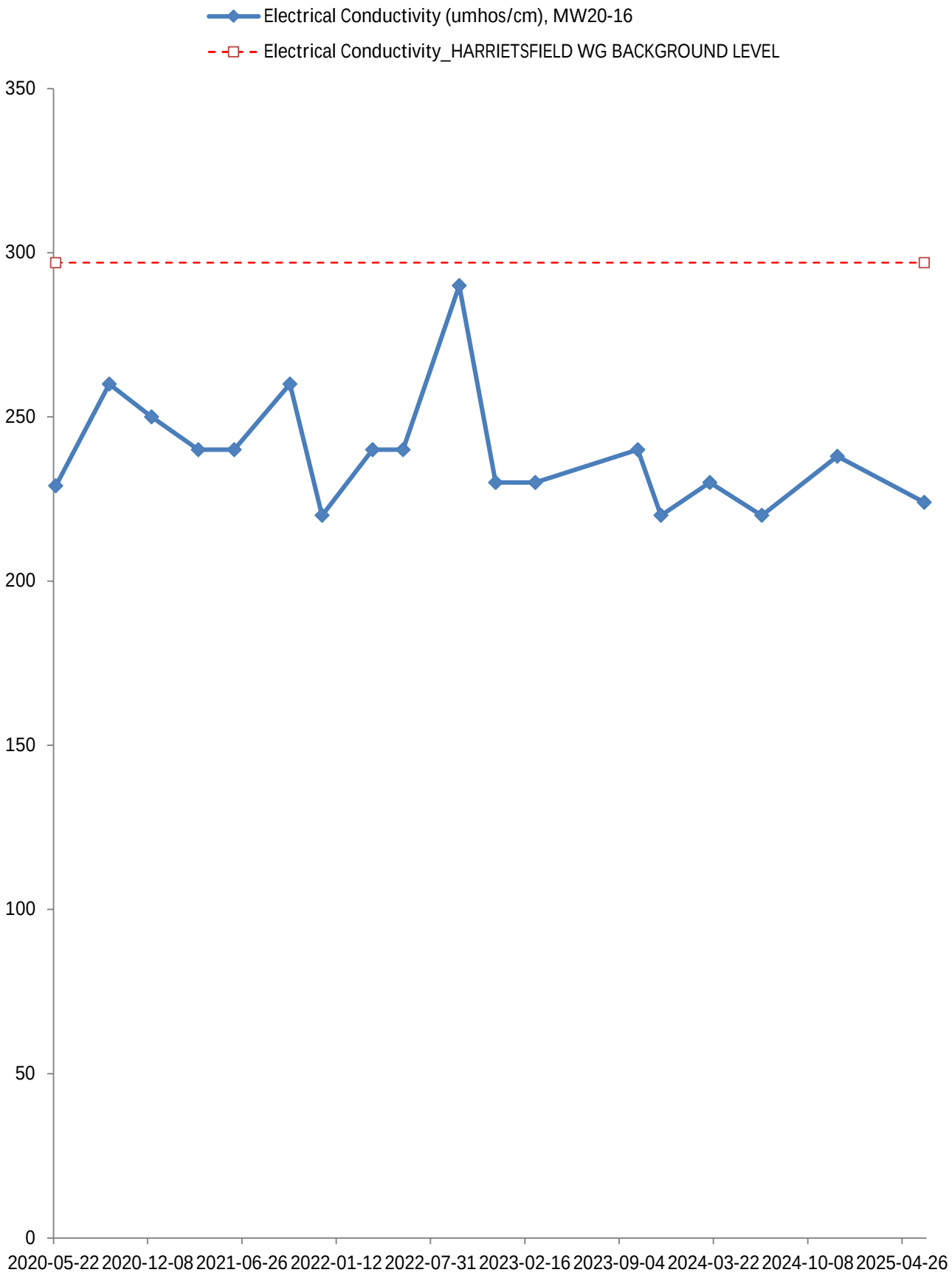

Chromium (mg/l), MW20-16
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt

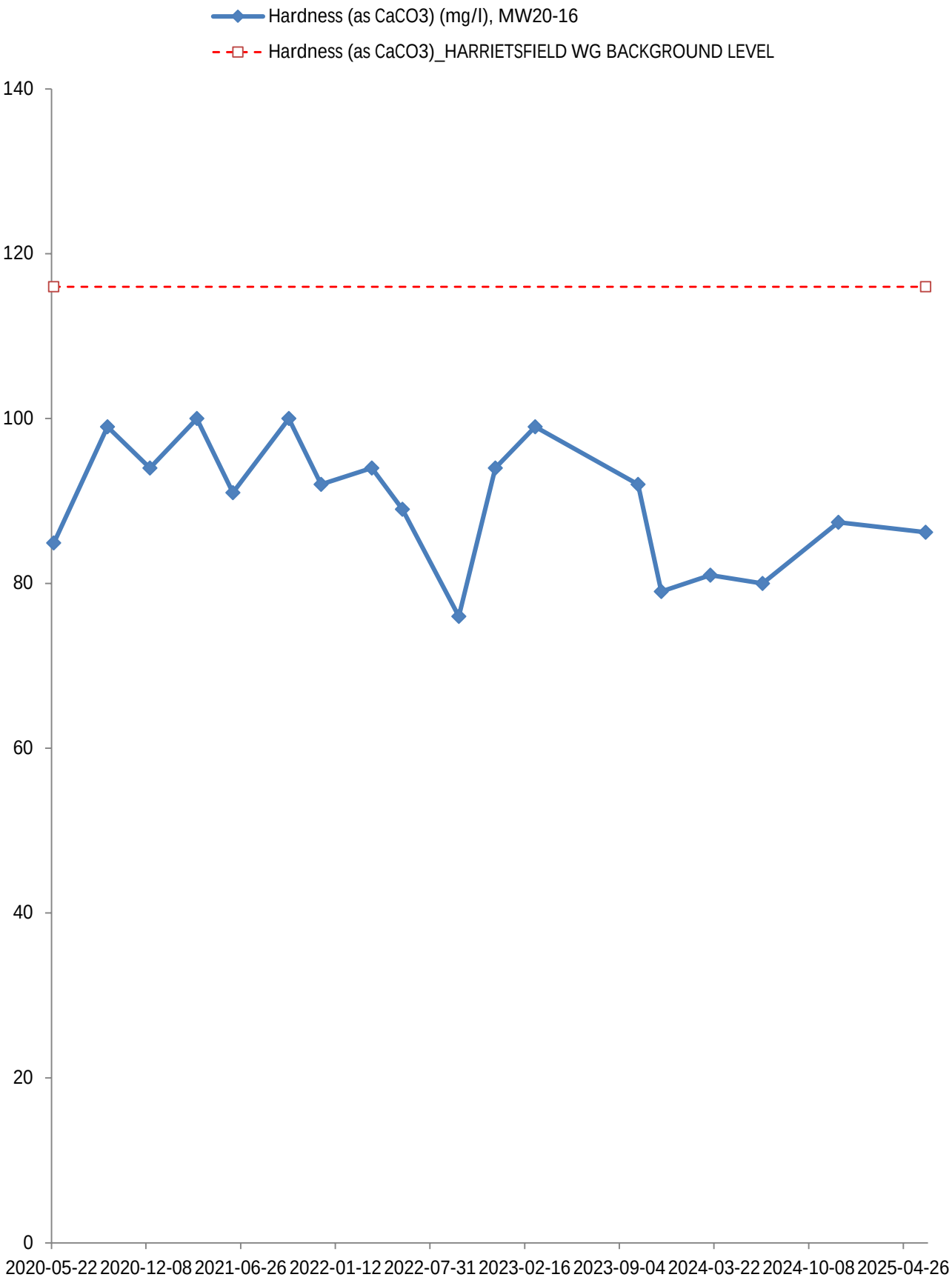

Cobalt (mg/l), MW20-16
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Electrical Conductivity



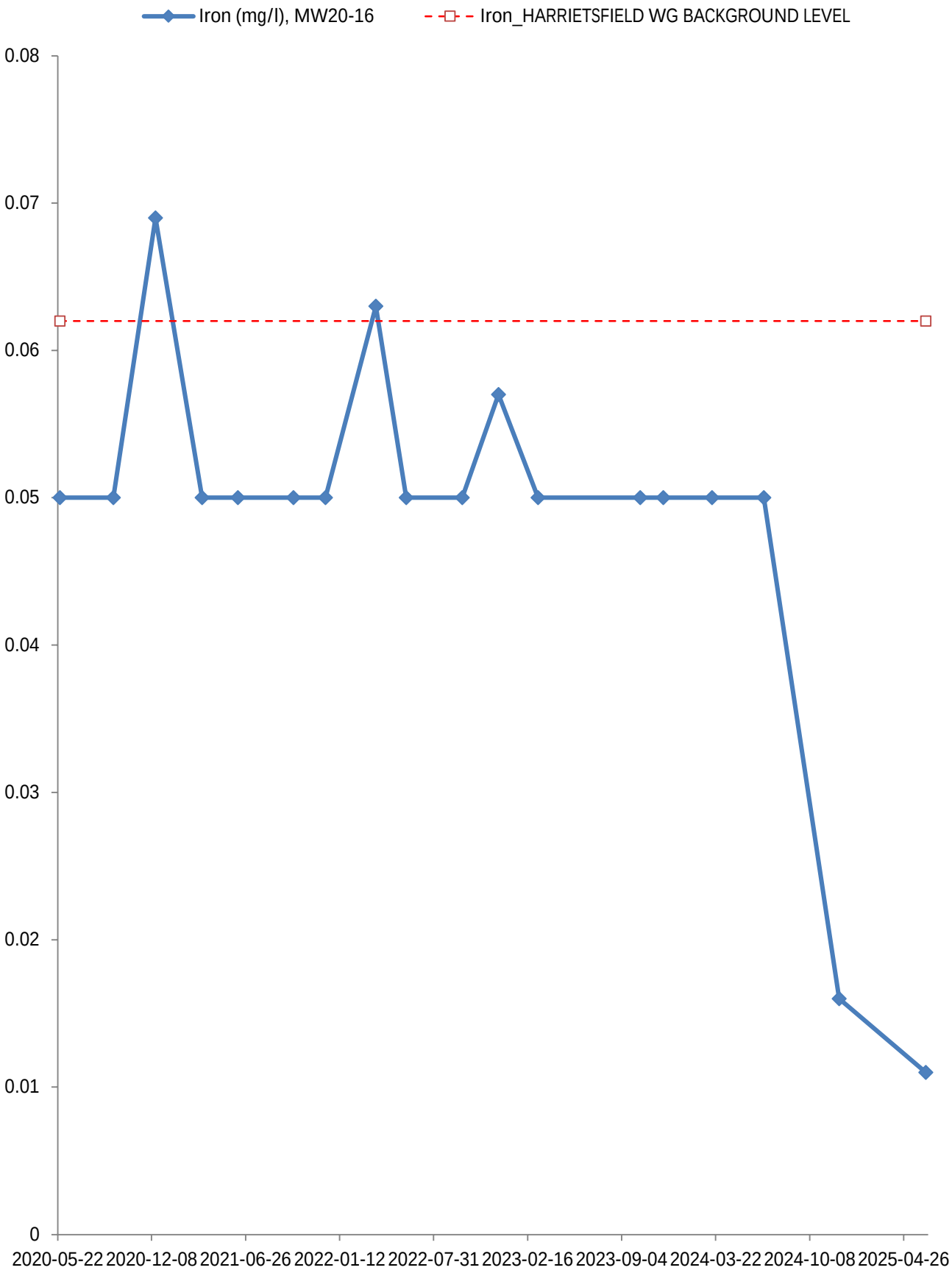


# Hardness (as CaCO3)

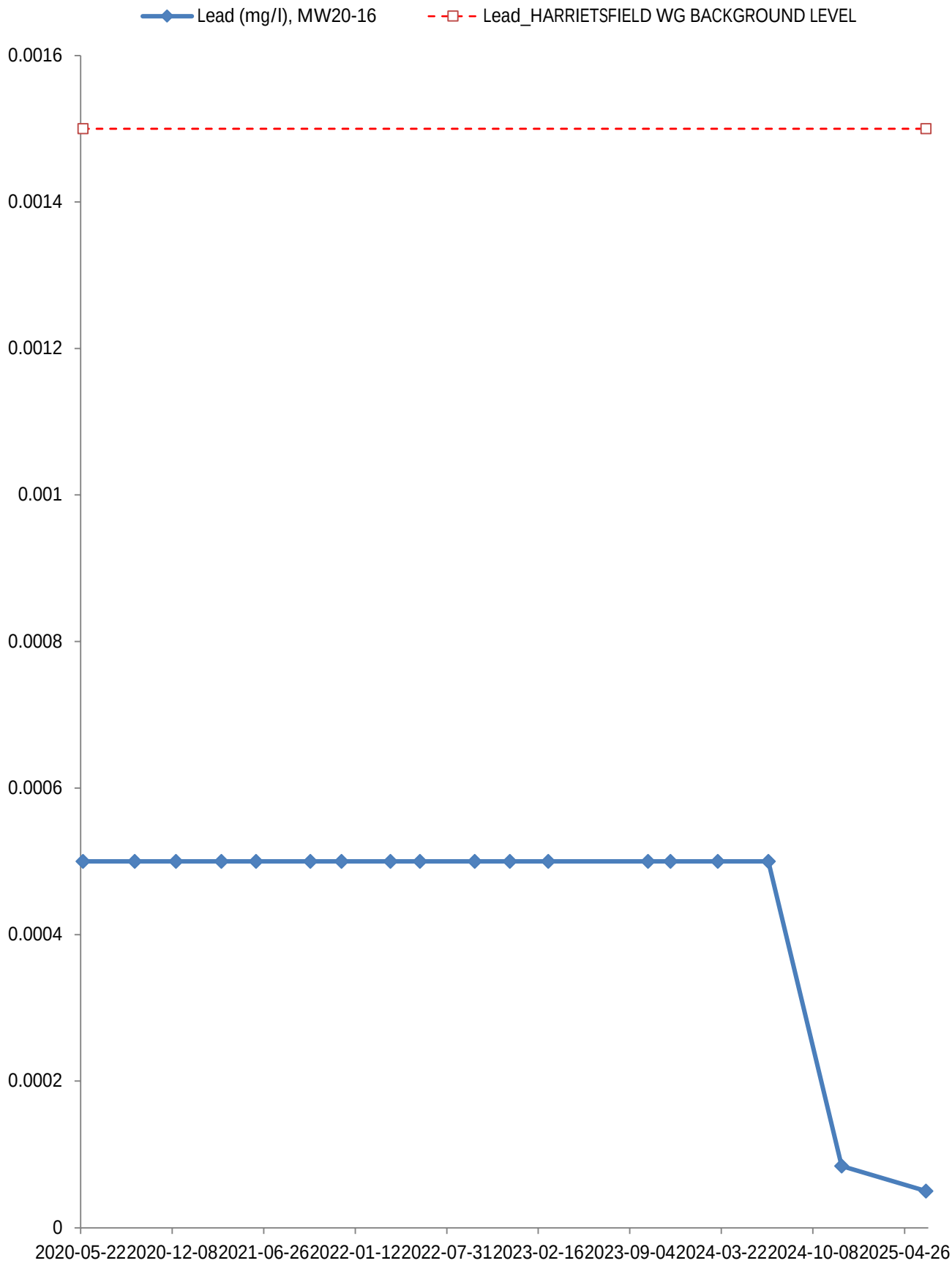


# Iron

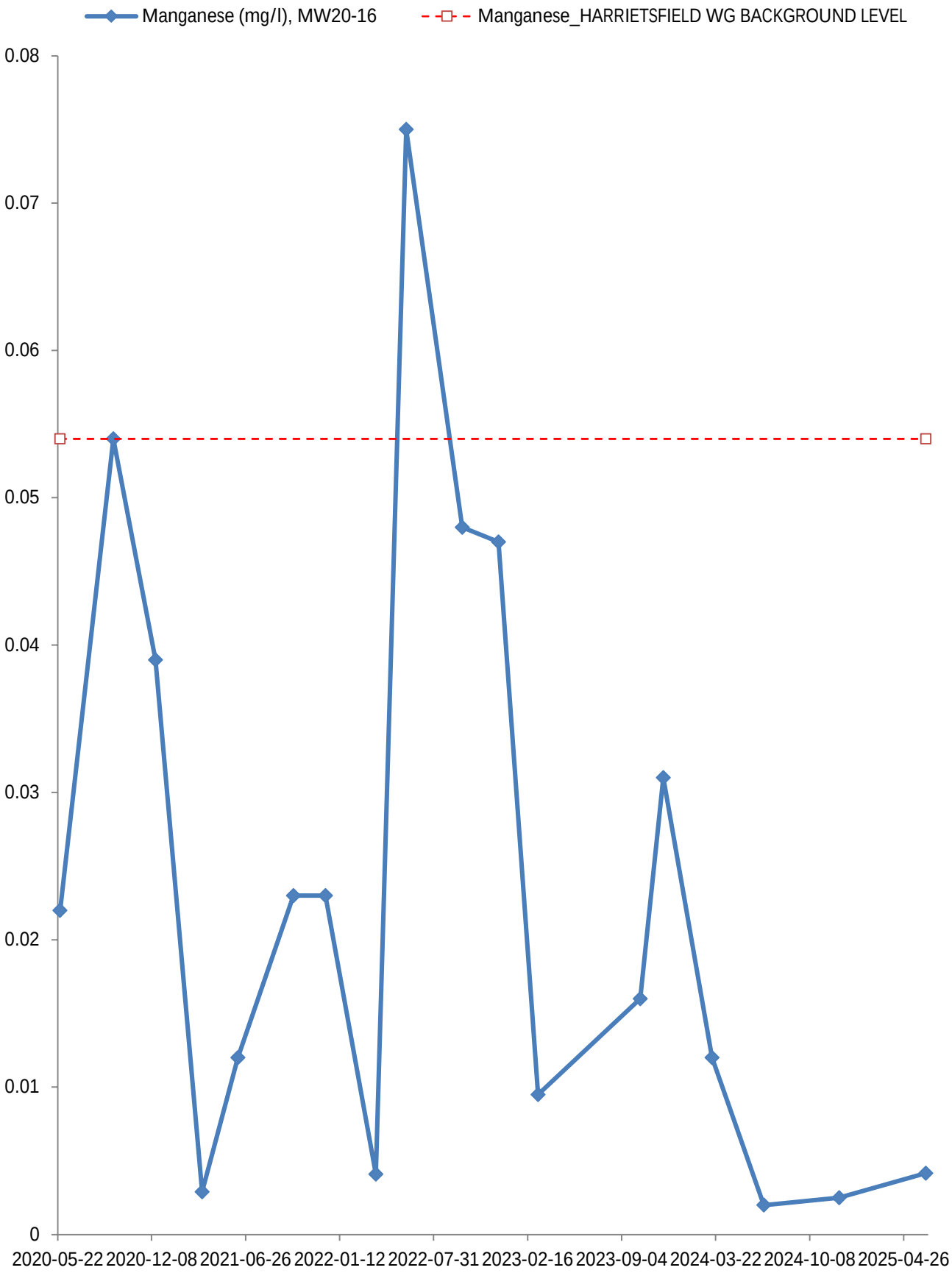



Iron (mg/l), MW20-16
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Lead

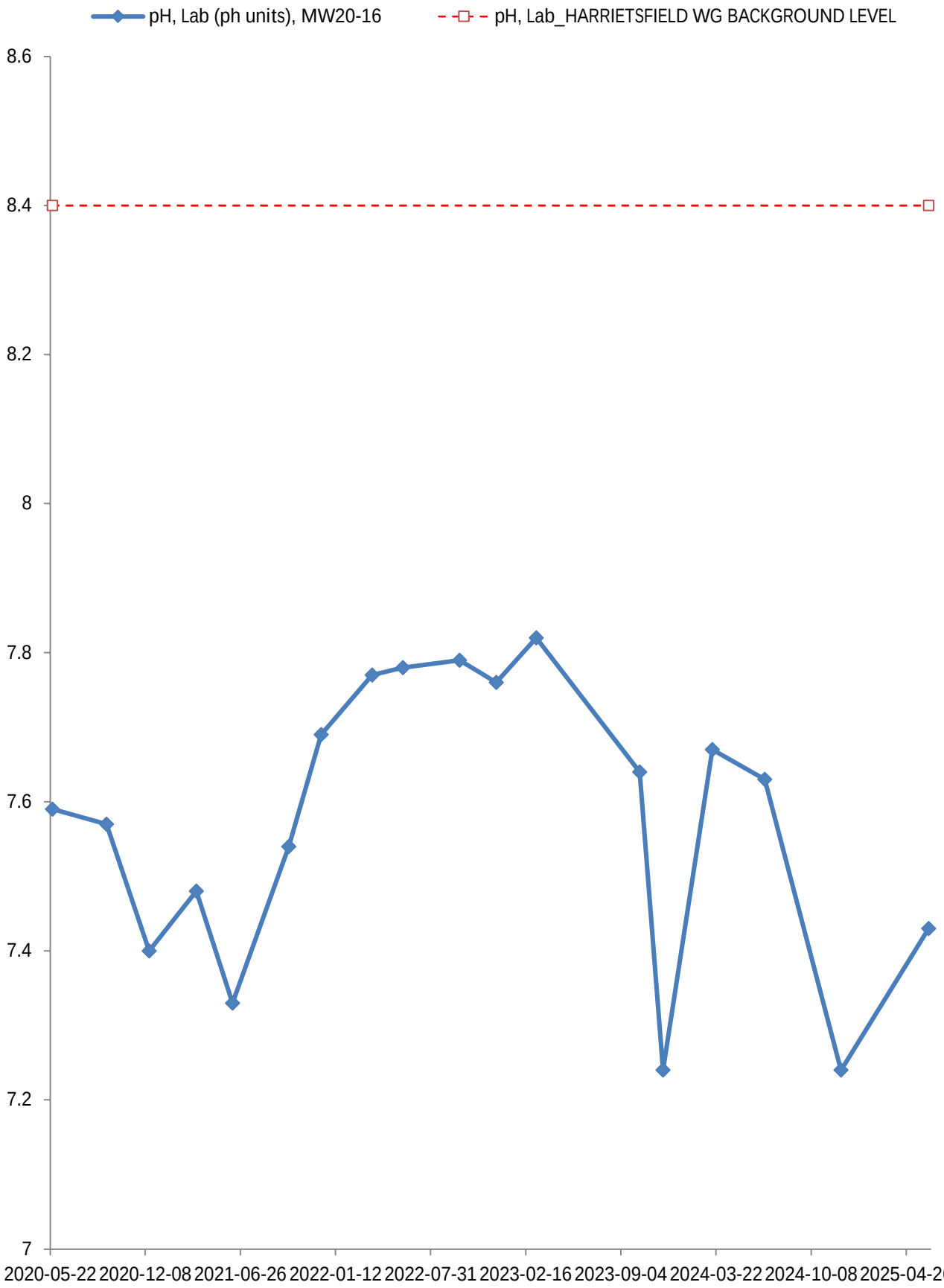

Lead (mg/l), MW20-16
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Manganese


Manganese (mg/l), MW20-16
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

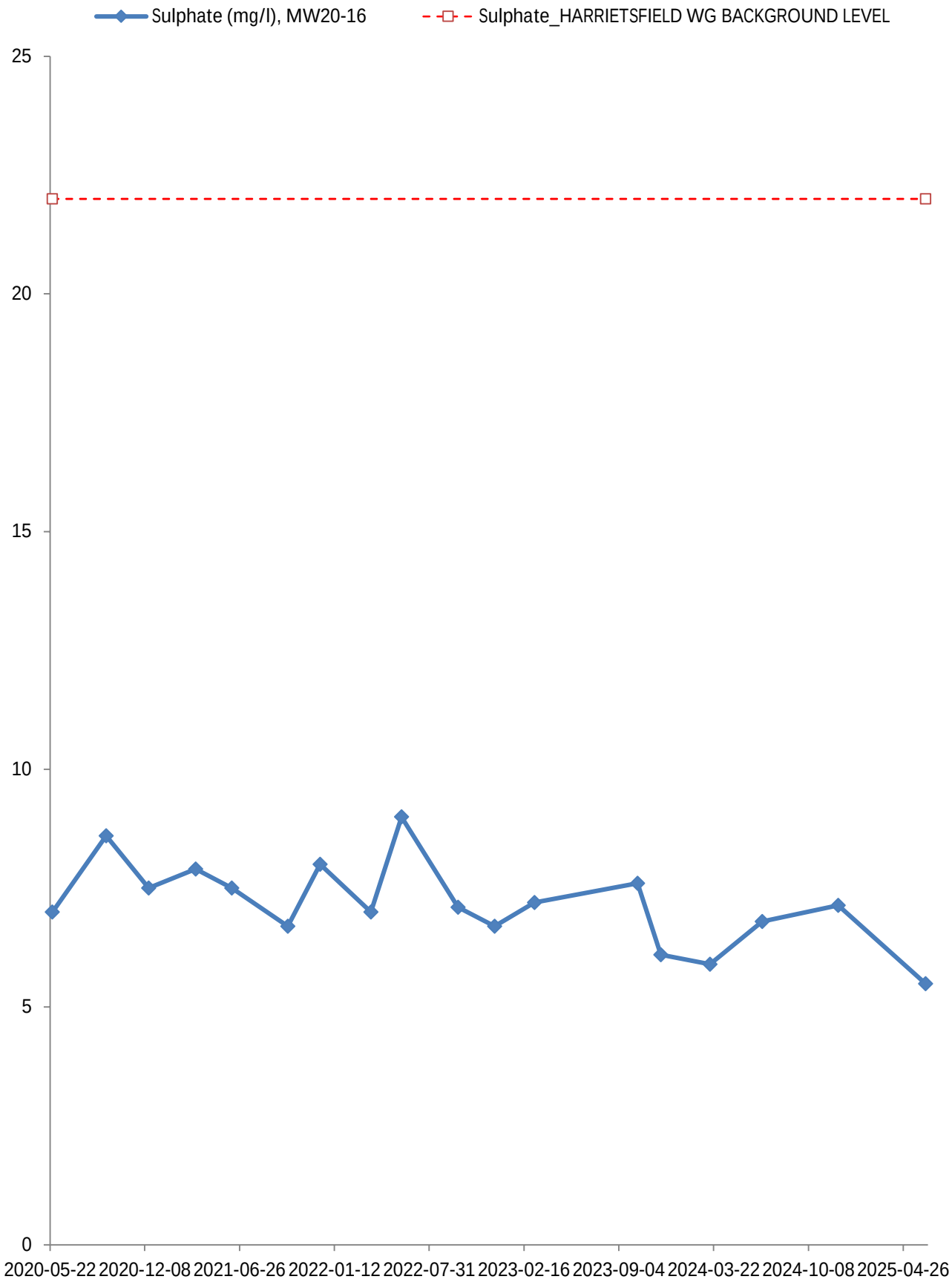
# pH, Lab



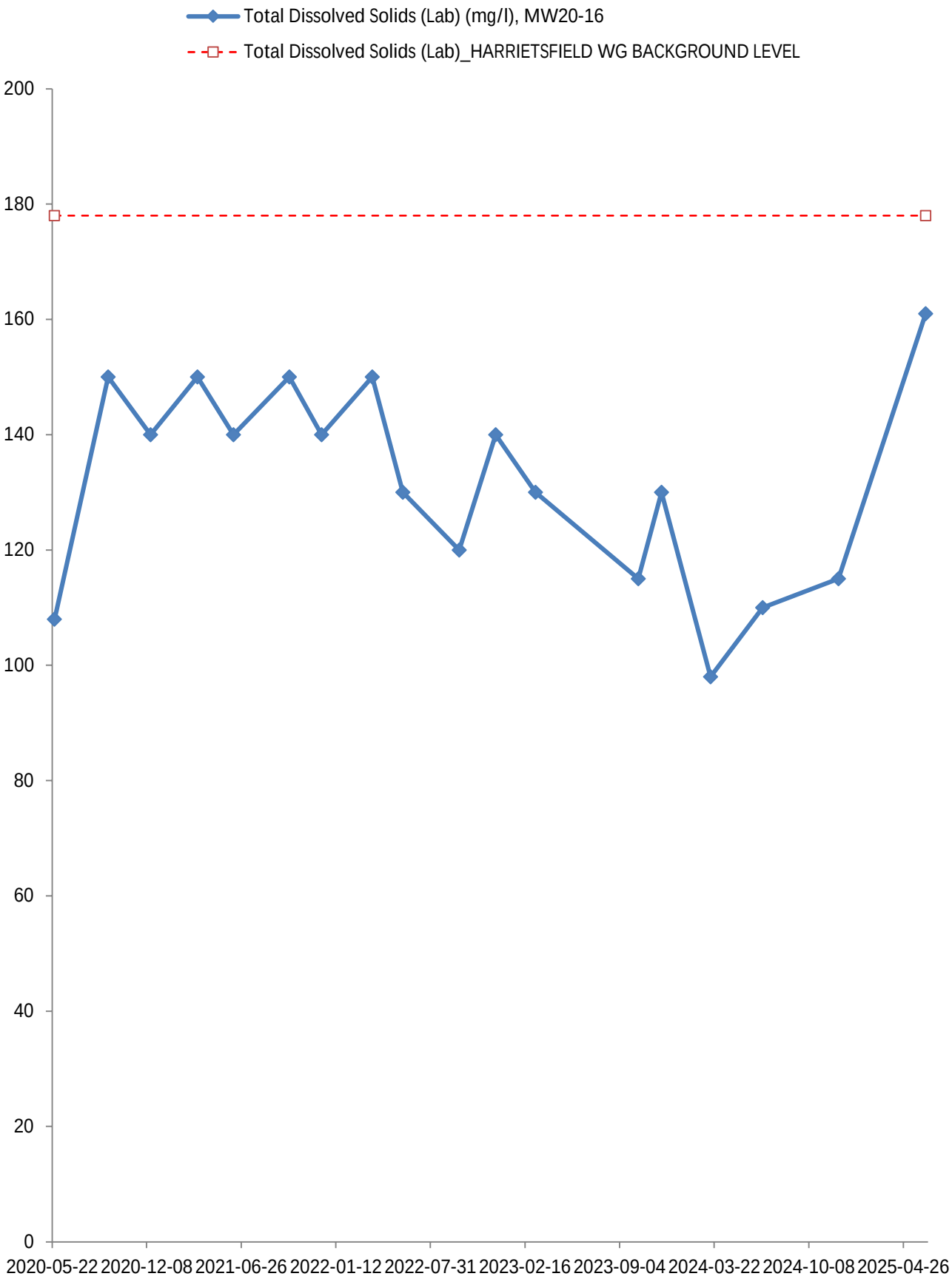

pH, Lab (ph units), MW20-16
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
7
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Sulphate

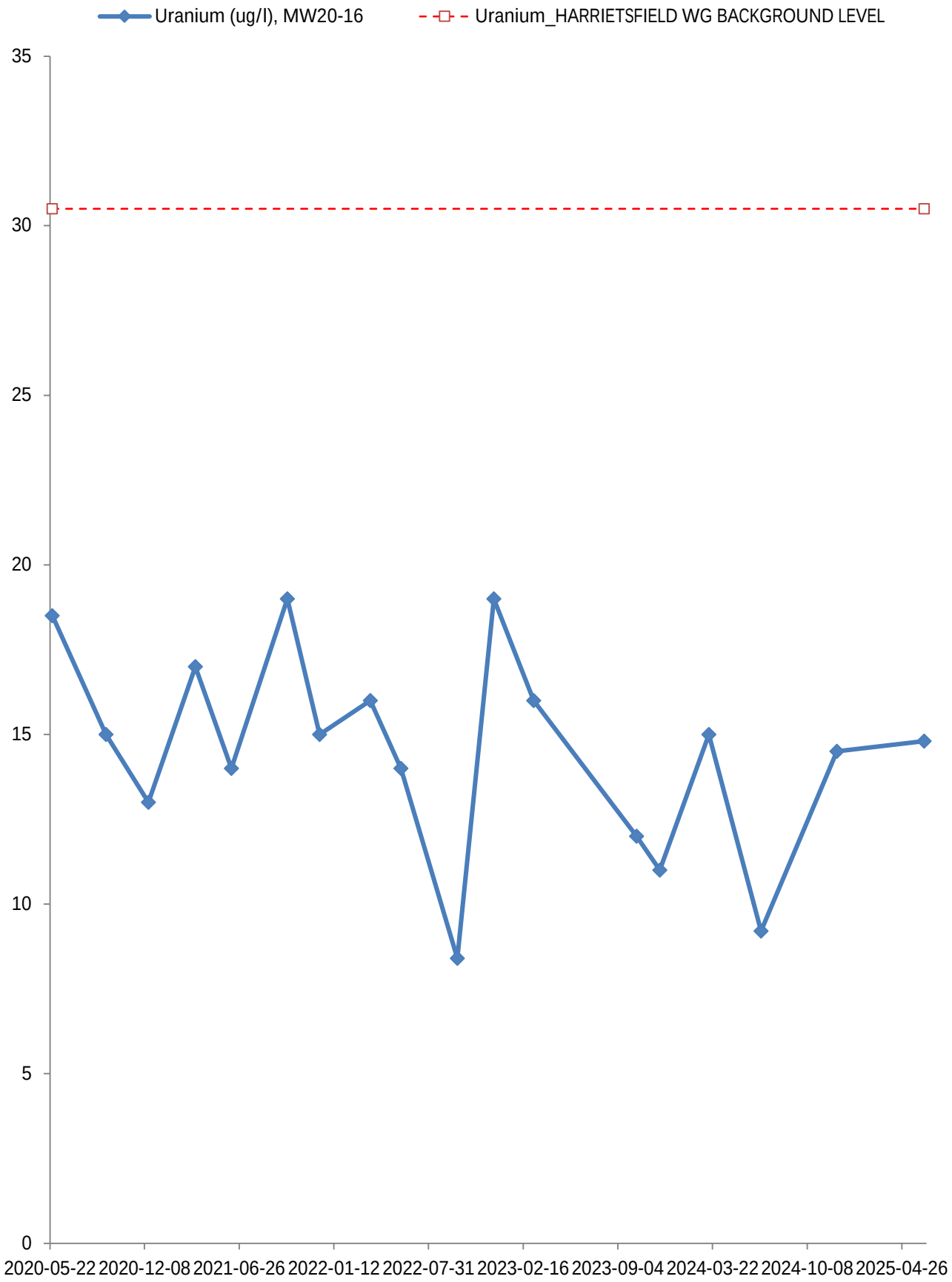



Sulphate (mg/l), MW20-16
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

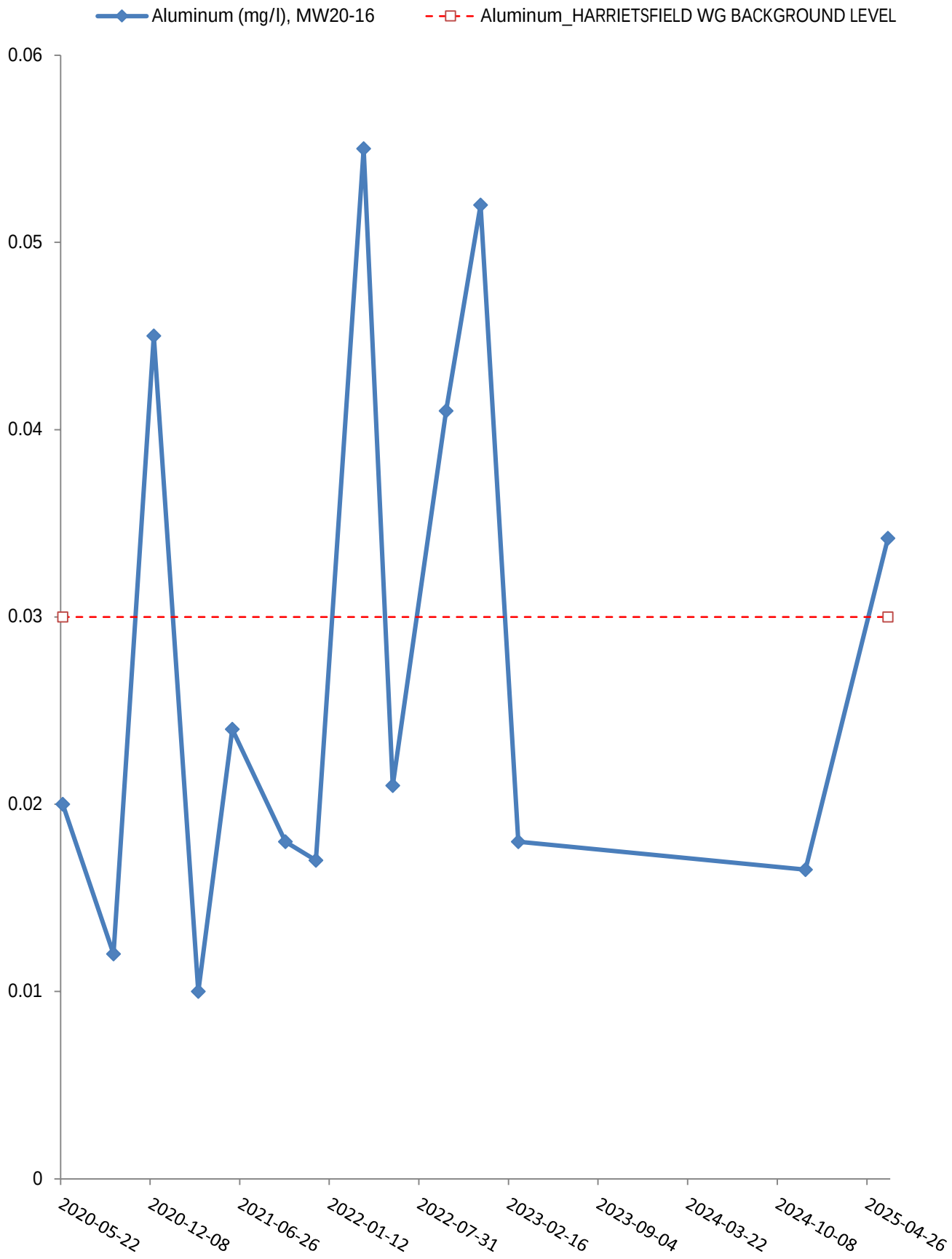
# Total Dissolved Solids (5



# Uranium

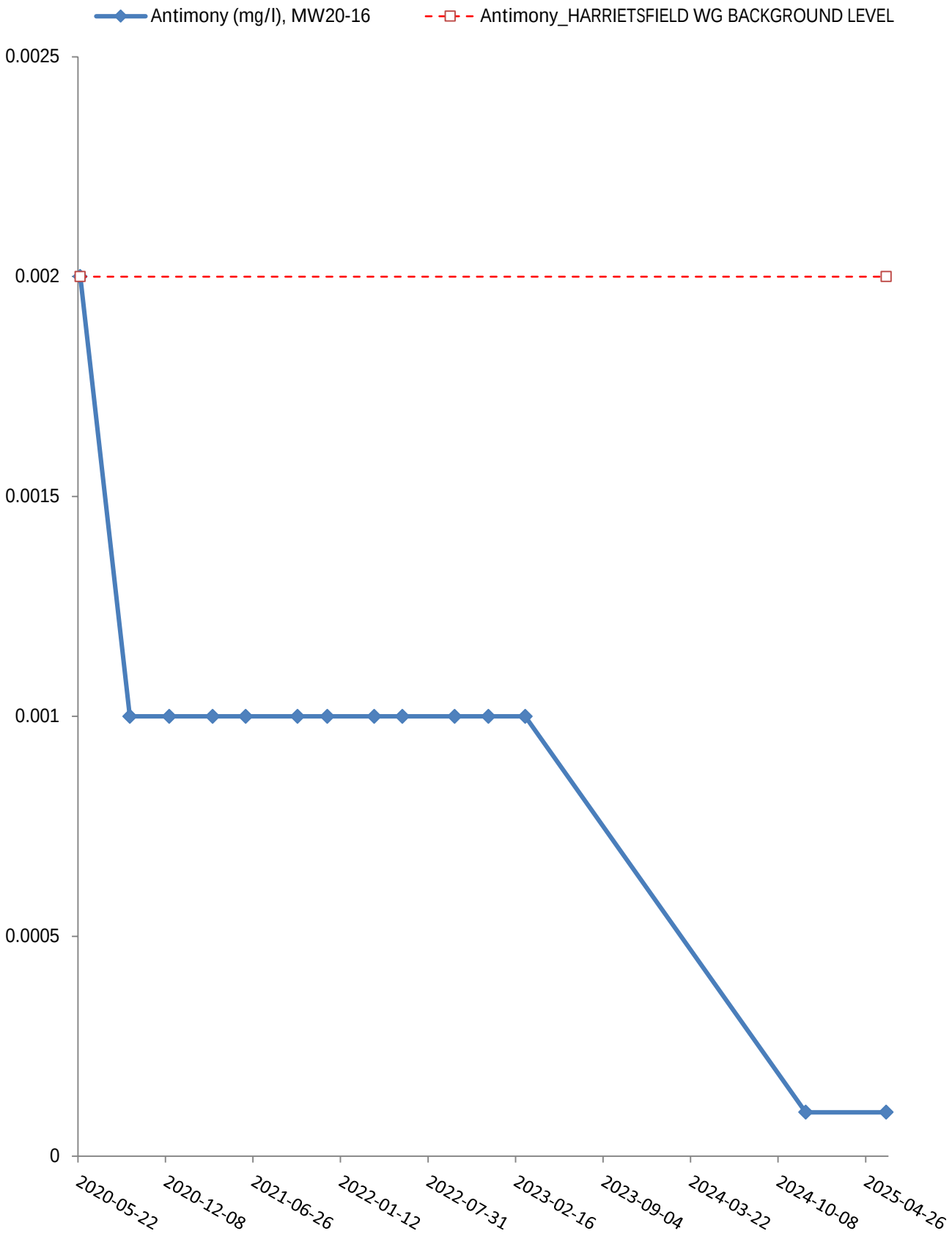

Uranium (ug/l), MW20-16
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Aluminum

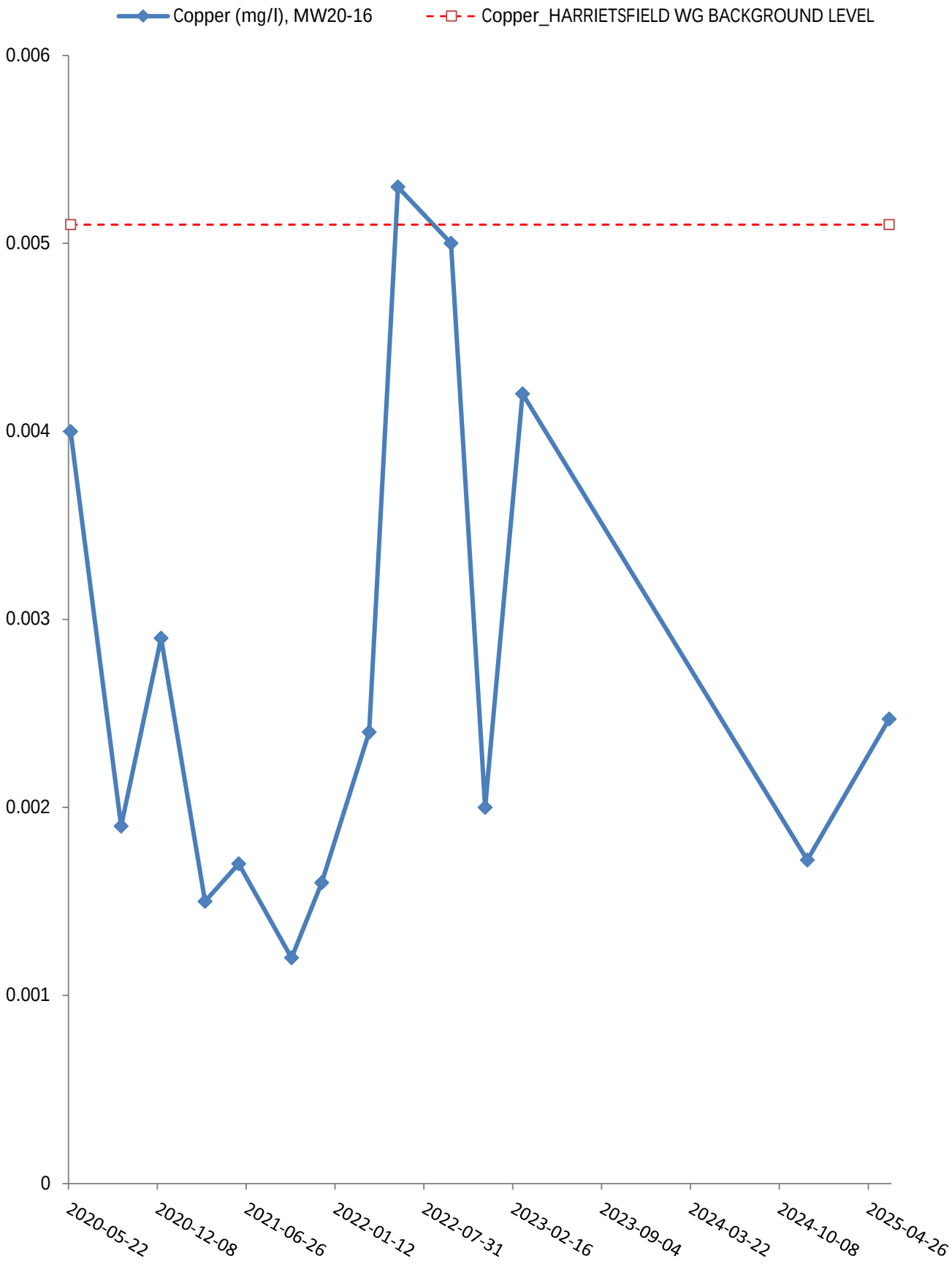

Aluminum (mg/l), MW20-16
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony



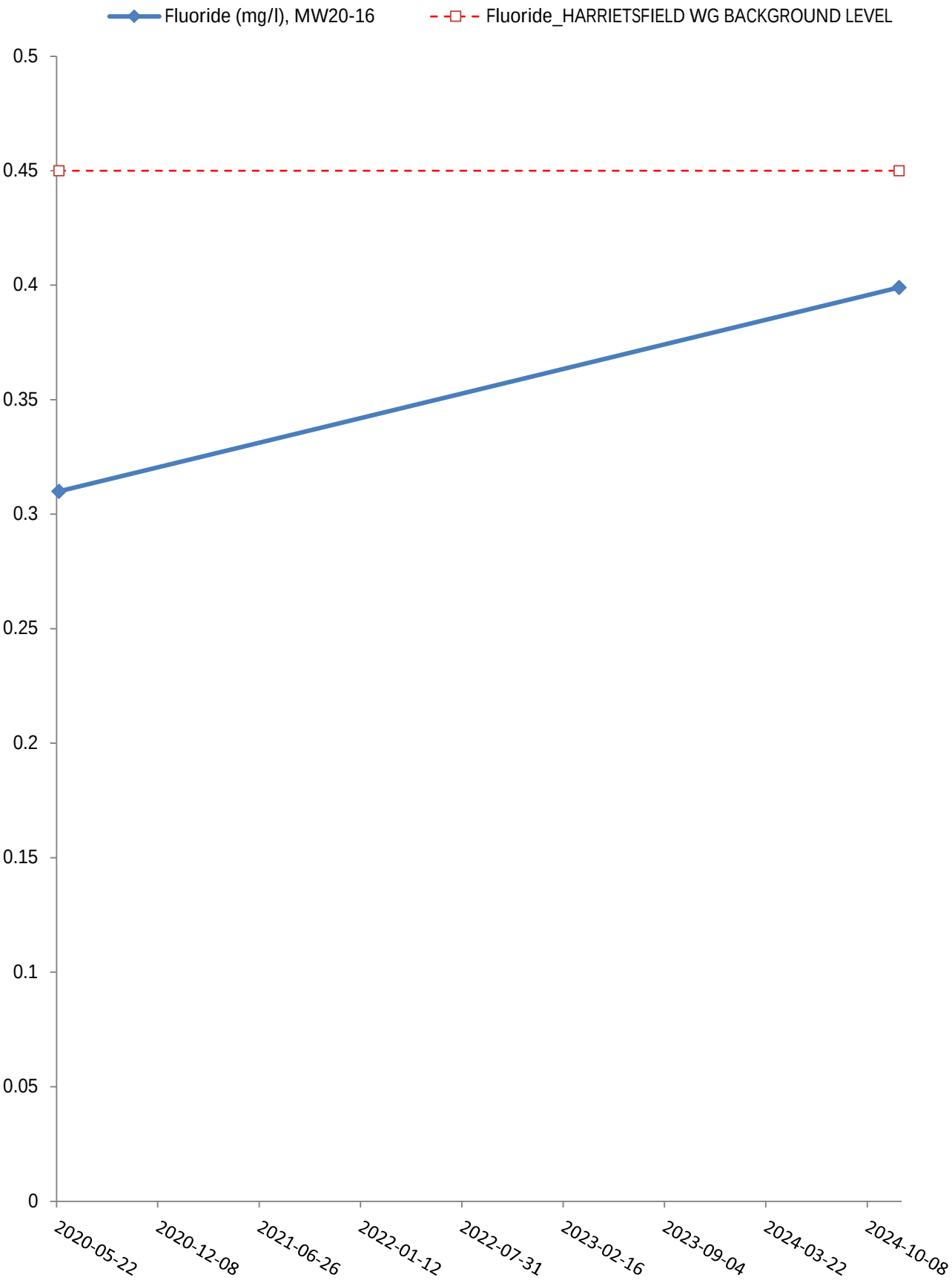

Antimony (mg/l), MW20-16
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Copper

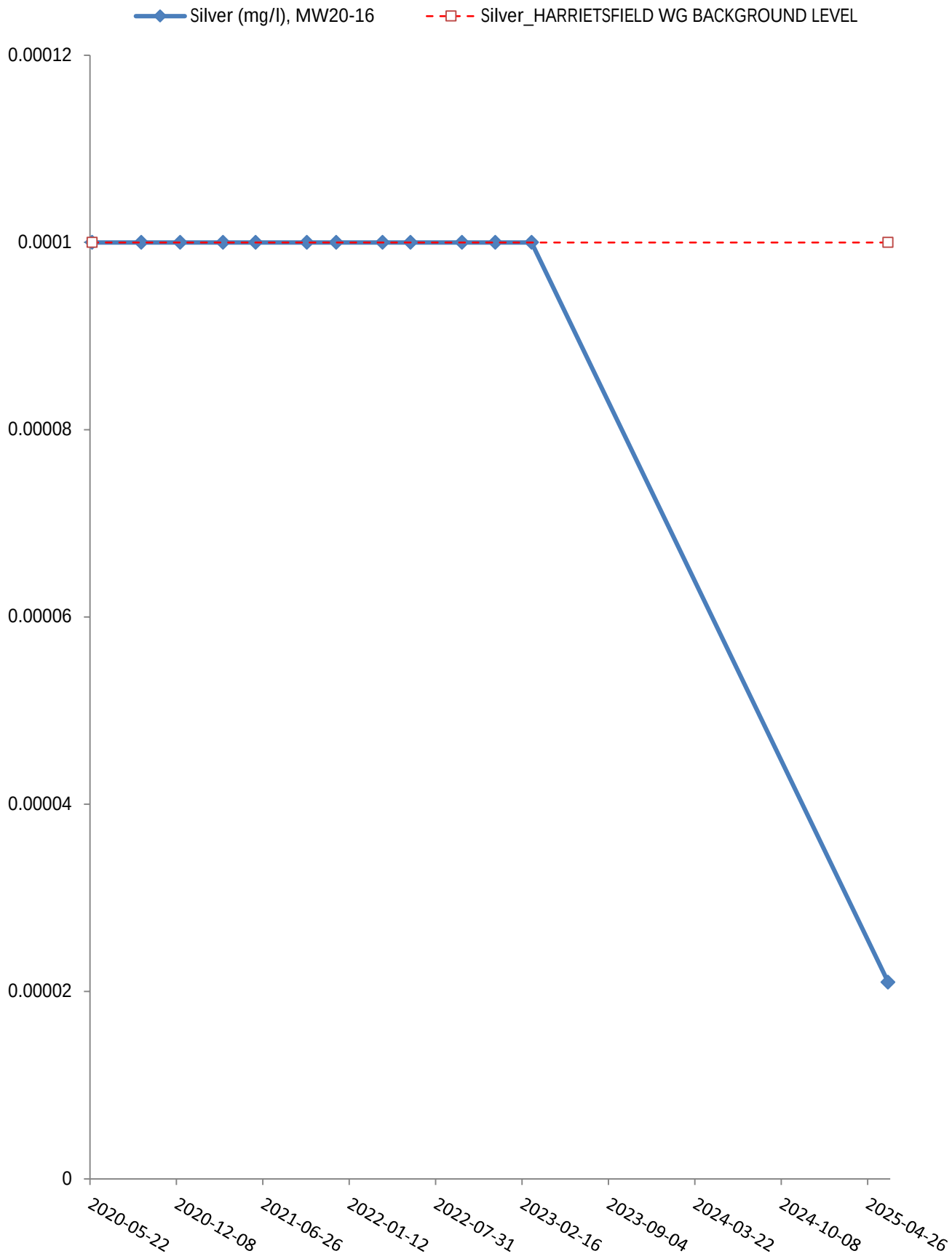

Copper (mg/l), MW20-16
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Fluoride



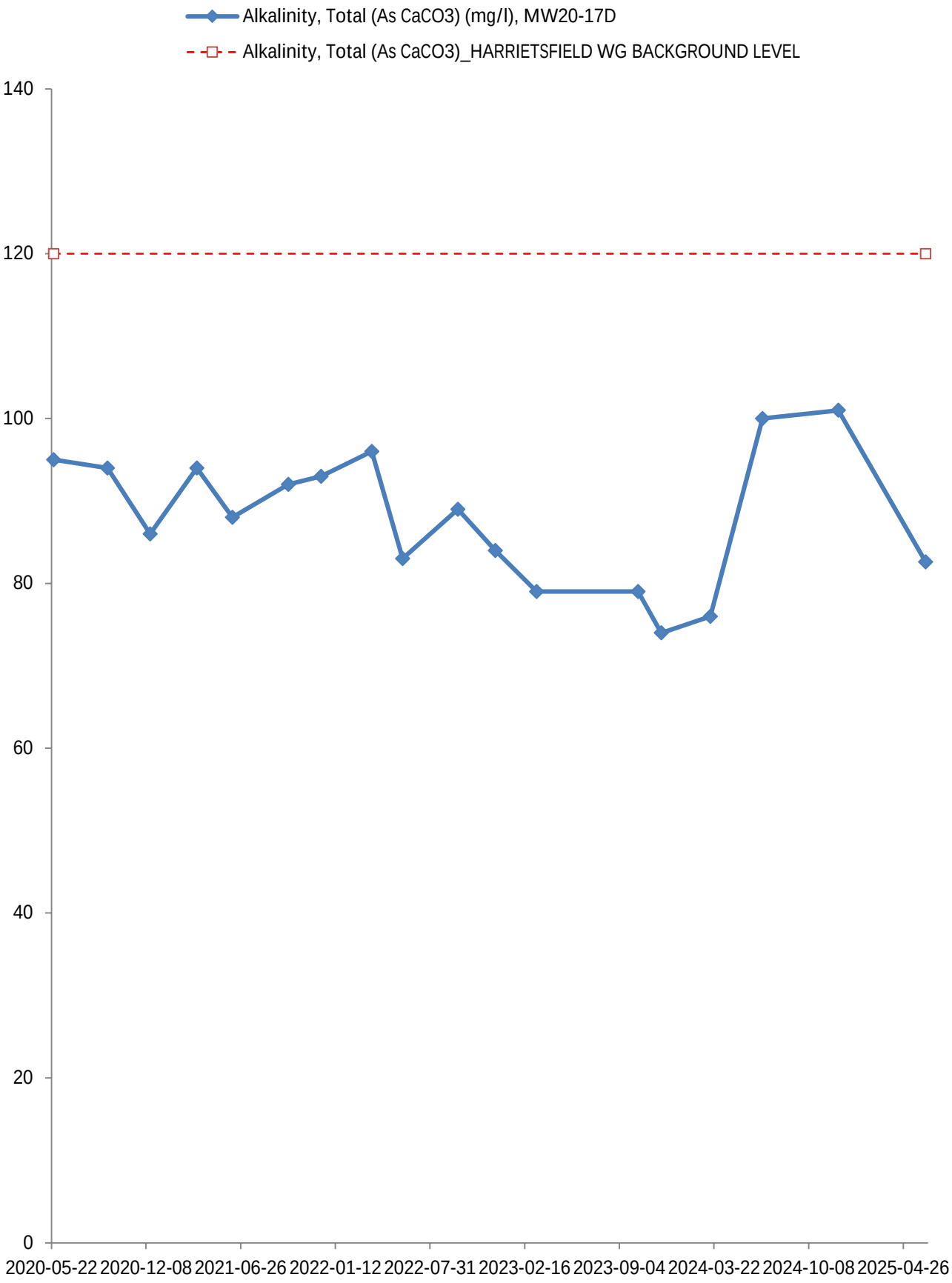

Fluoride (mg/l), MW20-16
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

# Silver

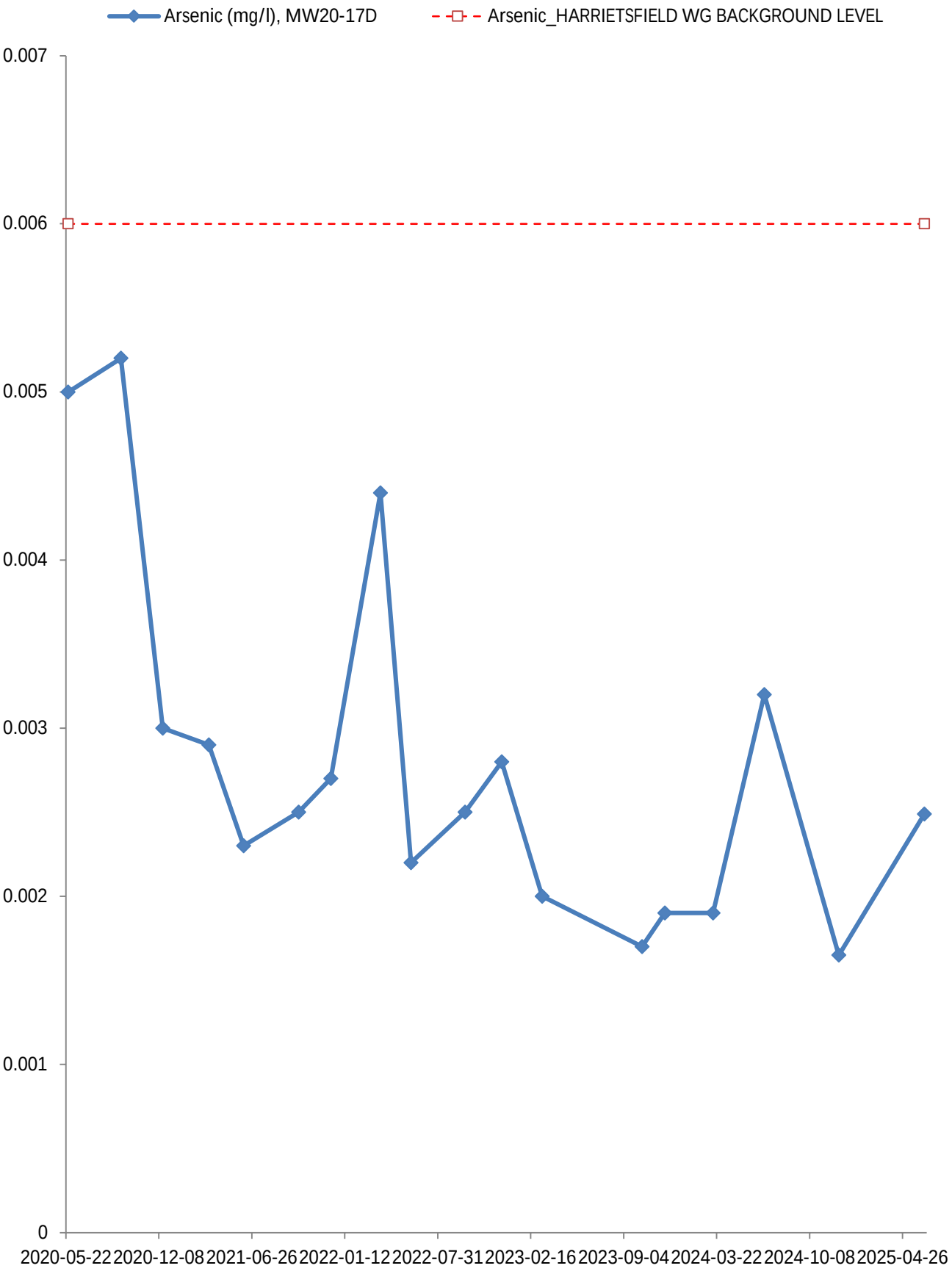

Silver (mg/l), MW20-16
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Alkalinity, Total

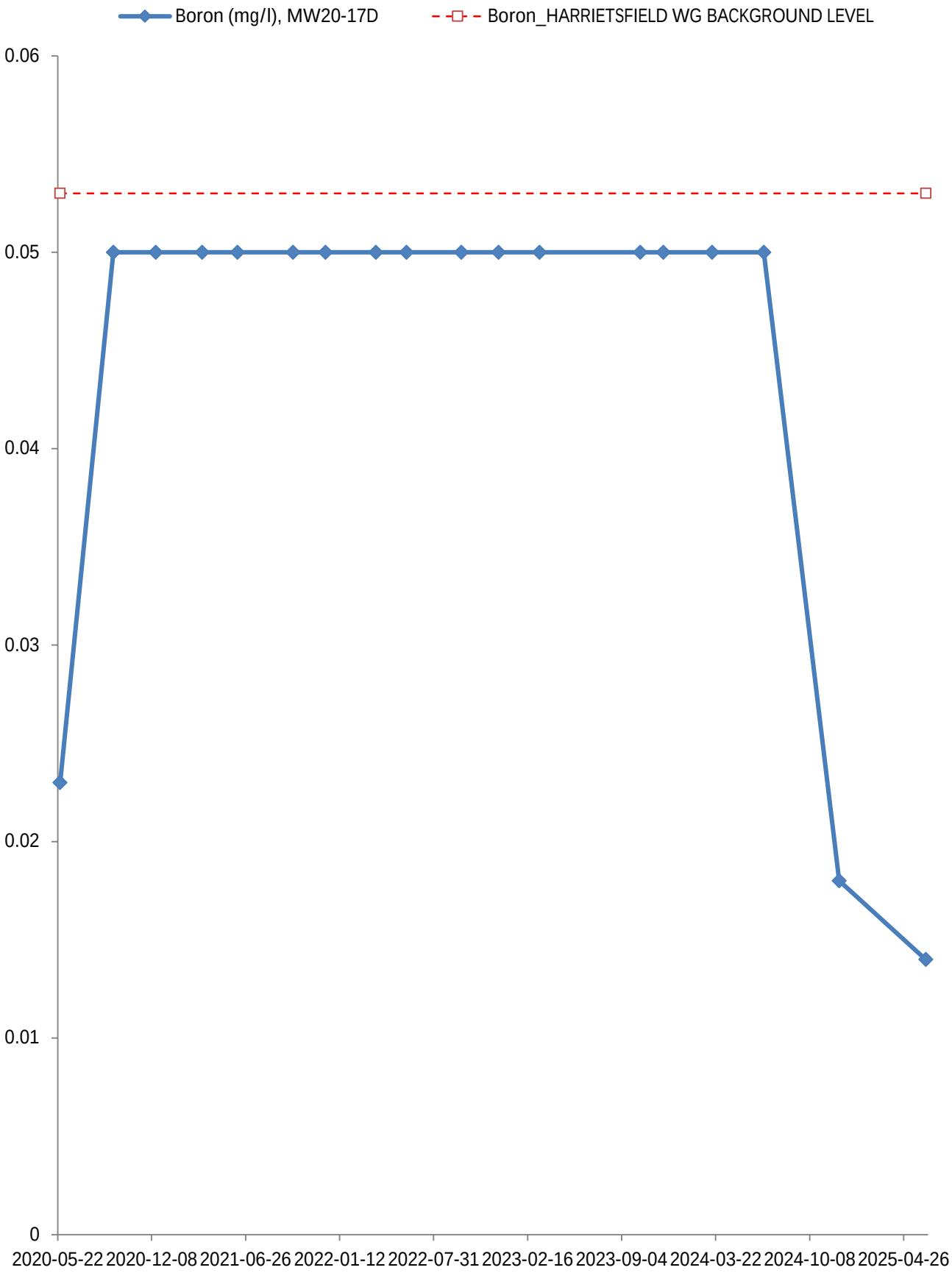




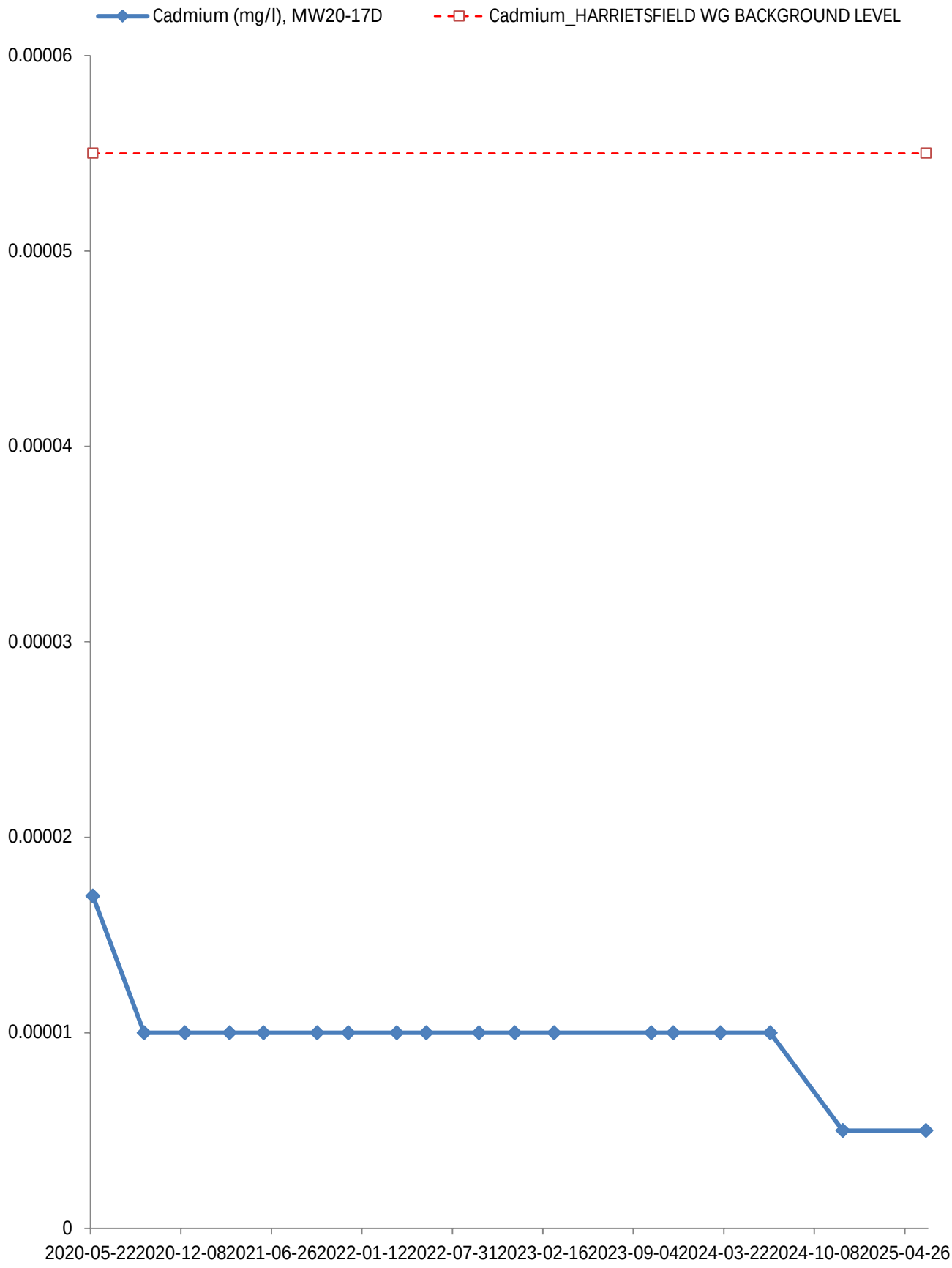
# Arsenic


Arsenic (mg/l), MW20-17D
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Boron

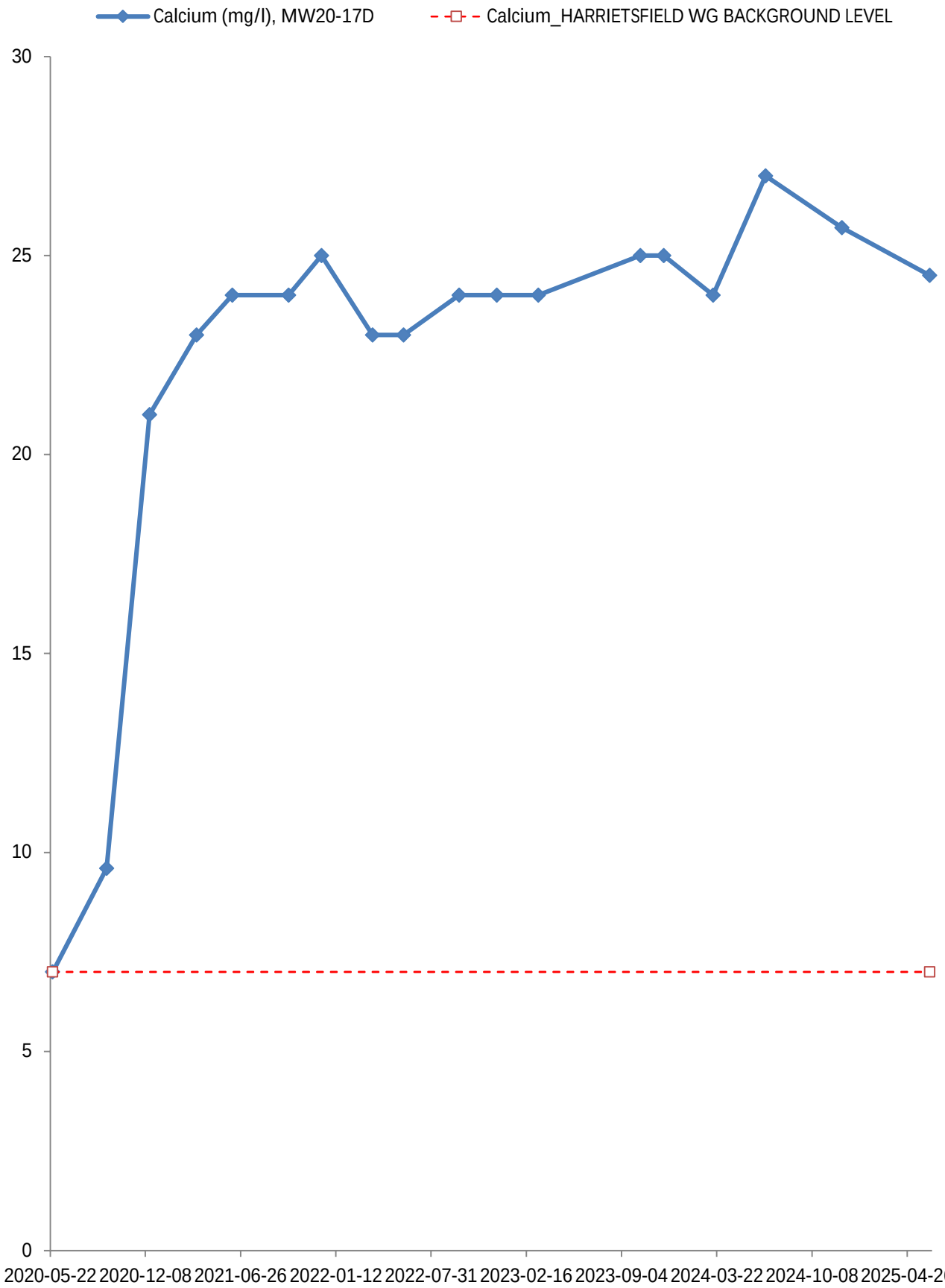

Boron (mg/l), MW20-17D
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cadmium

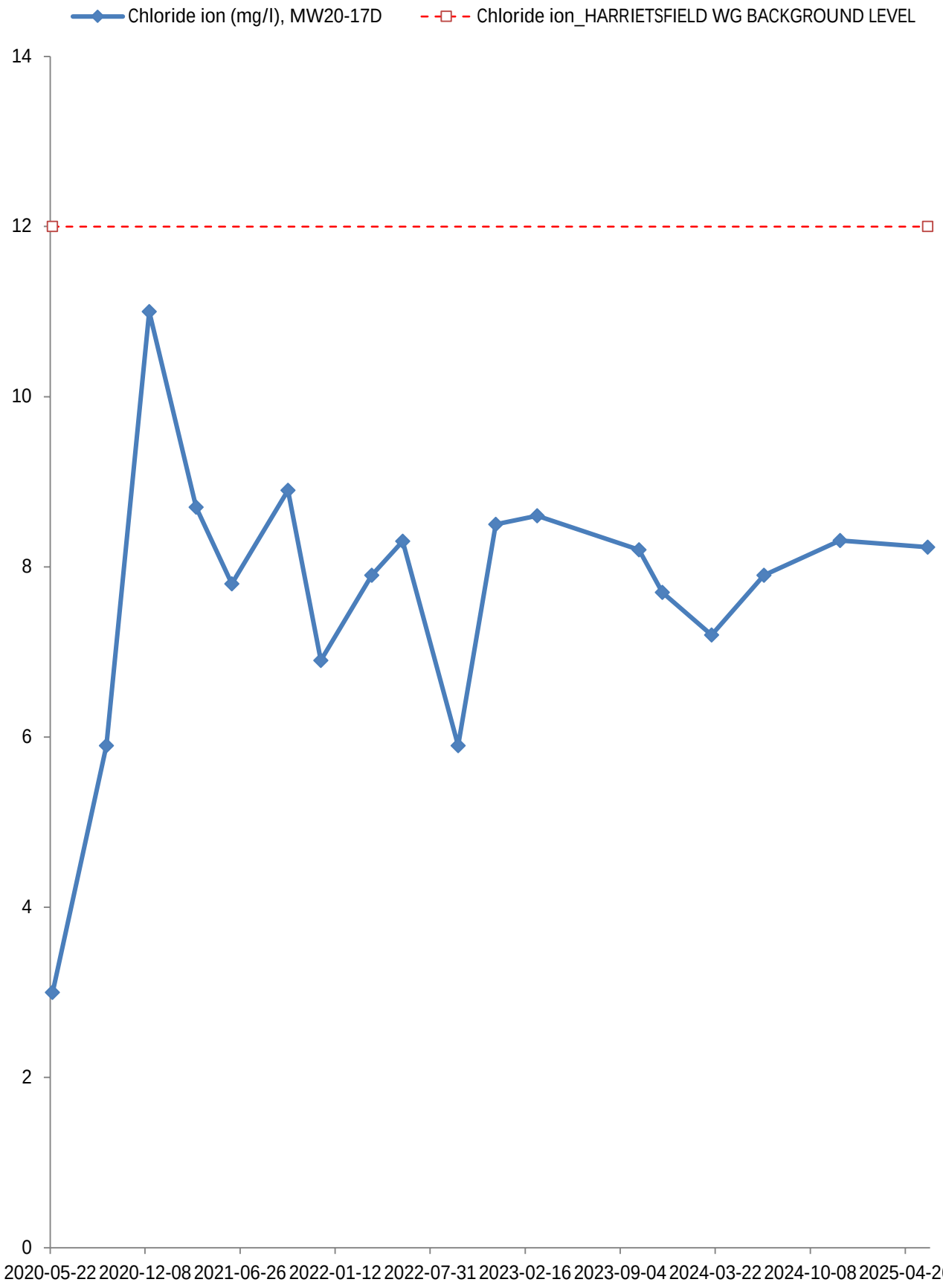

Cadmium (mg/l), MW20-17D
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Calcium



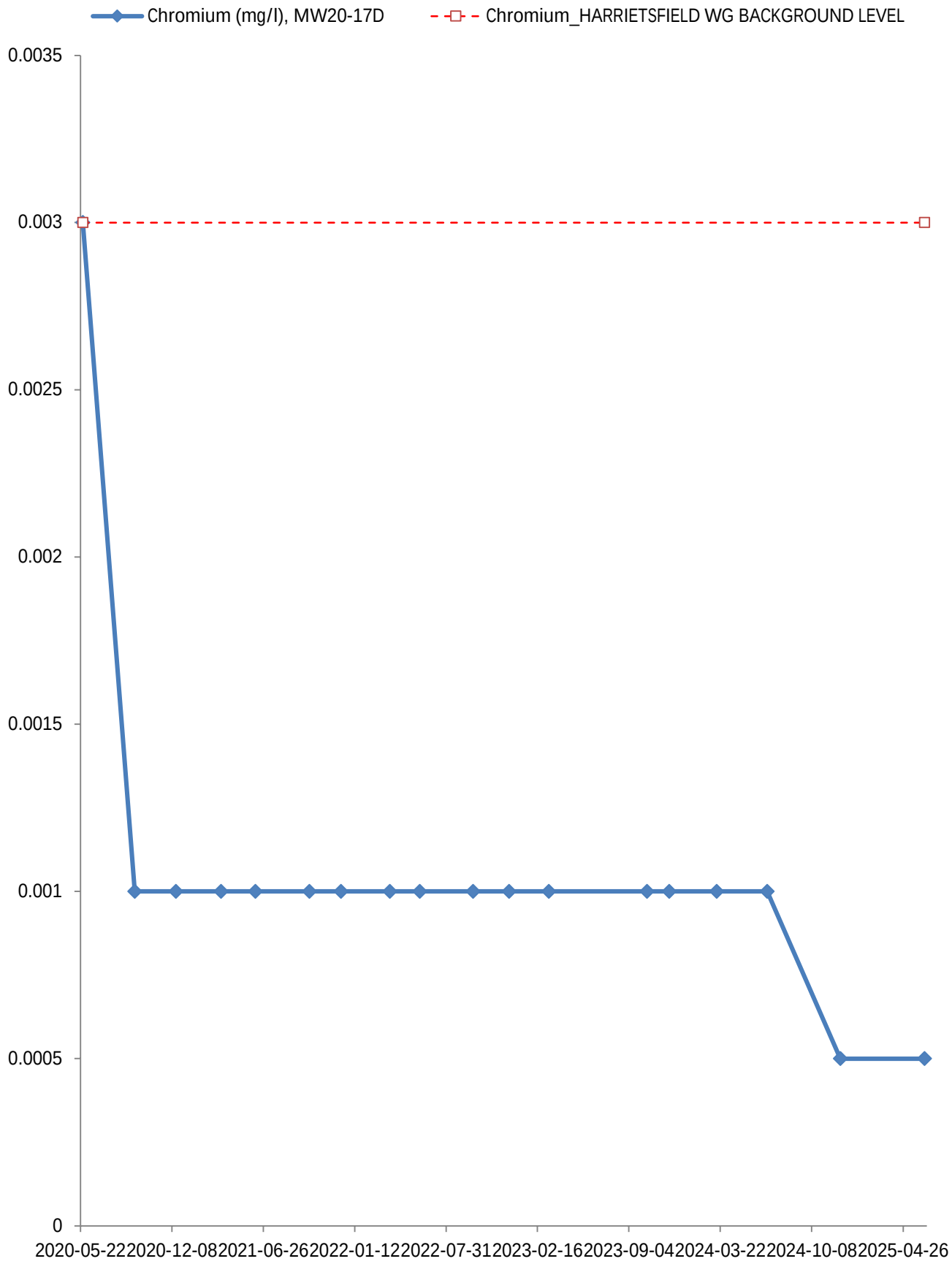

Calcium (mg/l), MW20-17D
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Chloride ion

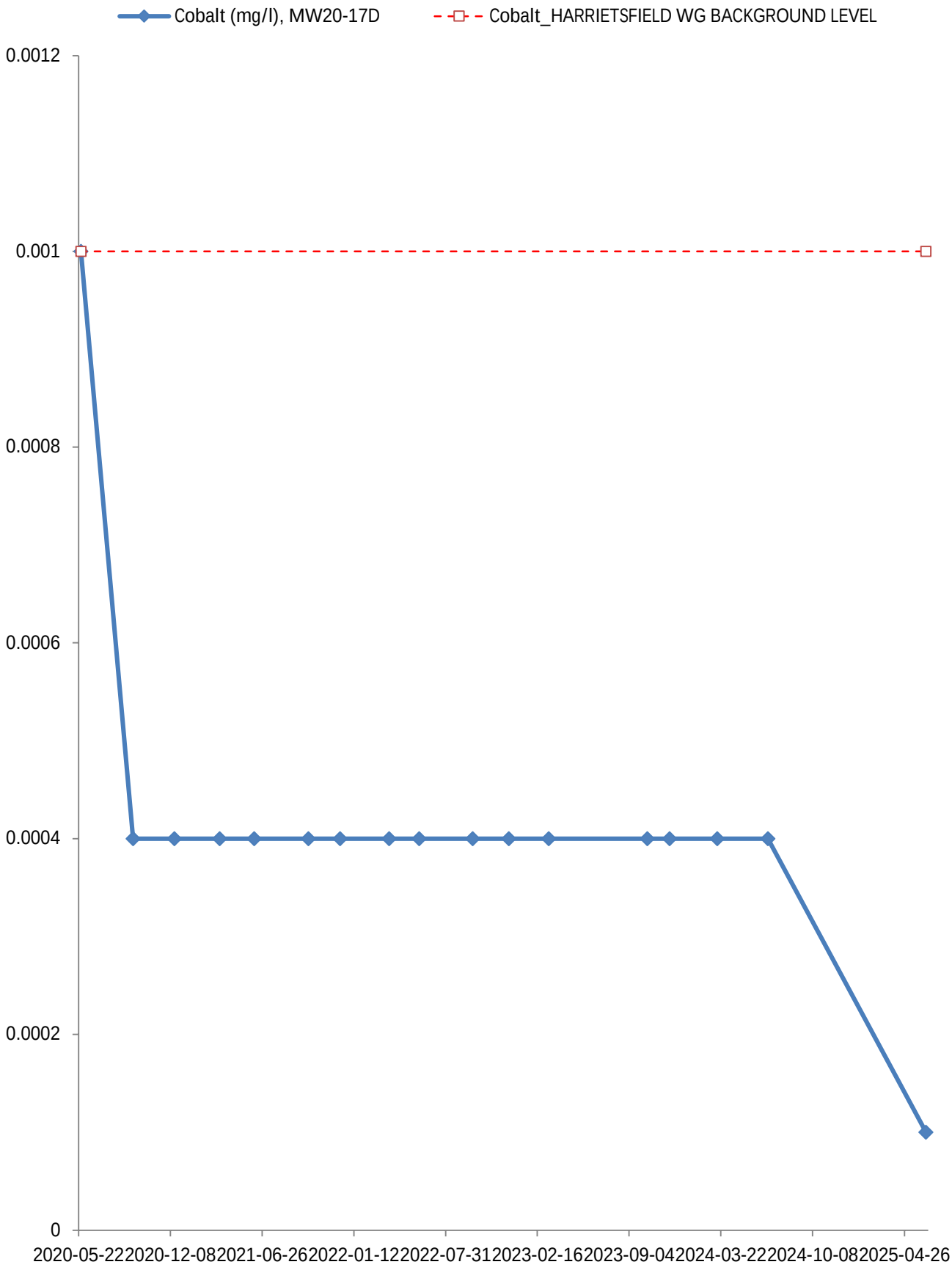


# Chromium



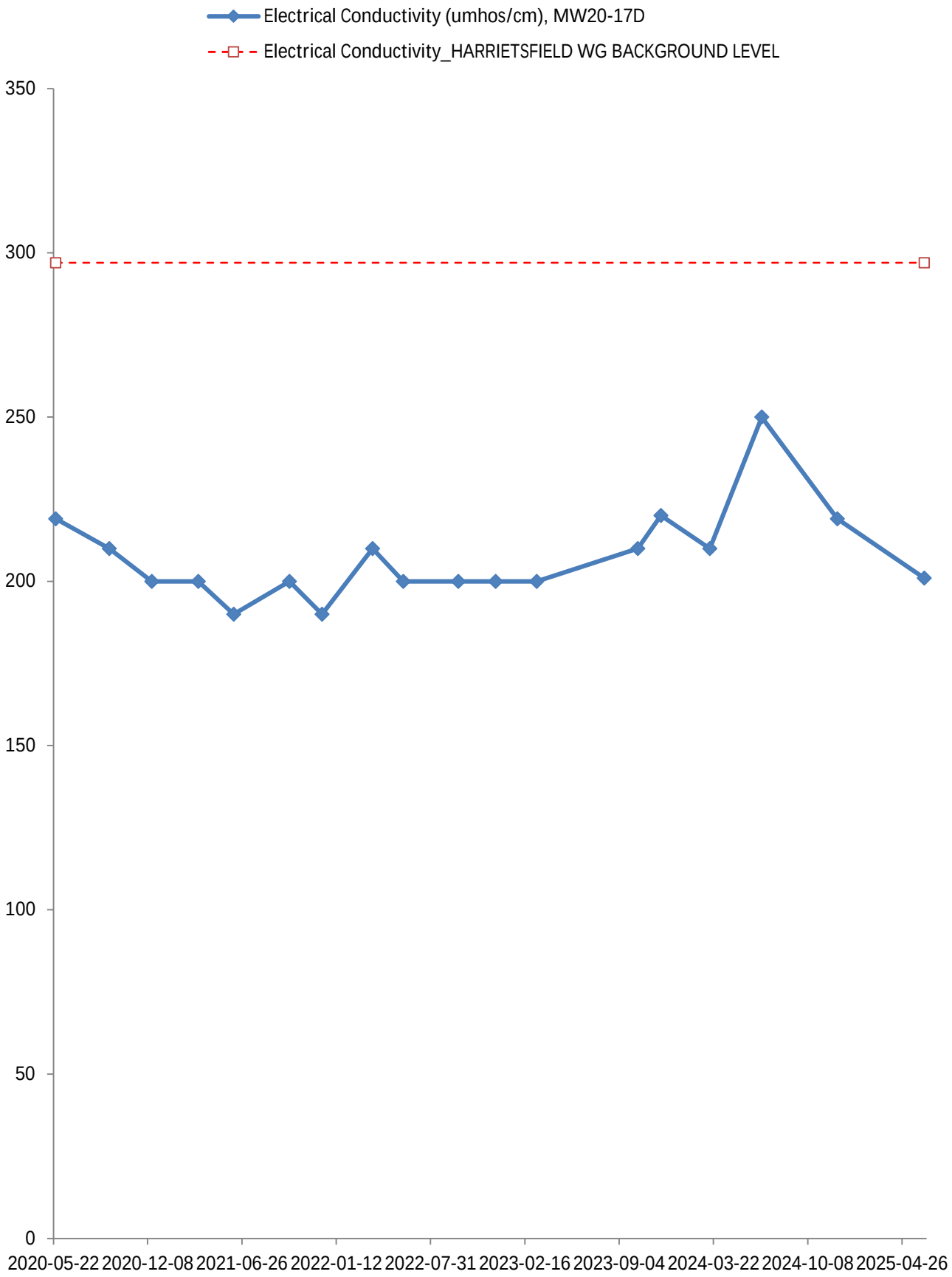

Chromium (mg/l), MW20-17D
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt


Cobalt (mg/l), MW20-17D
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

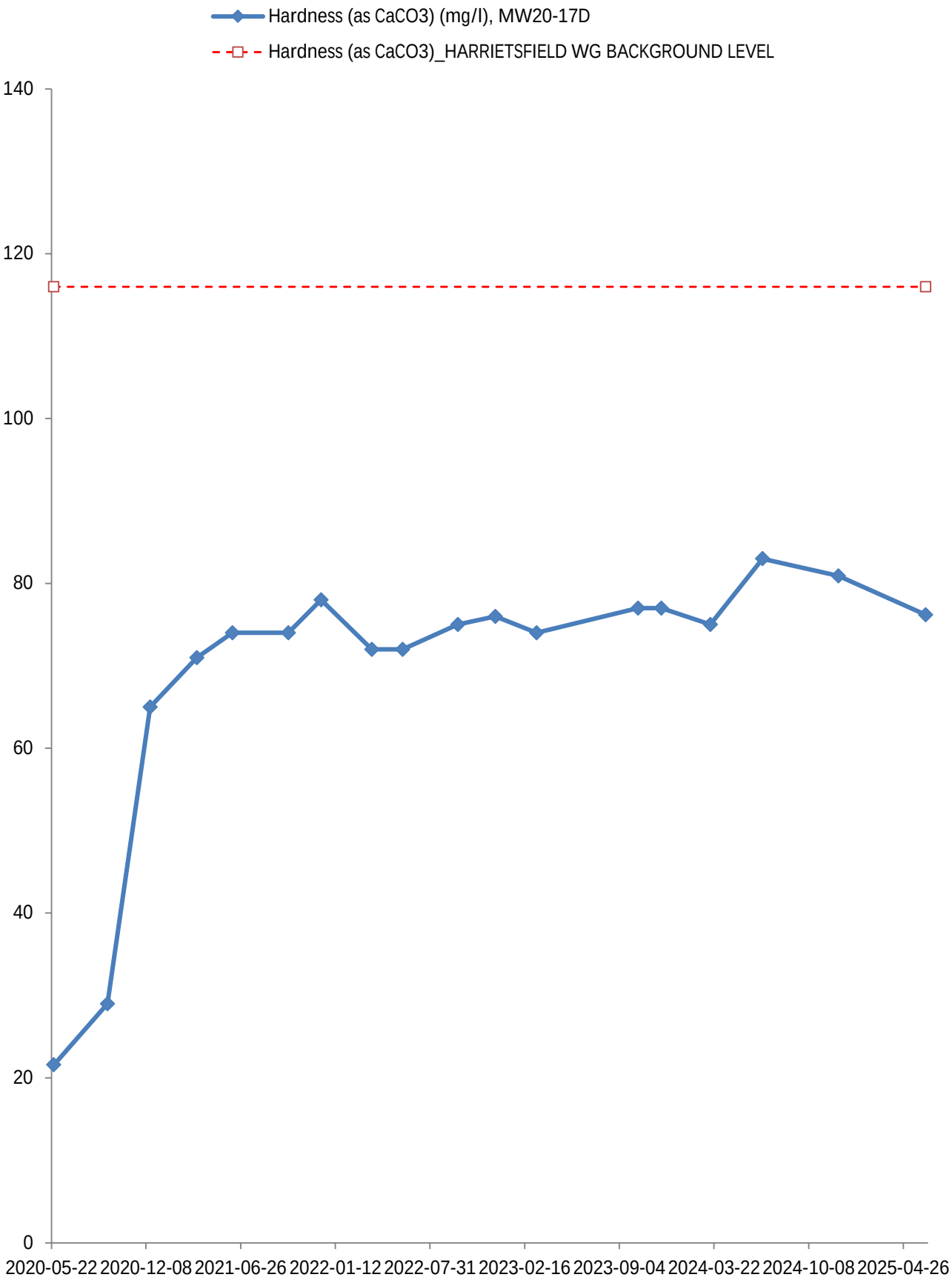
# Electrical Conductivity



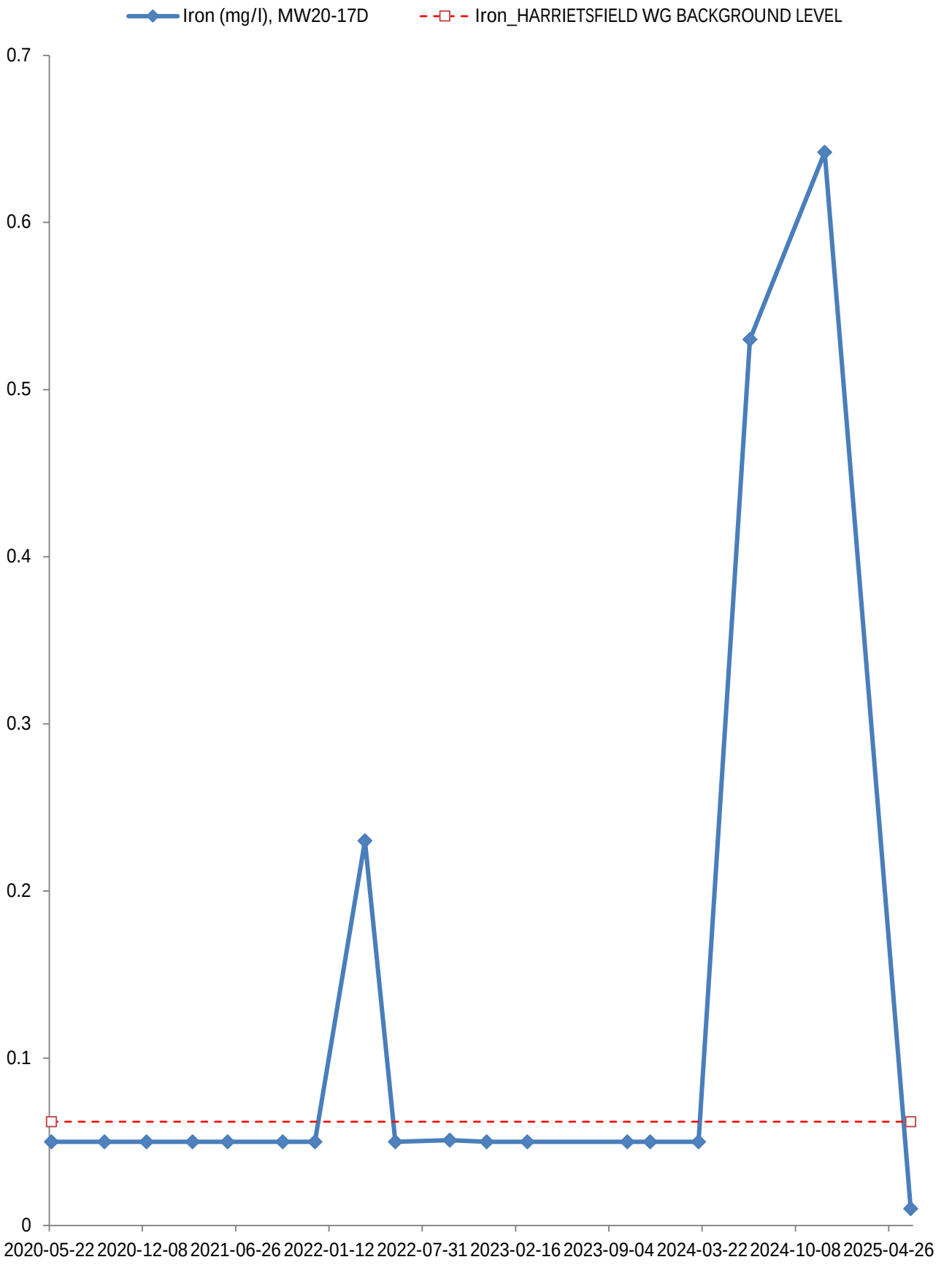


# Hardness (as CaCO3)

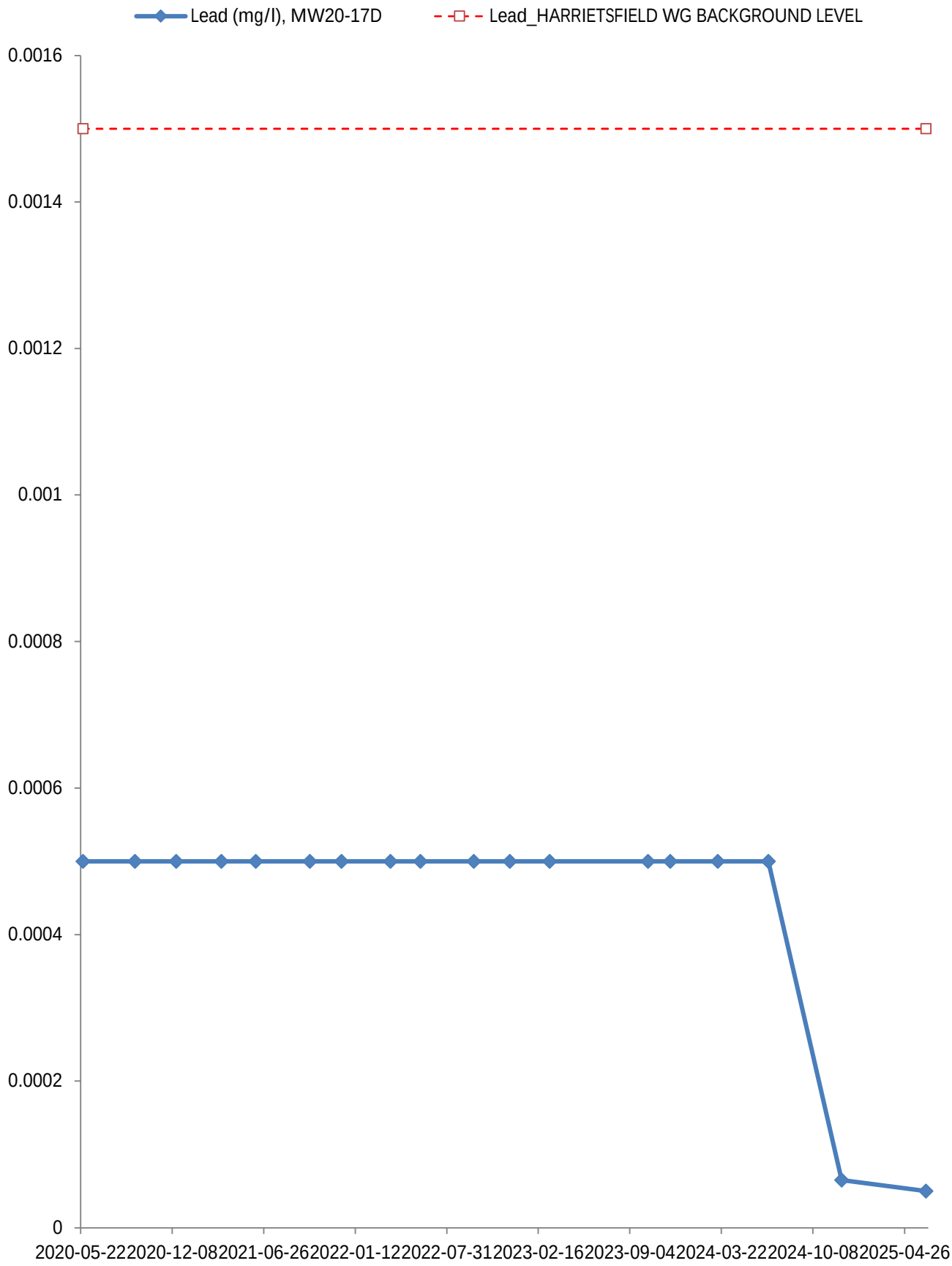




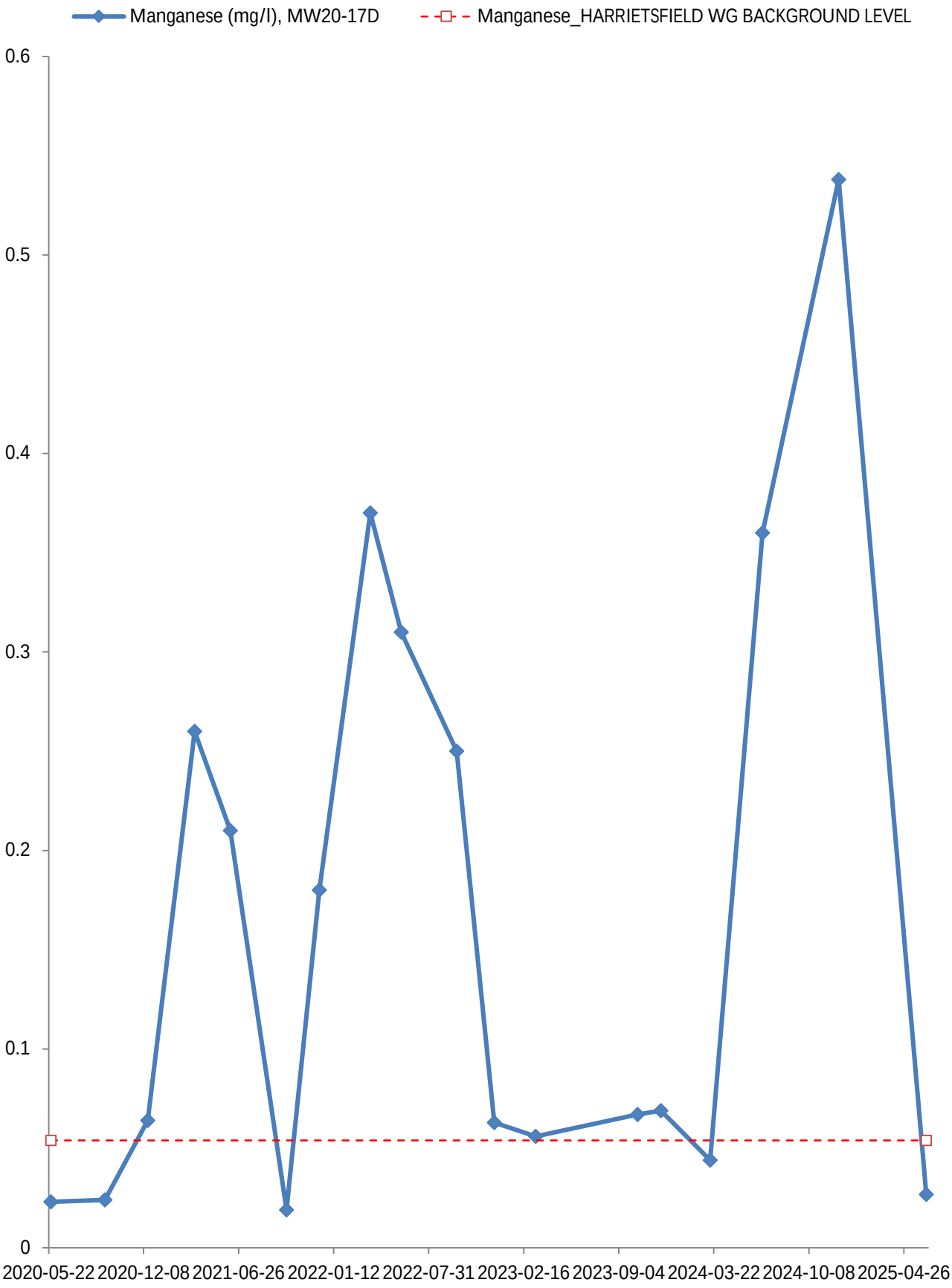
# Iron


Iron (mg/l), MW20-17D
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

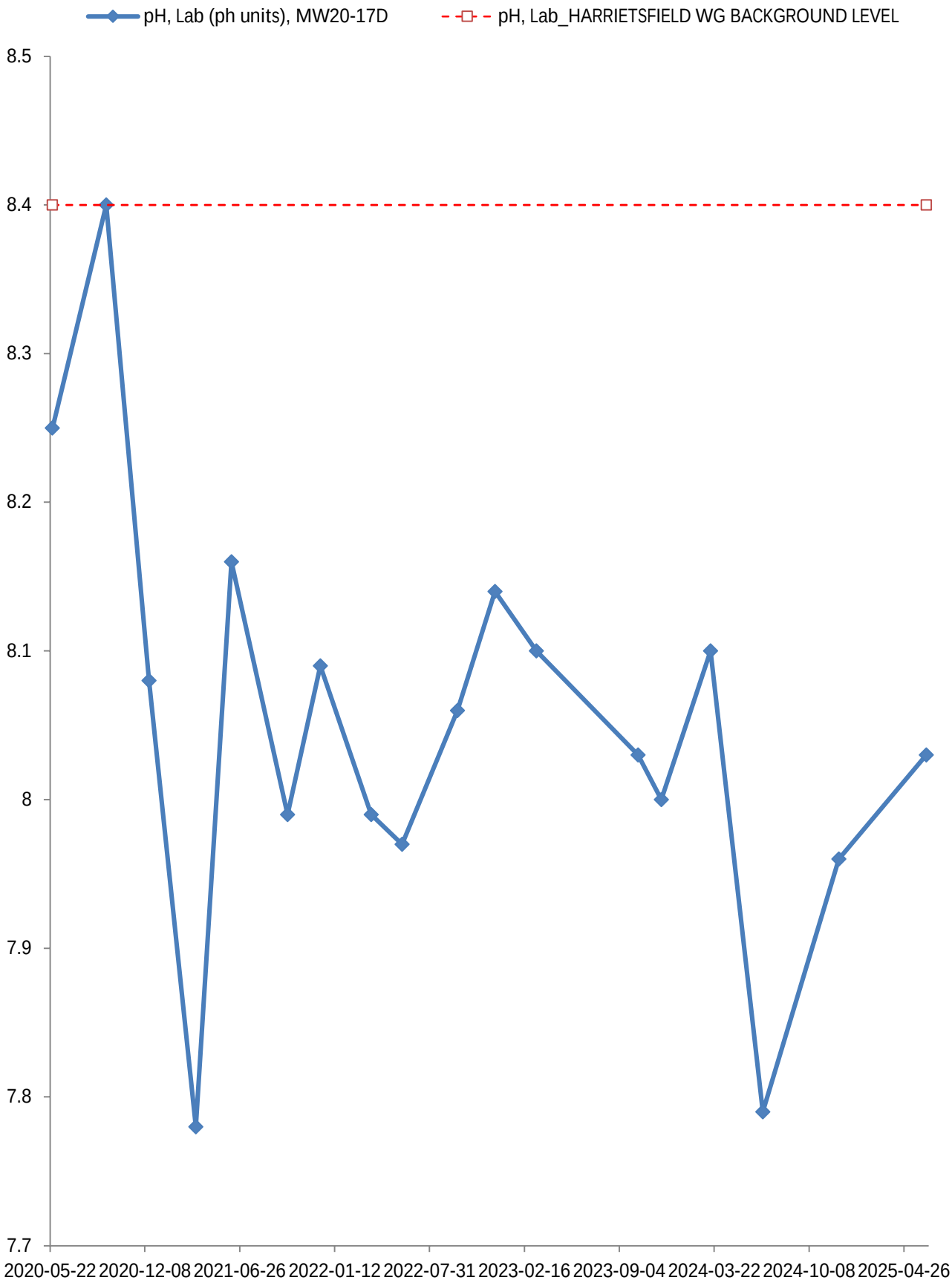
# Lead


Lead (mg/l), MW20-17D
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

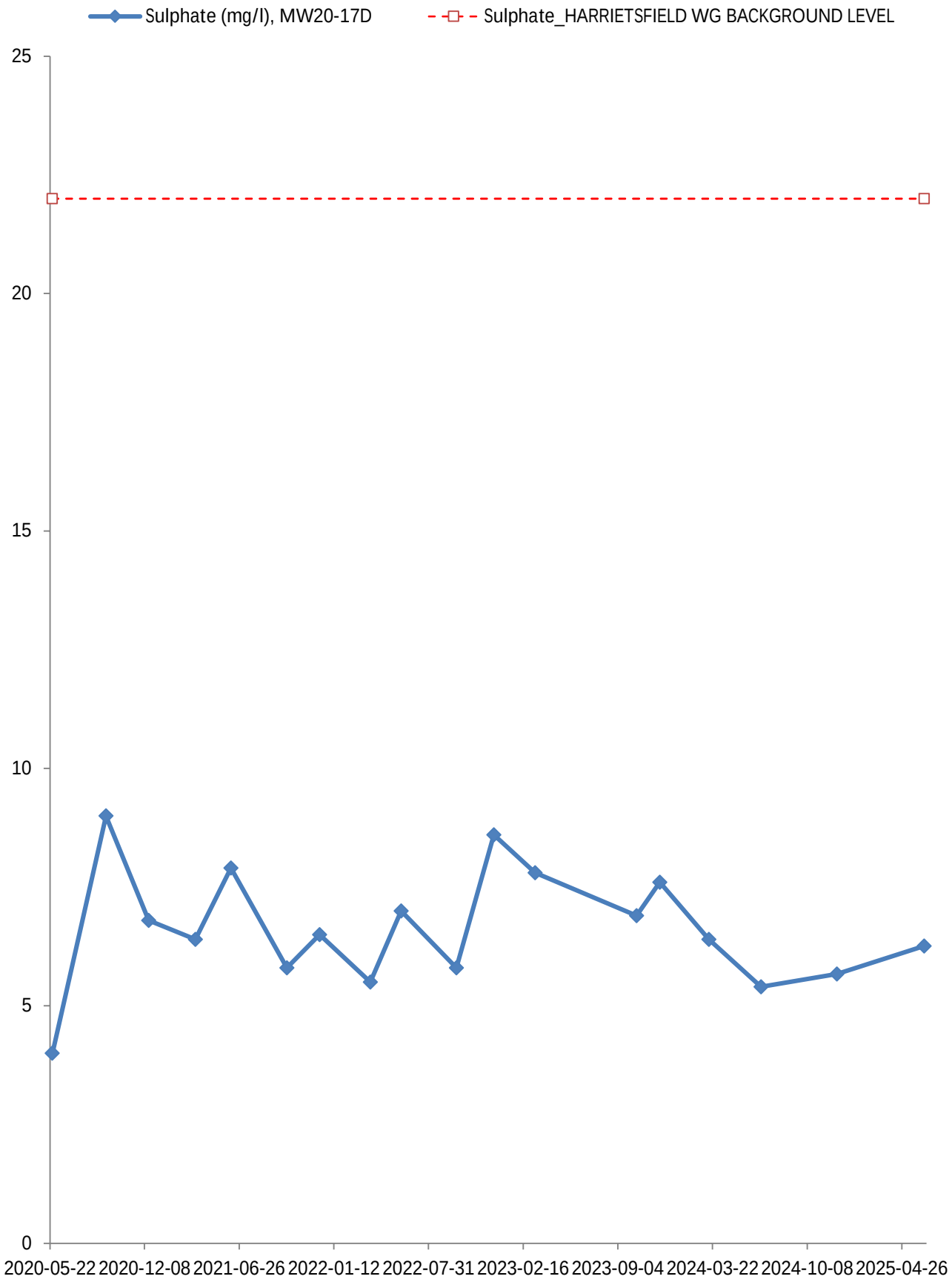
# Manganese


Manganese (mg/l), MW20-17D
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.6
0.5
0.4
0.3
0.2
0.1
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# pH, Lab

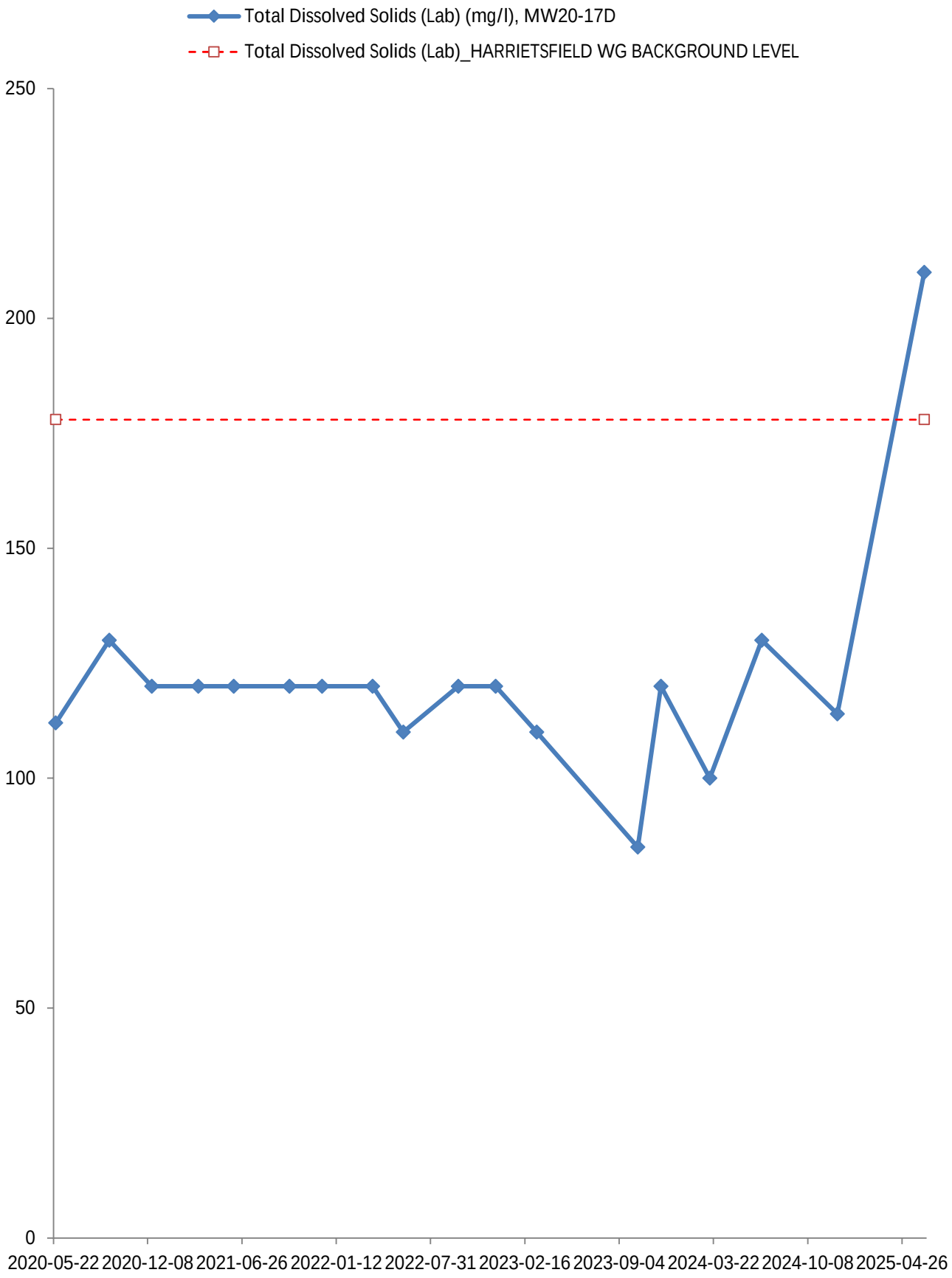

pH, Lab (ph units), MW20-17D
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.5
8.4
8.3
8.2
8.1
8
7.9
7.8
7.7
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Sulphate

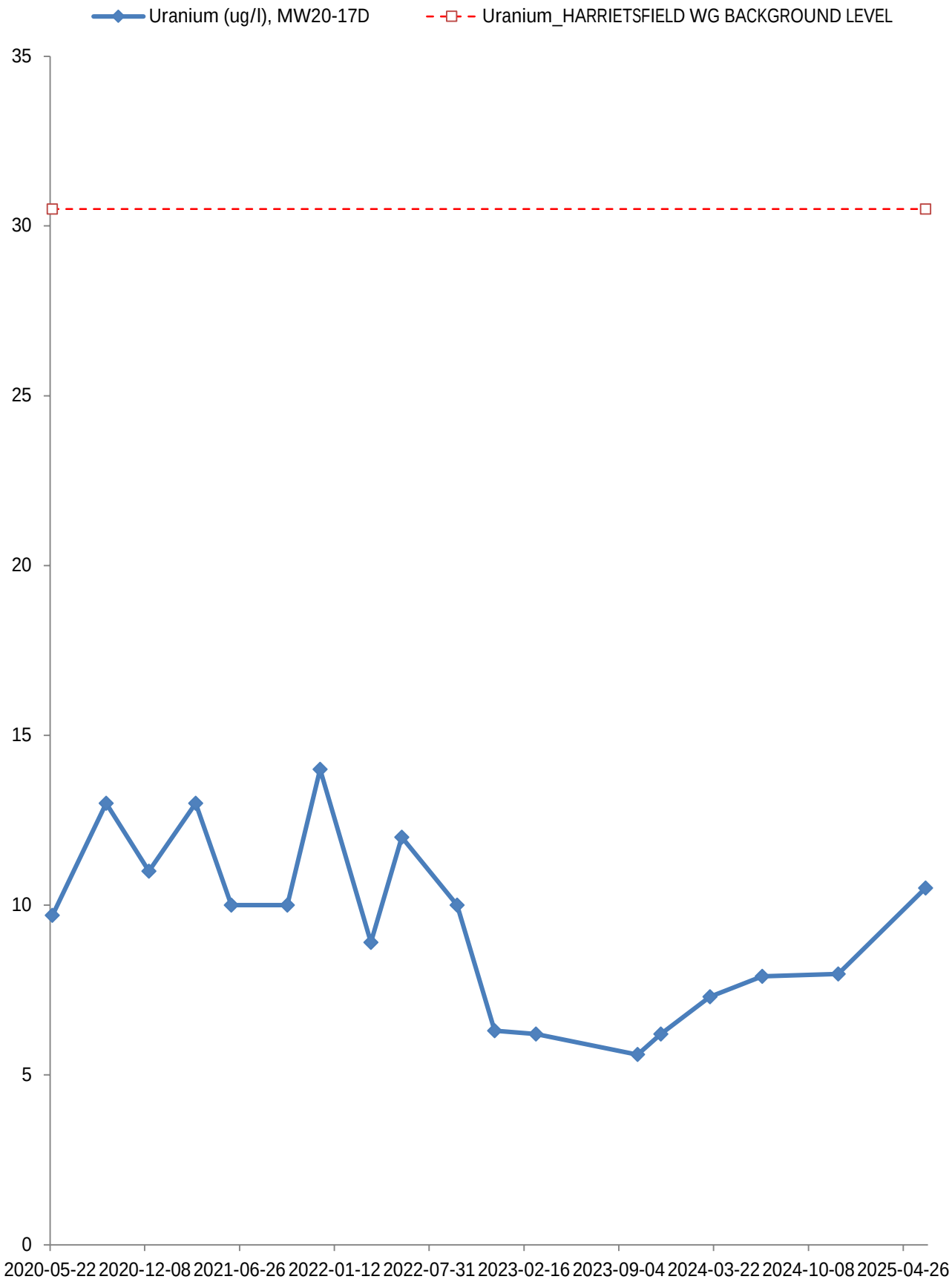

Sulphate (mg/l), MW20-17D
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Total Dissolved Solids (5

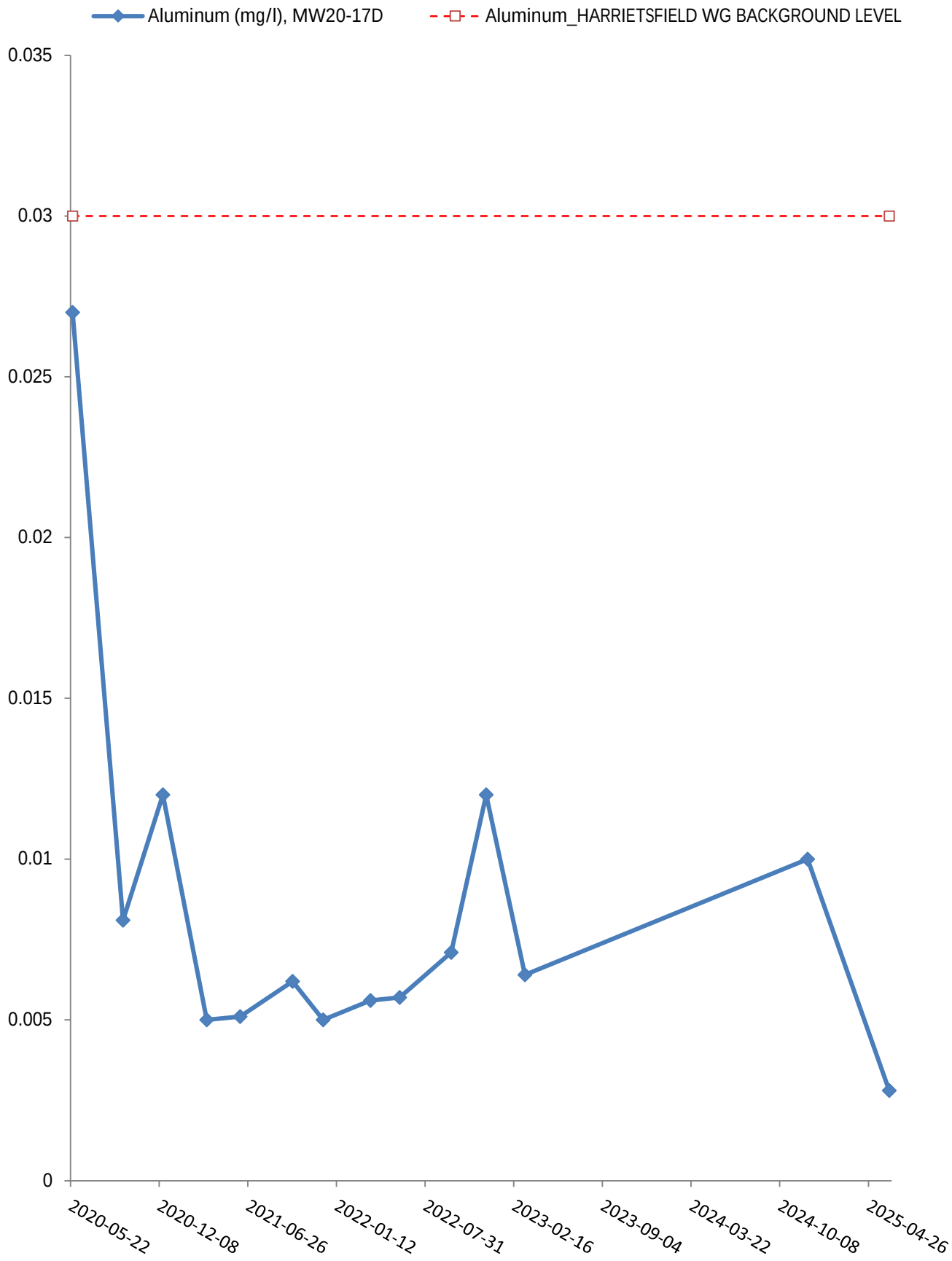
-



# Uranium

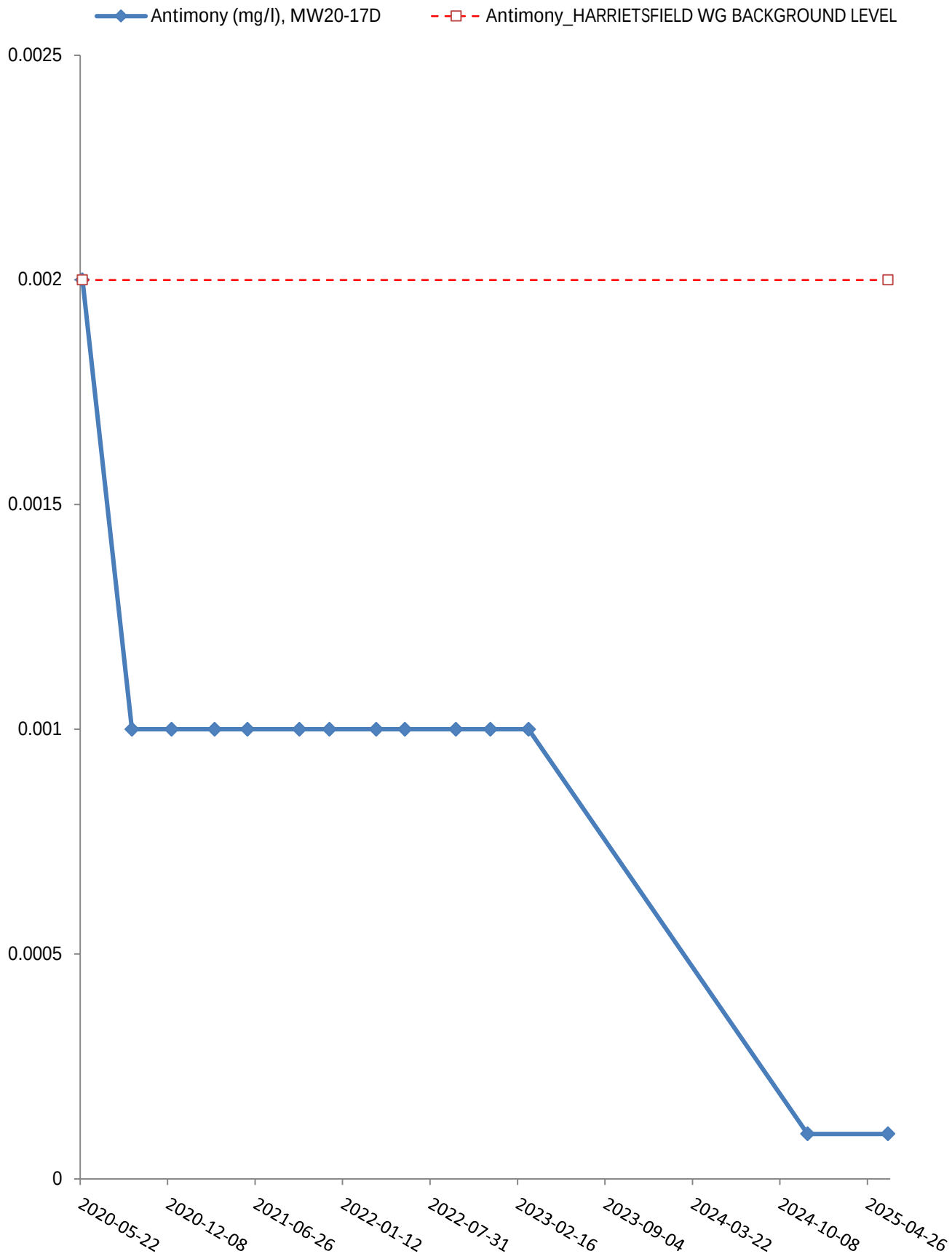

Uranium (ug/l), MW20-17D
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Aluminum

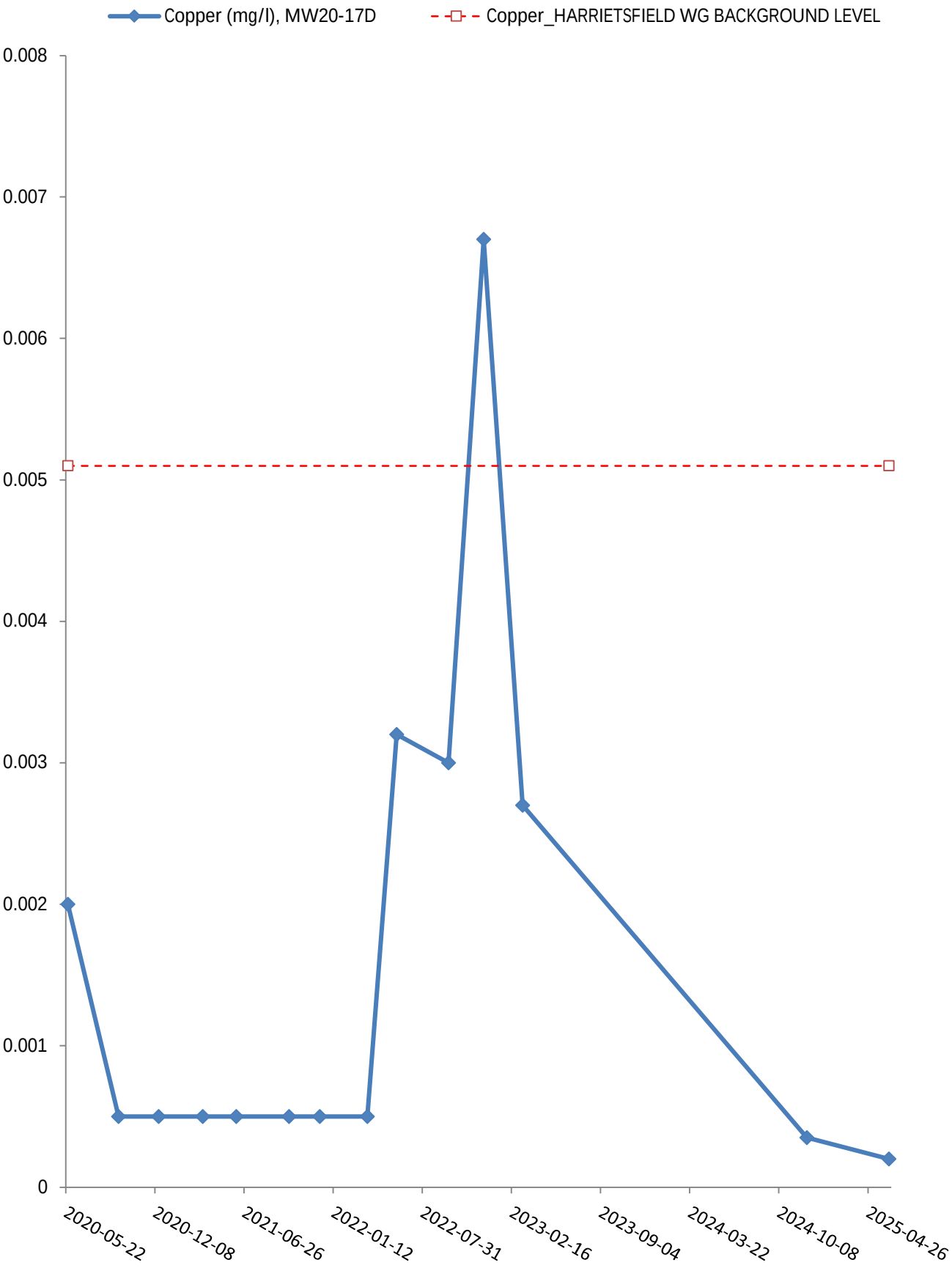

Aluminum (mg/l), MW20-17D
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony

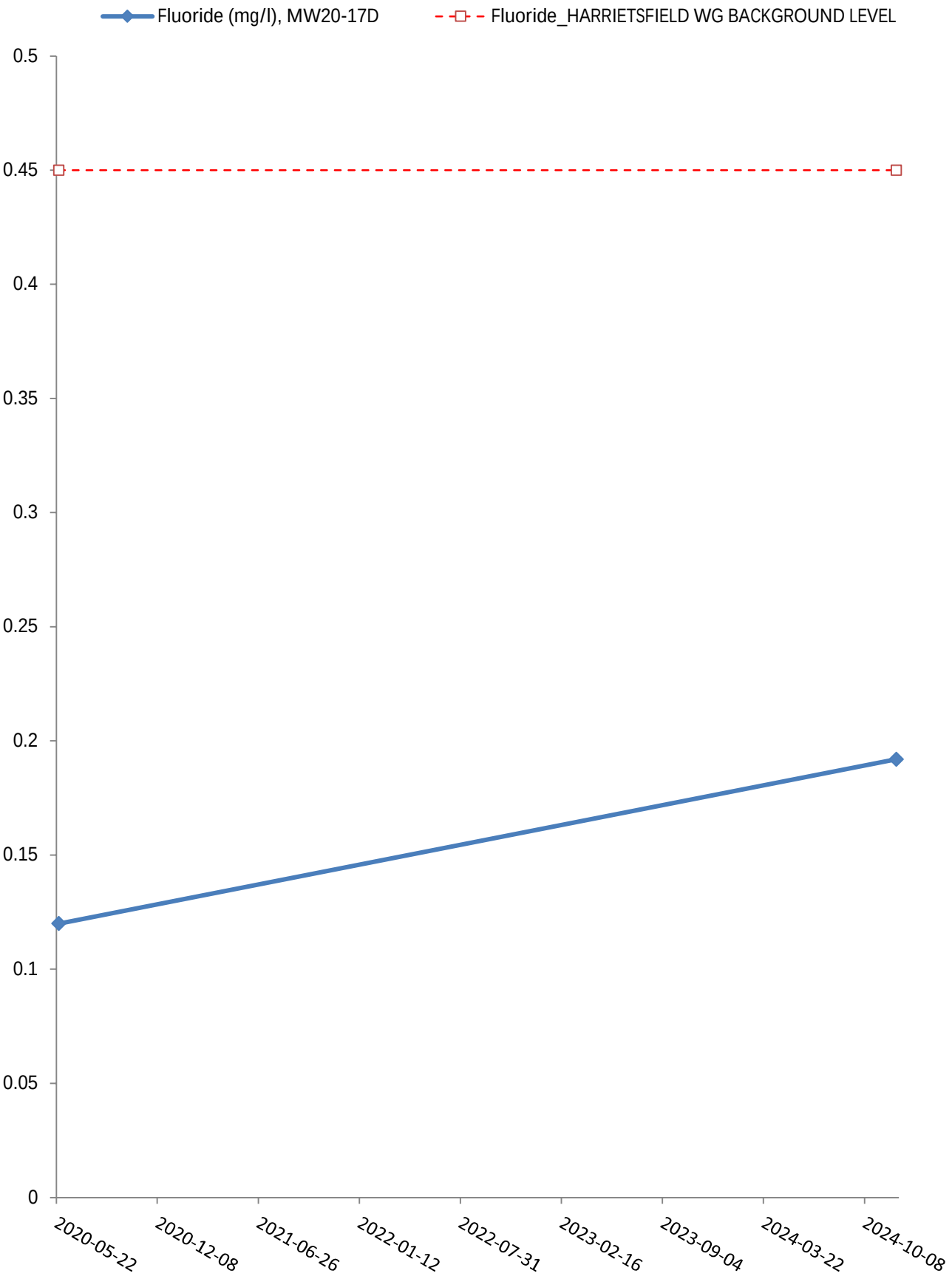



Antimony (mg/l), MW20-17D
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

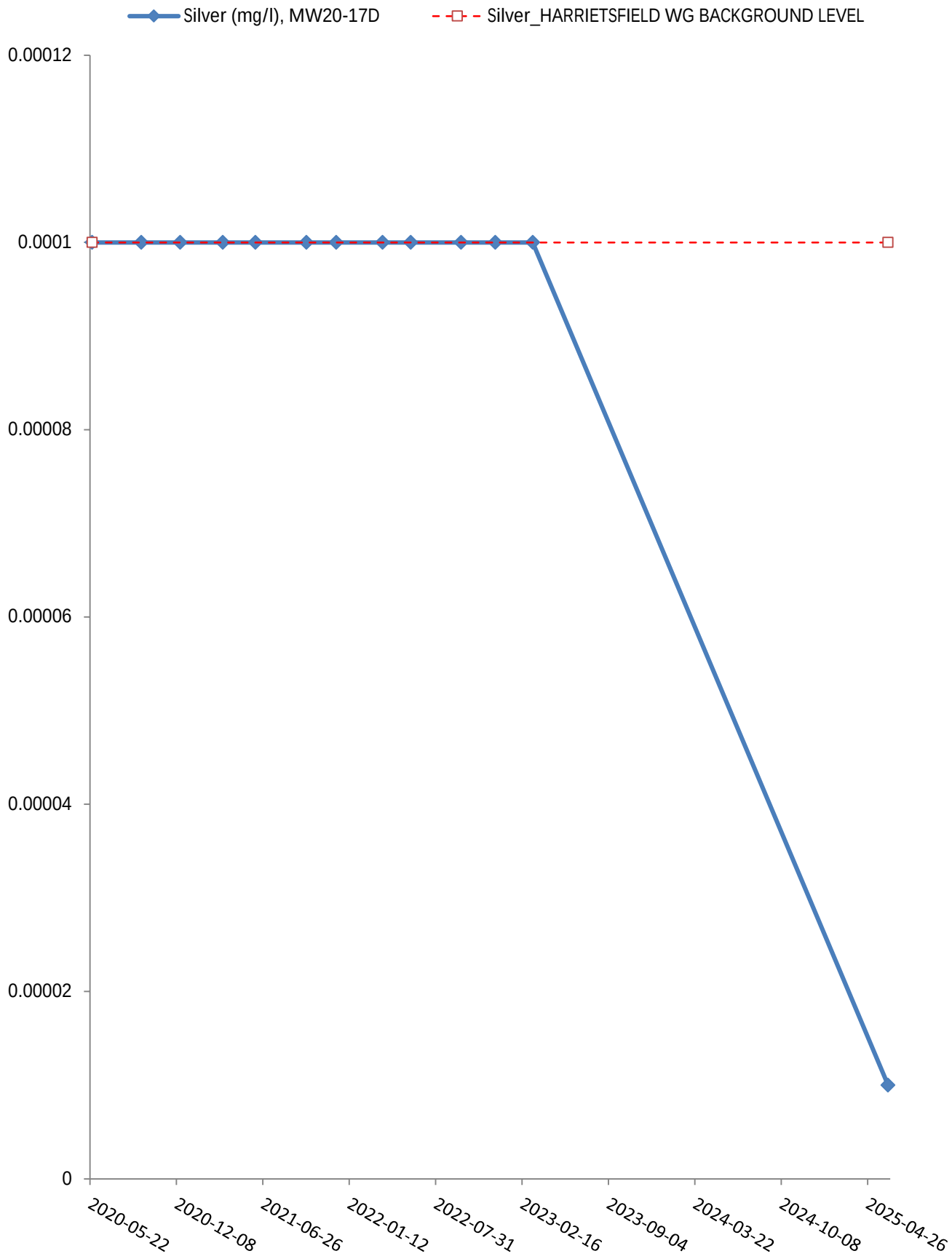
# Copper


Copper (mg/l), MW20-17D
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Fluoride

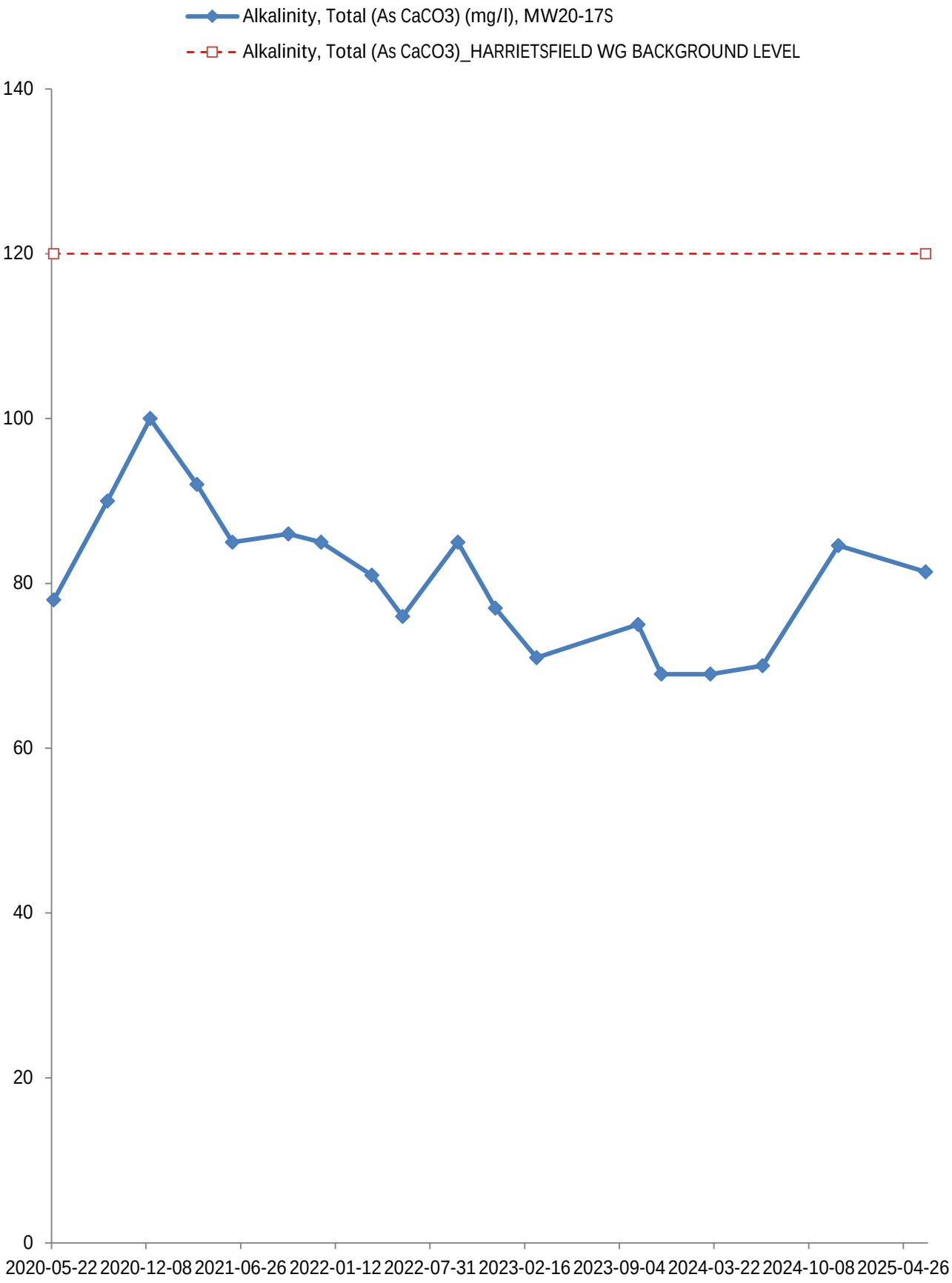

Fluoride (mg/l), MW20-17D
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

# Silver

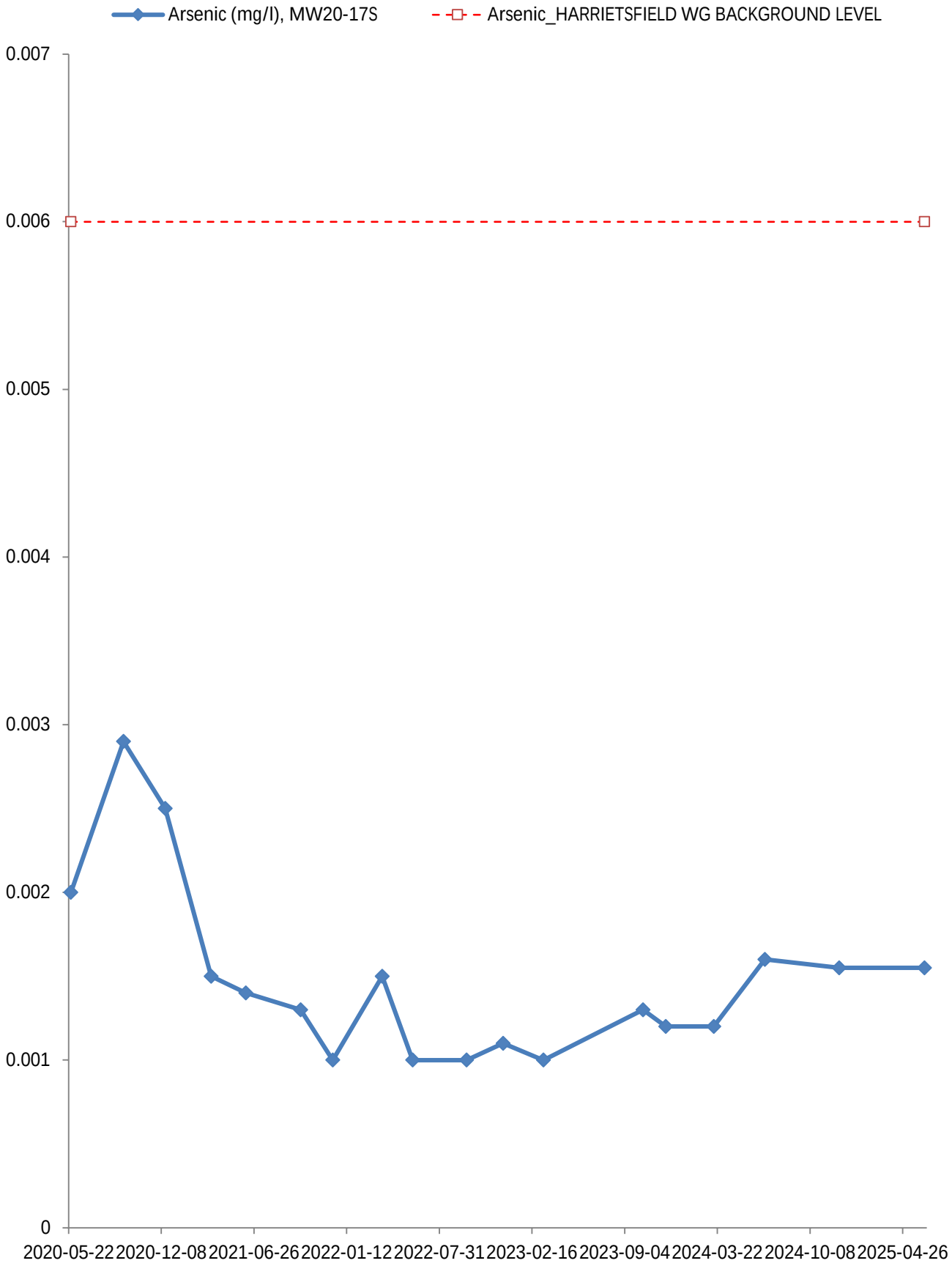

Silver (mg/l), MW20-17D
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Alkalinity, Total

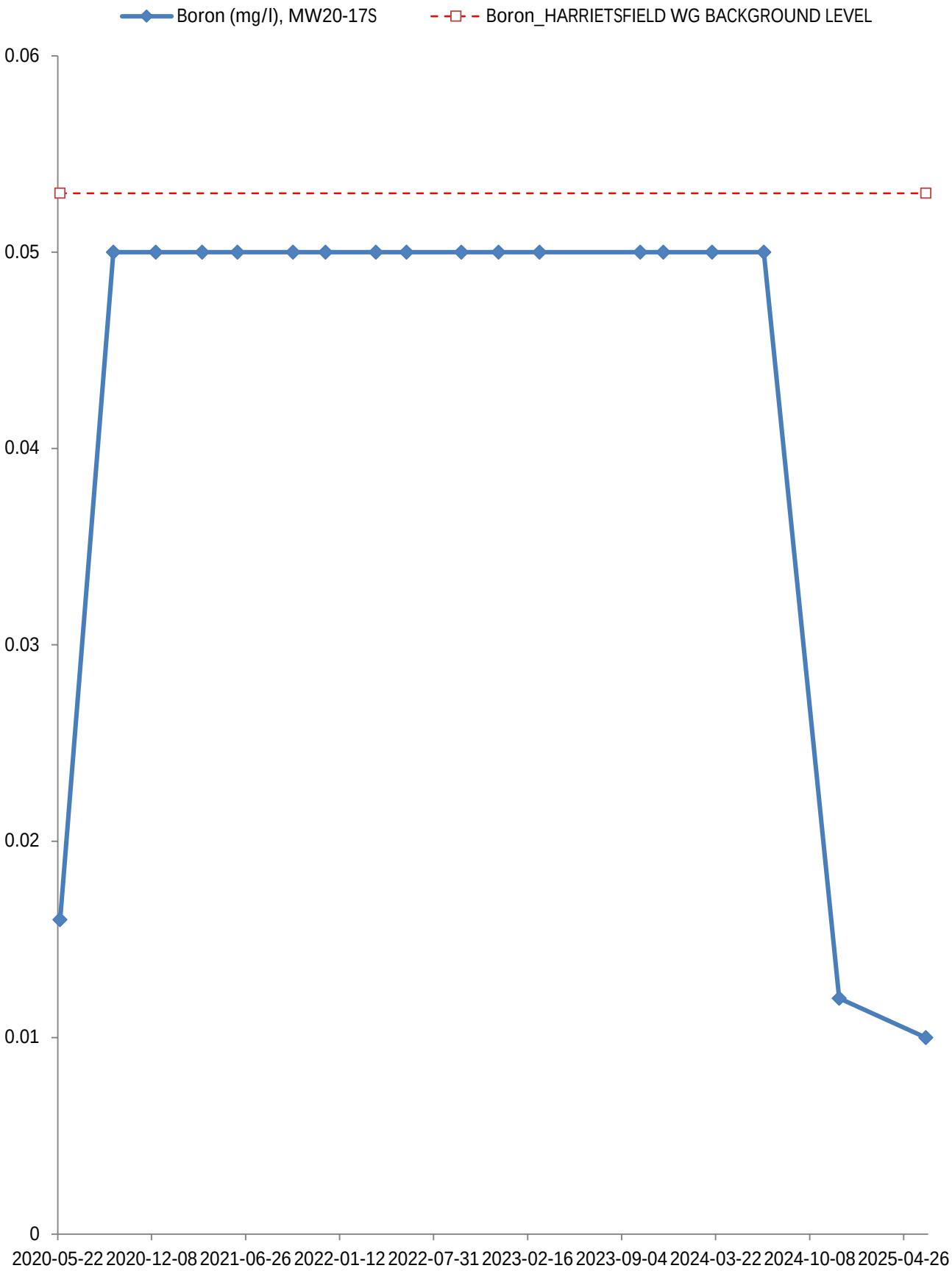




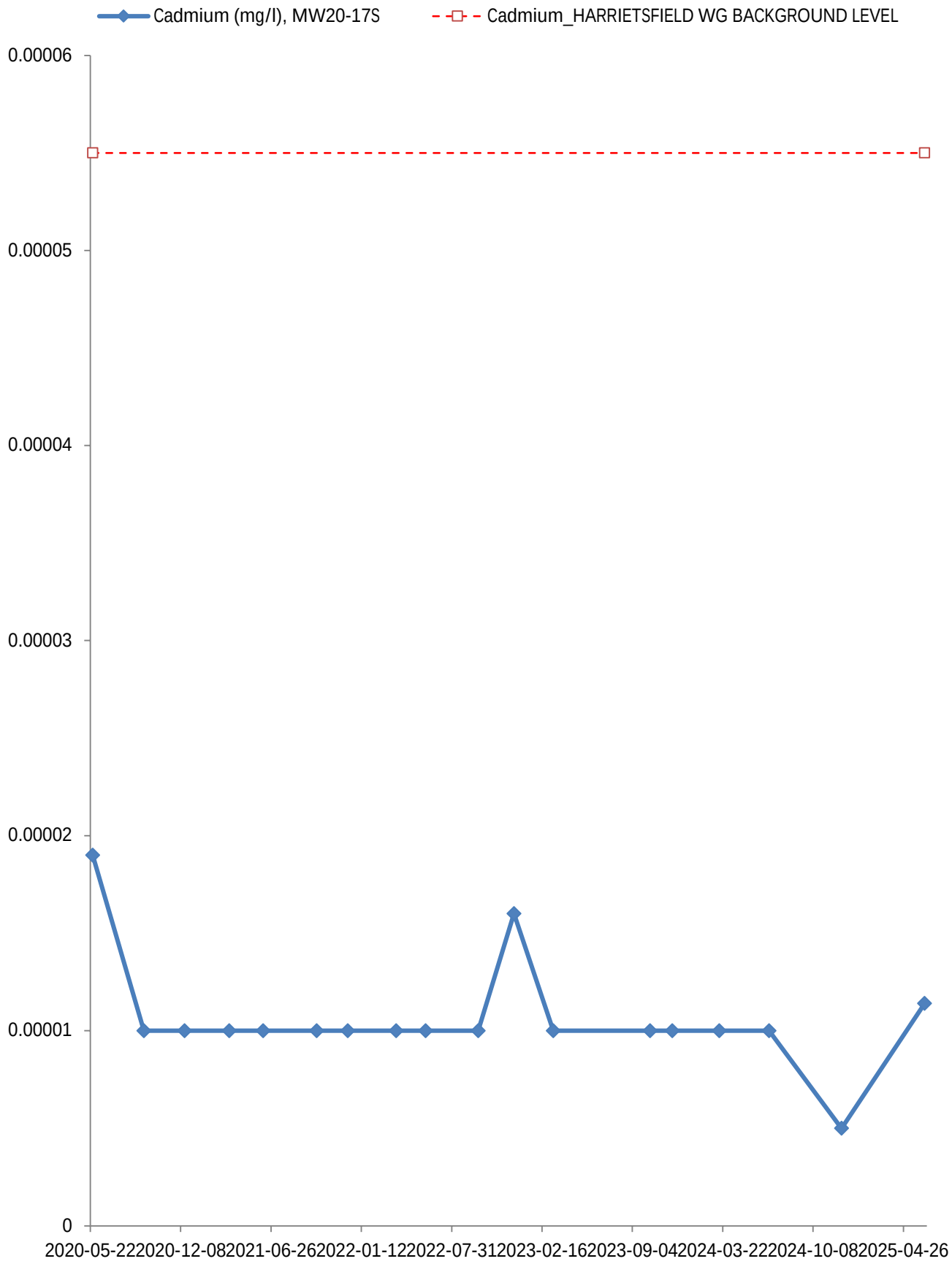
# Arsenic


Arsenic (mg/l), MW20-17S
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

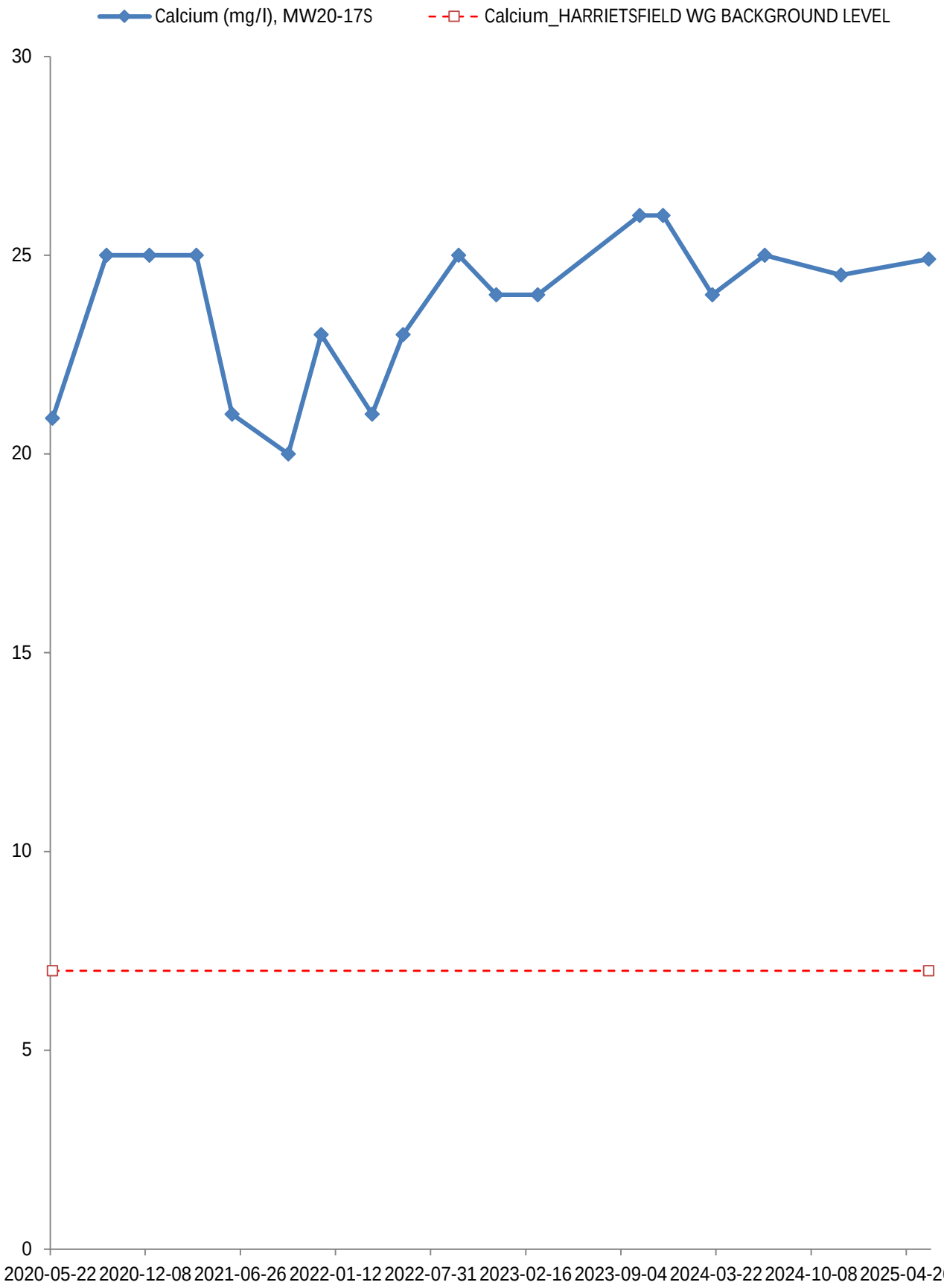
# Boron


Boron (mg/l), MW20-17S
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

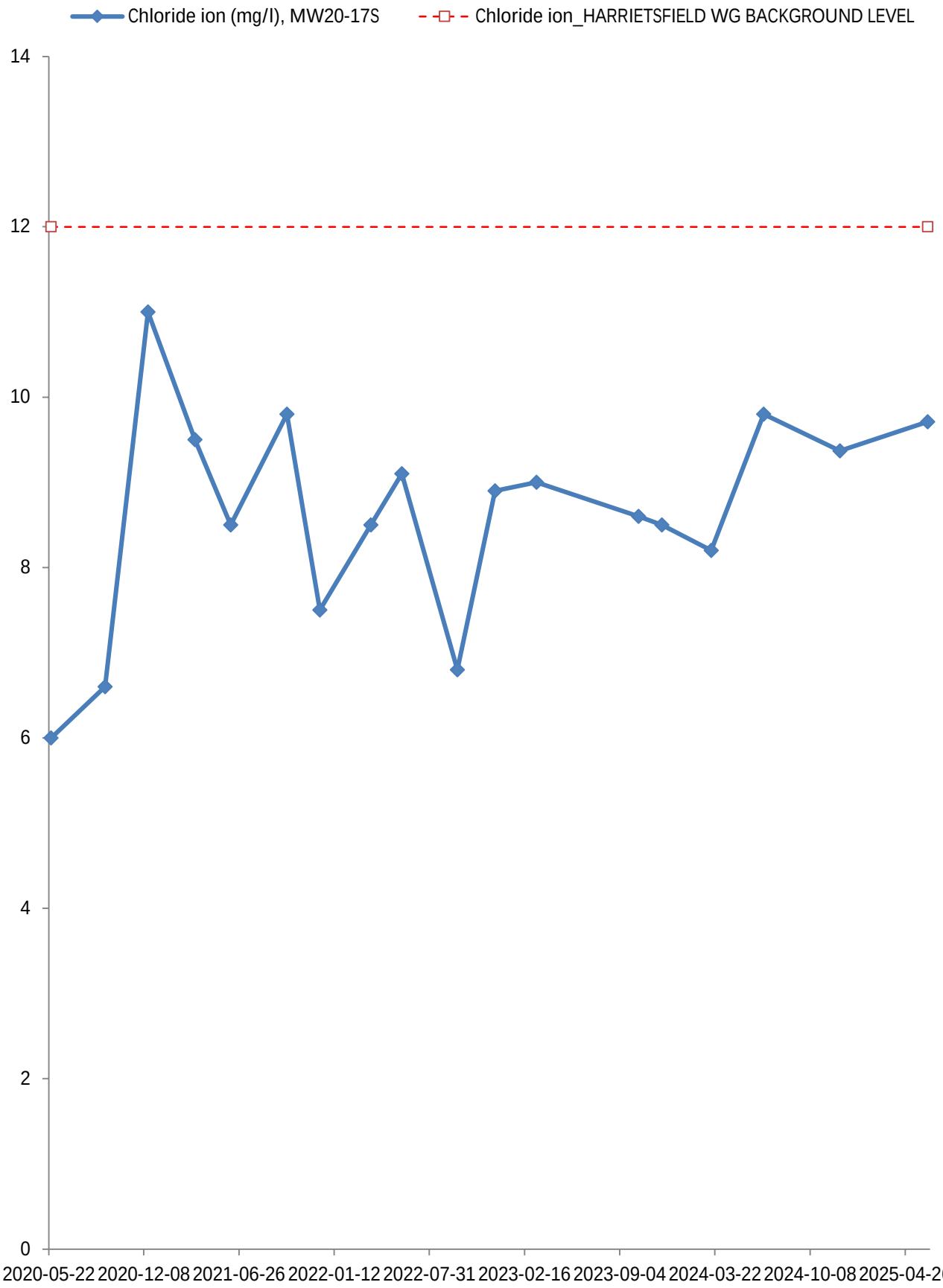
# Cadmium


Cadmium (mg/l), MW20-17S
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Calcium

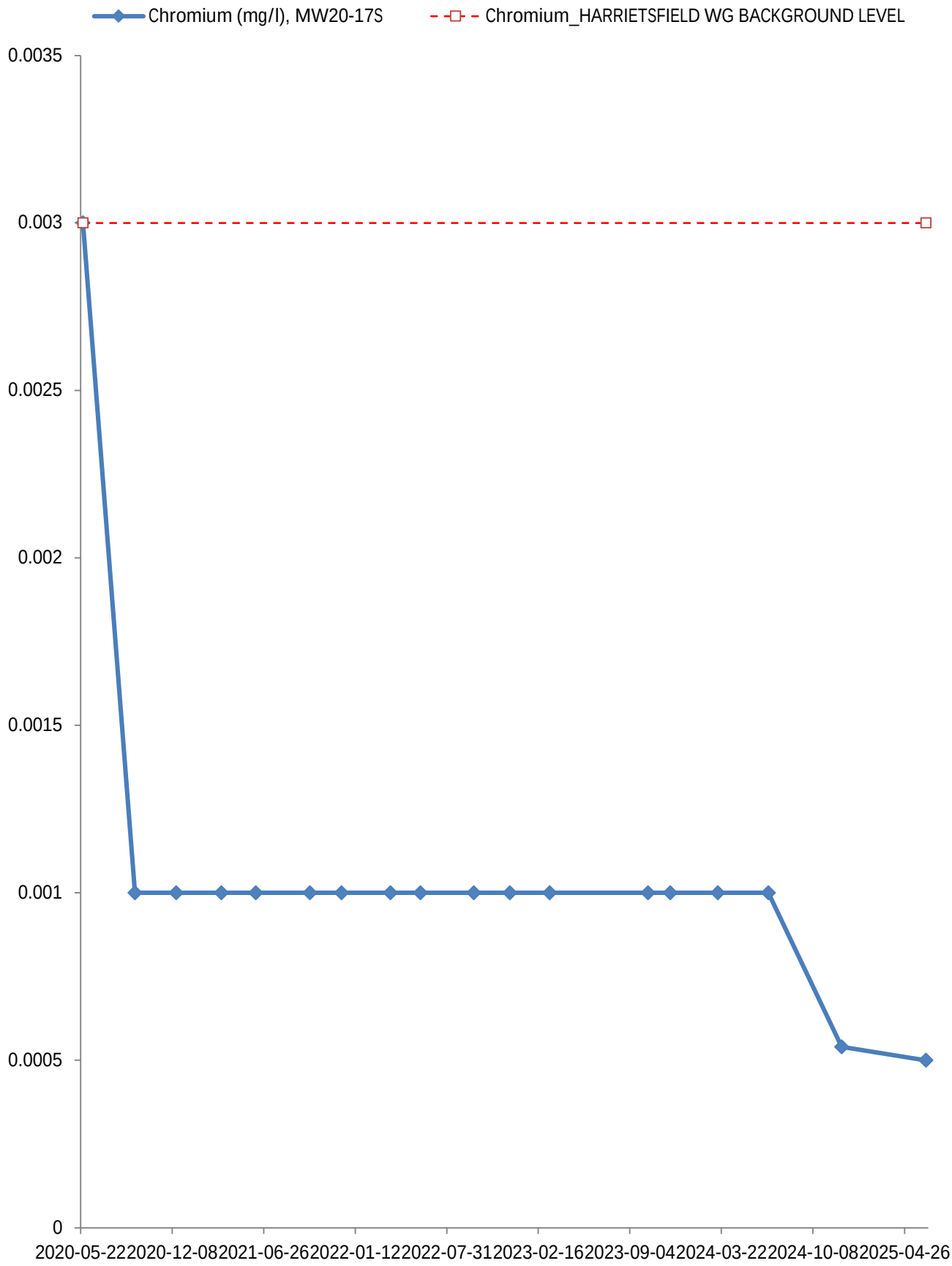

Calcium (mg/l), MW20-17S
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Chloride ion

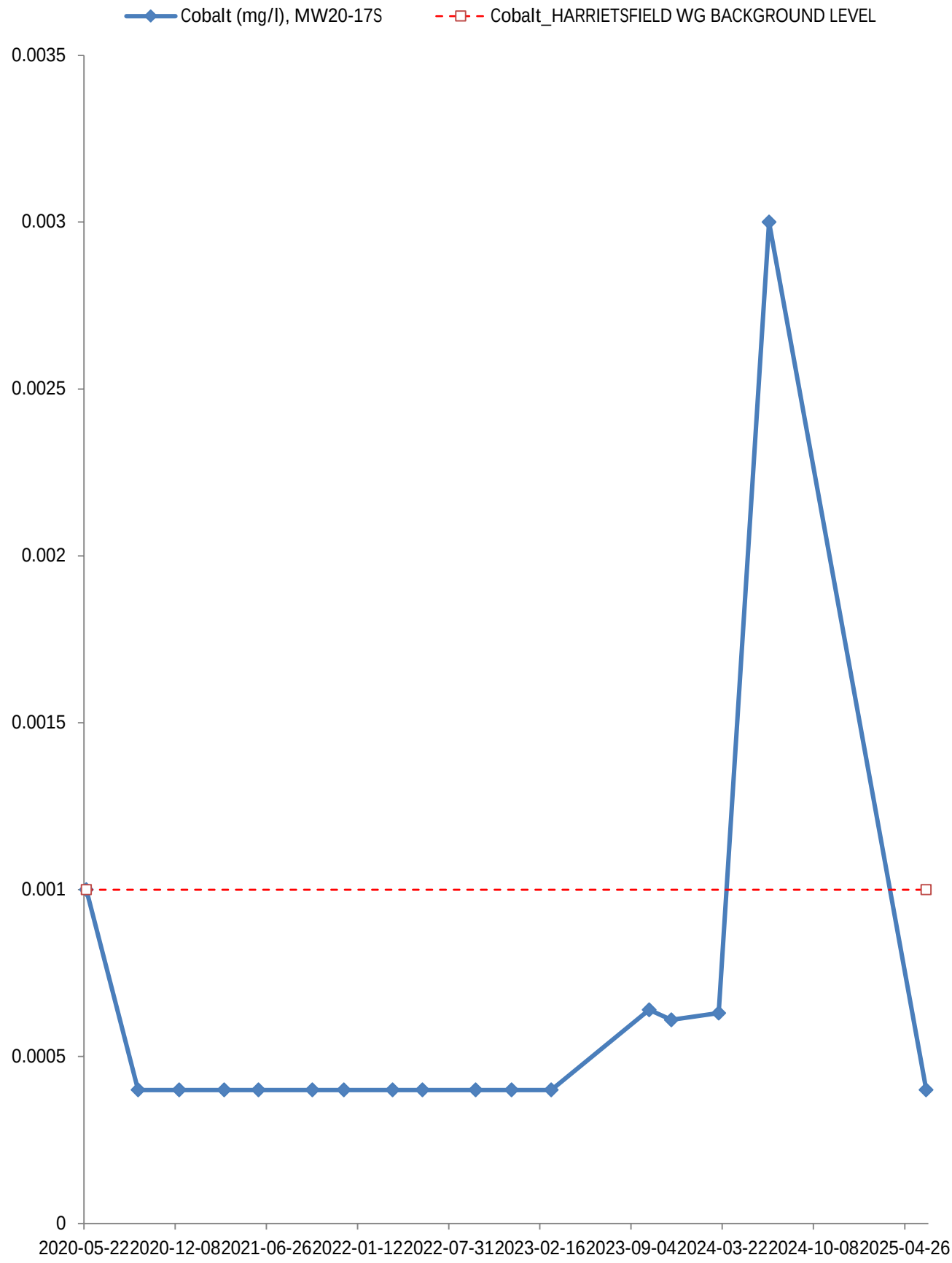


# Chromium

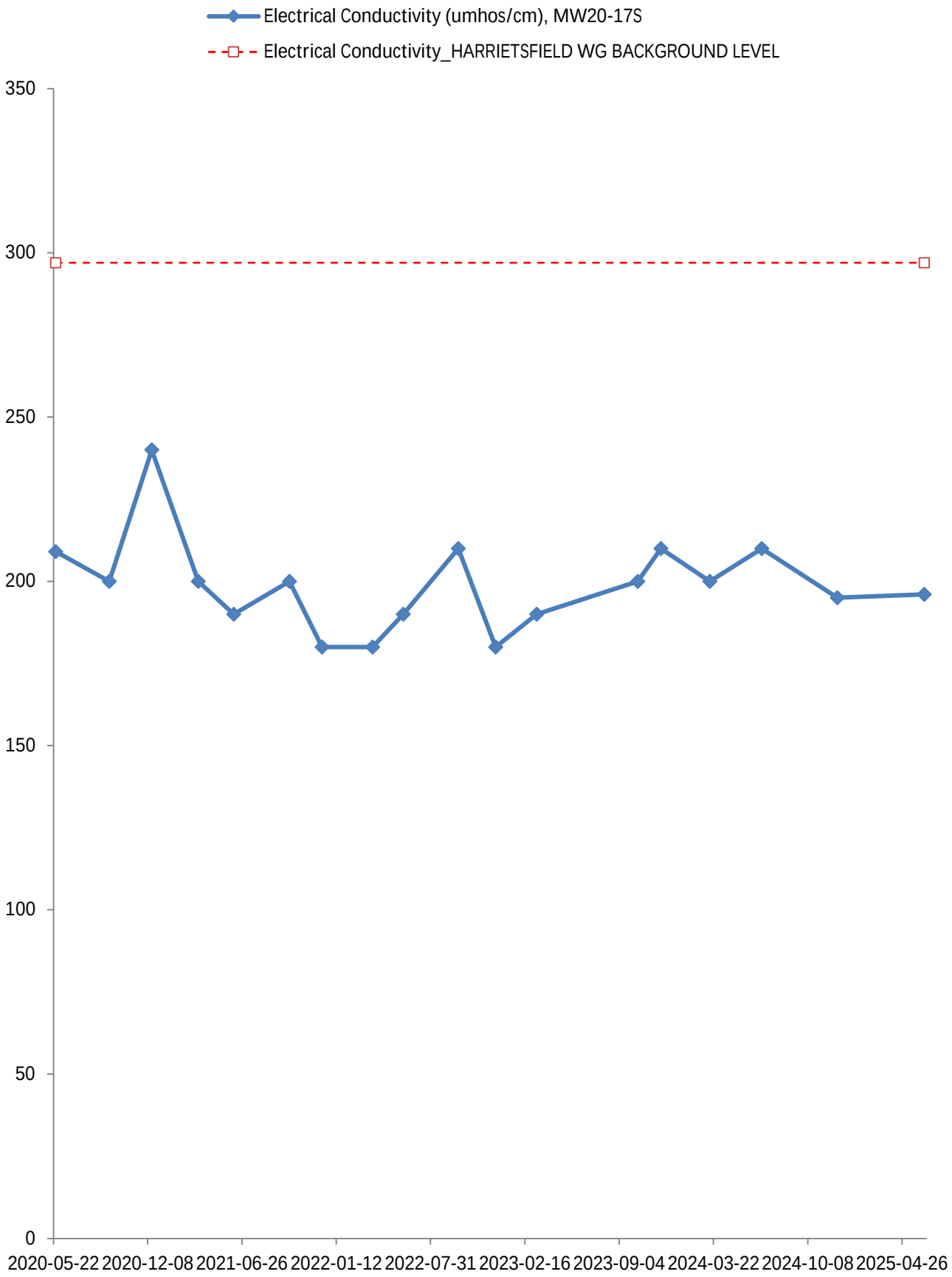



Chromium (mg/l), MW20-17S
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Cobalt

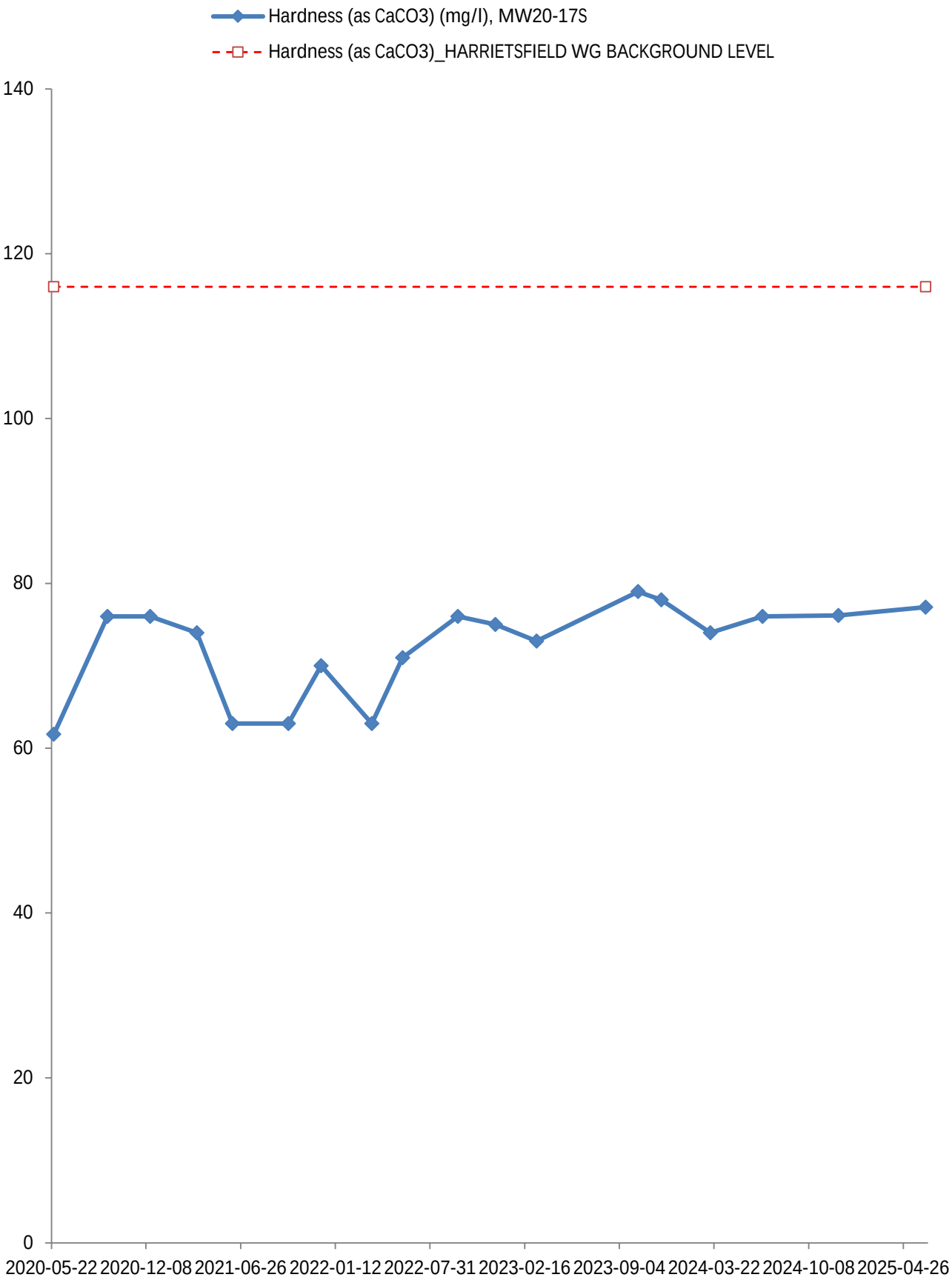

Cobalt (mg/l), MW20-17S
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Electrical Conductivity

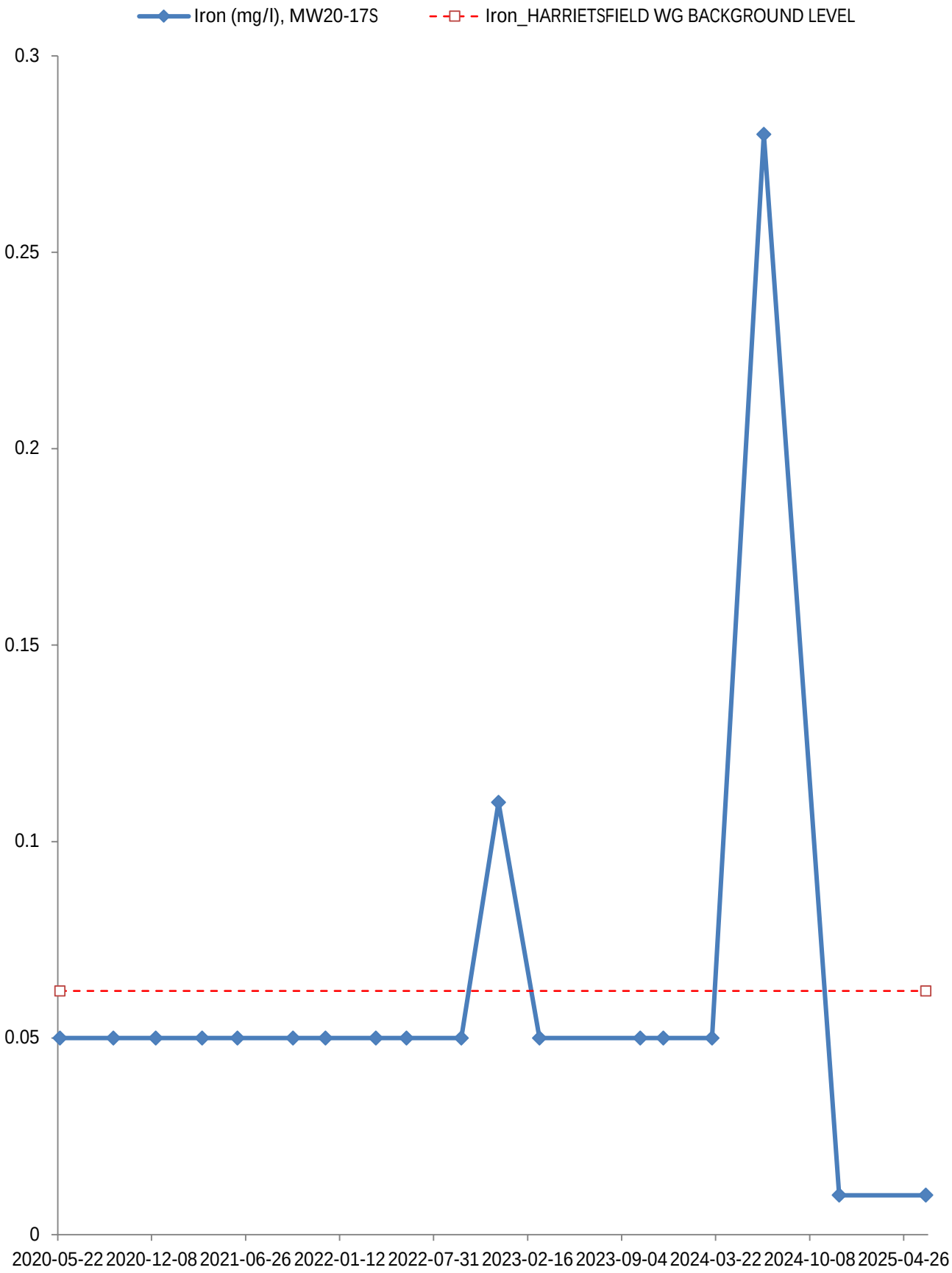


# Hardness (as CaCO3)

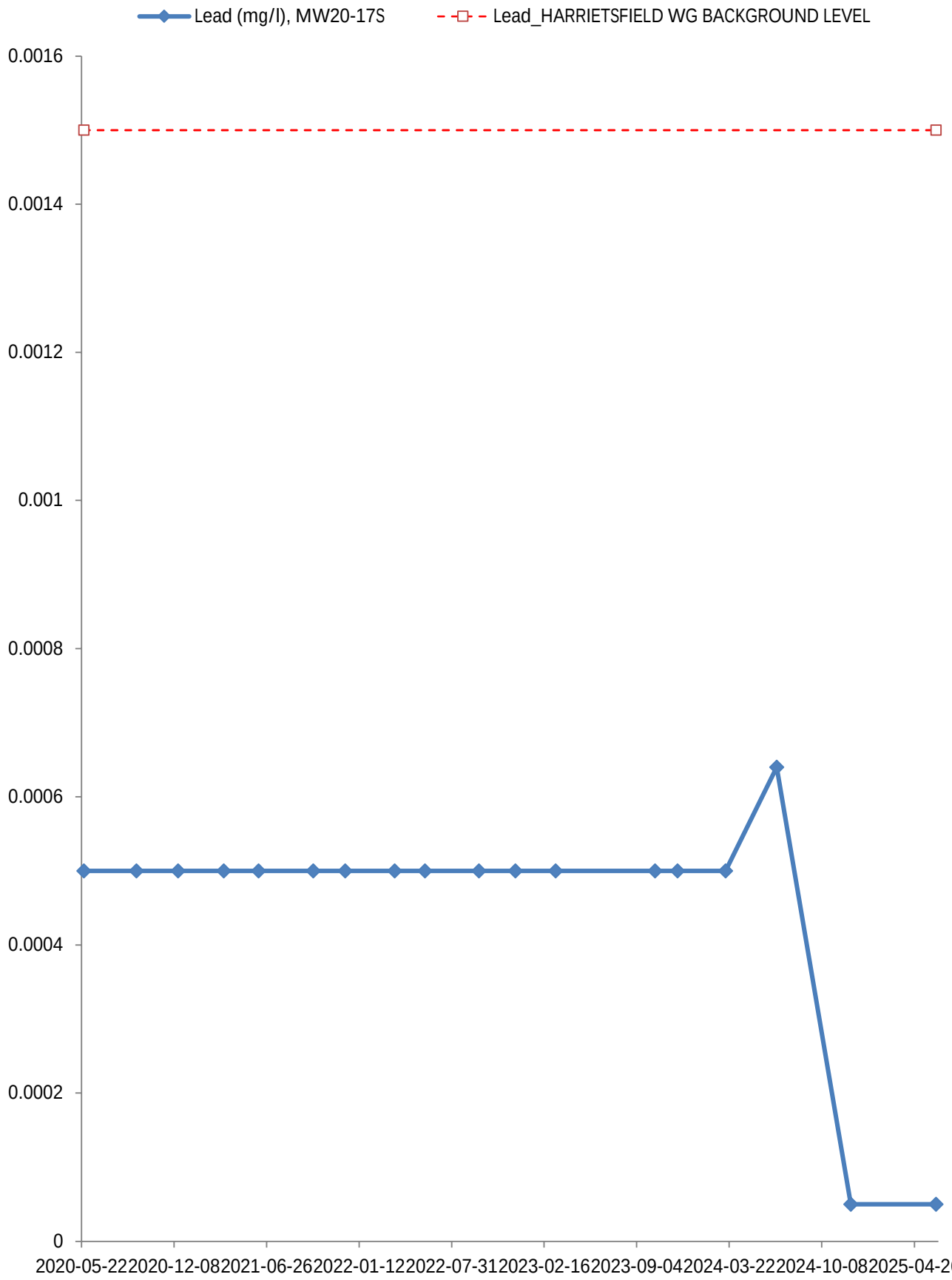




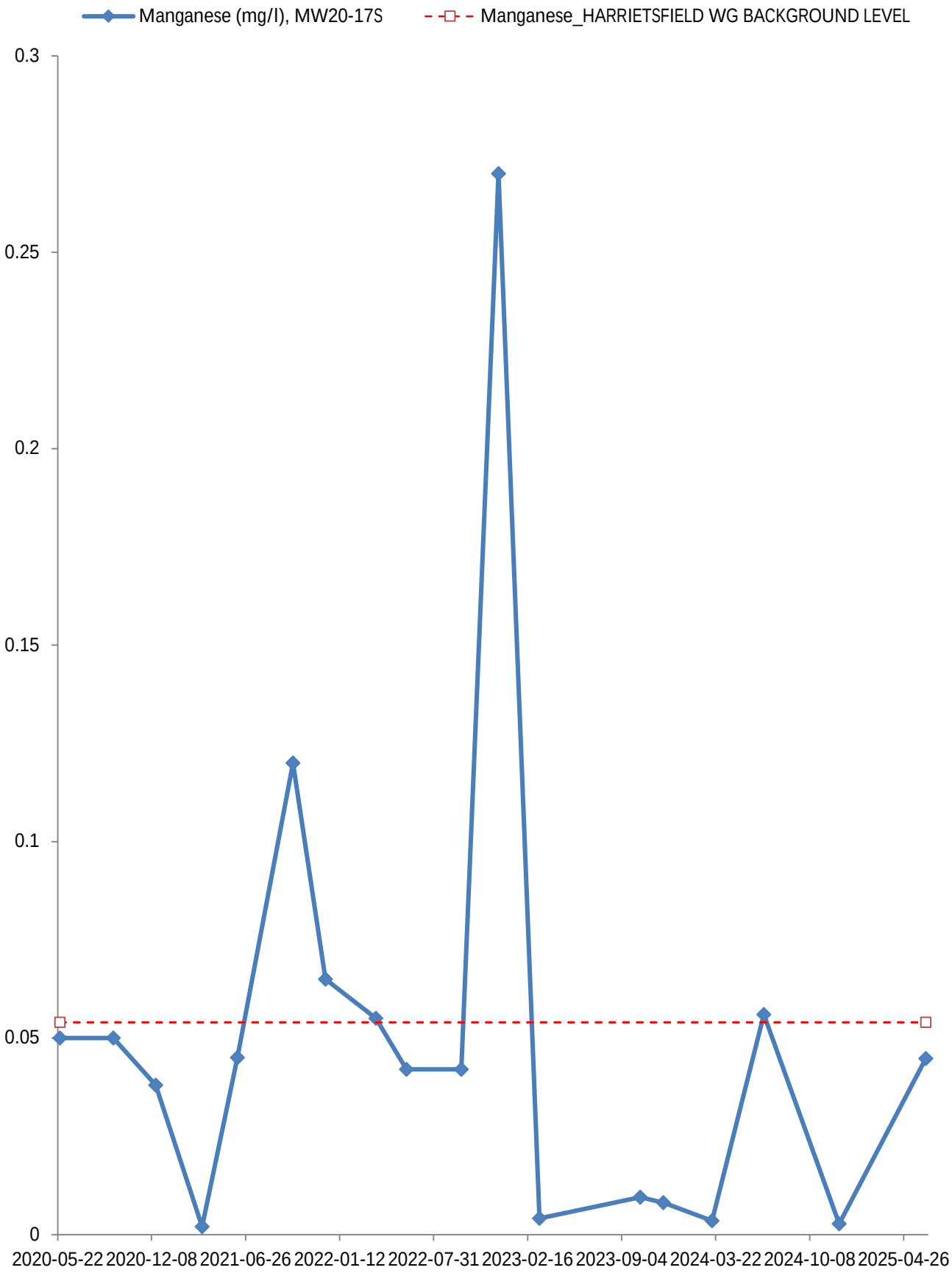
# Iron


Iron (mg/l), MW20-17S
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

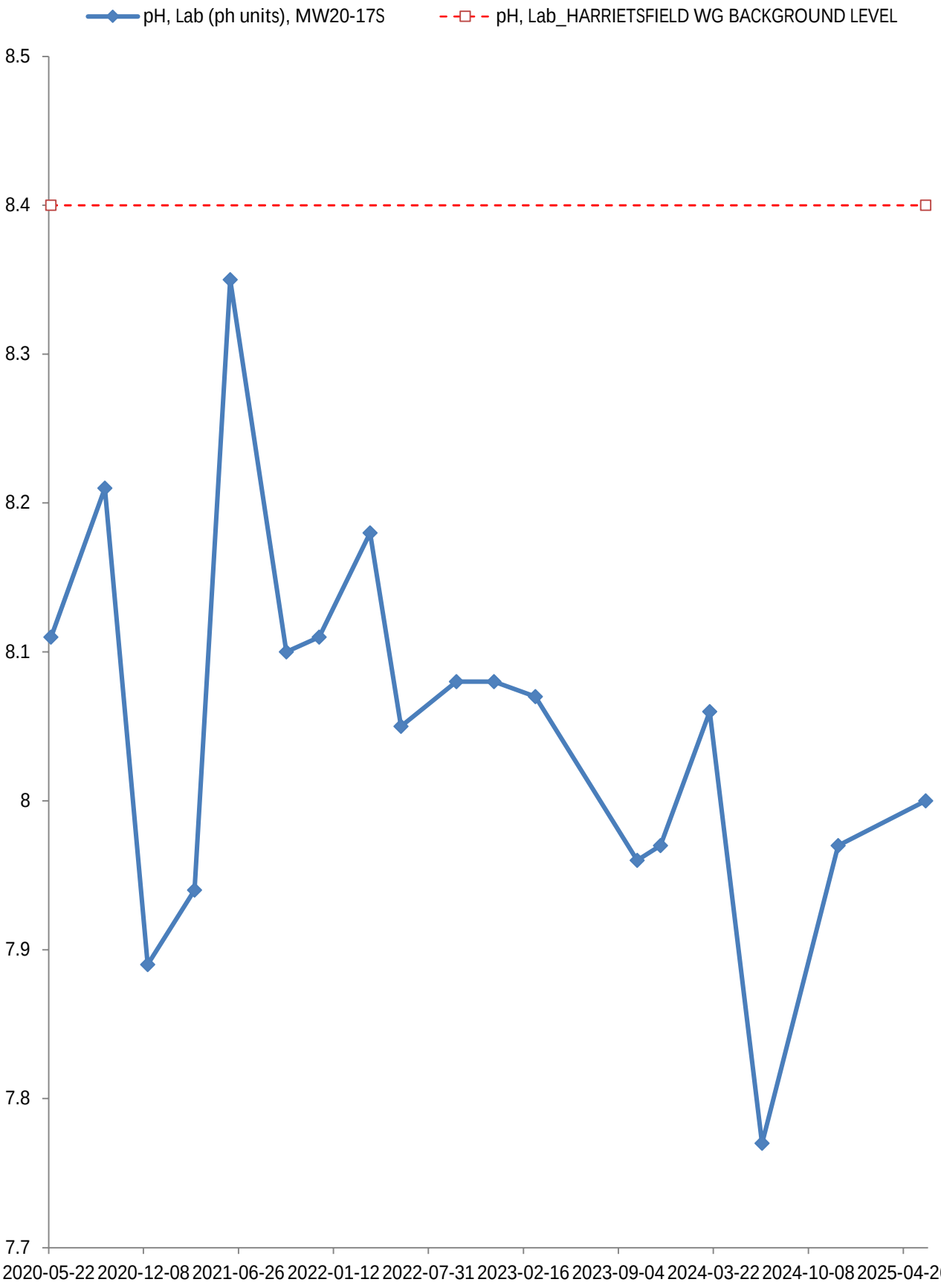
# Lead


Lead (mg/l), MW20-17S
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

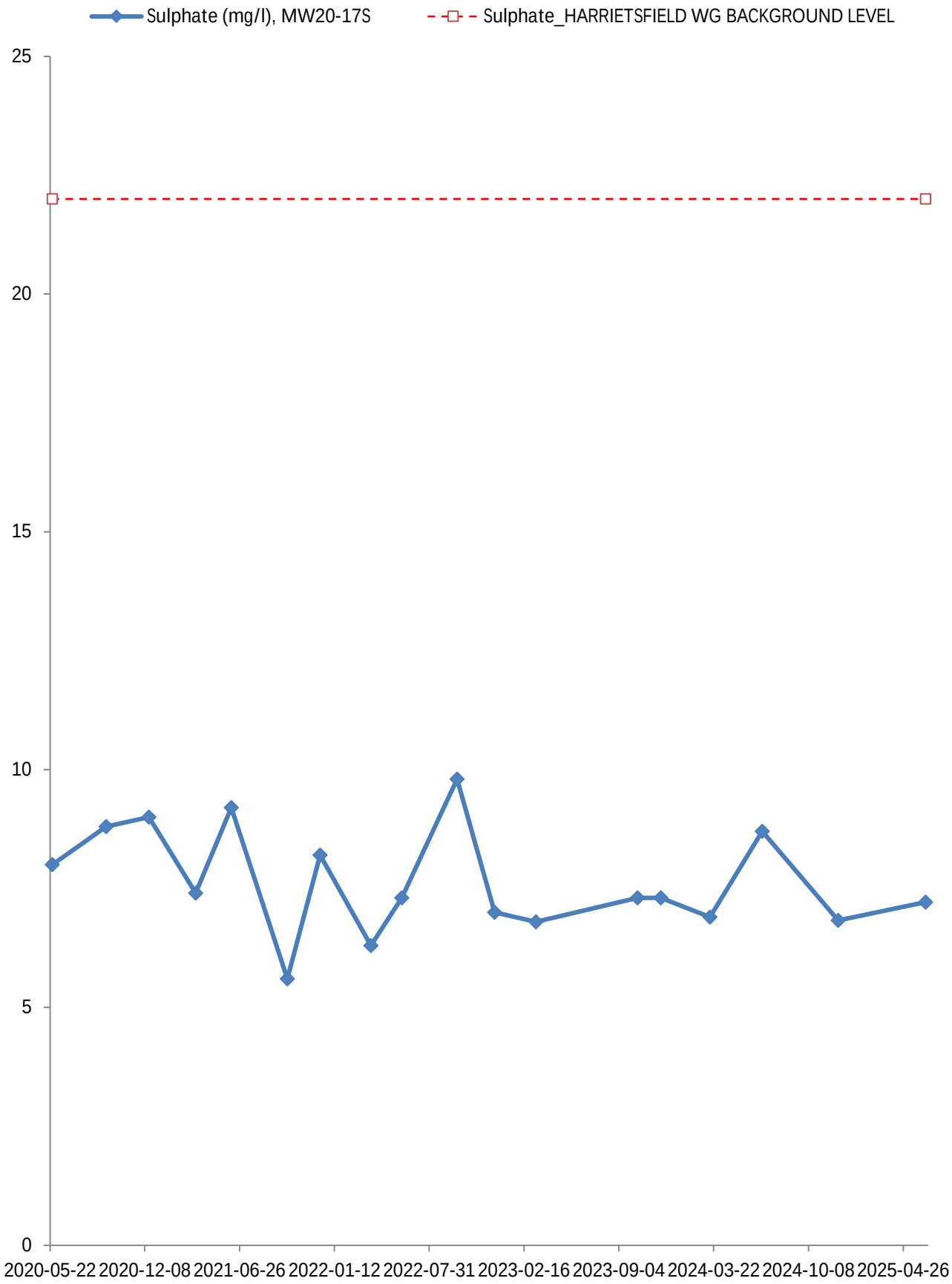
# Manganese


Manganese (mg/l), MW20-17S
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

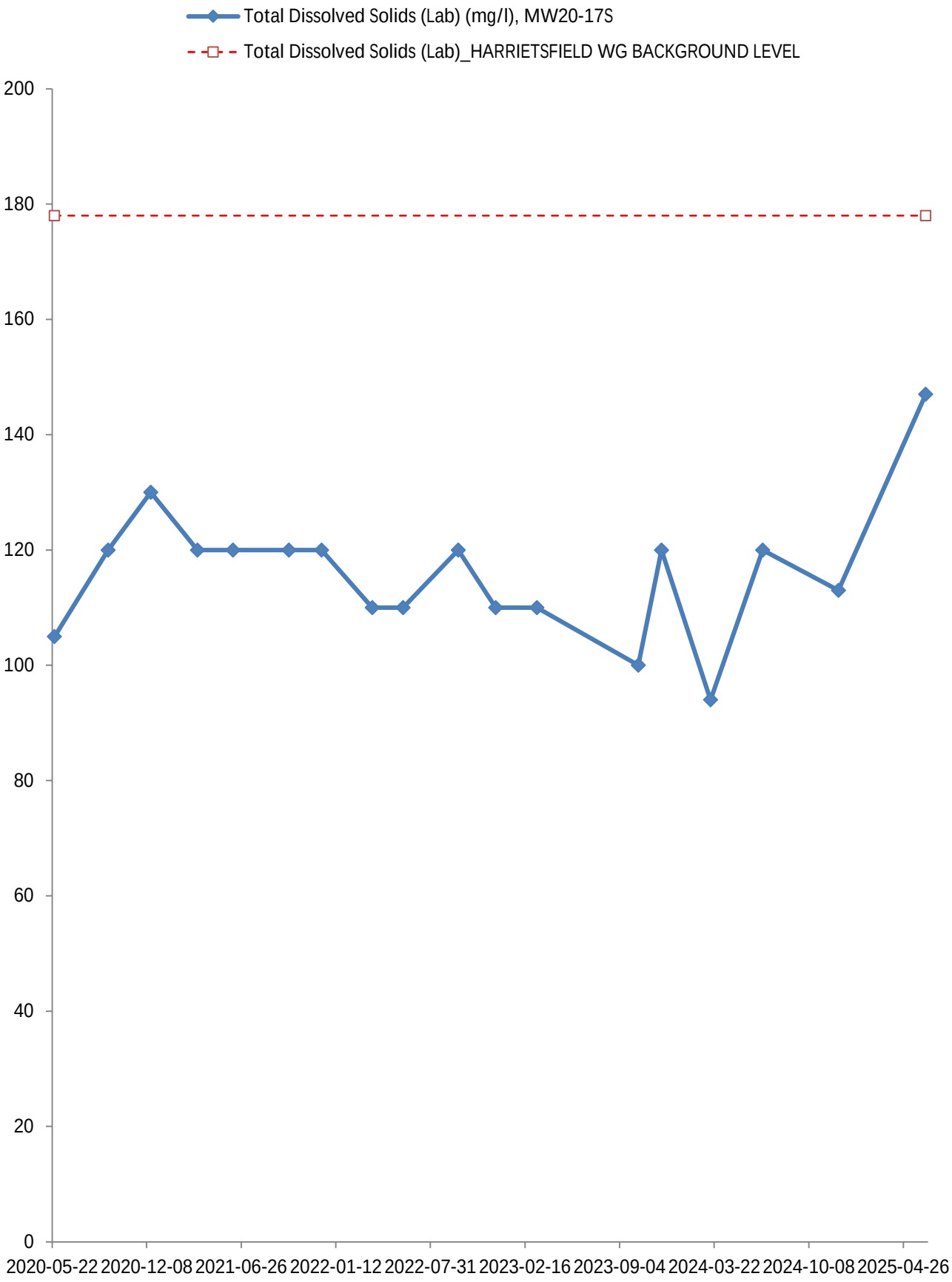
# pH, Lab


pH, Lab (ph units), MW20-17S
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.5
8.4
8.3
8.2
8.1
8
7.9
7.8
7.7
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Sulphate


Sulphate (mg/l), MW20-17S
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

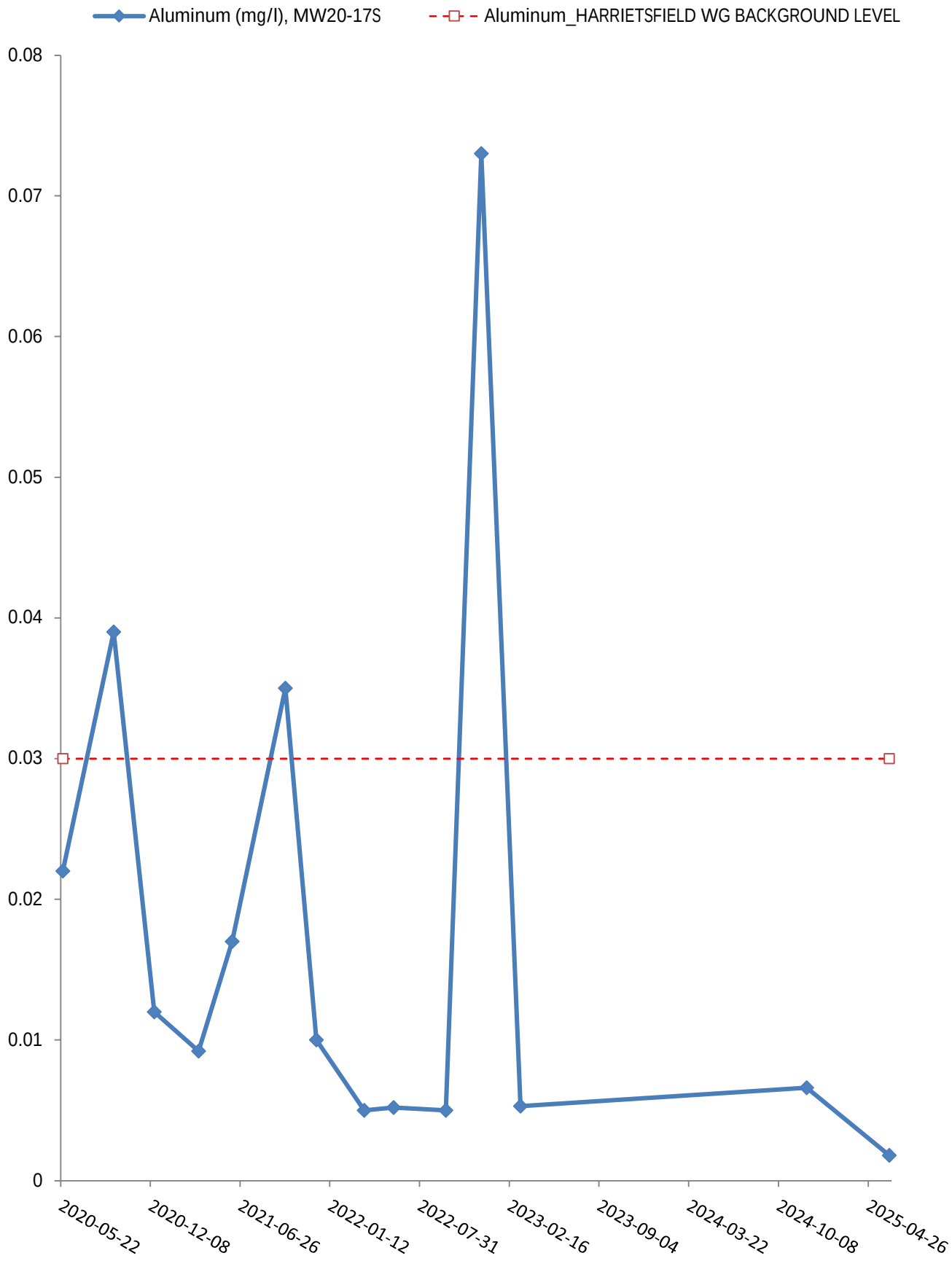
# Total Dissolved Solids (5



# Uranium

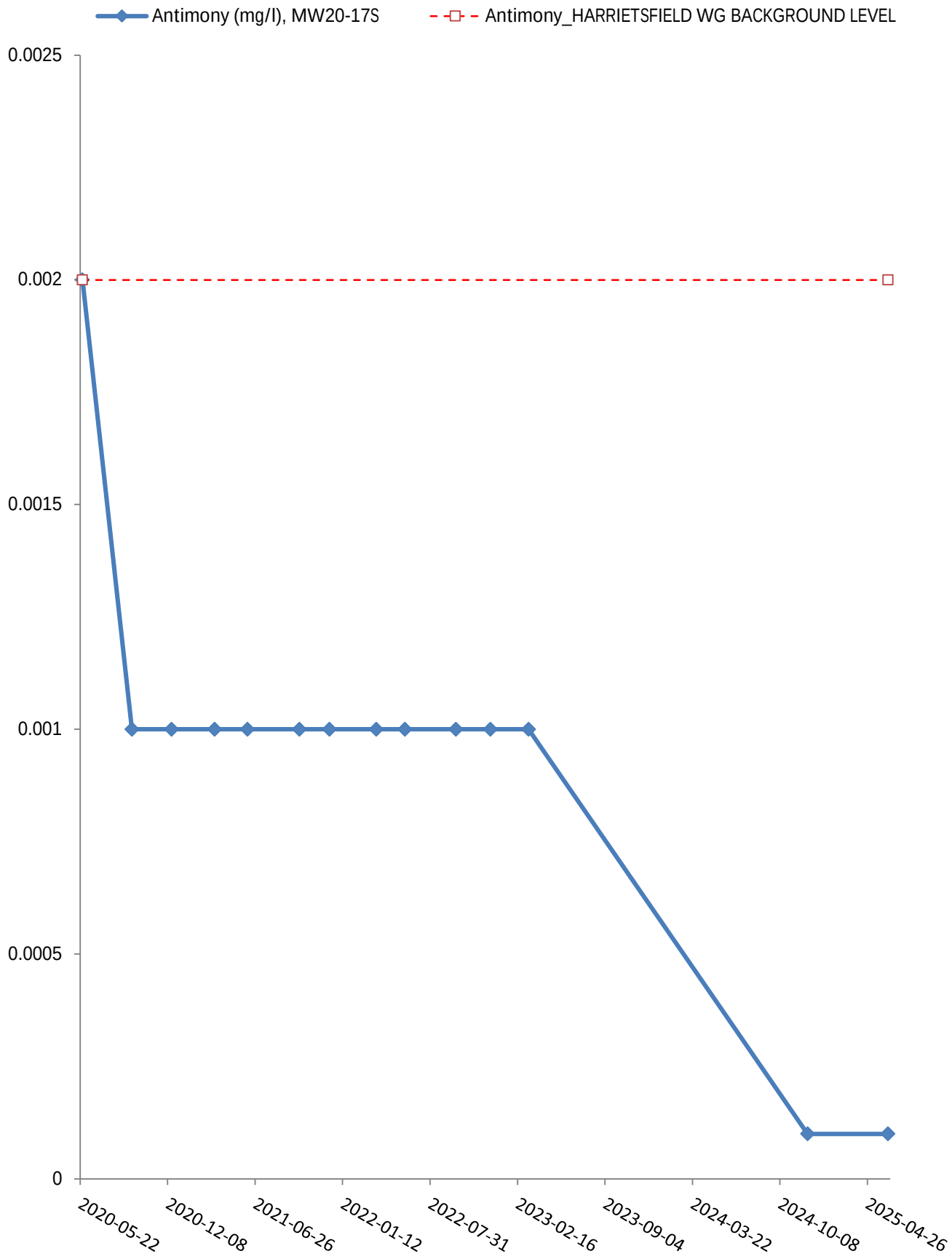

Uranium (ug/l), MW20-17S
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Aluminum

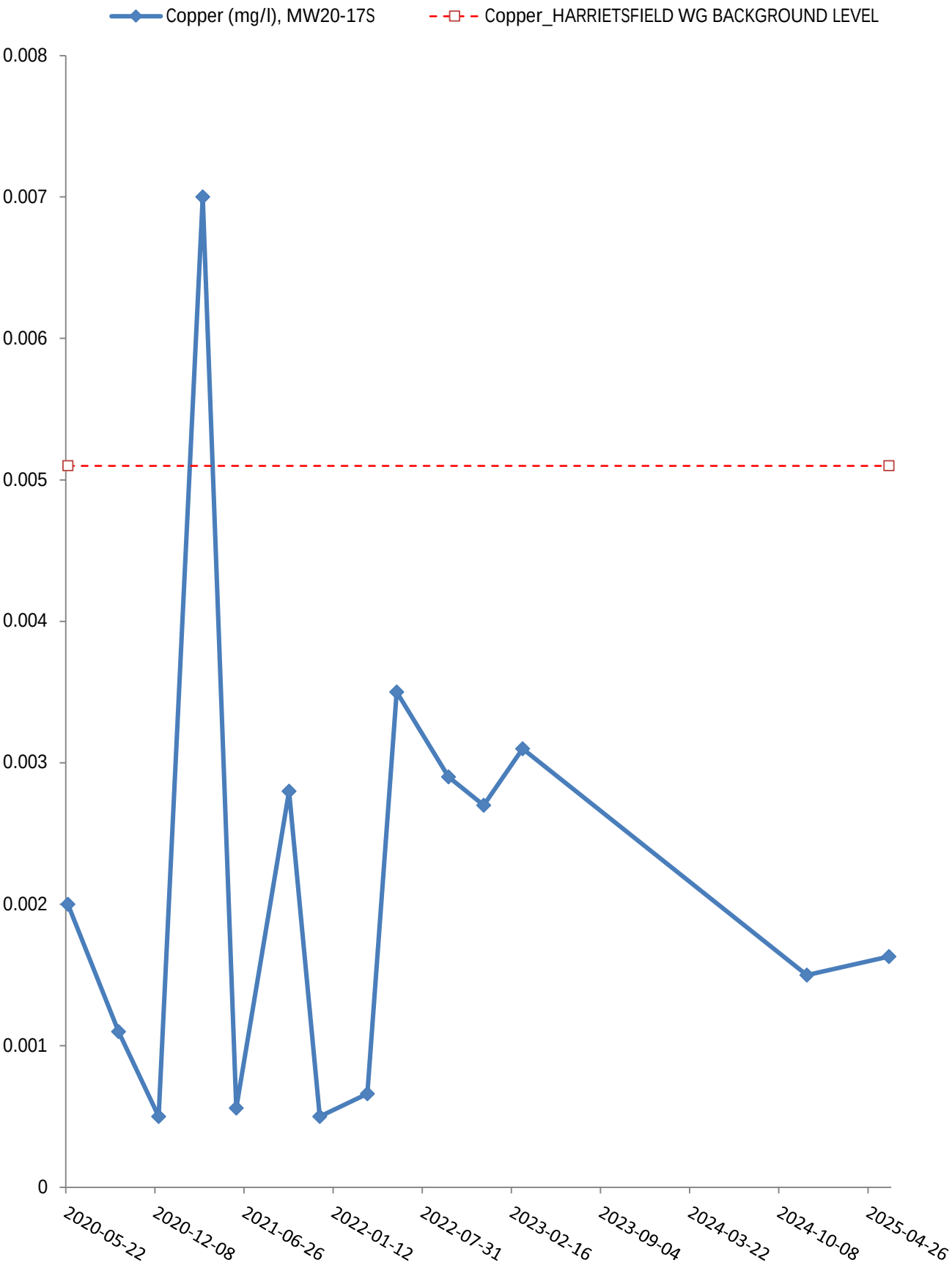

Aluminum (mg/l), MW20-17S
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Antimony

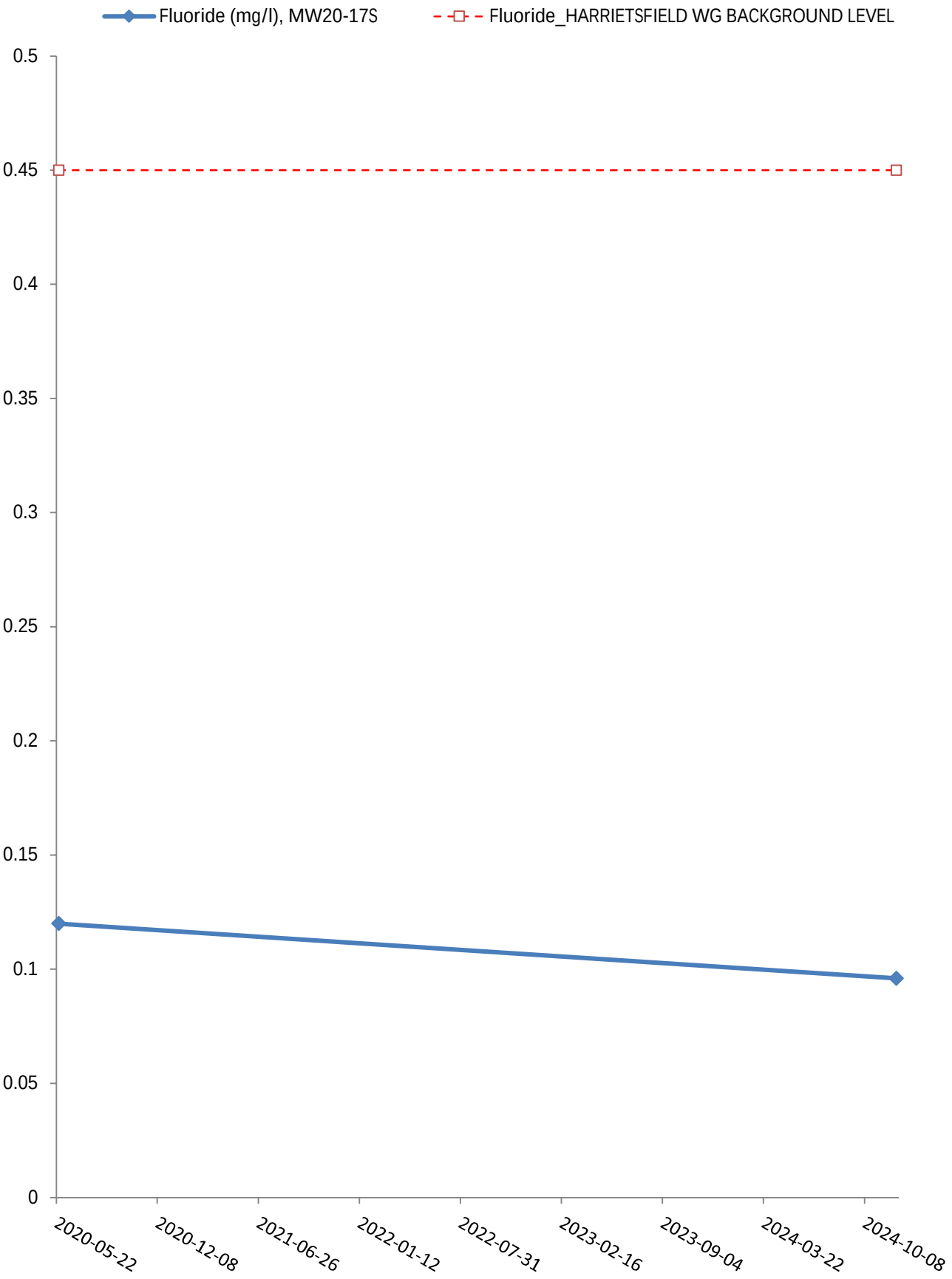



Antimony (mg/l), MW20-17S
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

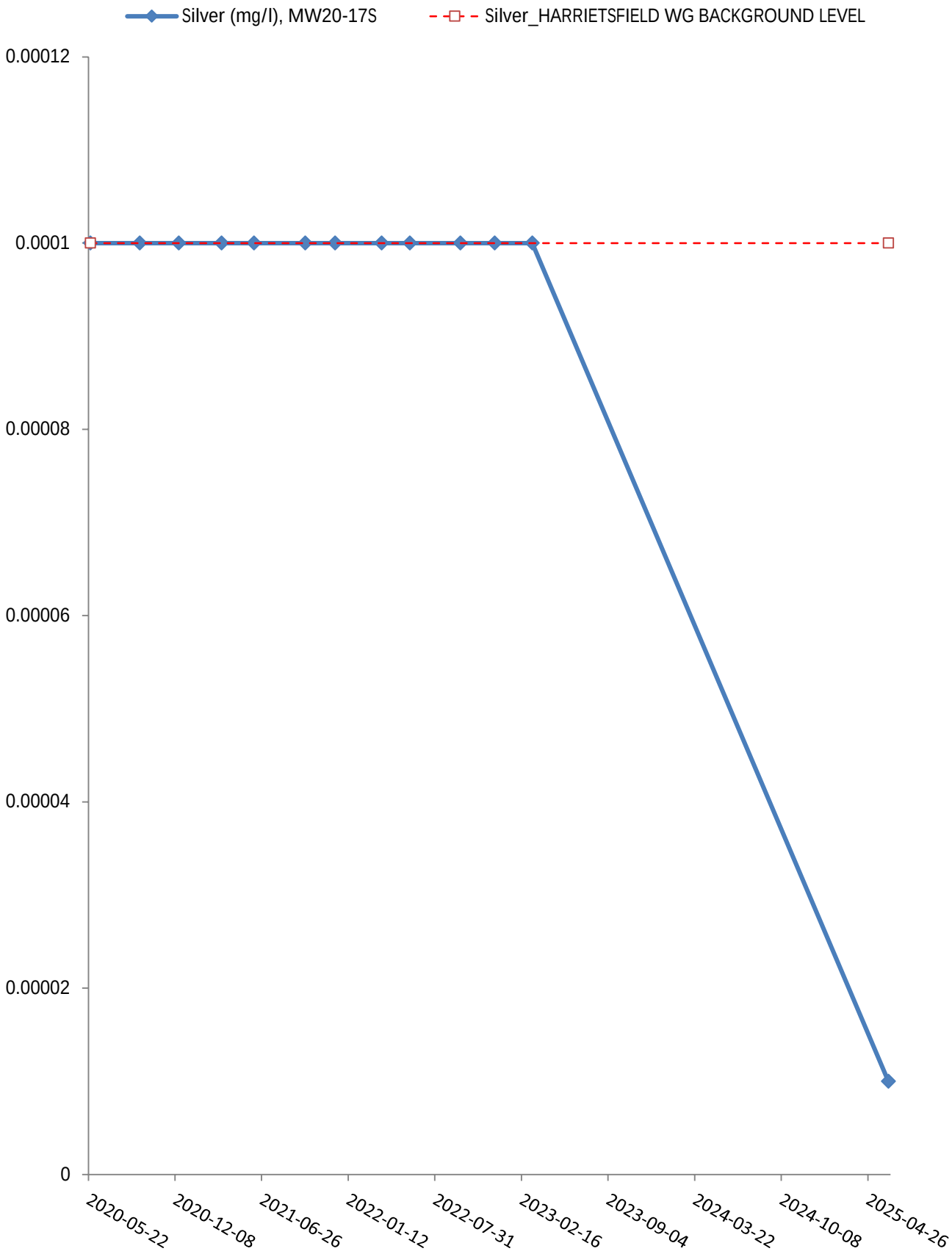
# Copper


Copper (mg/l), MW20-17S
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Fluoride

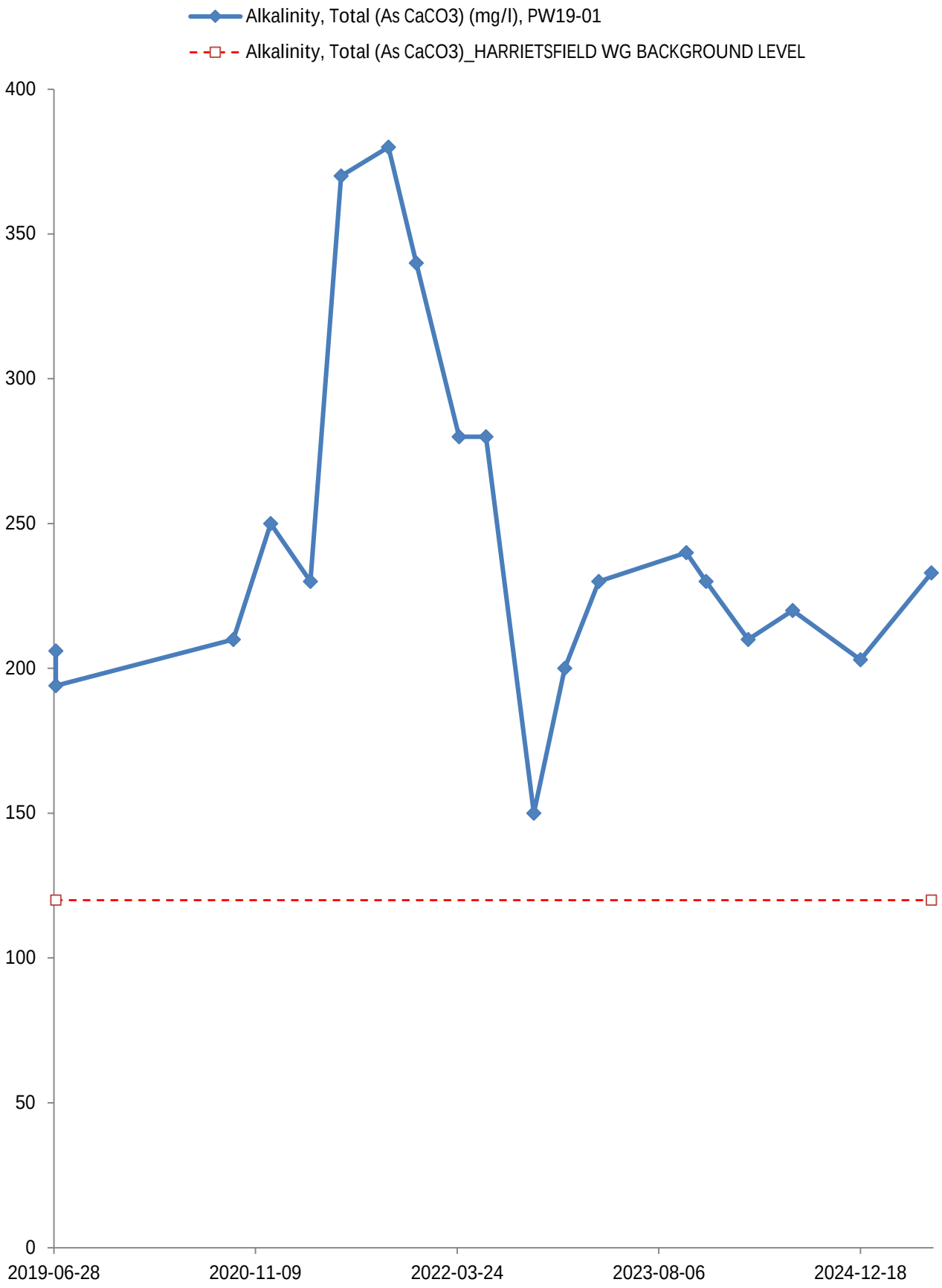

Fluoride (mg/l), MW20-17S
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08

# Silver

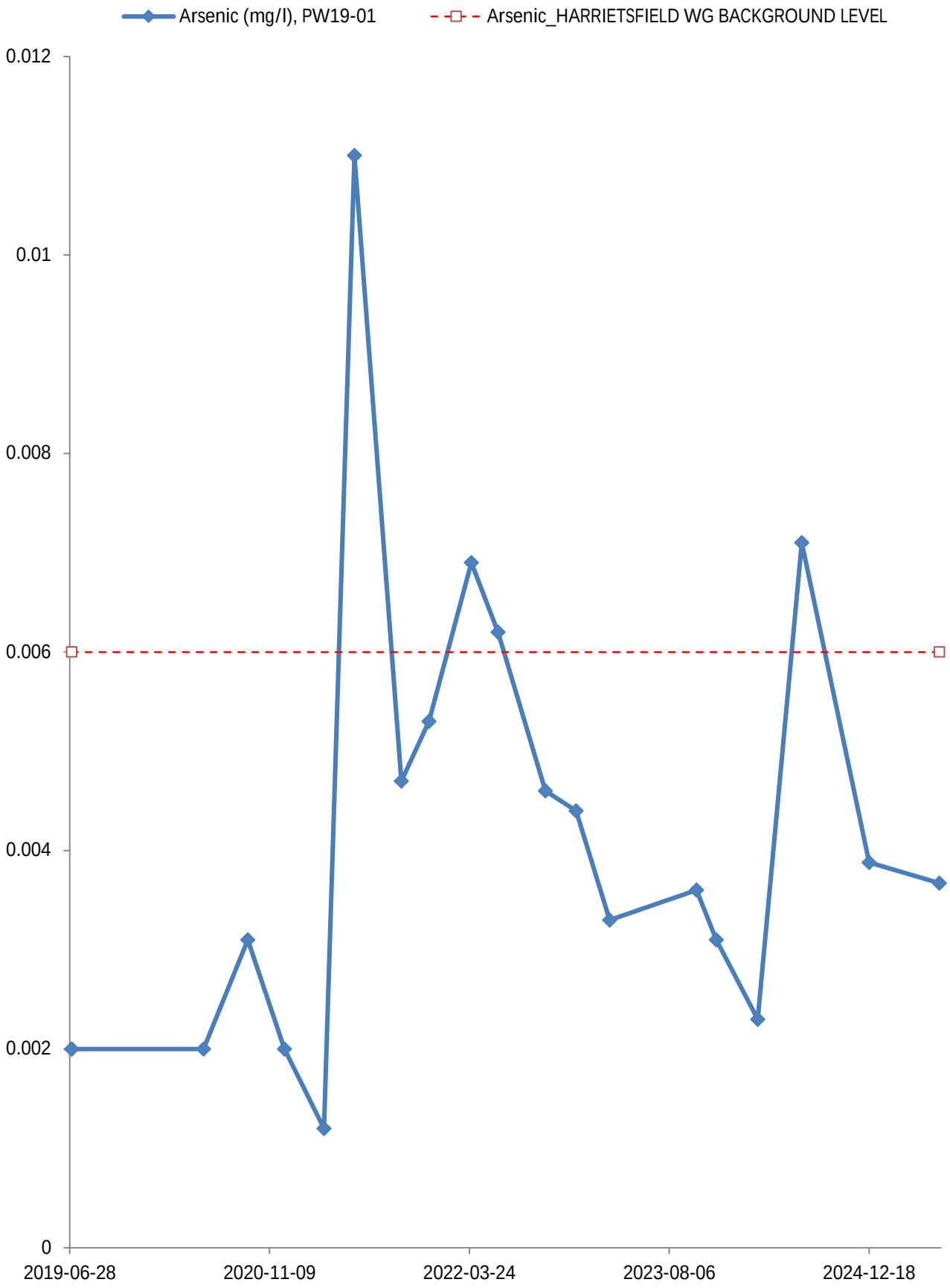

Silver (mg/l), MW20-17S
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2020-05-22
2020-12-08
2021-06-26
2022-01-12
2022-07-31
2023-02-16
2023-09-04
2024-03-22
2024-10-08
2025-04-26

# Alkalinity, Total



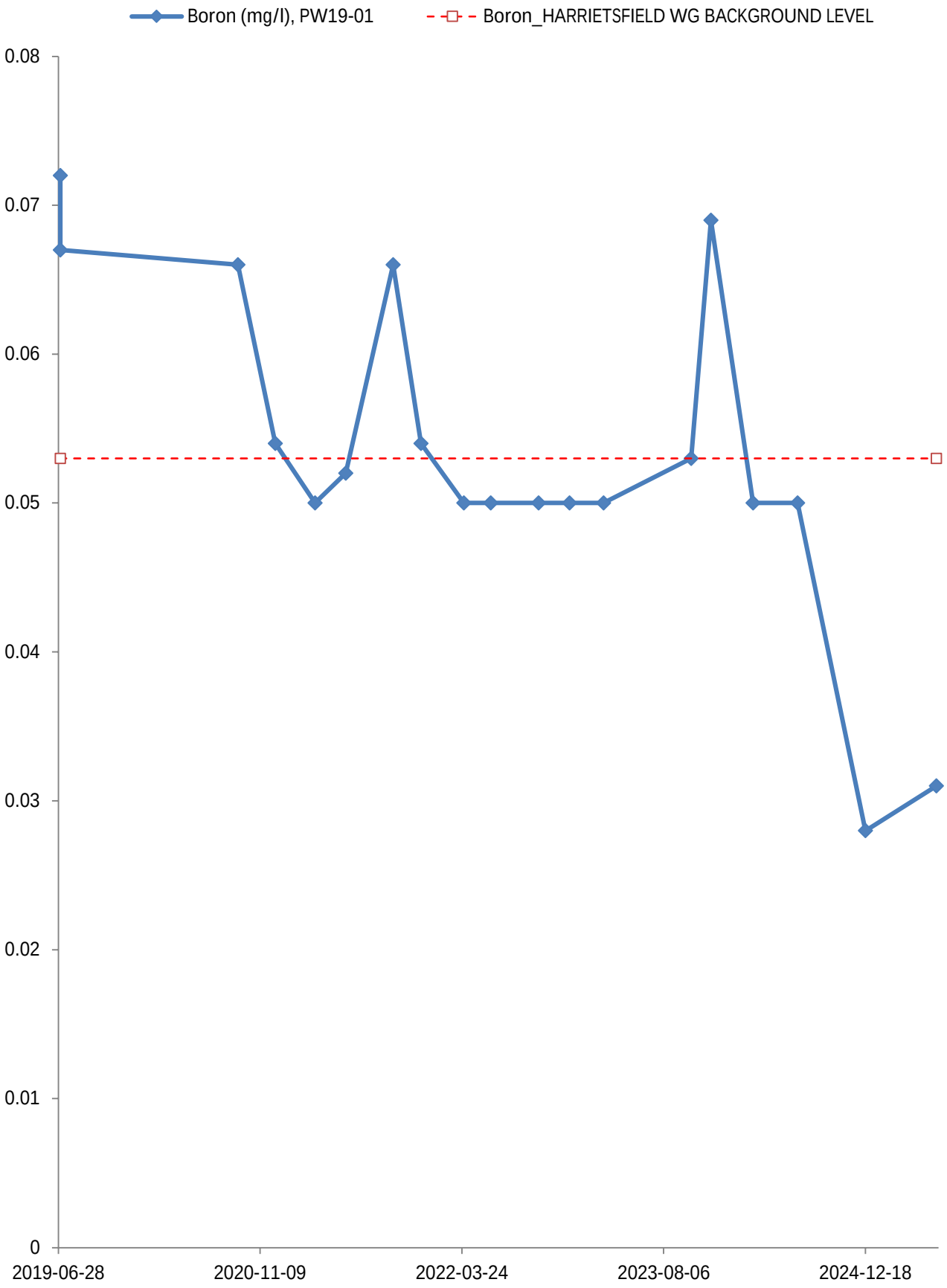


# Arsenic


Arsenic (mg/l), PW19-01
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

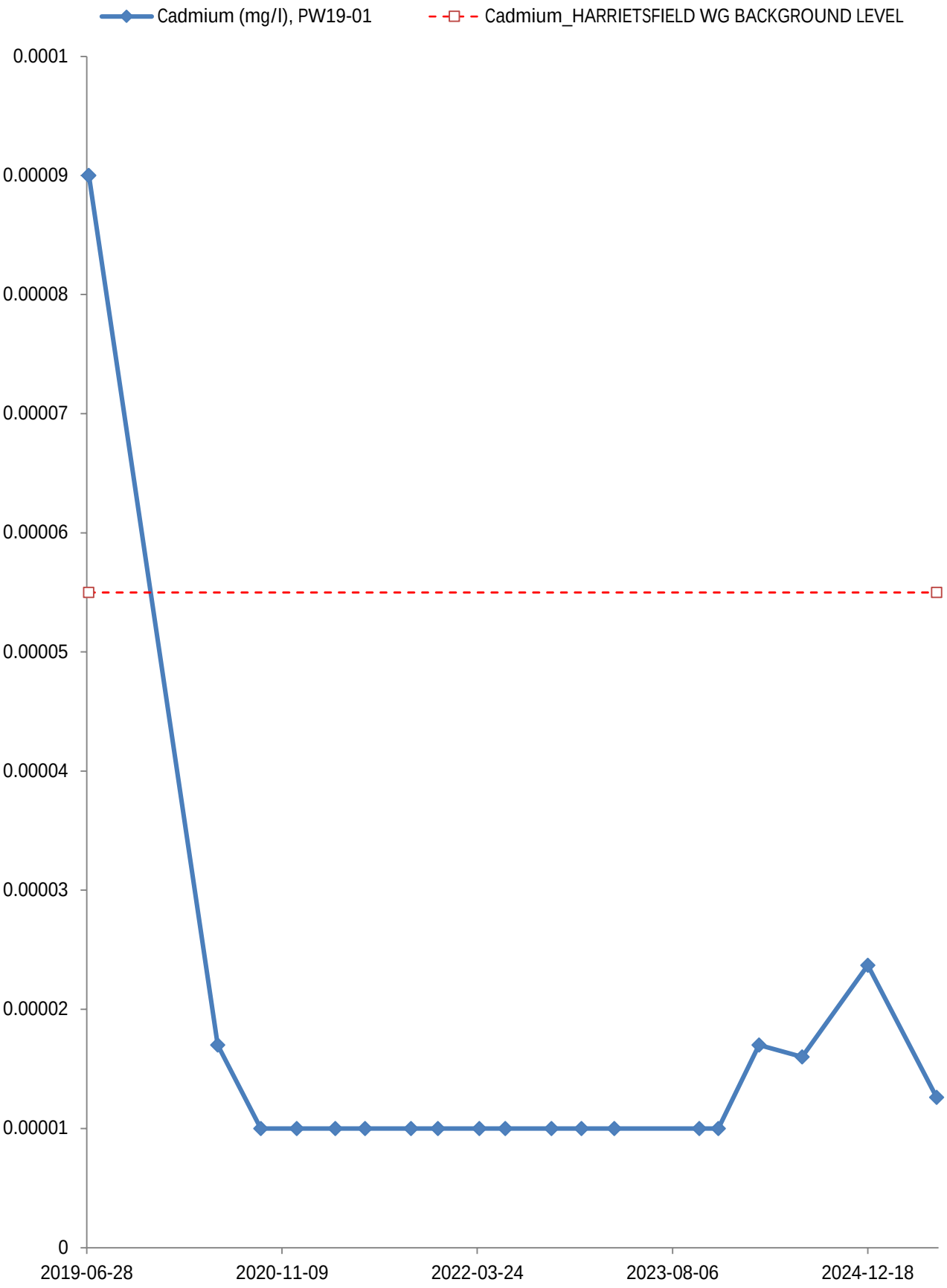
# Boron



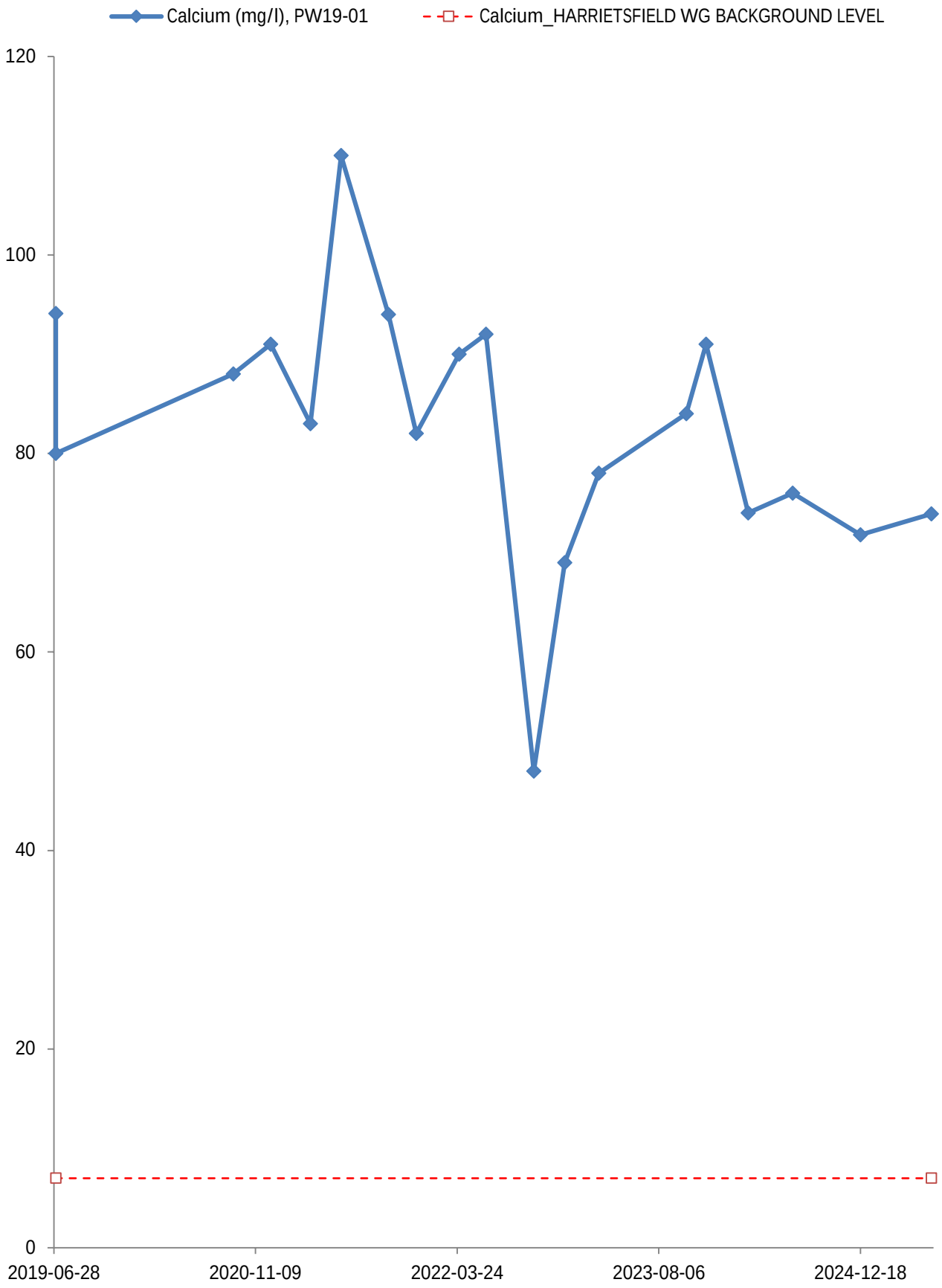

Boron (mg/l), PW19-01
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Cadmium



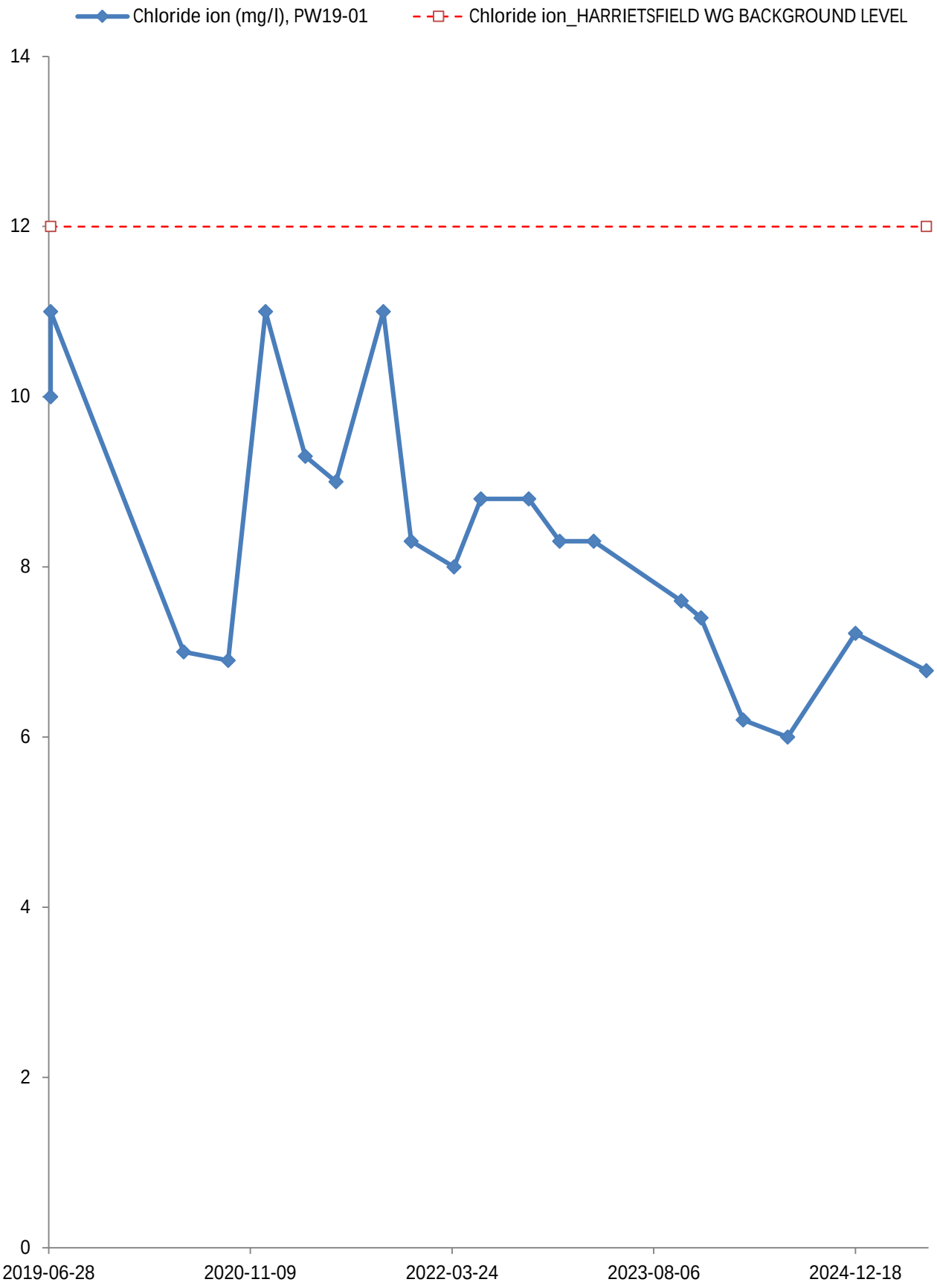

Cadmium (mg/l), PW19-01
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0001
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Calcium

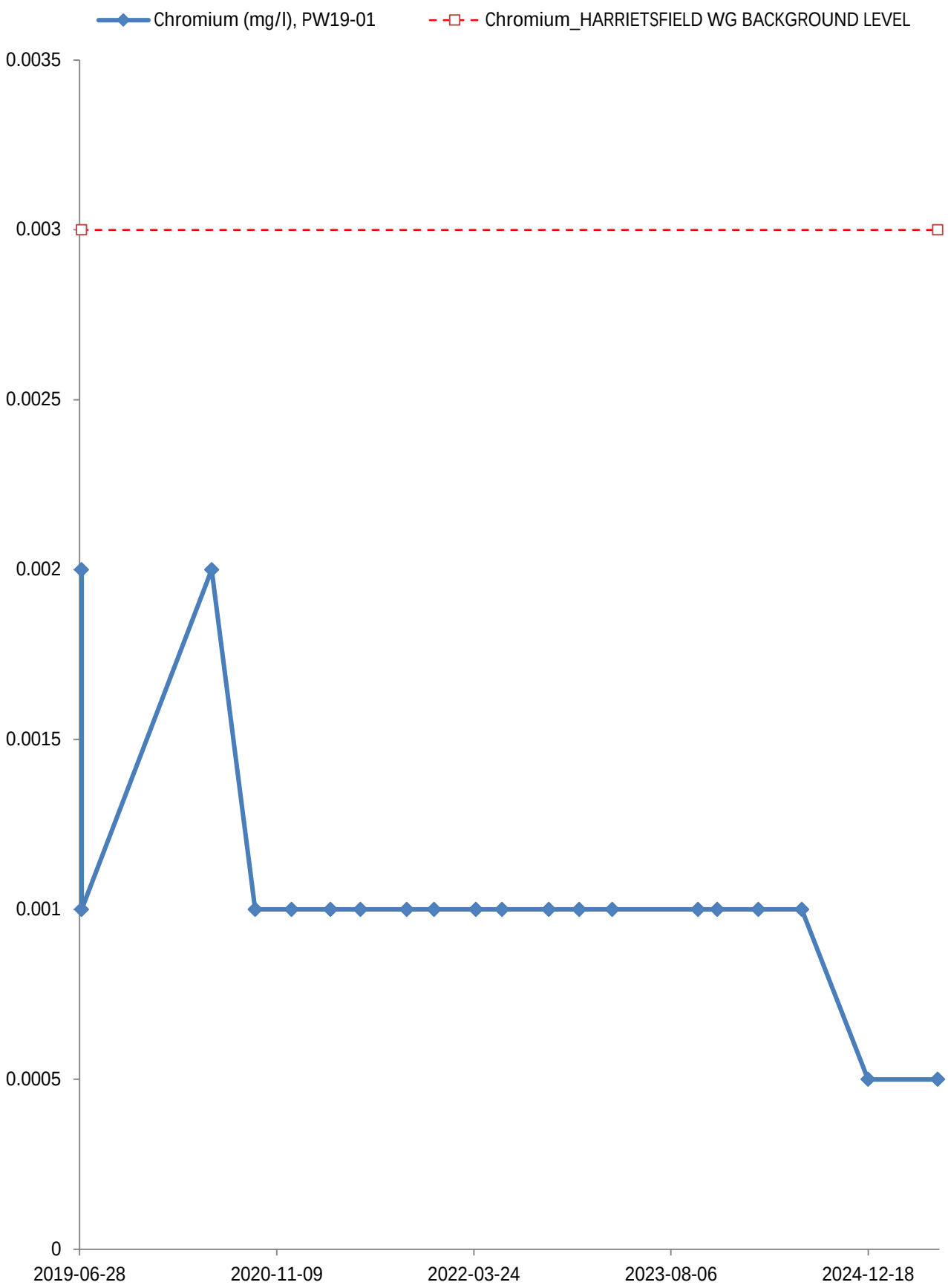

Calcium (mg/l), PW19-01
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
120
100
80
60
40
20
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Chloride ion

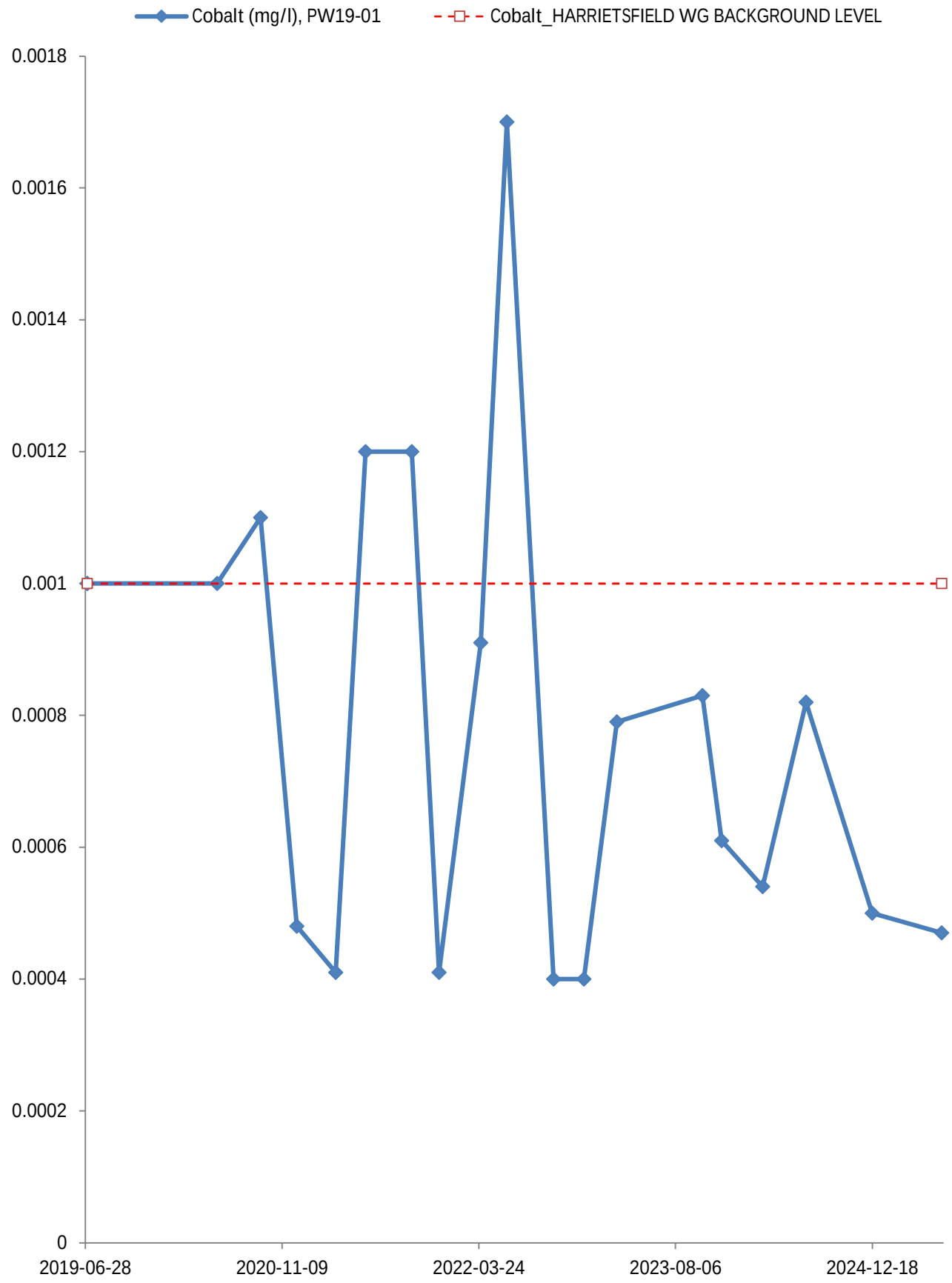




# Chromium

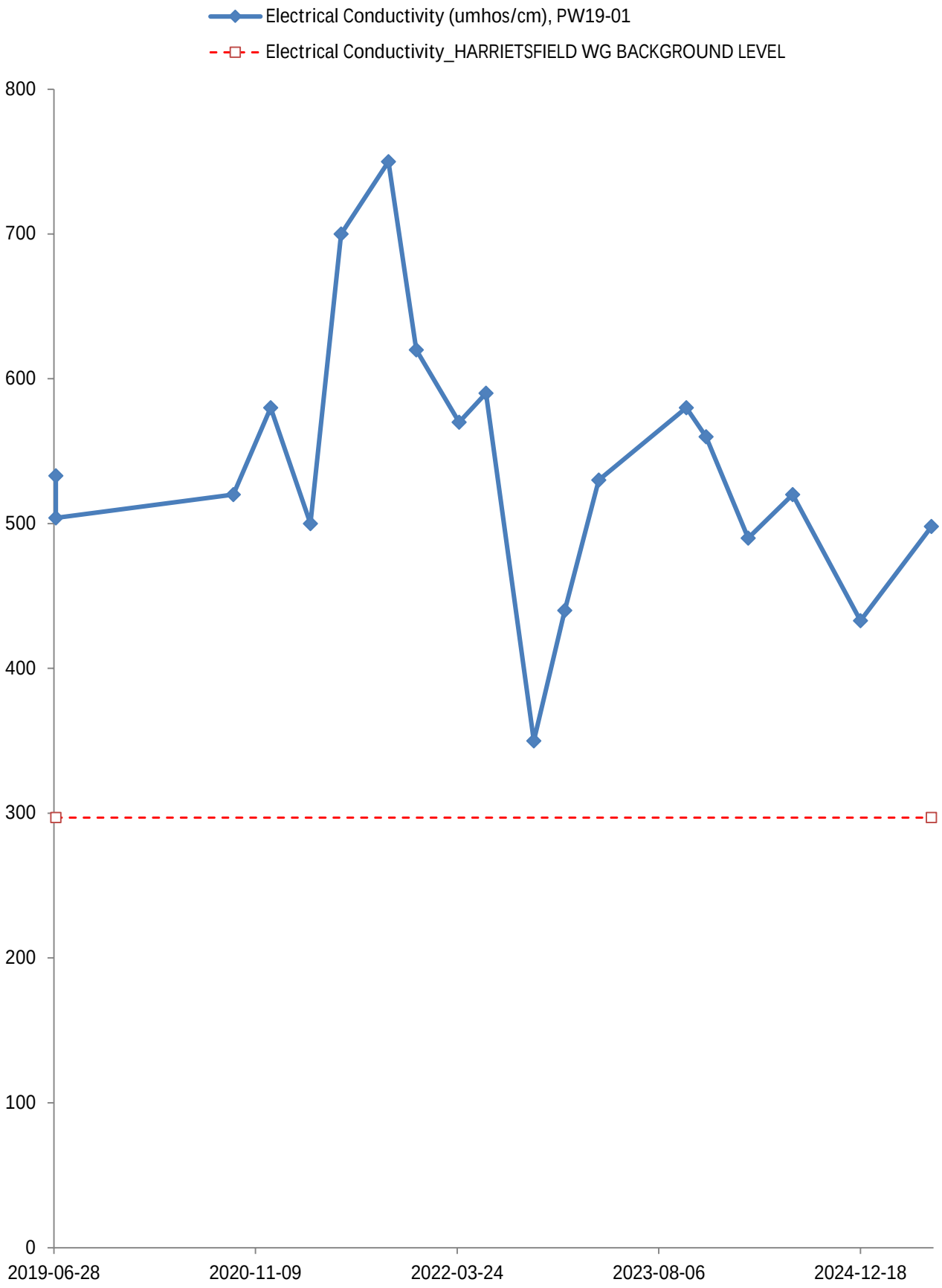

Chromium (mg/l), PW19-01
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Cobalt

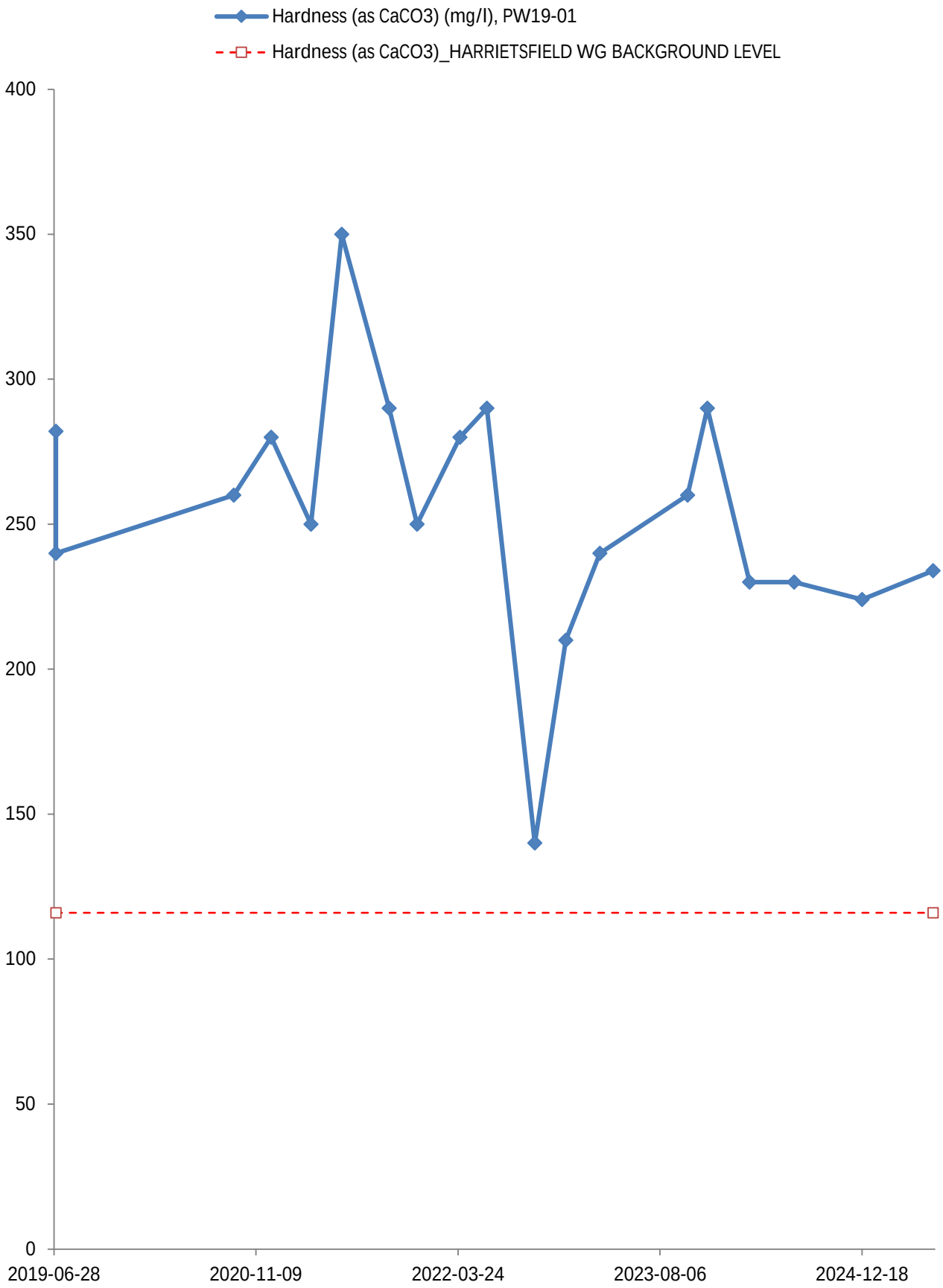

Cobalt (mg/l), PW19-01
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Electrical Conductivity



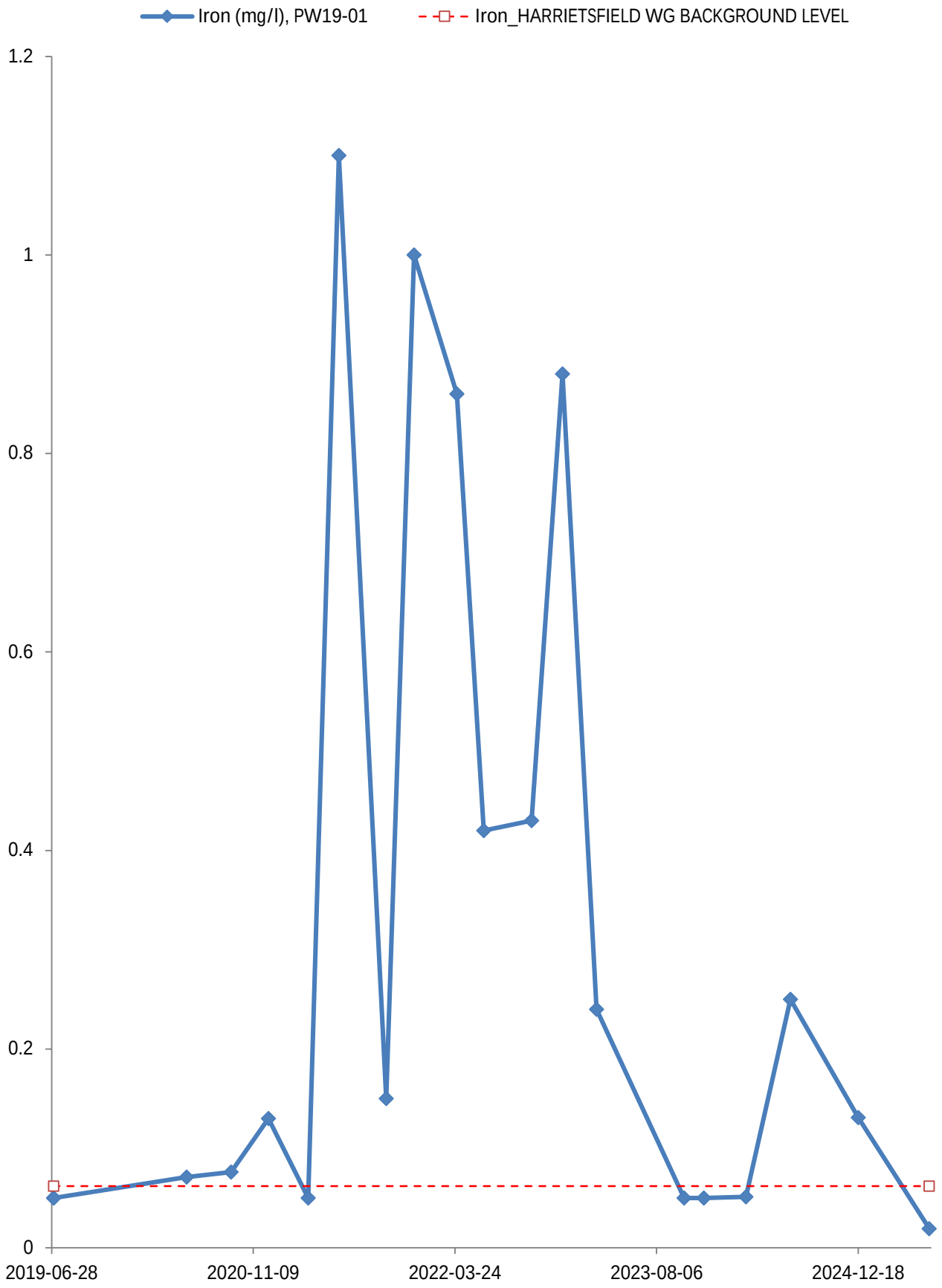


# Hardness (as CaCO3)



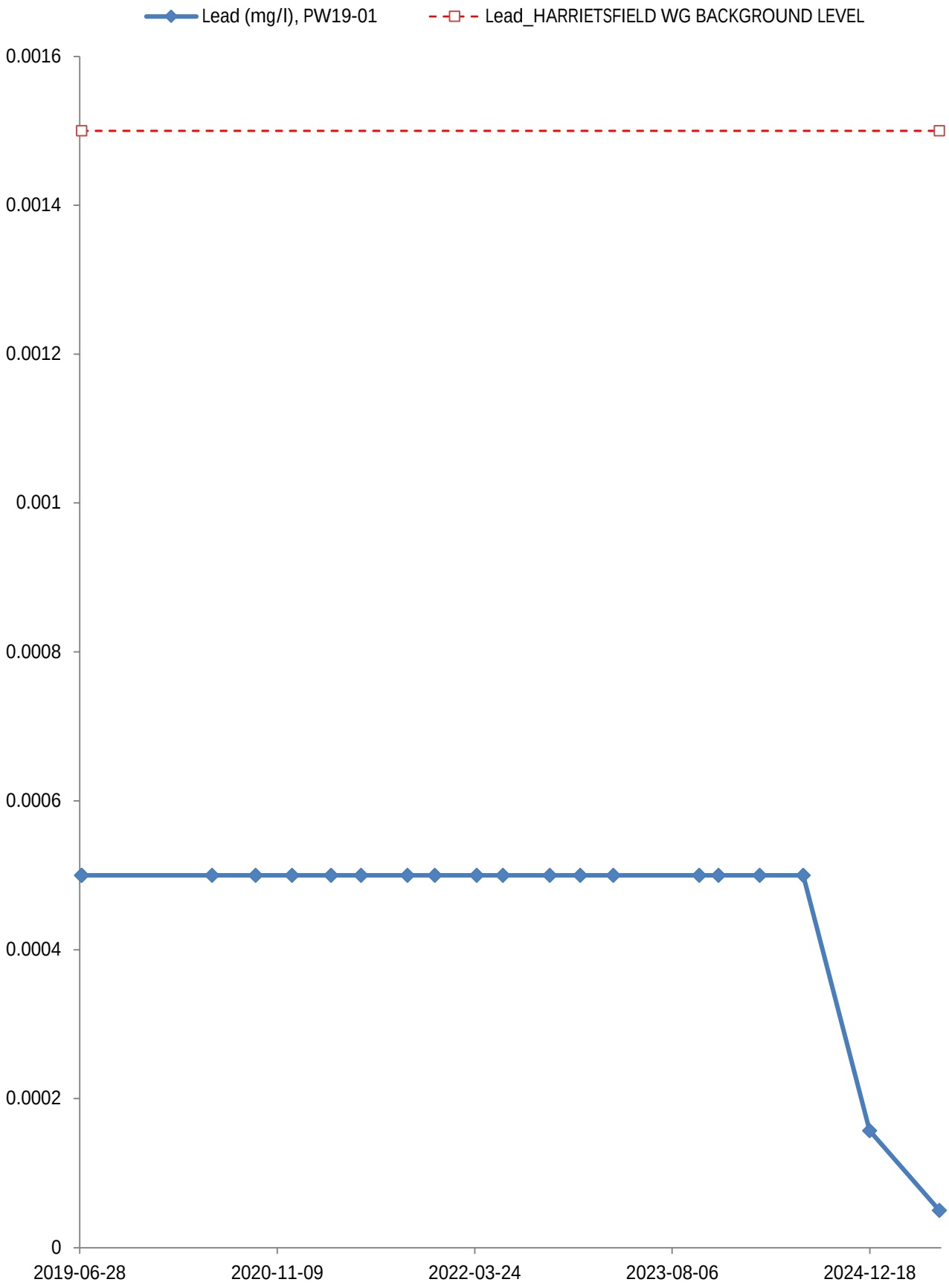
# Iron



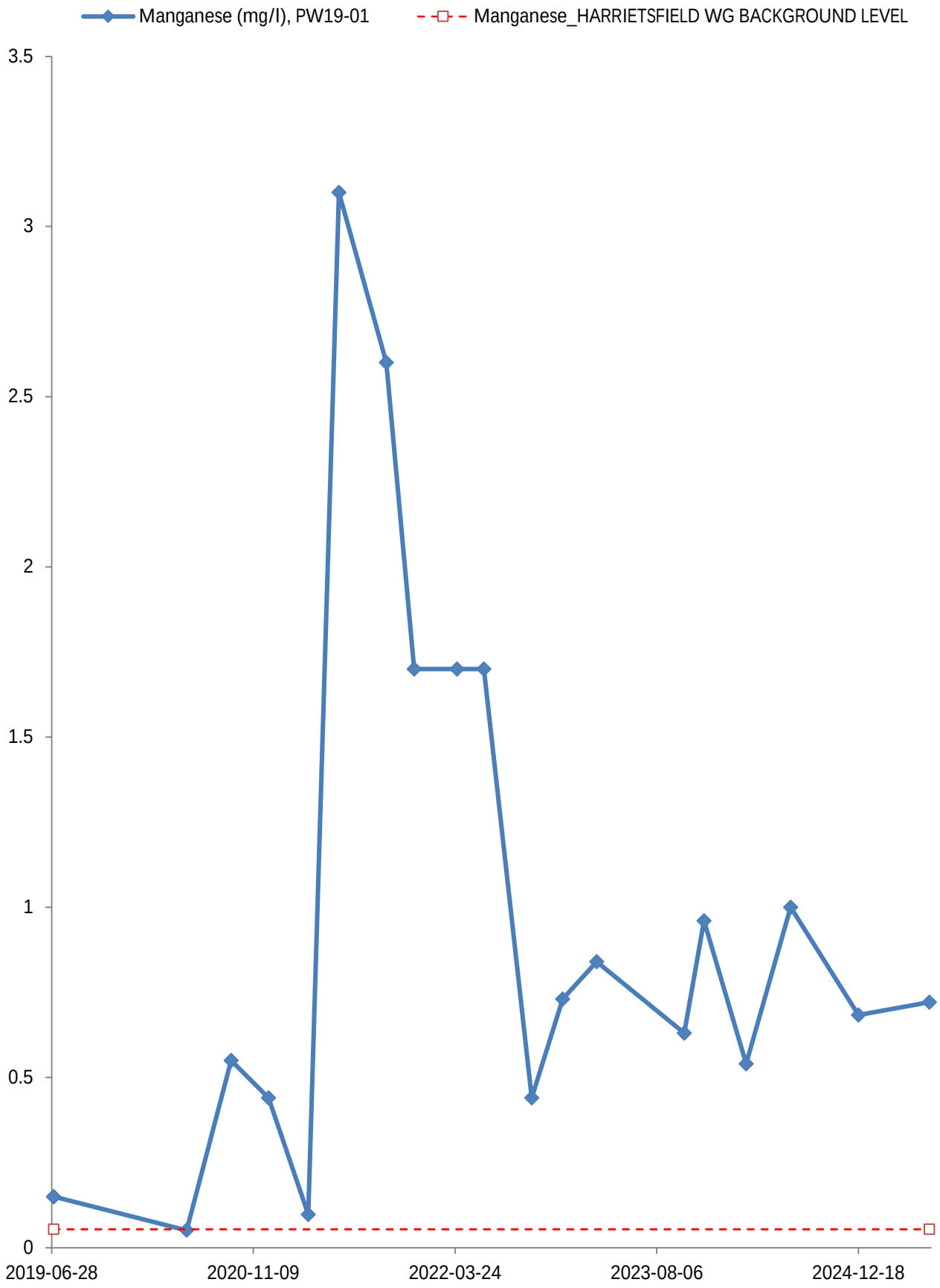

Iron (mg/l), PW19-01
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
1.2
1
0.8
0.6
0.4
0.2
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Lead

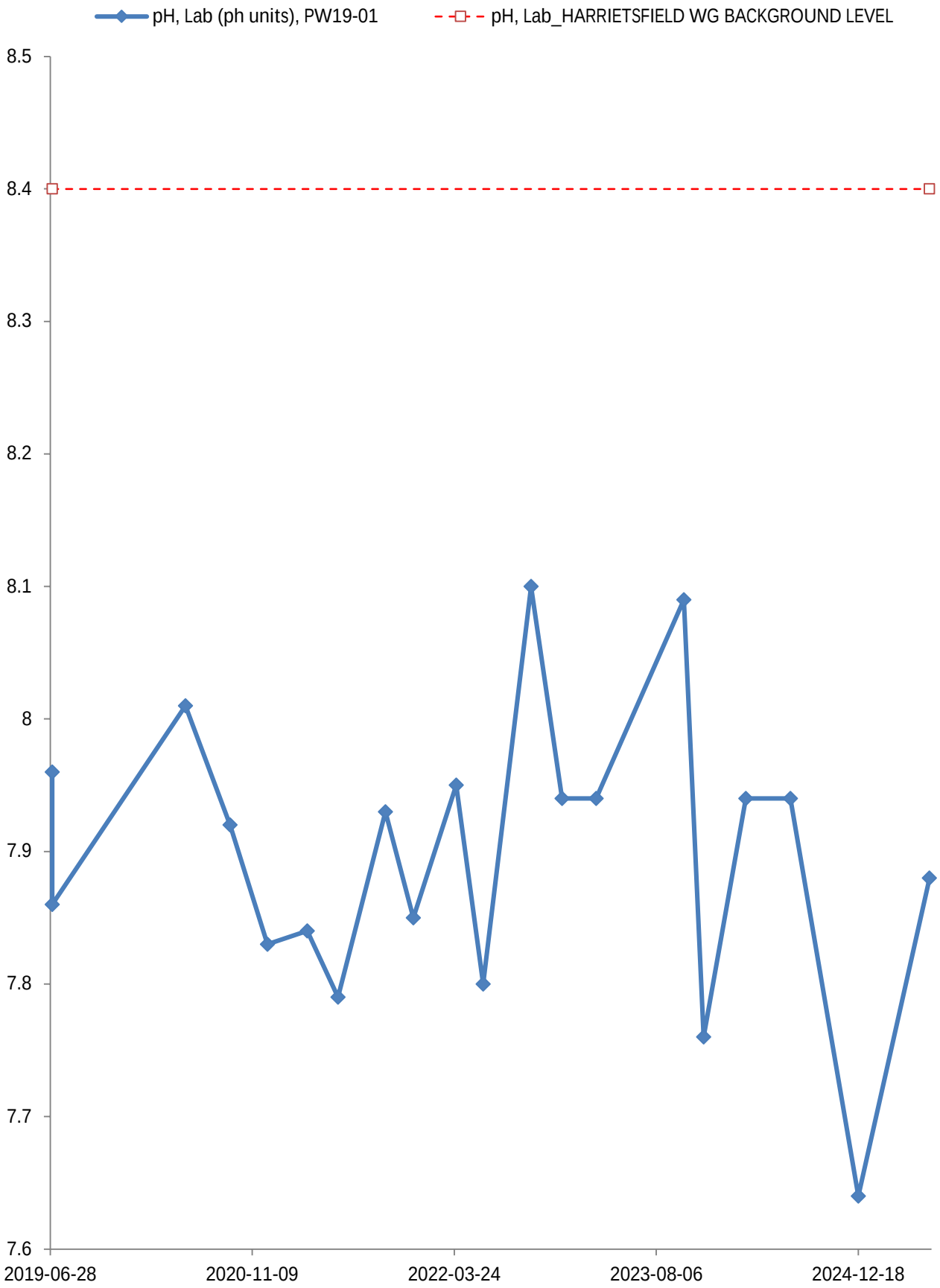



Lead (mg/l), PW19-01
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Manganese

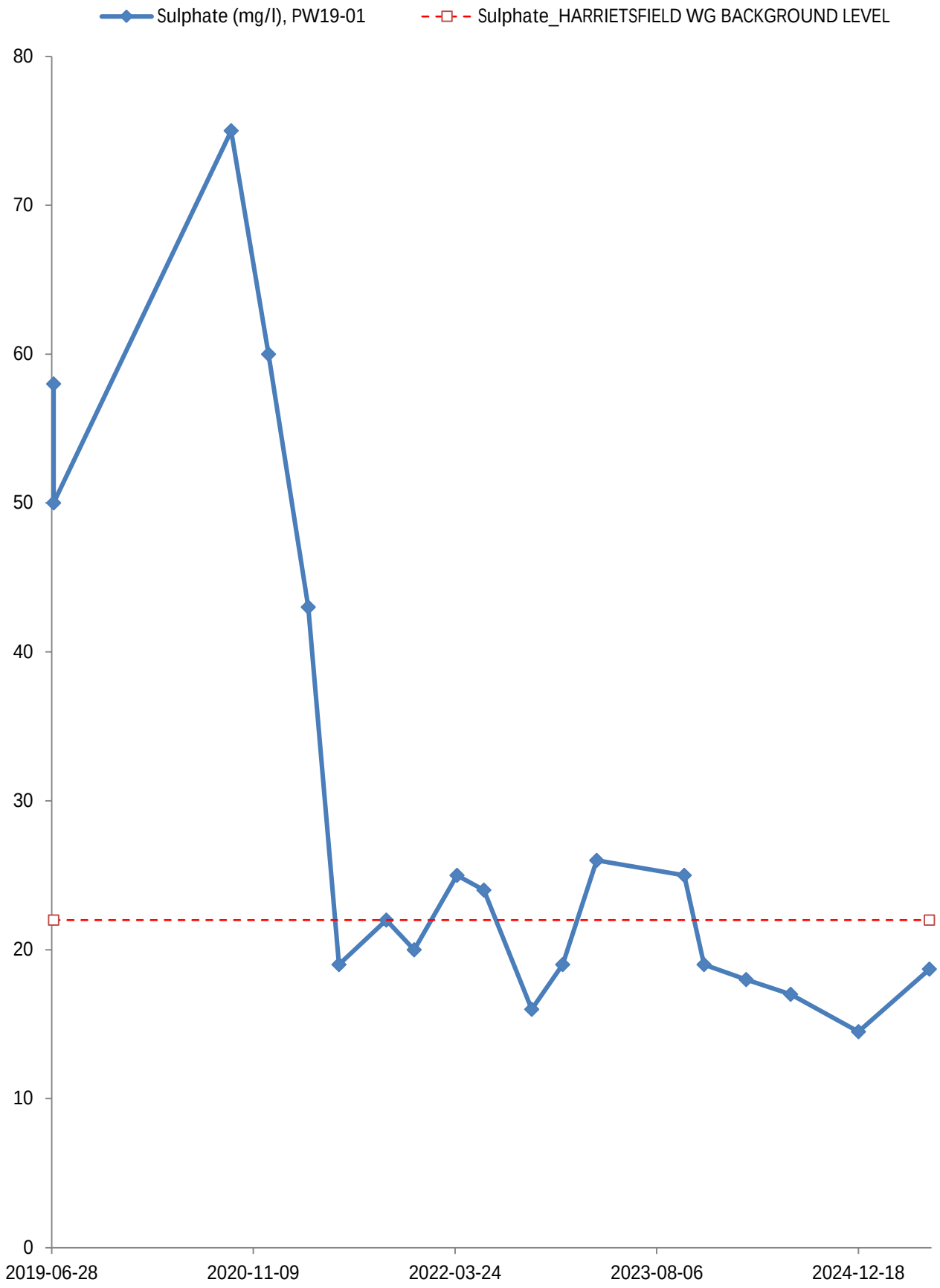

Manganese (mg/l), PW19-01
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
3.5
3
2.5
2
1.5
1
0.5
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# pH, Lab

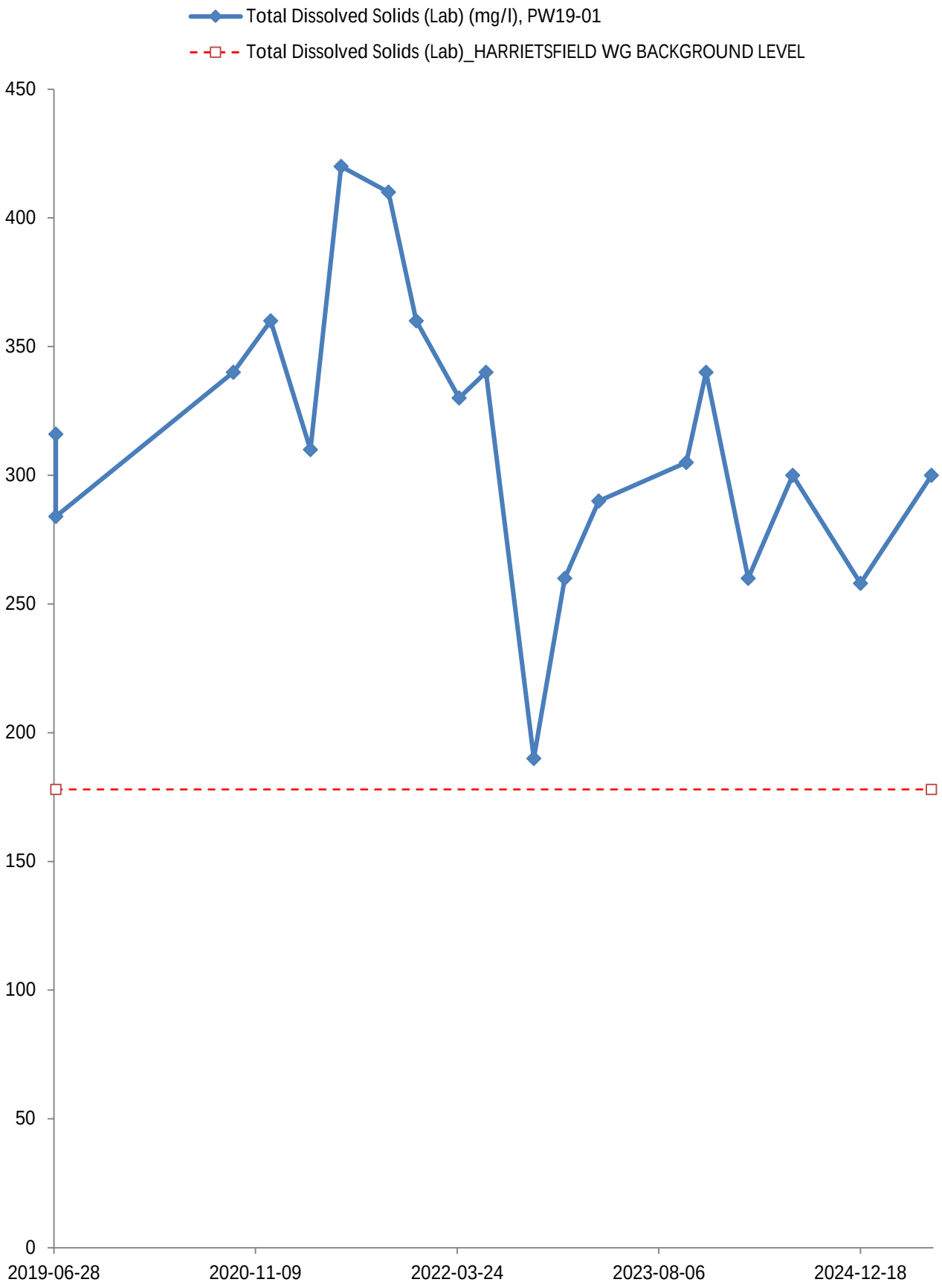

pH, Lab (ph units), PW19-01
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.5
8.4
8.3
8.2
8.1
8
7.9
7.8
7.7
7.6
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Sulphate

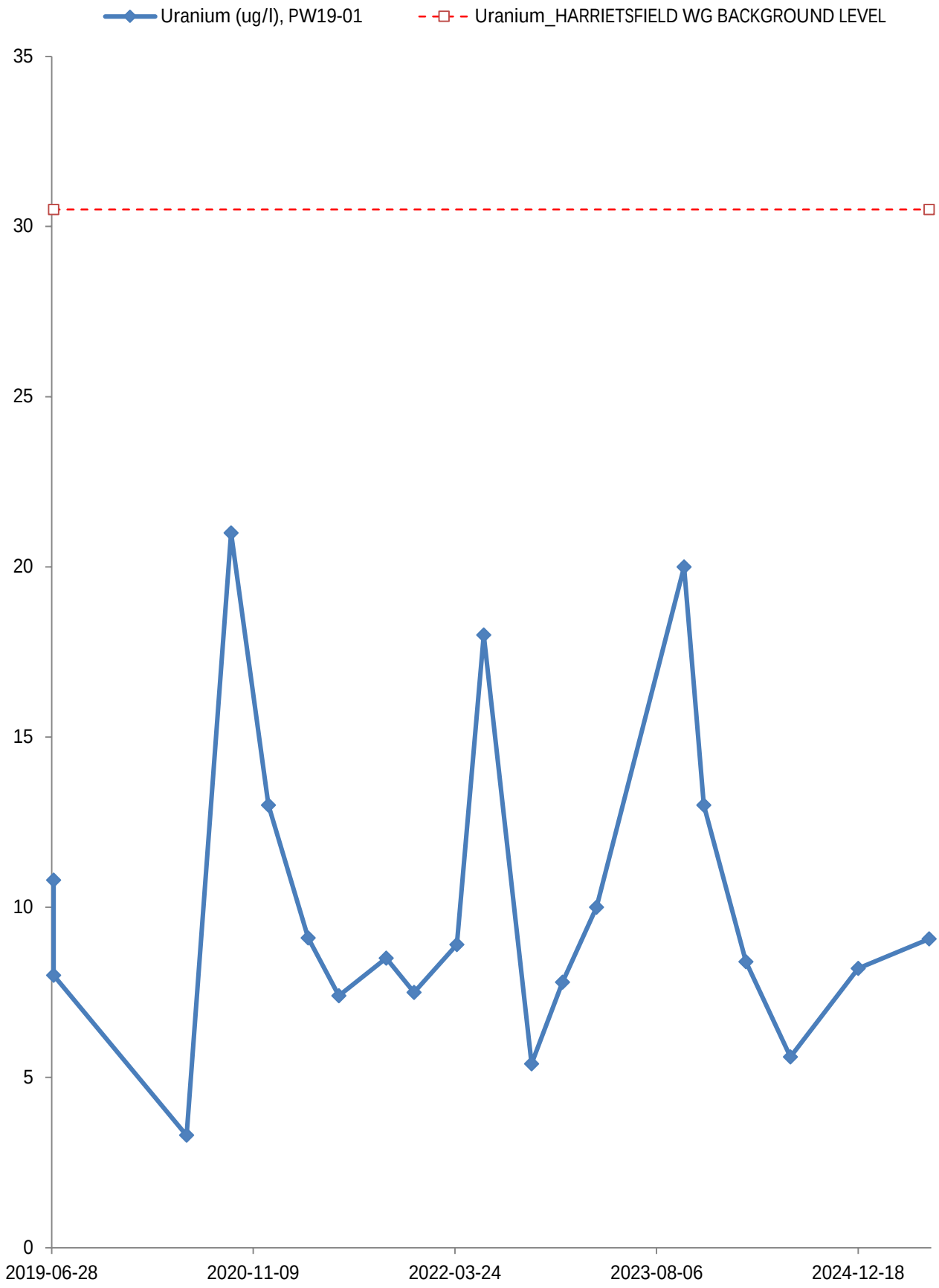



Sulphate (mg/l), PW19-01
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
80
70
60
50
40
30
20
10
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Total Dissolved Solids (5

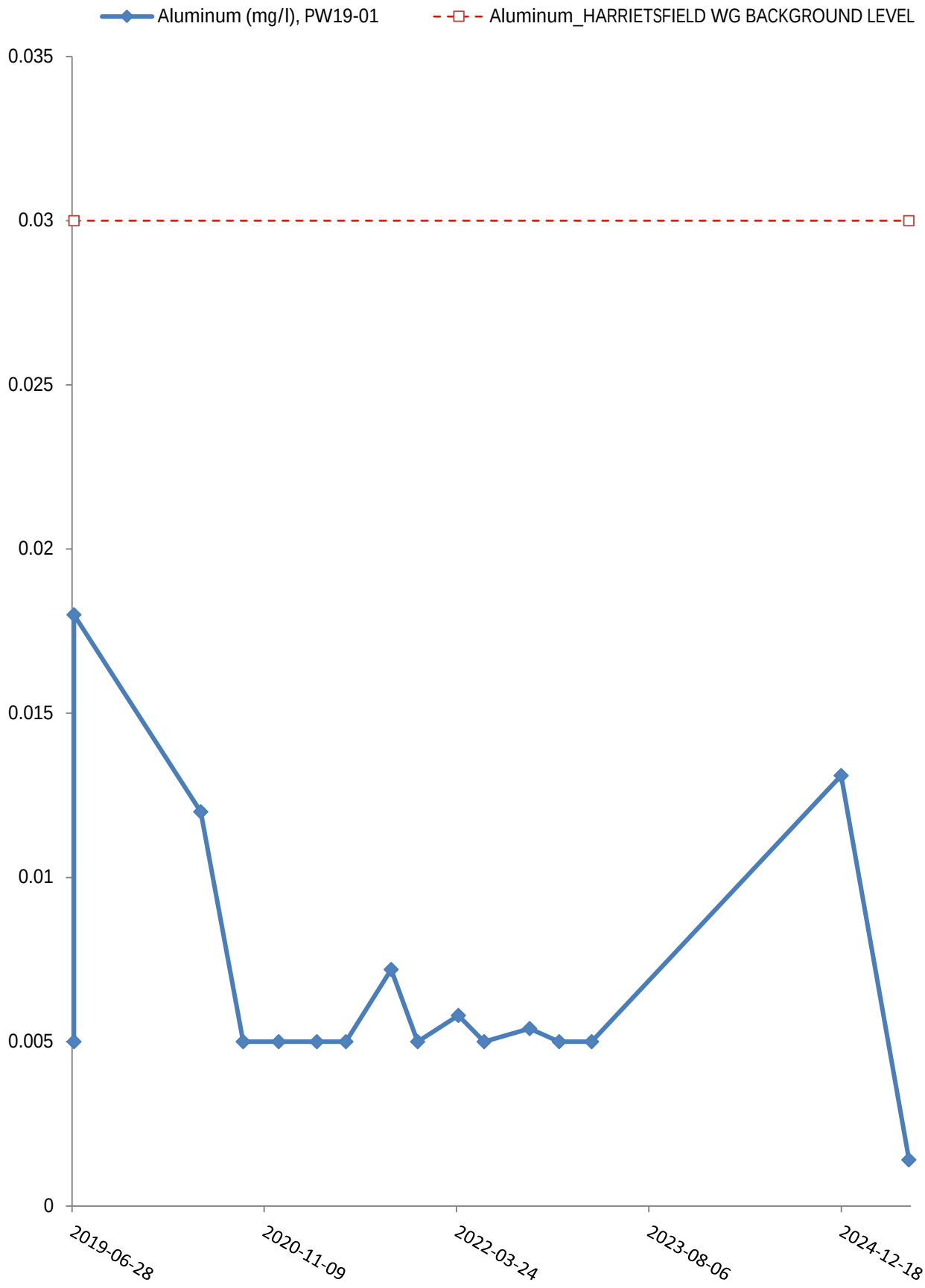


# Uranium


Uranium (ug/l), PW19-01
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

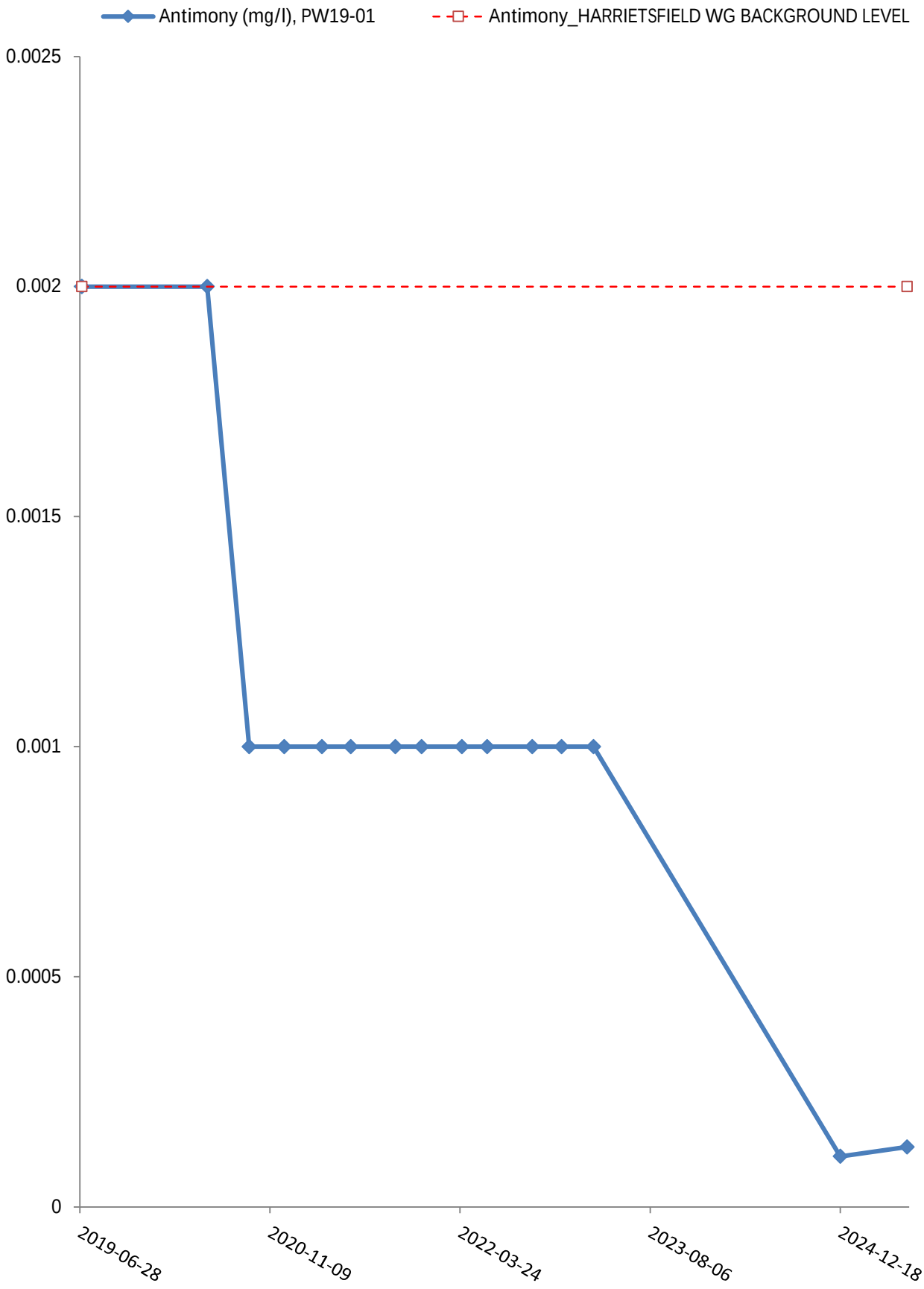
# Aluminum



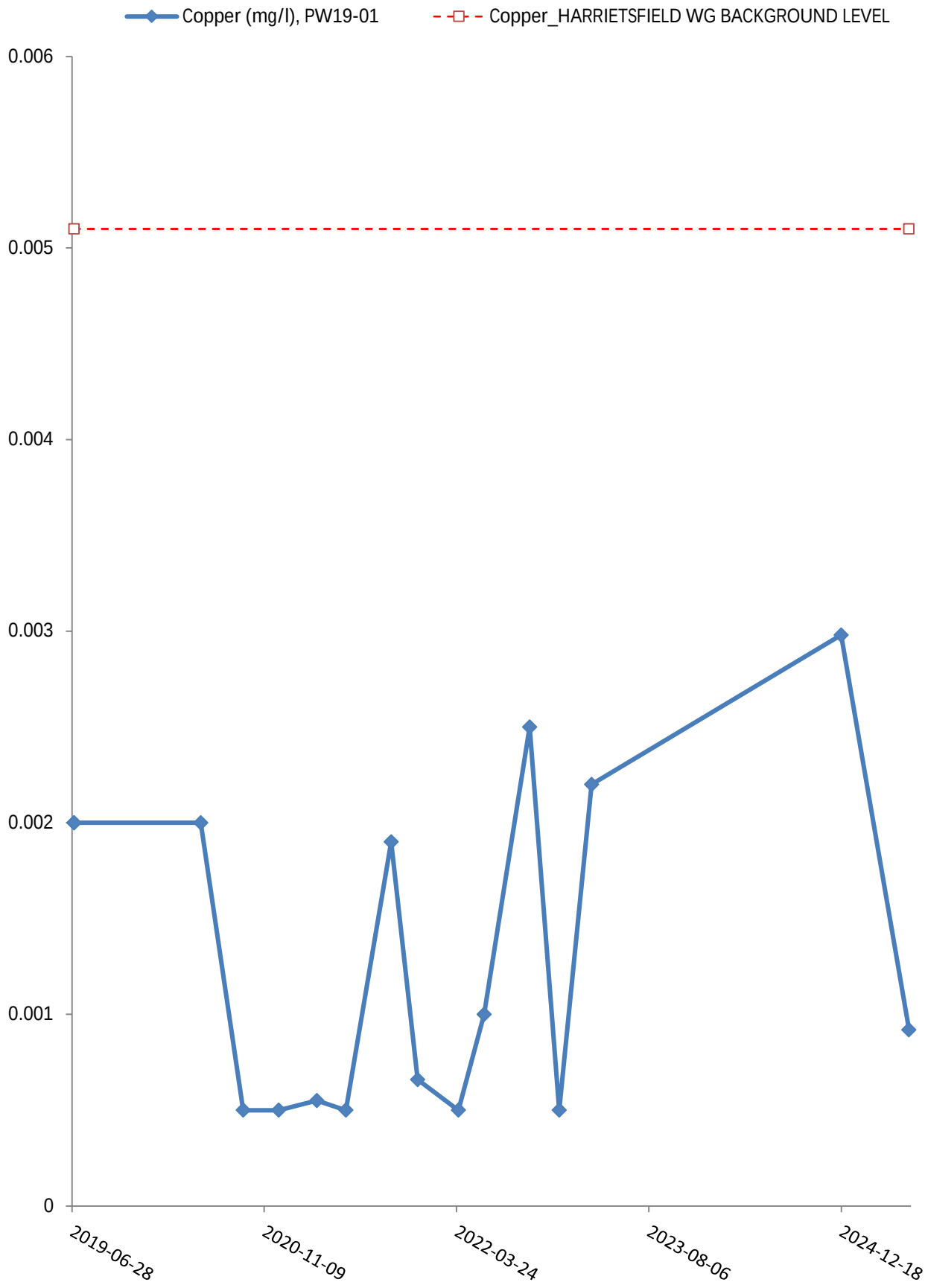

Aluminum (mg/l), PW19-01
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Antimony



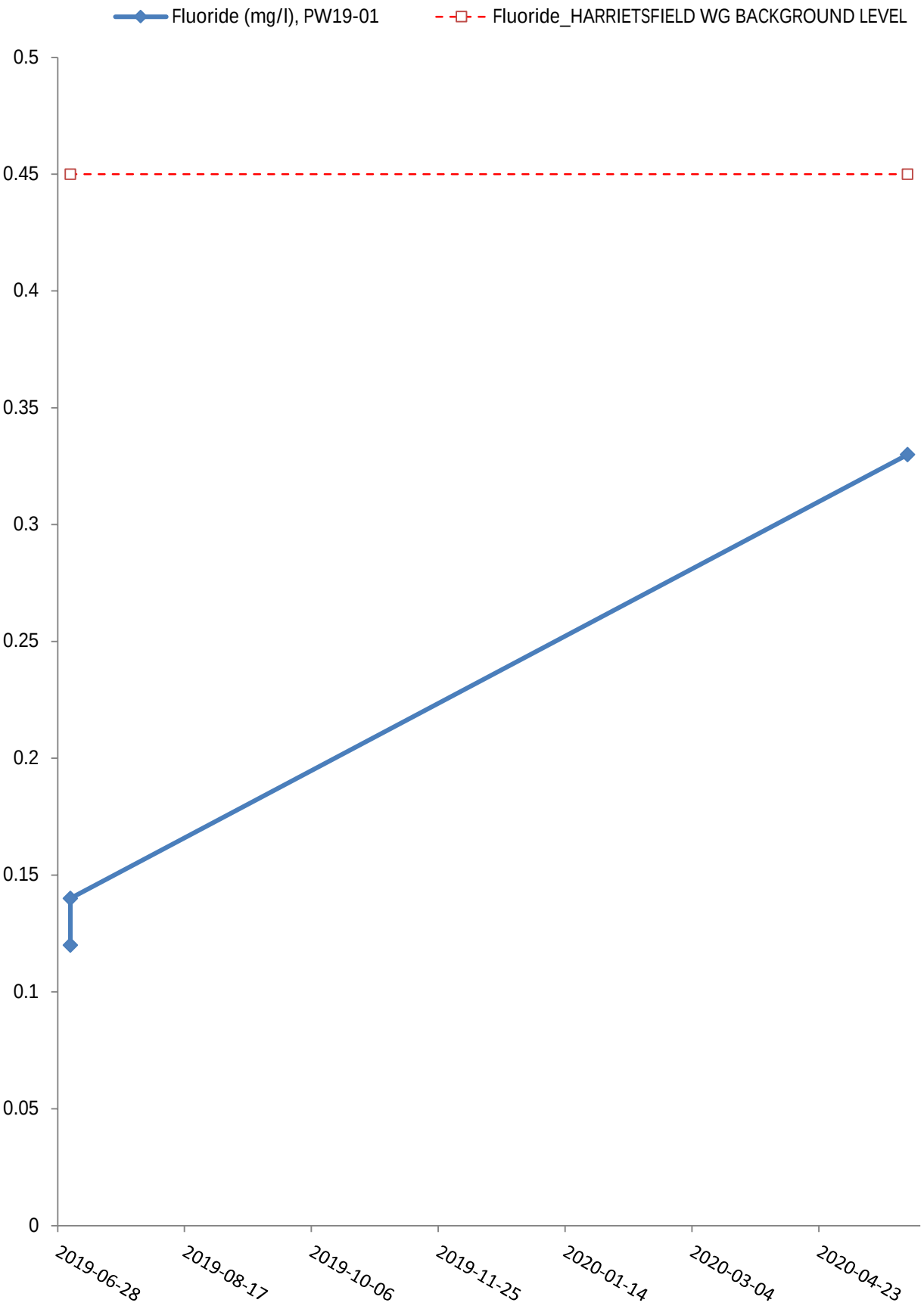

Antimony (mg/l), PW19-01
Antimony_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Copper


Copper (mg/l), PW19-01
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

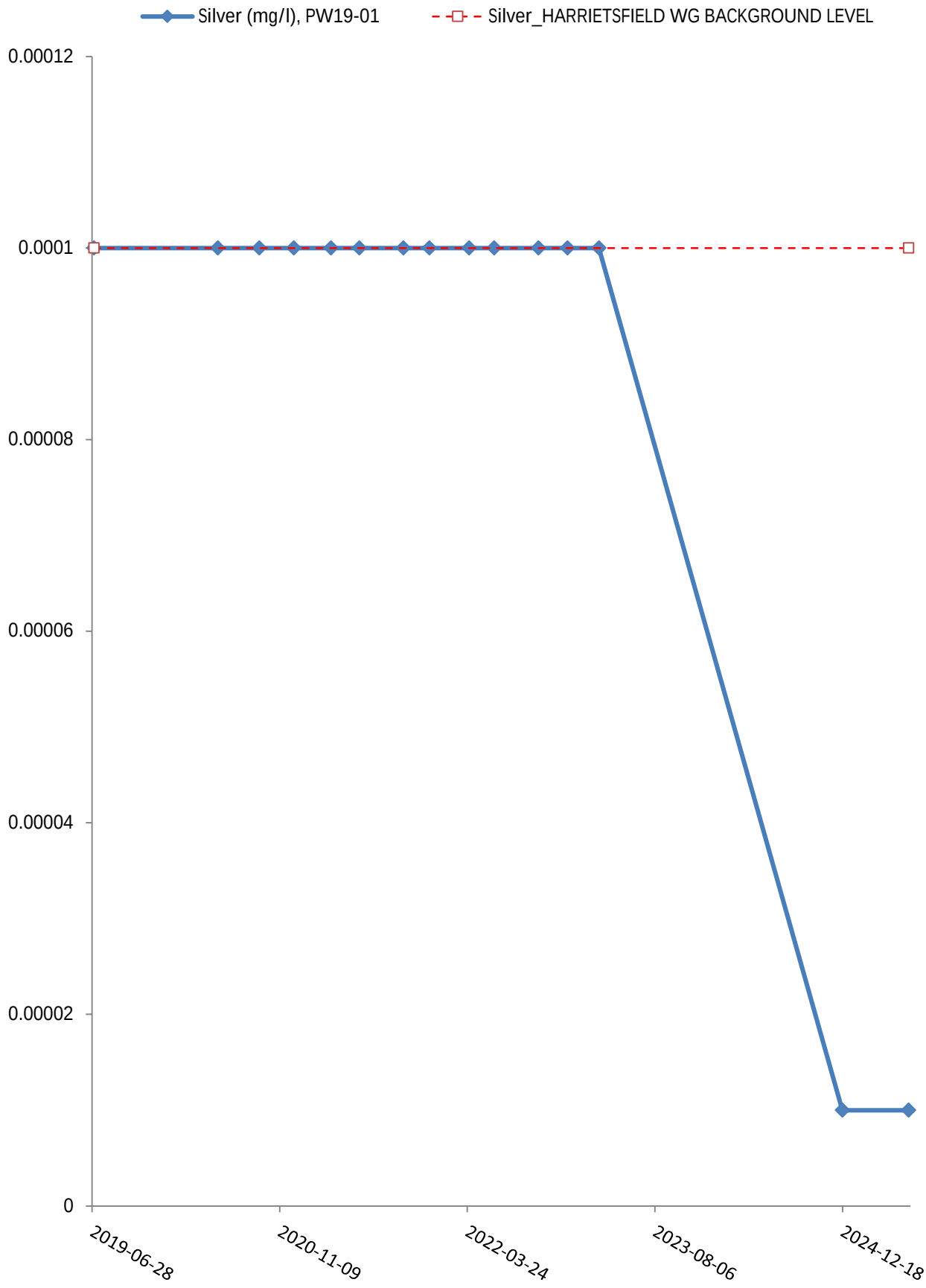
# Fluoride



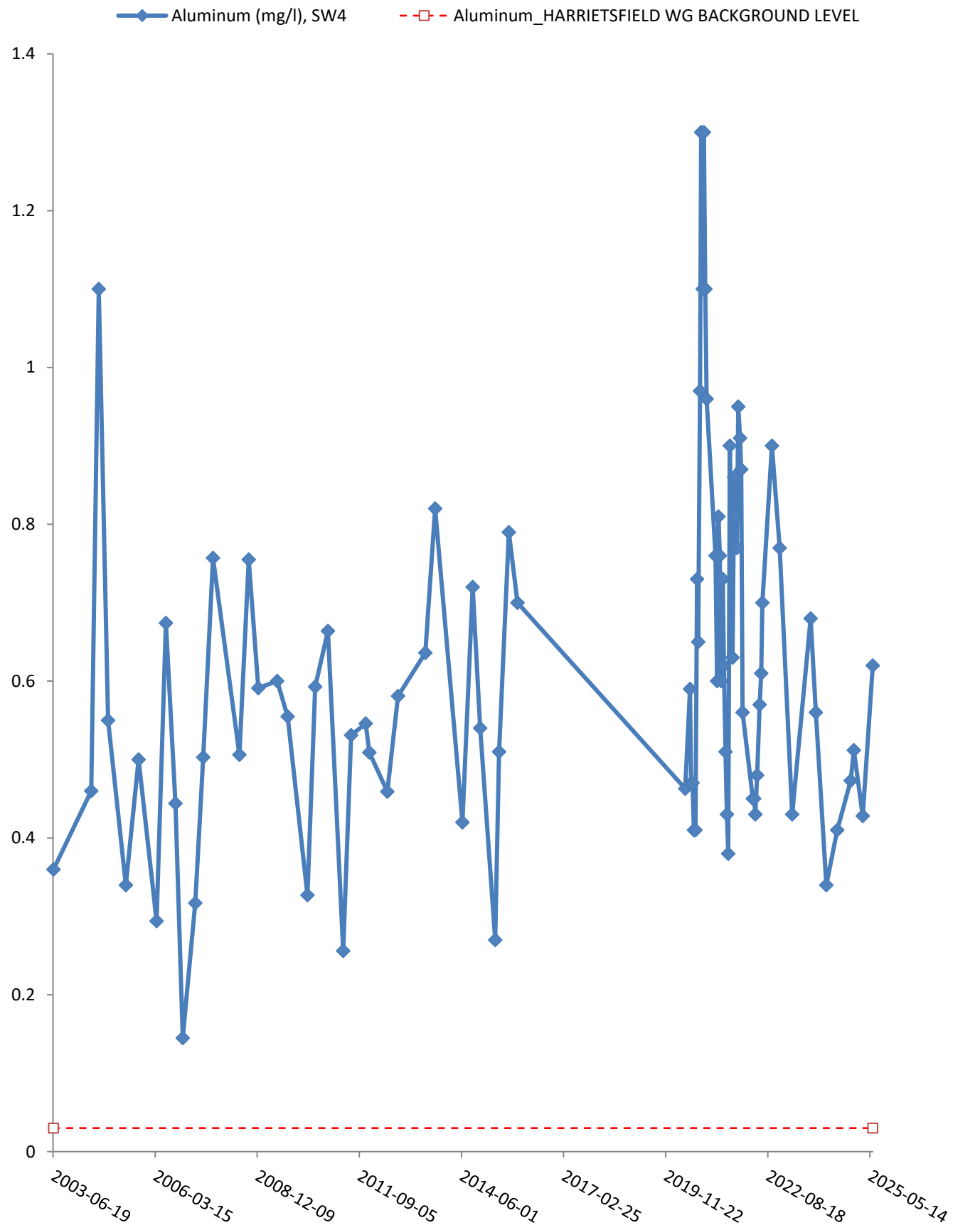

Fluoride (mg/l), PW19-01
Fluoride_HARRIETSFIELD WG BACKGROUND LEVEL
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
2019-06-28
2019-08-17
2019-10-06
2019-11-25
2020-01-14
2020-03-04
2020-04-23

# Silver

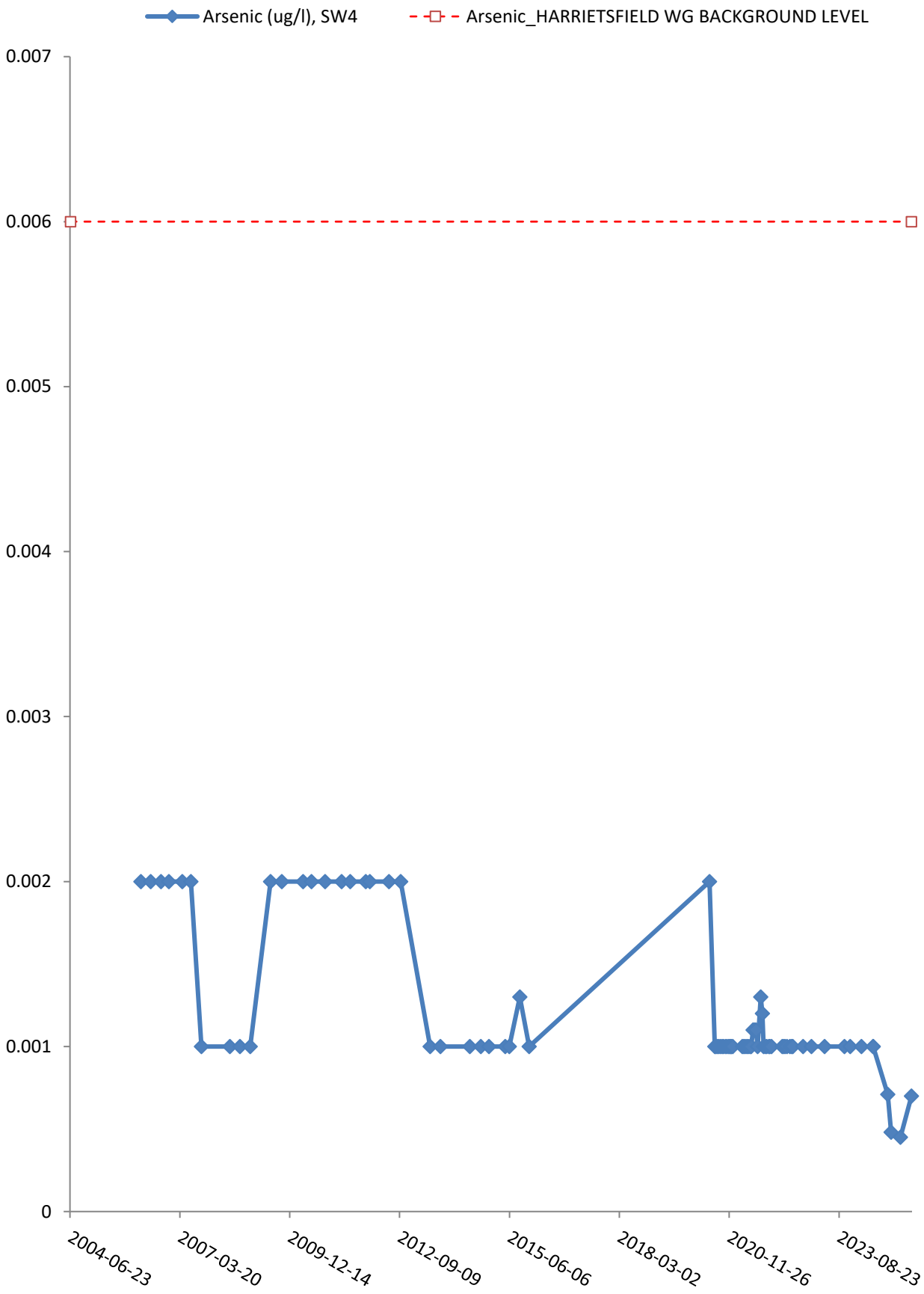



Silver (mg/l), PW19-01
Silver_HARRIETSFIELD WG BACKGROUND LEVEL
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-06-28
2020-11-09
2022-03-24
2023-08-06
2024-12-18

# Aluminum

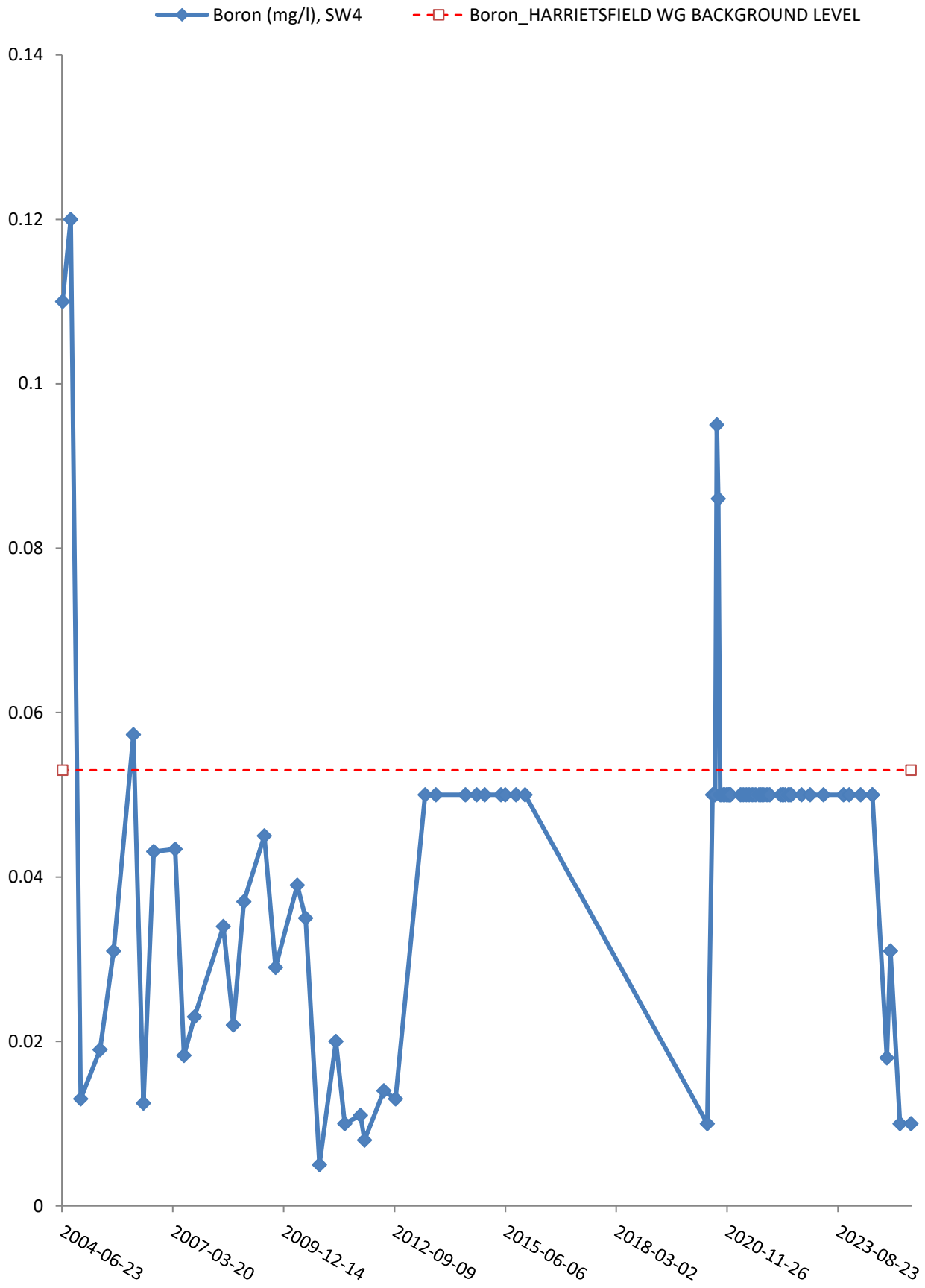

Aluminum (mg/l), SW4
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2003-06-19
2006-03-15
2008-12-09
2011-09-05
2014-06-01
2017-02-25
2019-11-22
2022-08-18
2025-05-14

# Arsenic

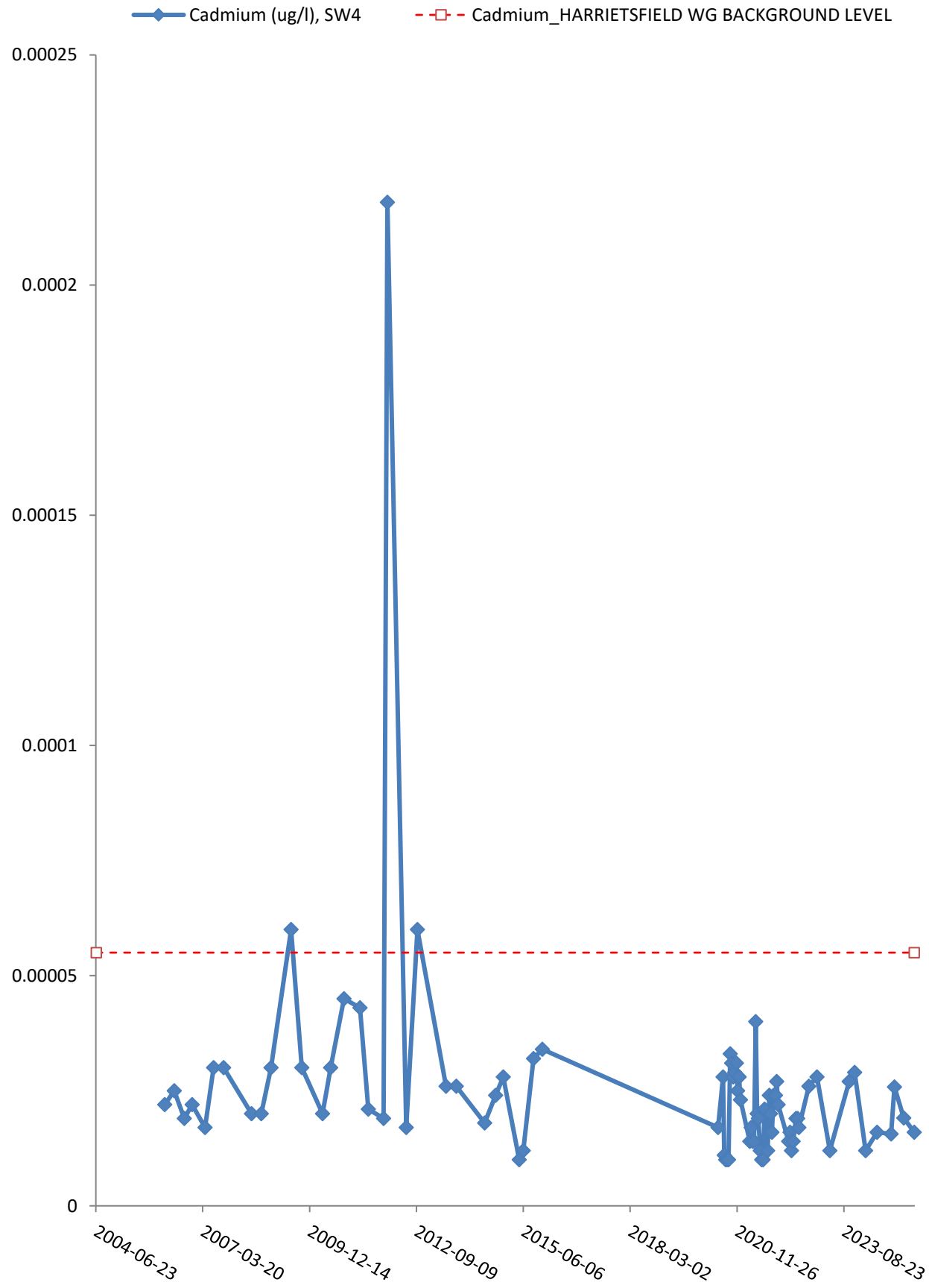

Arsenic (ug/l), SW4
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Boron

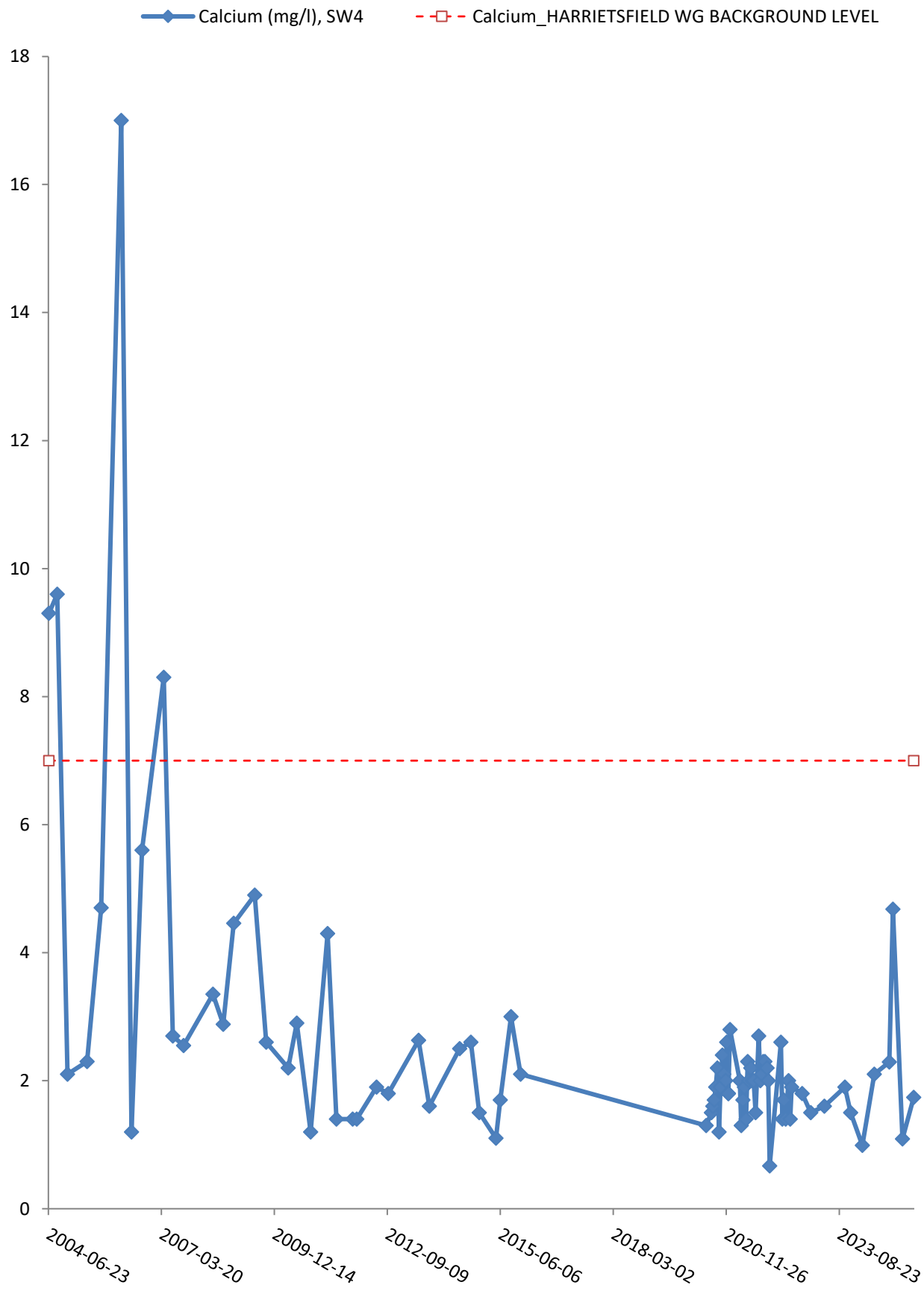



Boron (mg/l), SW4
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

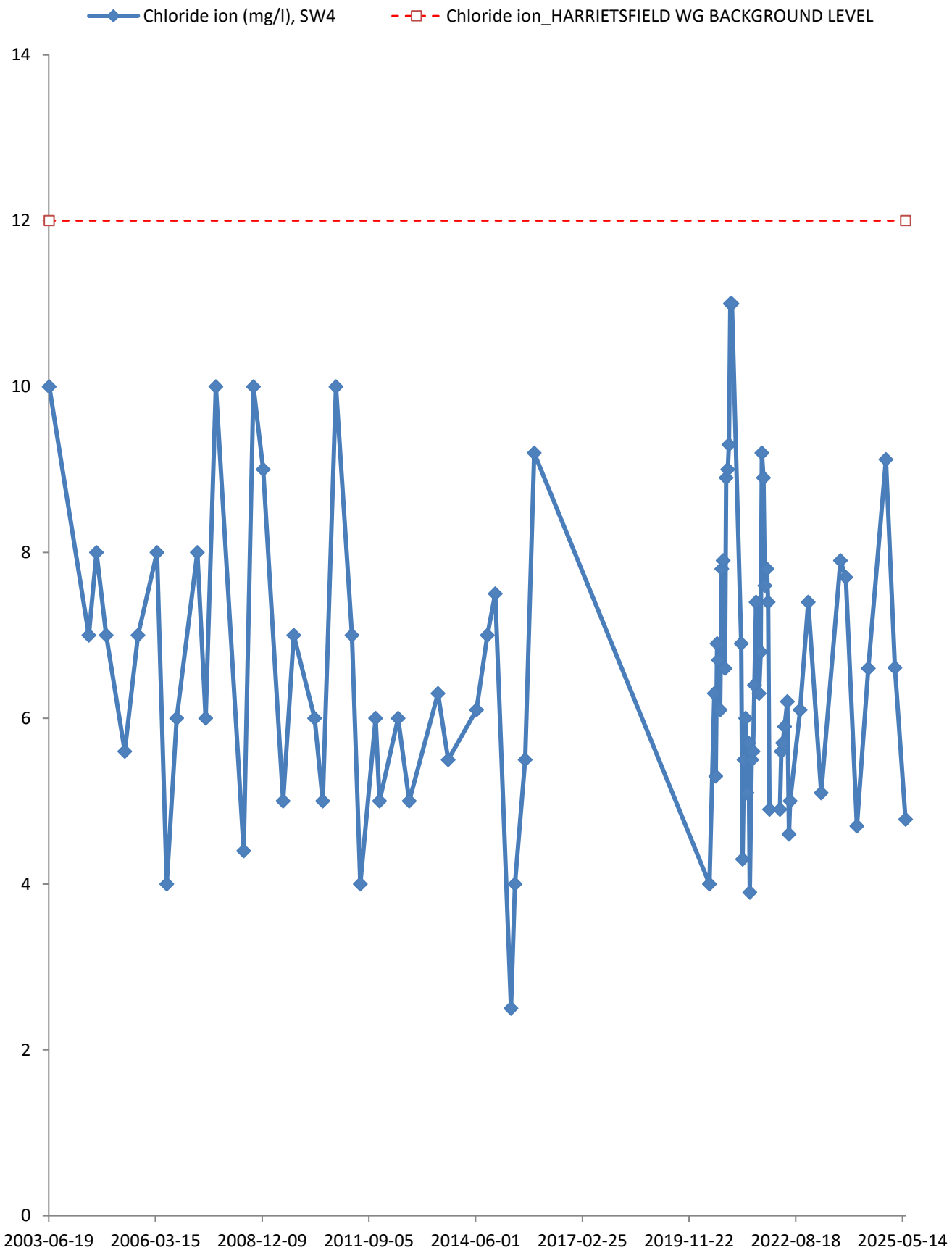
# Cadmium


Cadmium (ug/l), SW4
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00025
0.0002
0.00015
0.0001
0.00005
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Calcium

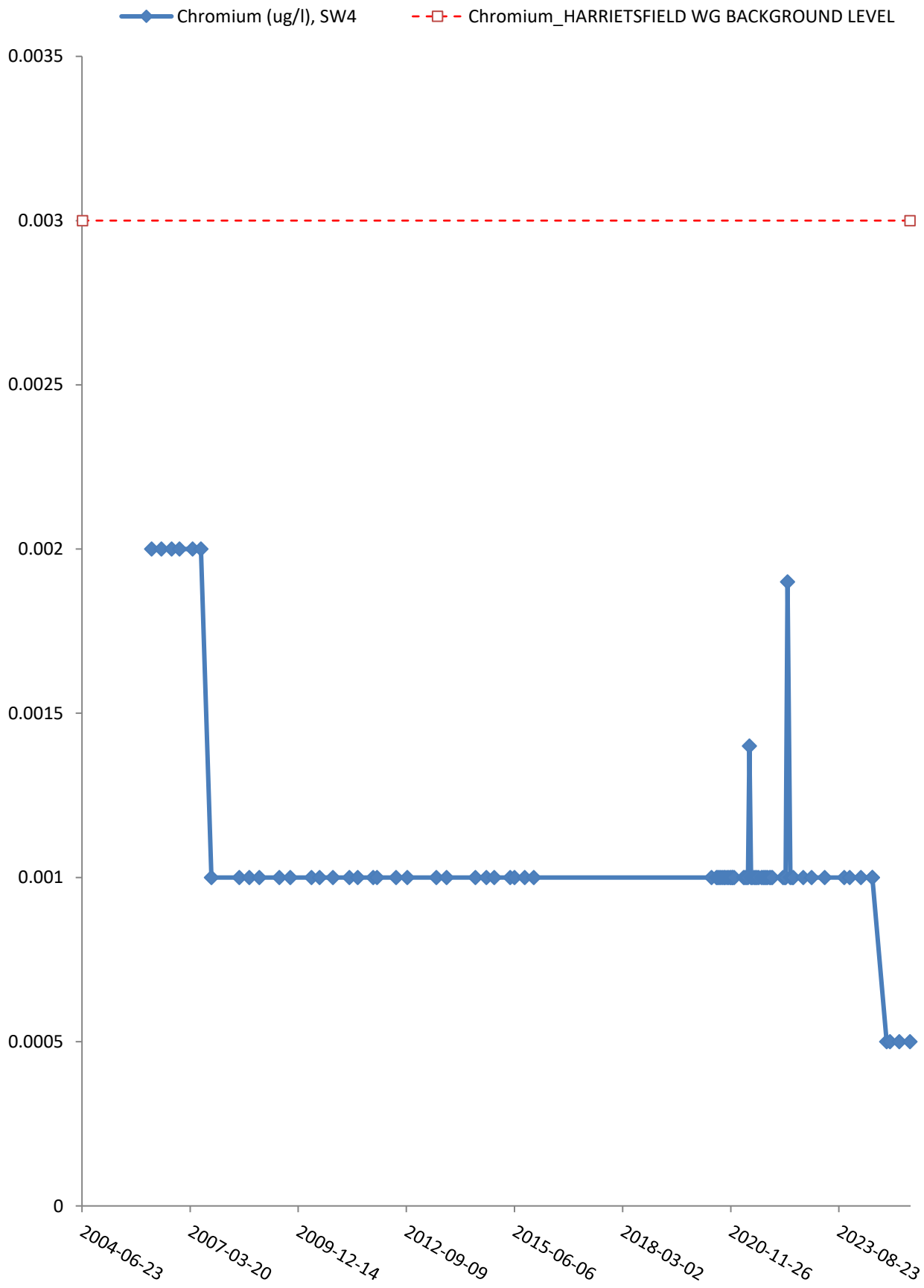

Calcium (mg/l), SW4
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
18
16
14
12
10
8
6
4
2
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Chloride ion

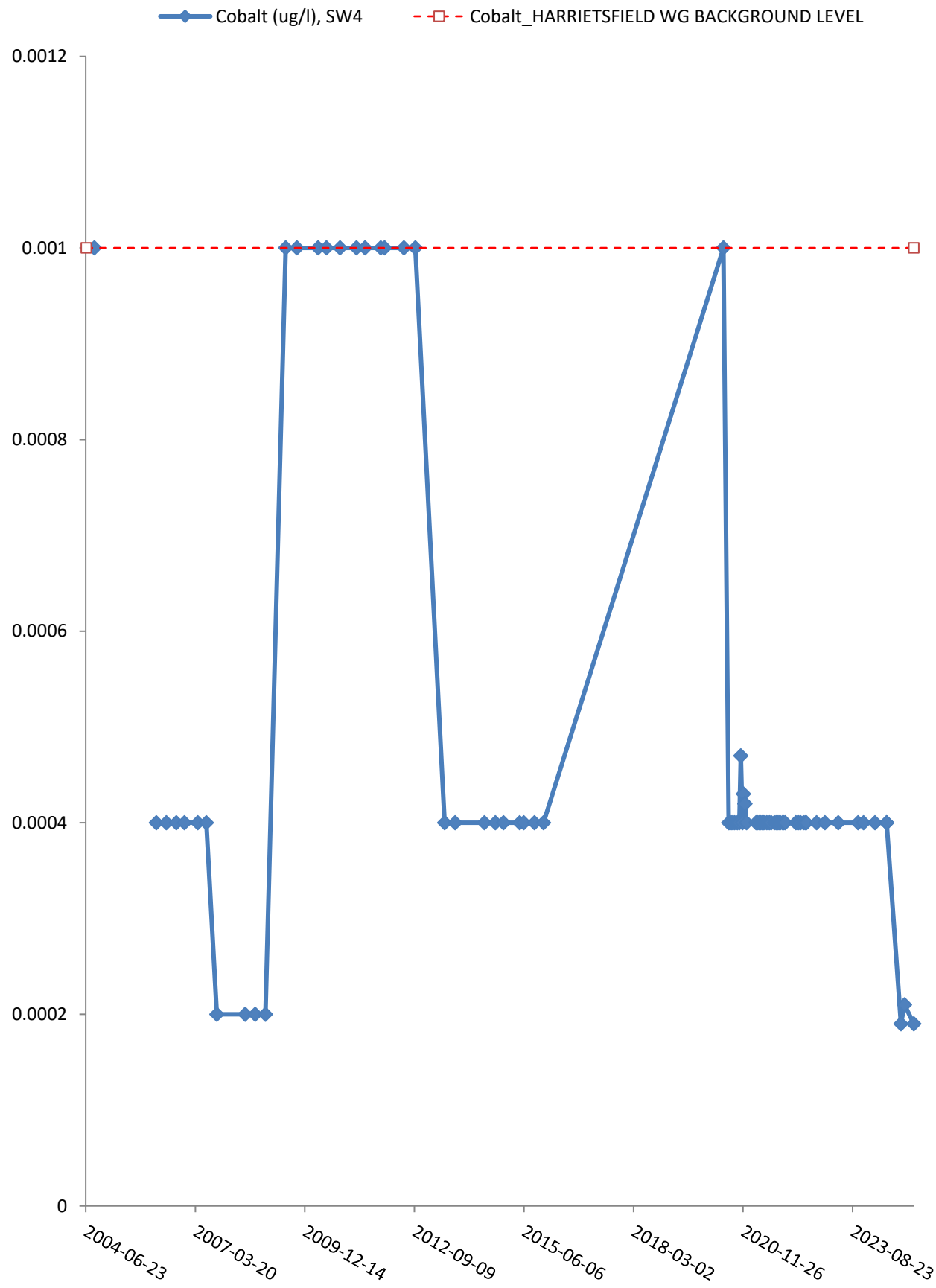


# Chromium

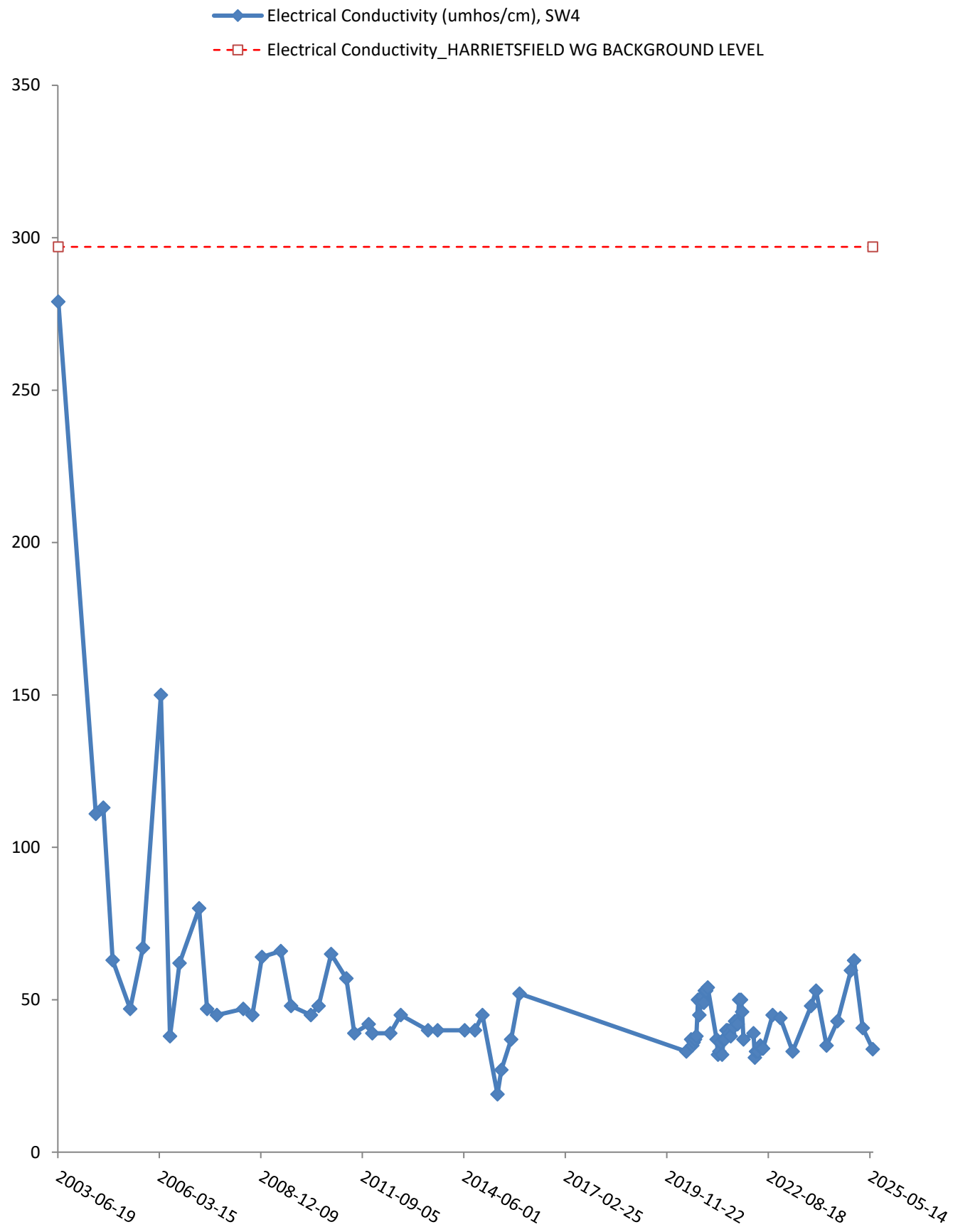



Chromium (ug/l), SW4
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

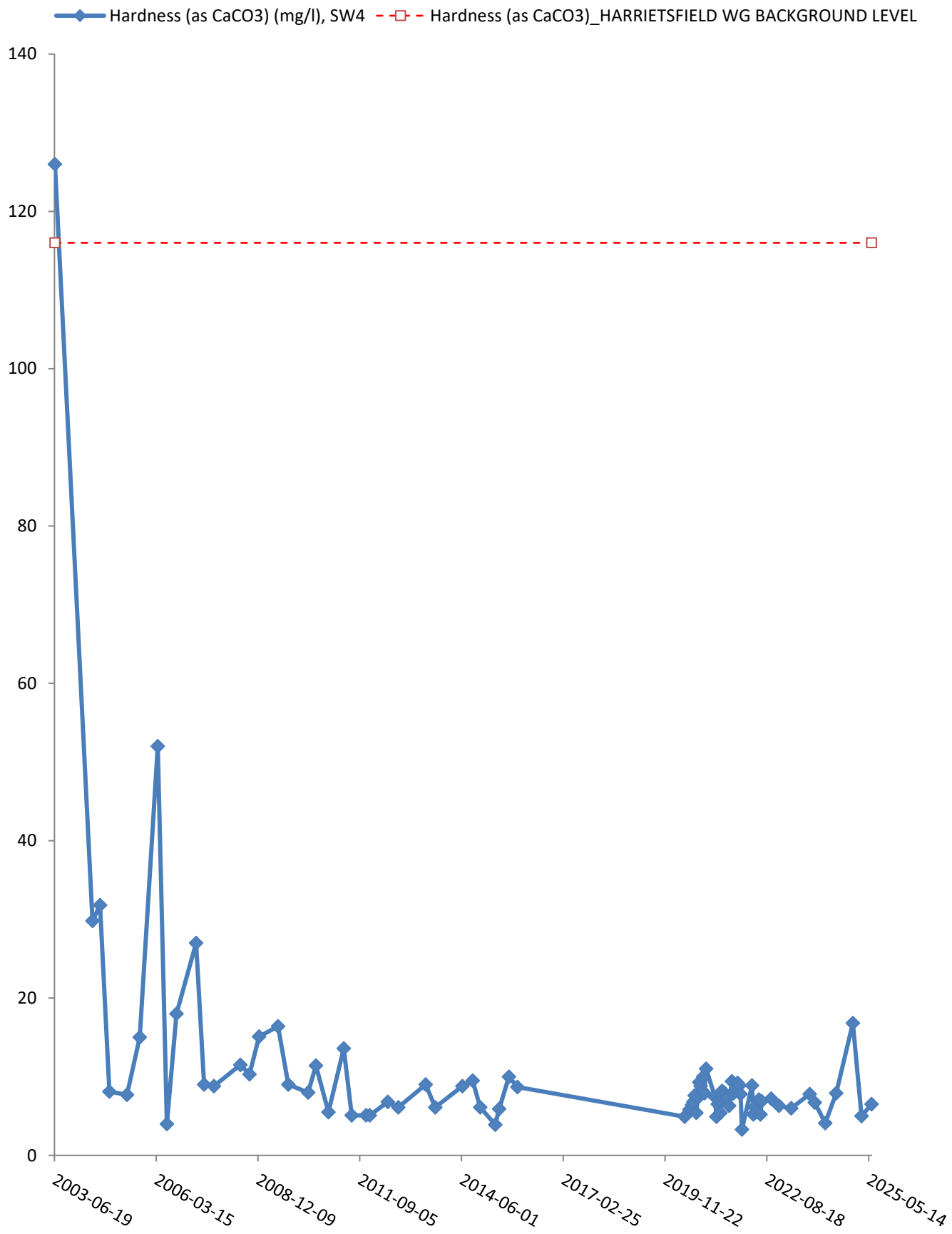
# Cobalt


Cobalt (ug/l), SW4
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

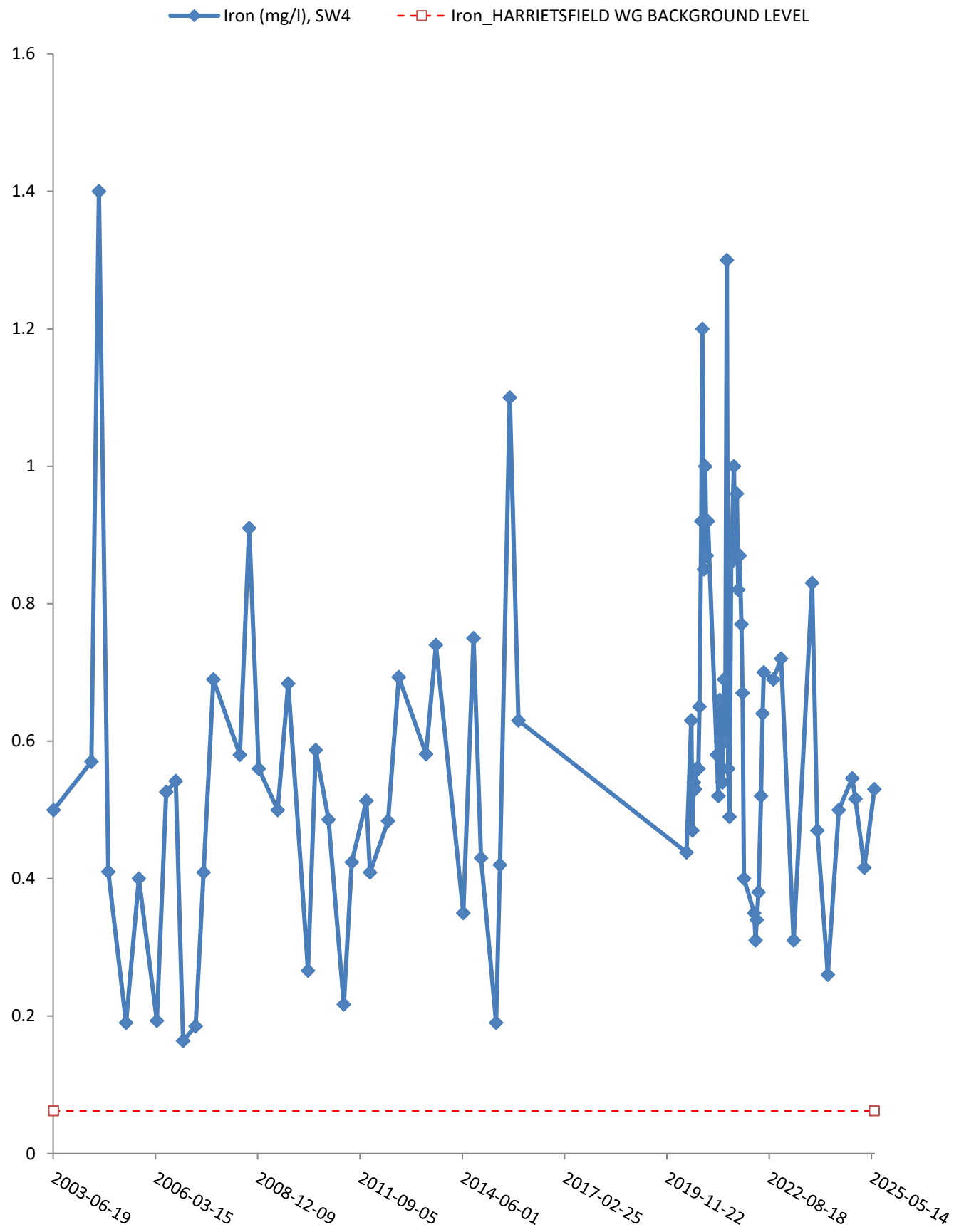
# Electrical Conductivity



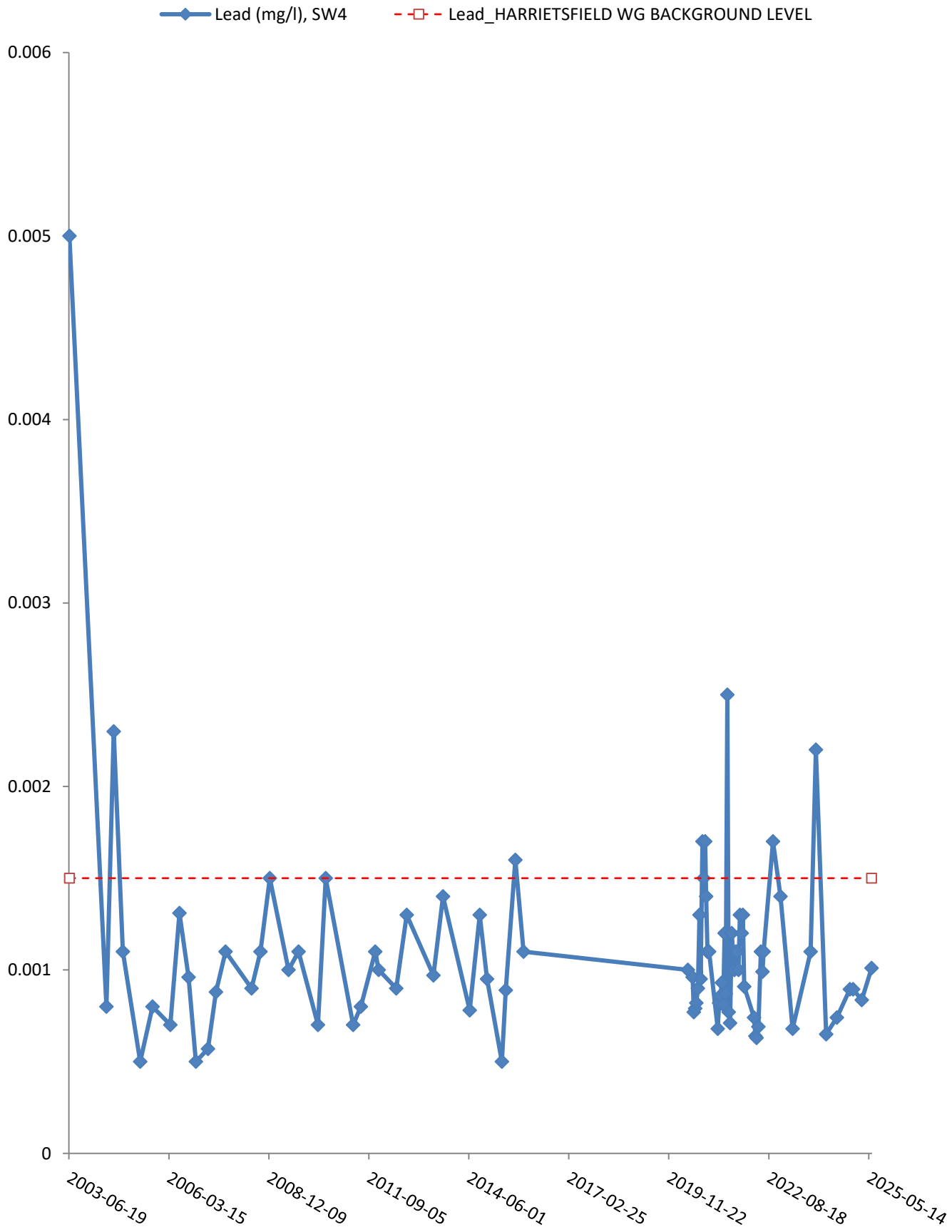
# Hardness (as CaCO3)



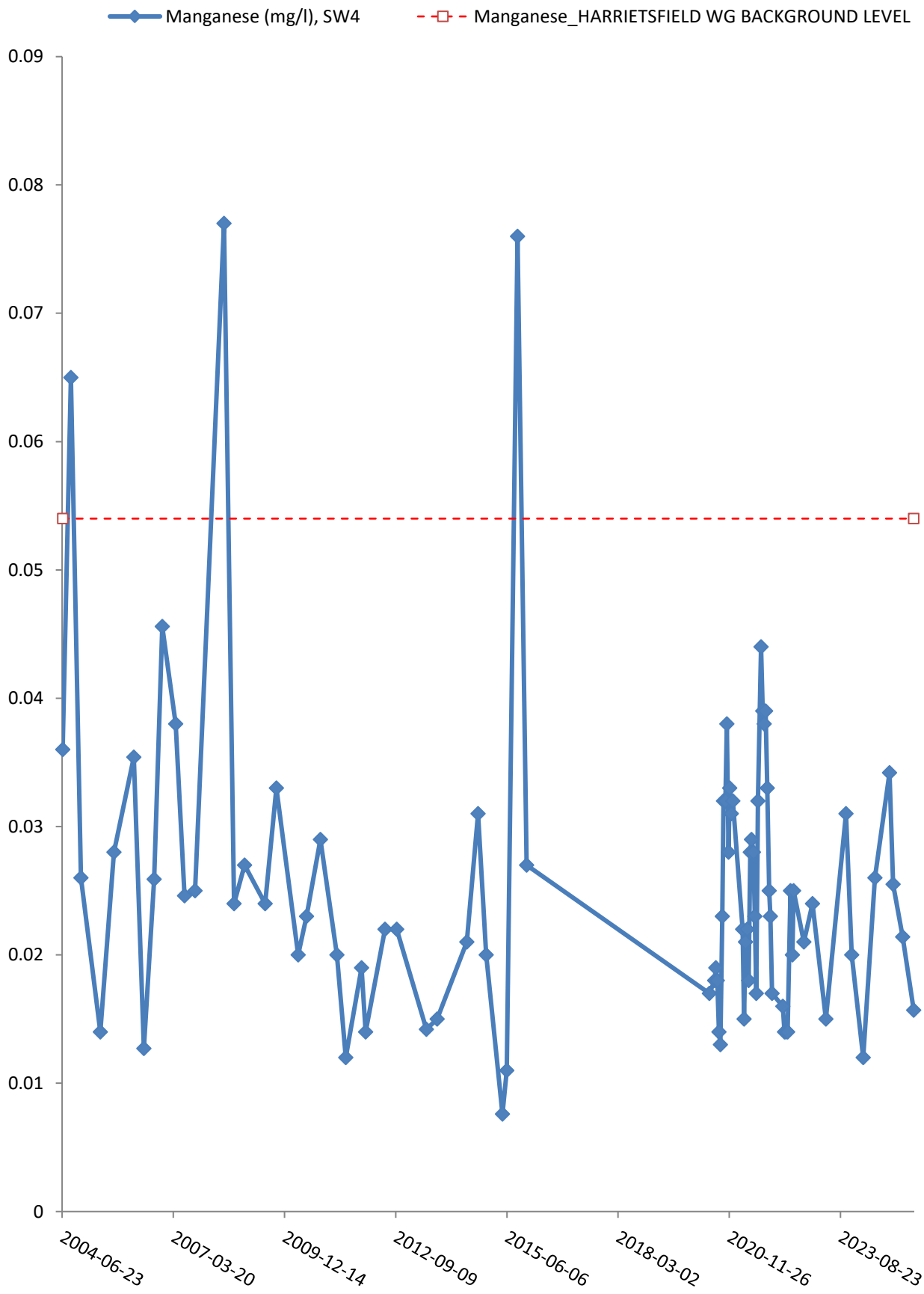
# Iron


Iron (mg/l), SW4
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2003-06-19
2006-03-15
2008-12-09
2011-09-05
2014-06-01
2017-02-25
2019-11-22
2022-08-18
2025-05-14

# Lead

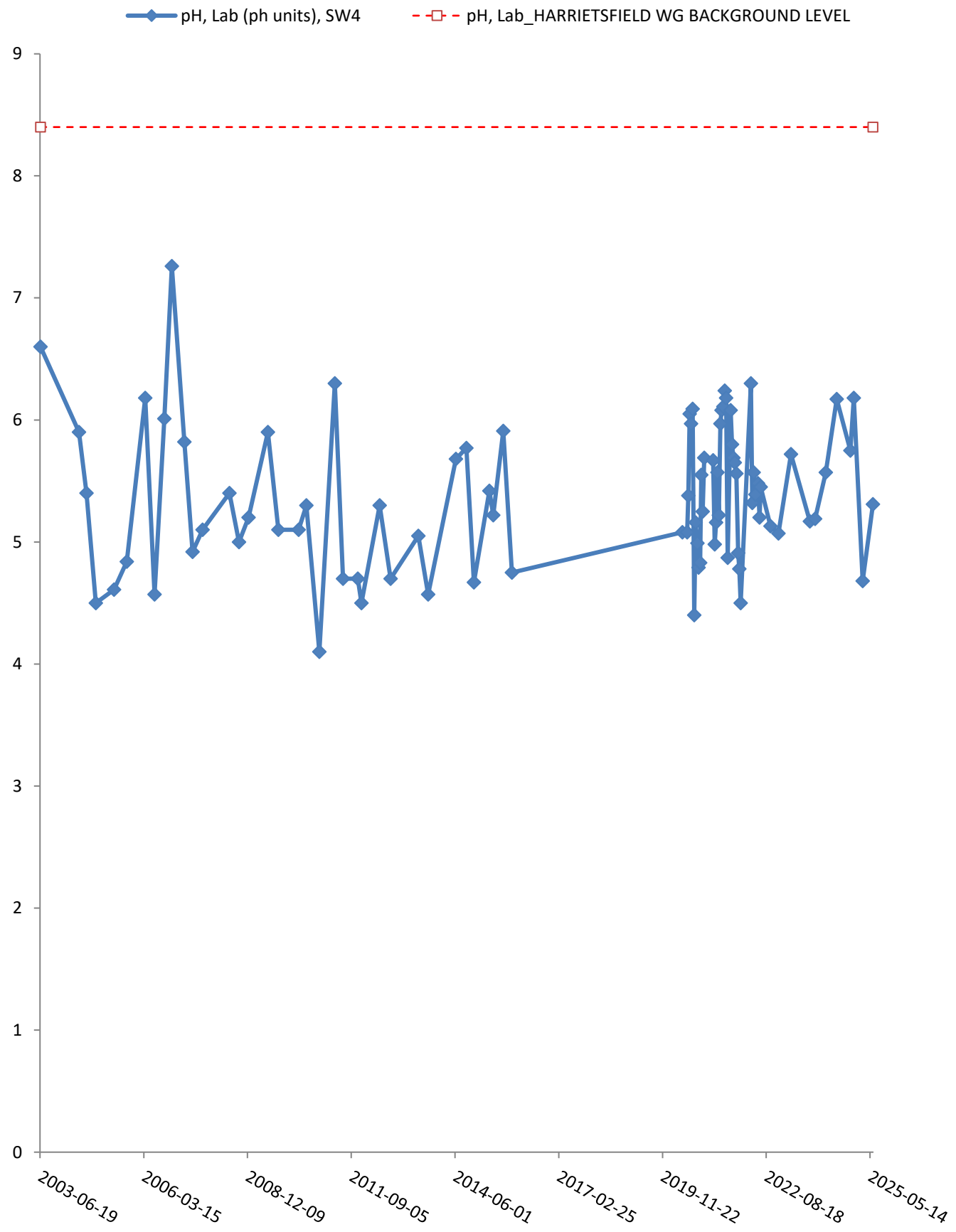

Lead (mg/l), SW4
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2003-06-19
2006-03-15
2008-12-09
2011-09-05
2014-06-01
2017-02-25
2019-11-22
2022-08-18
2025-05-14

# Manganese


Manganese (mg/l), SW4
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

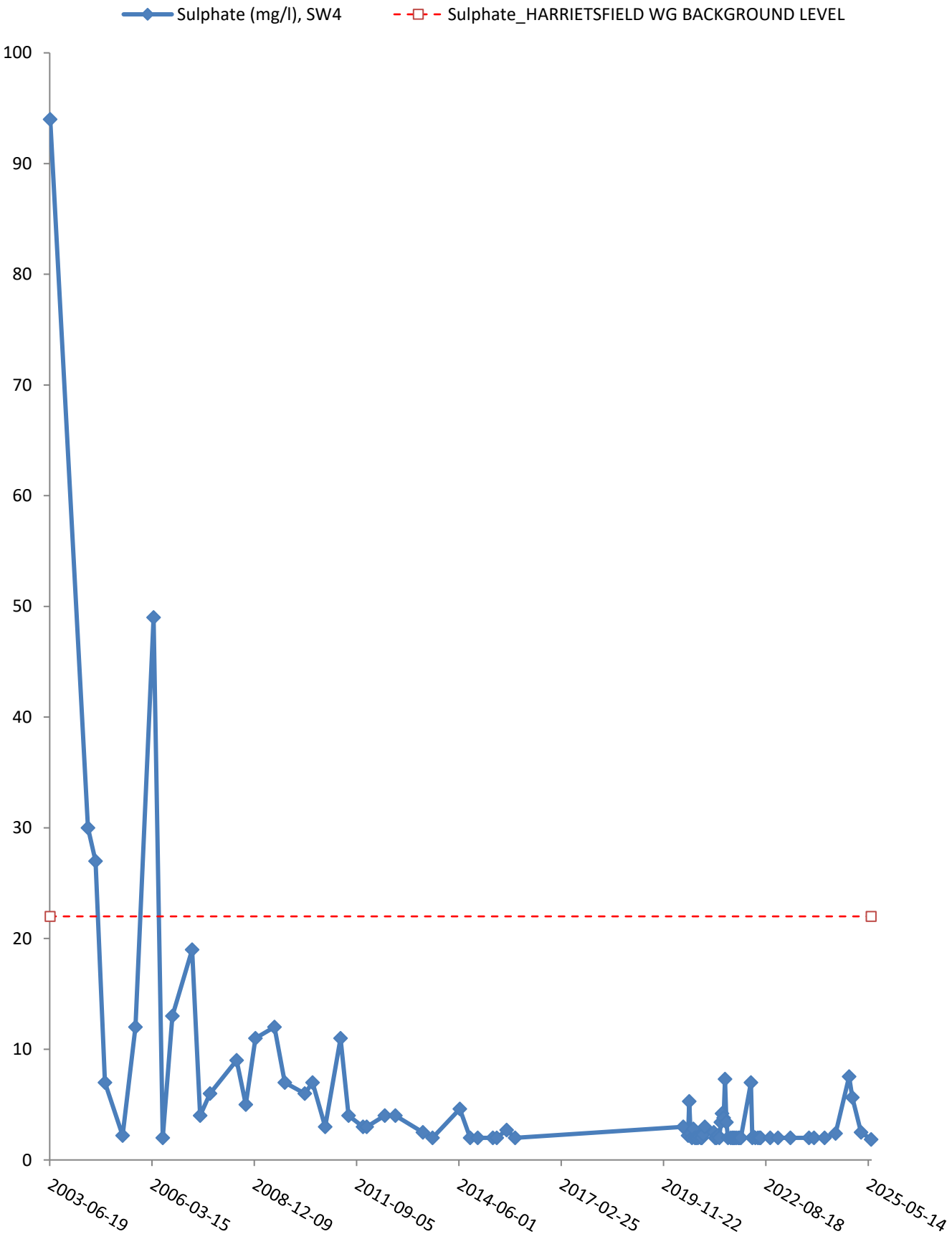
# pH, Lab



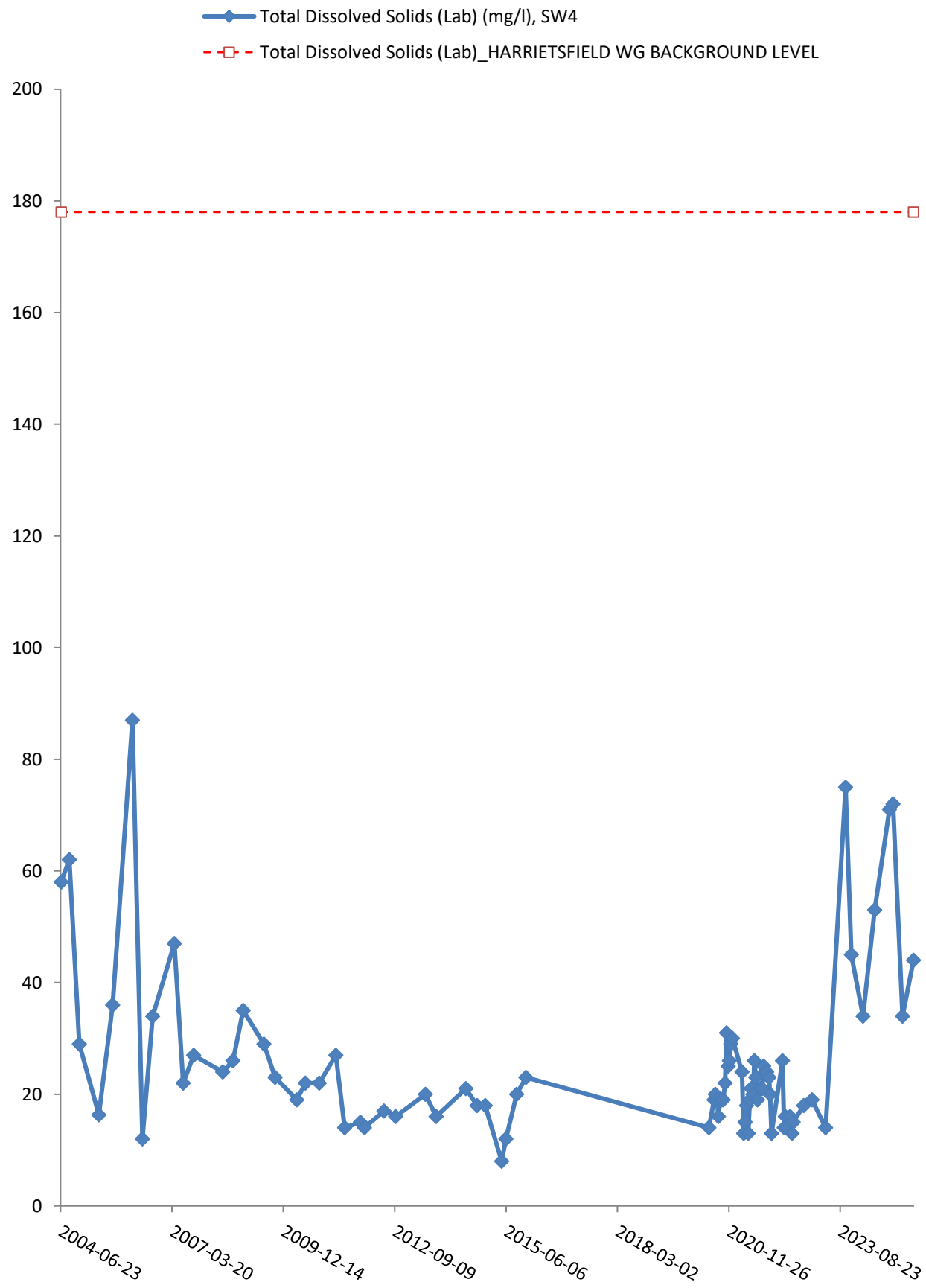

pH, Lab (ph units), SW4
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2003-06-19
2006-03-15
2008-12-09
2011-09-05
2014-06-01
2017-02-25
2019-11-22
2022-08-18
2025-05-14

# Sulphate

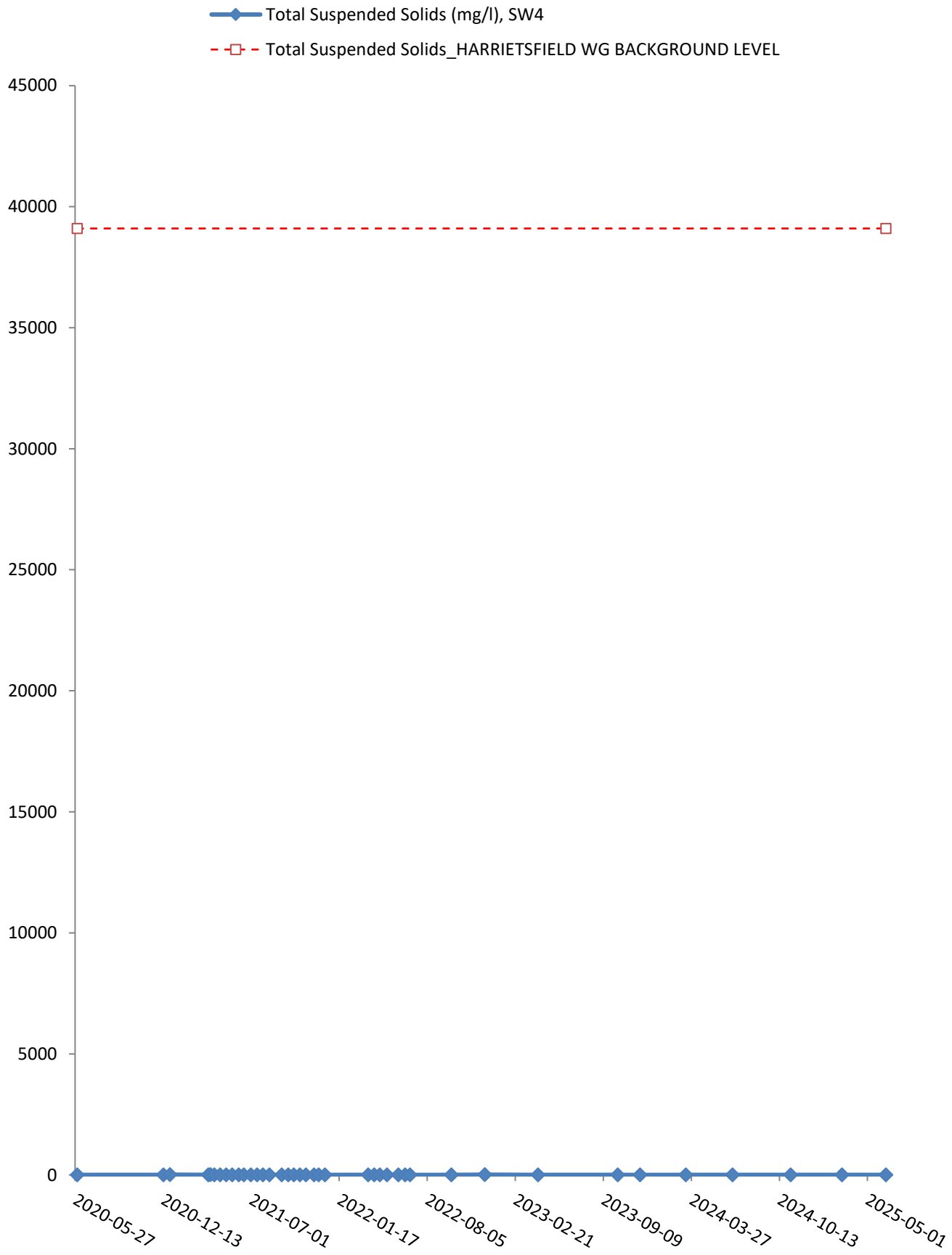



Sulphate (mg/l), SW4
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
100
90
80
70
60
50
40
30
20
10
0
2003-06-19
2006-03-15
2008-12-09
2011-09-05
2014-06-01
2017-02-25
2019-11-22
2022-08-18
2025-05-14

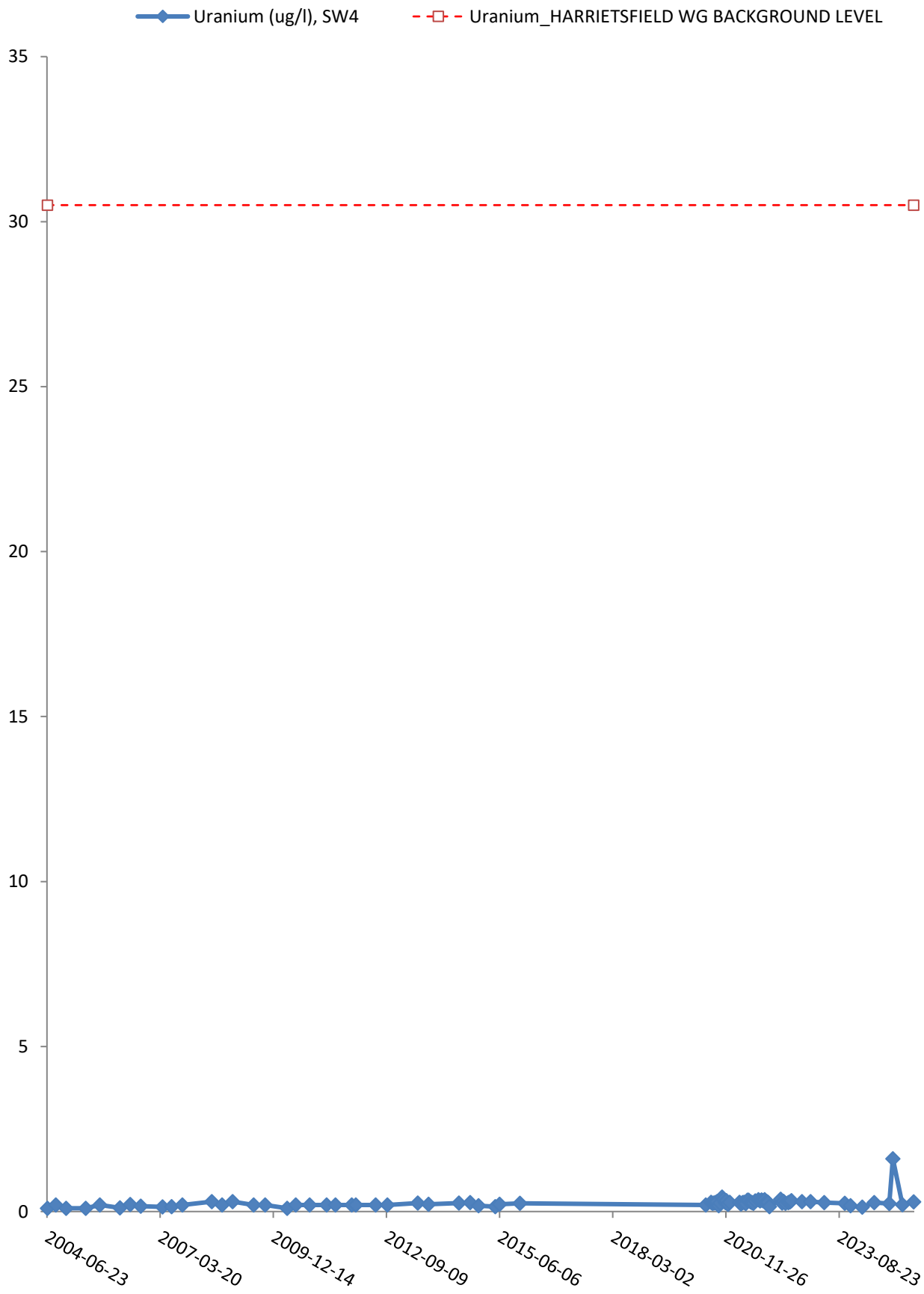
# Total Dissolved Solids (5



# Total Suspended Solids

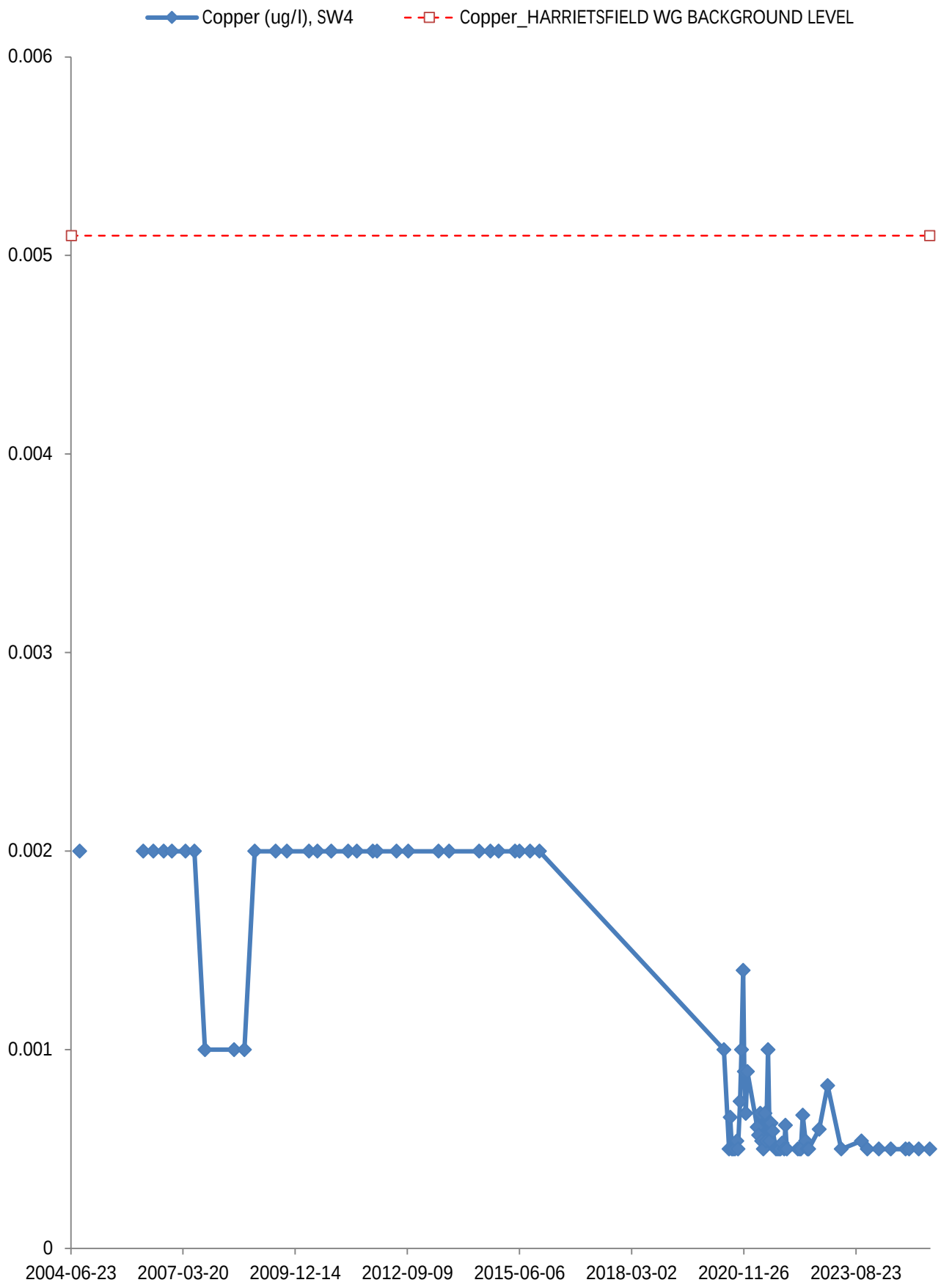


# Uranium

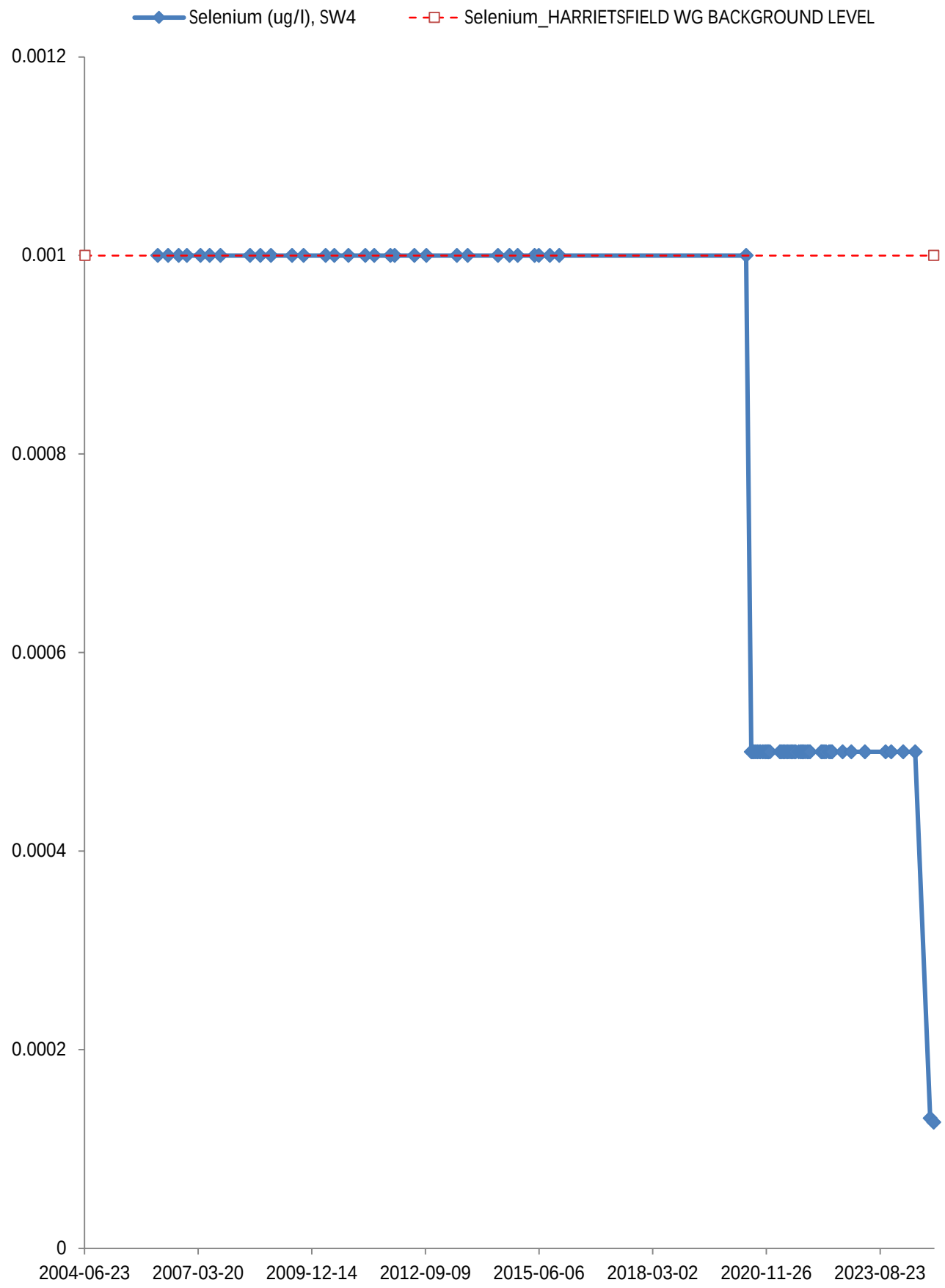

Uranium (ug/l), SW4
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Copper

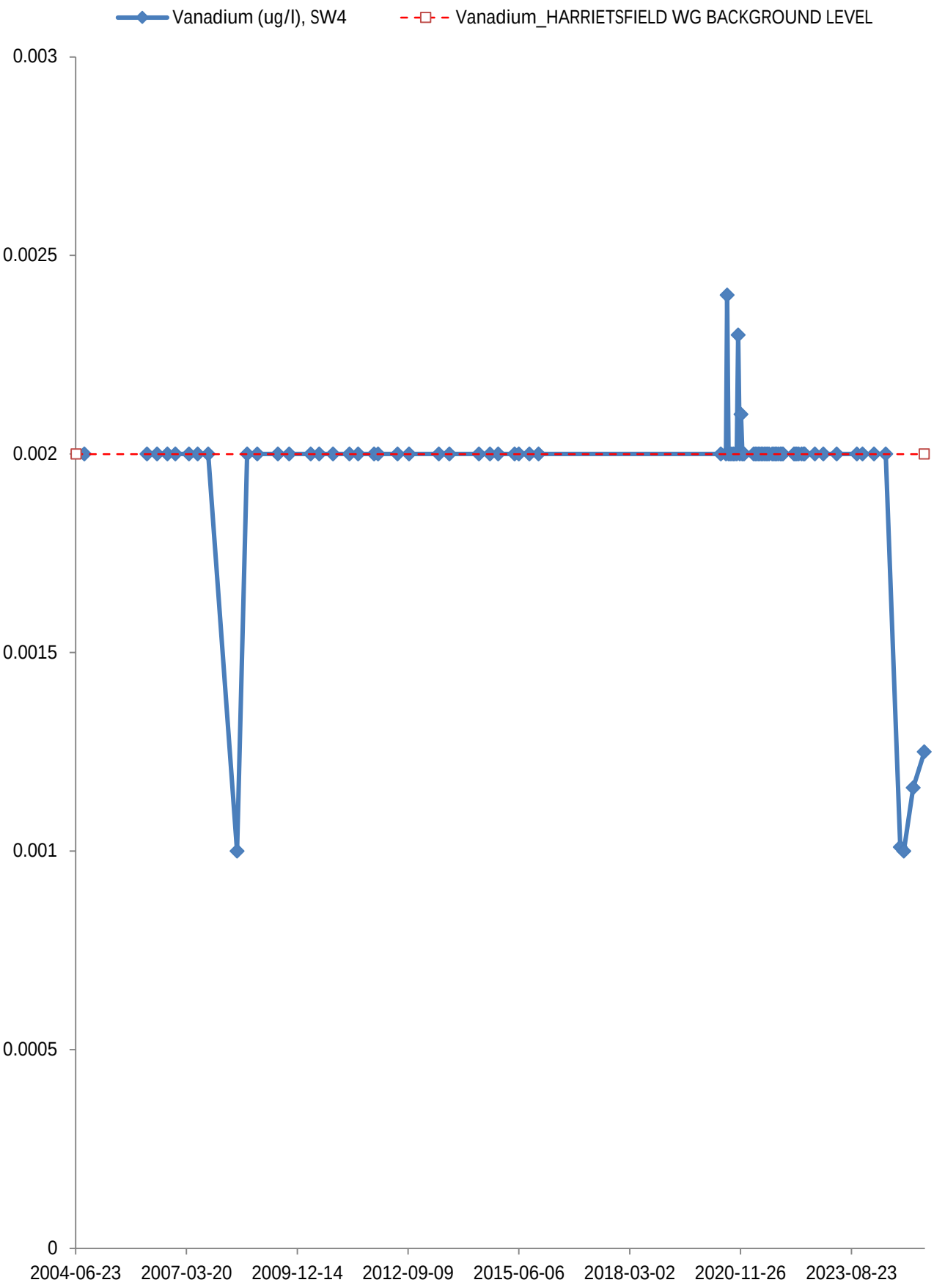



Copper (ug/l), SW4
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.006
0.005
0.004
0.003
0.002
0.001
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

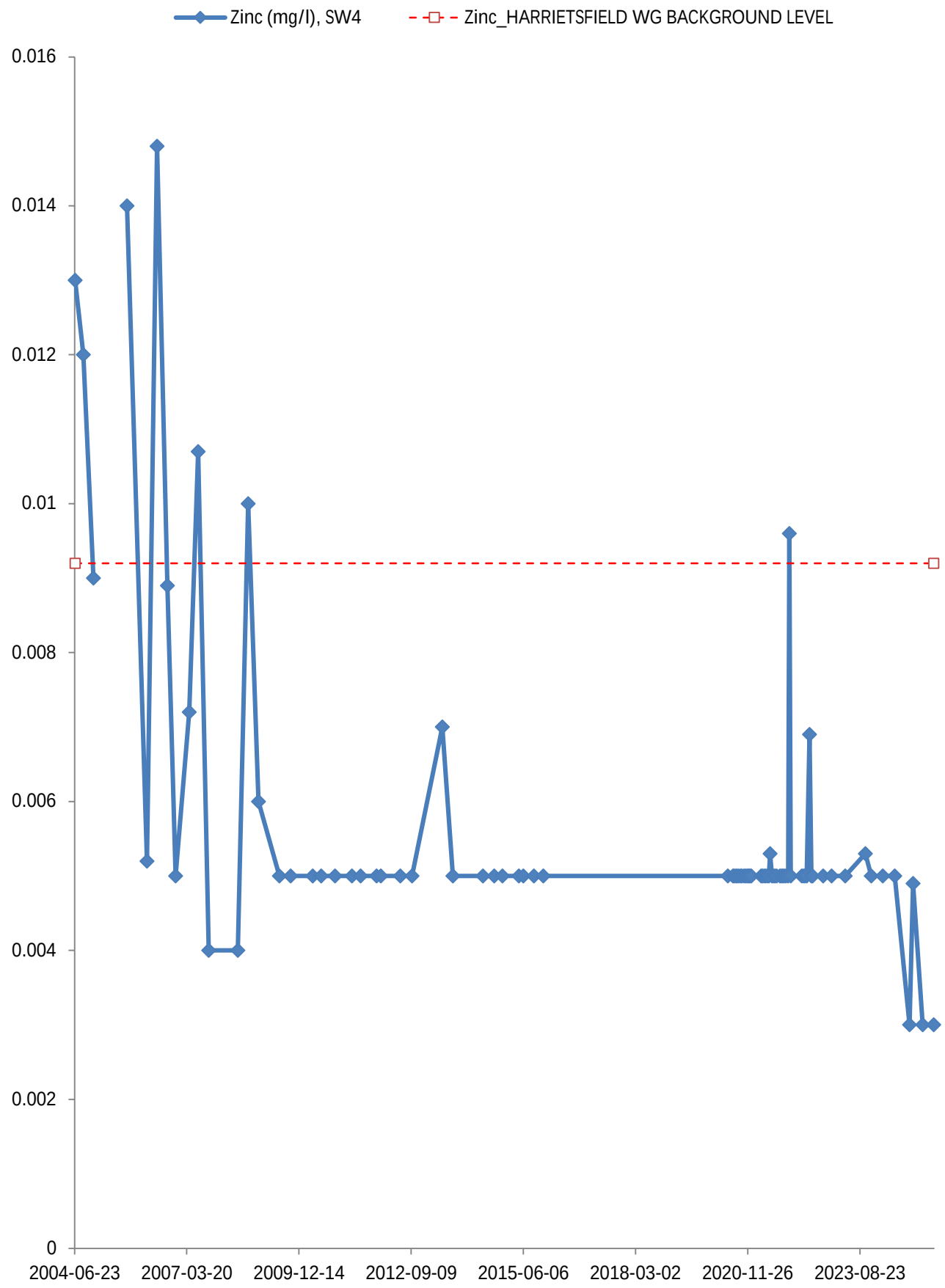
# Selenium


Selenium (ug/l), SW4
Selenium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Vanadium

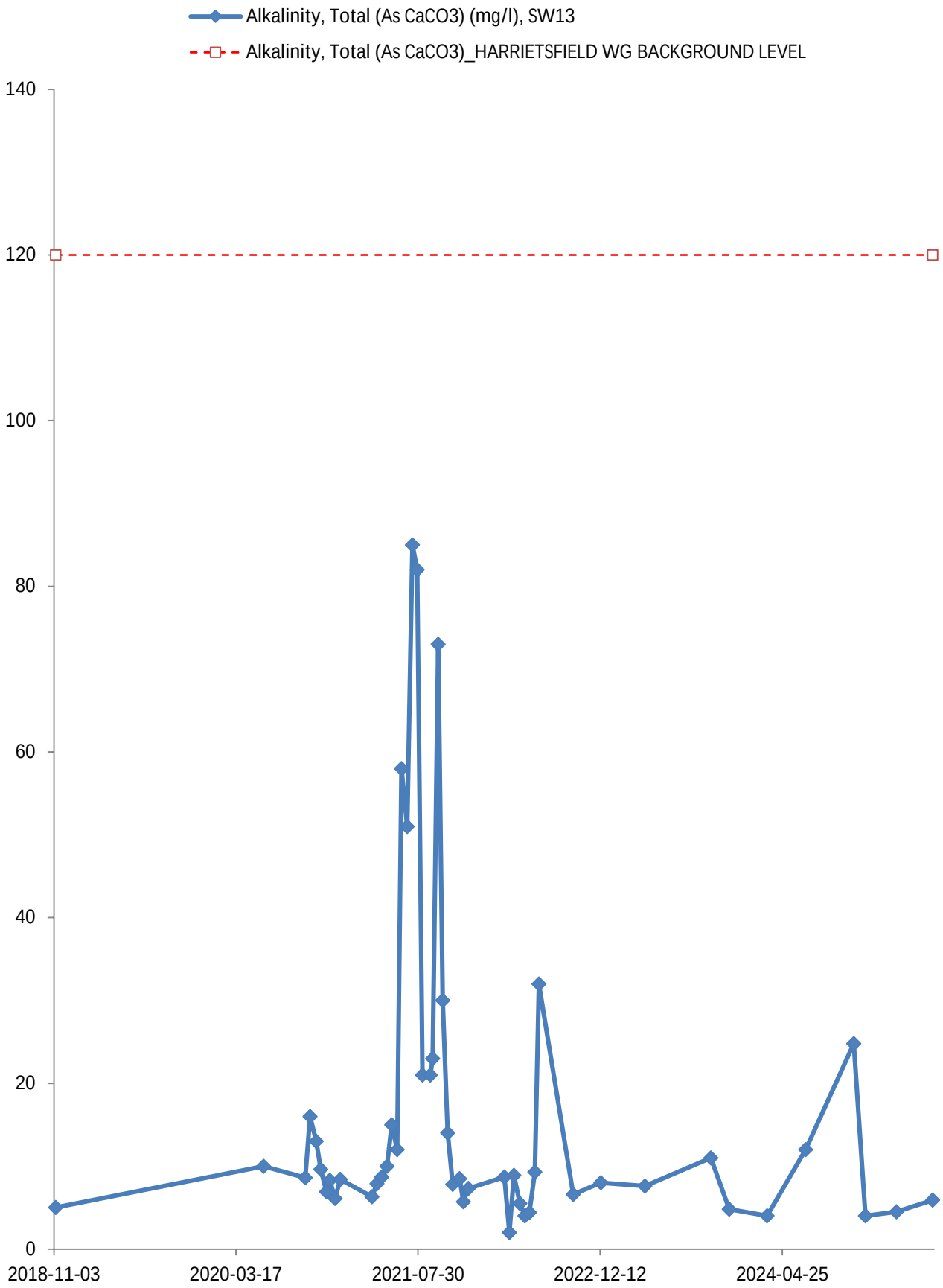

Vanadium (ug/l), SW4
Vanadium_HARRIETSFIELD WG BACKGROUND LEVEL
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Zinc

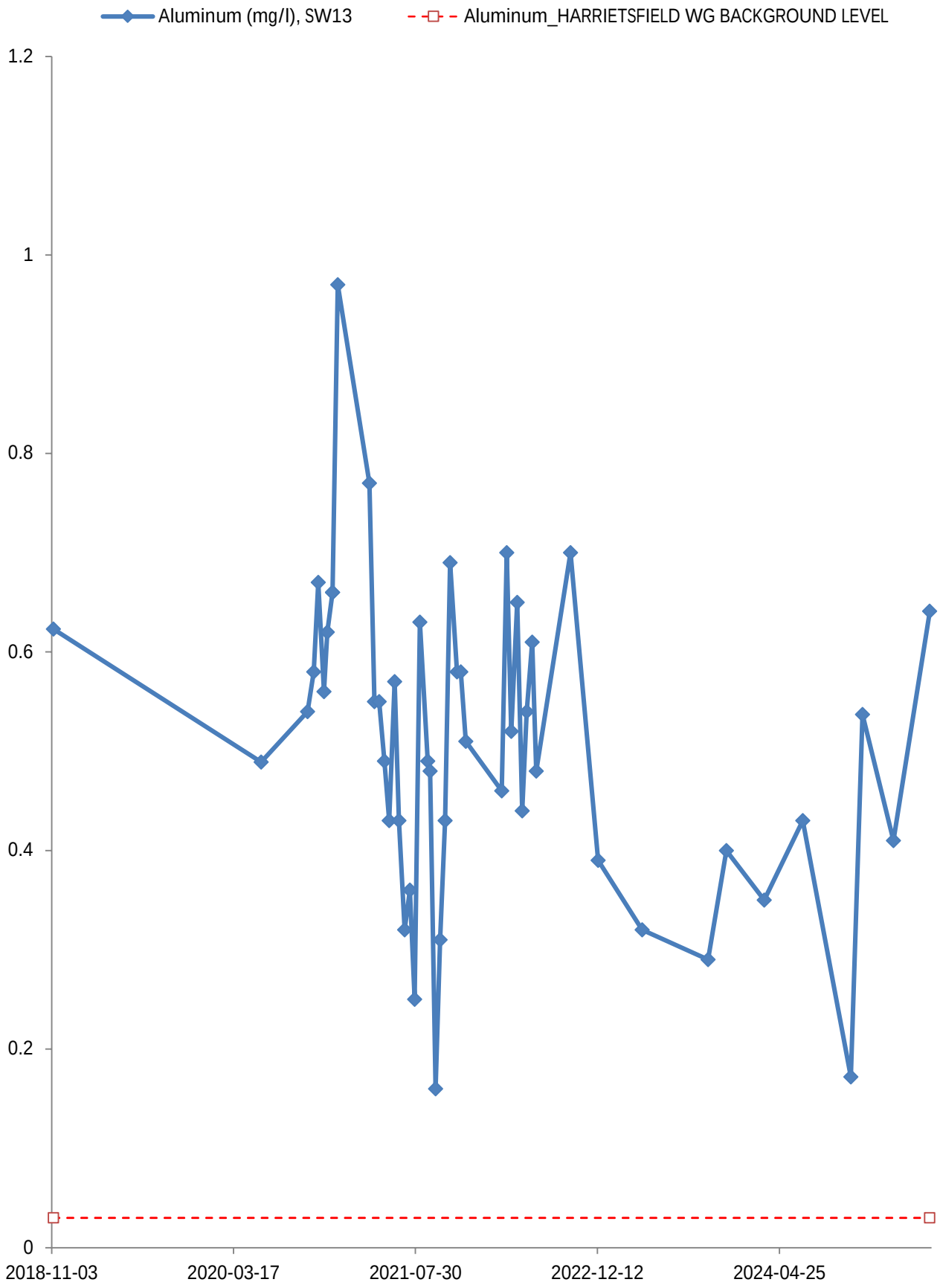

Zinc (mg/l), SW4
Zinc_HARRIETSFIELD WG BACKGROUND LEVEL
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2004-06-23
2007-03-20
2009-12-14
2012-09-09
2015-06-06
2018-03-02
2020-11-26
2023-08-23

# Alkalinity, Total



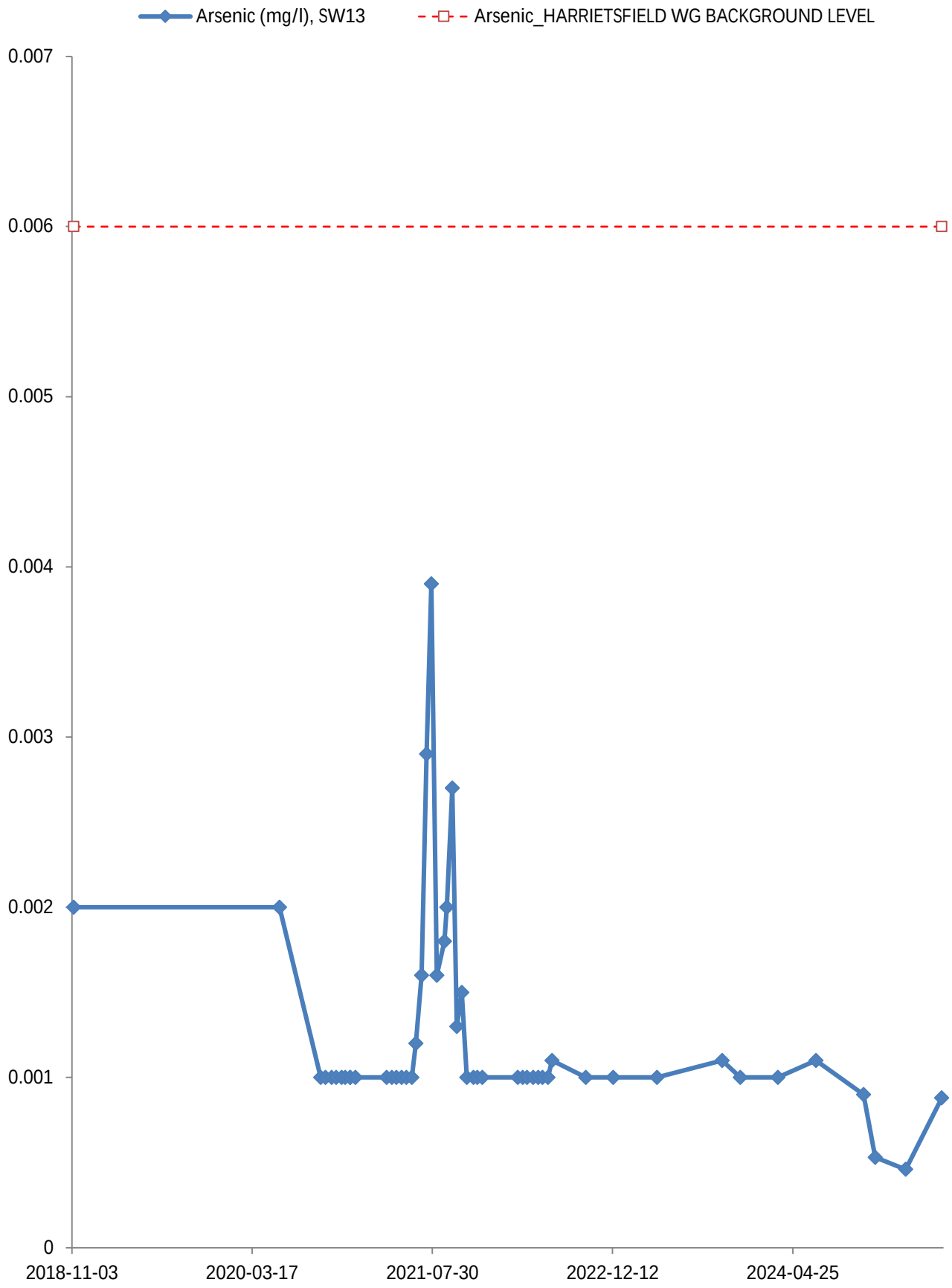


# Aluminum

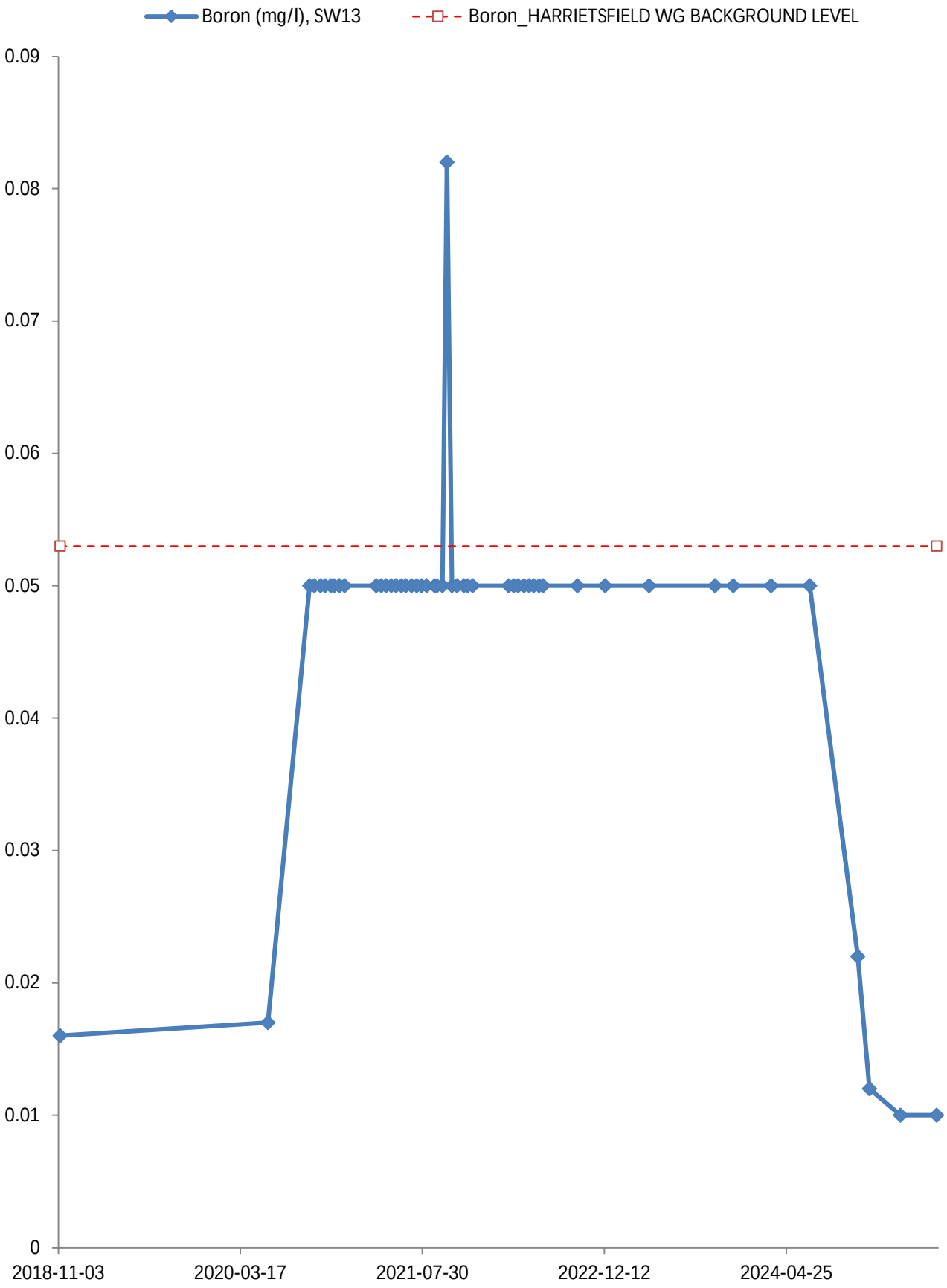

Aluminum (mg/l), SW13
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
1.2
1
0.8
0.6
0.4
0.2
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Arsenic

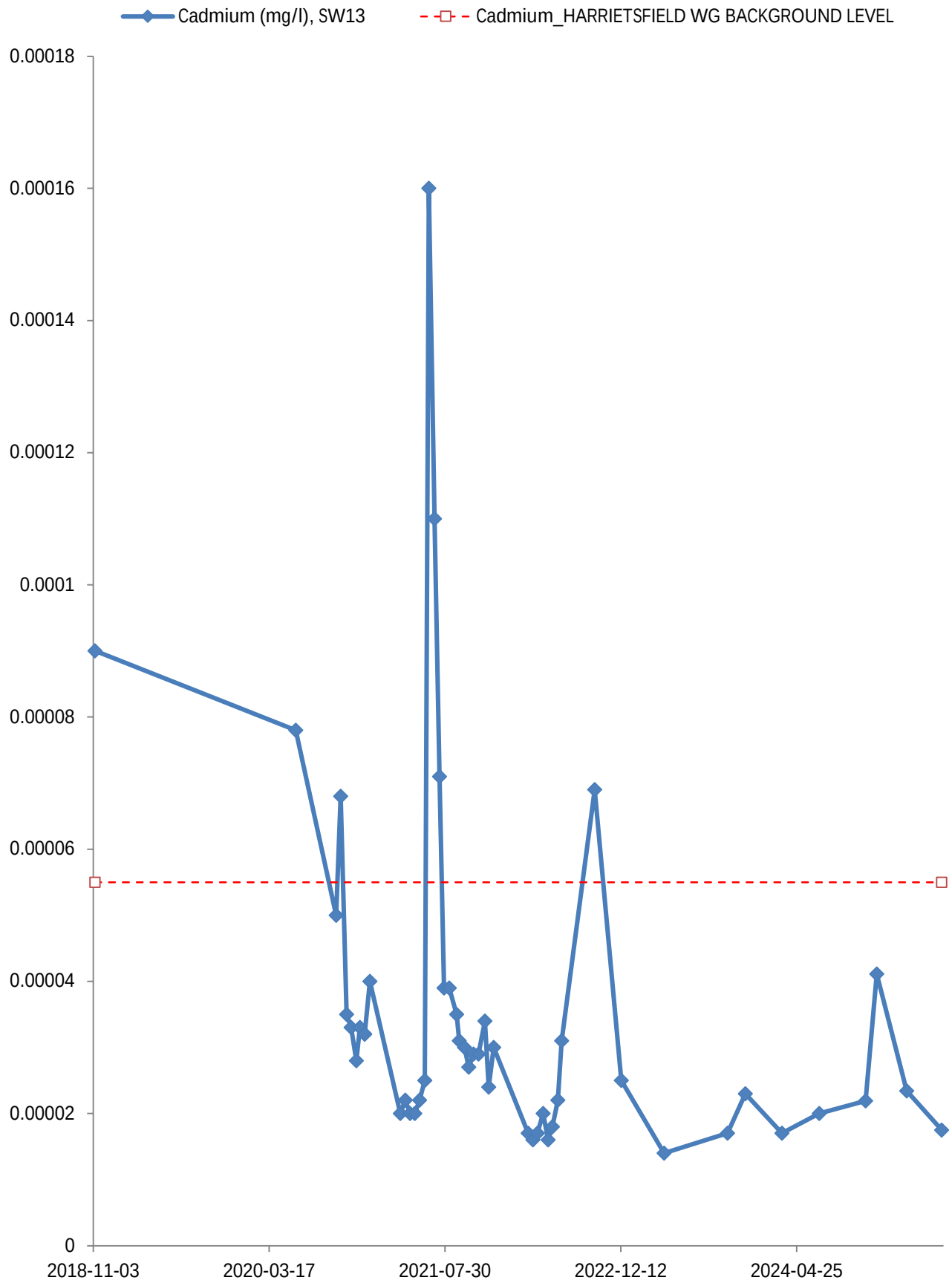



Arsenic (mg/l), SW13
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

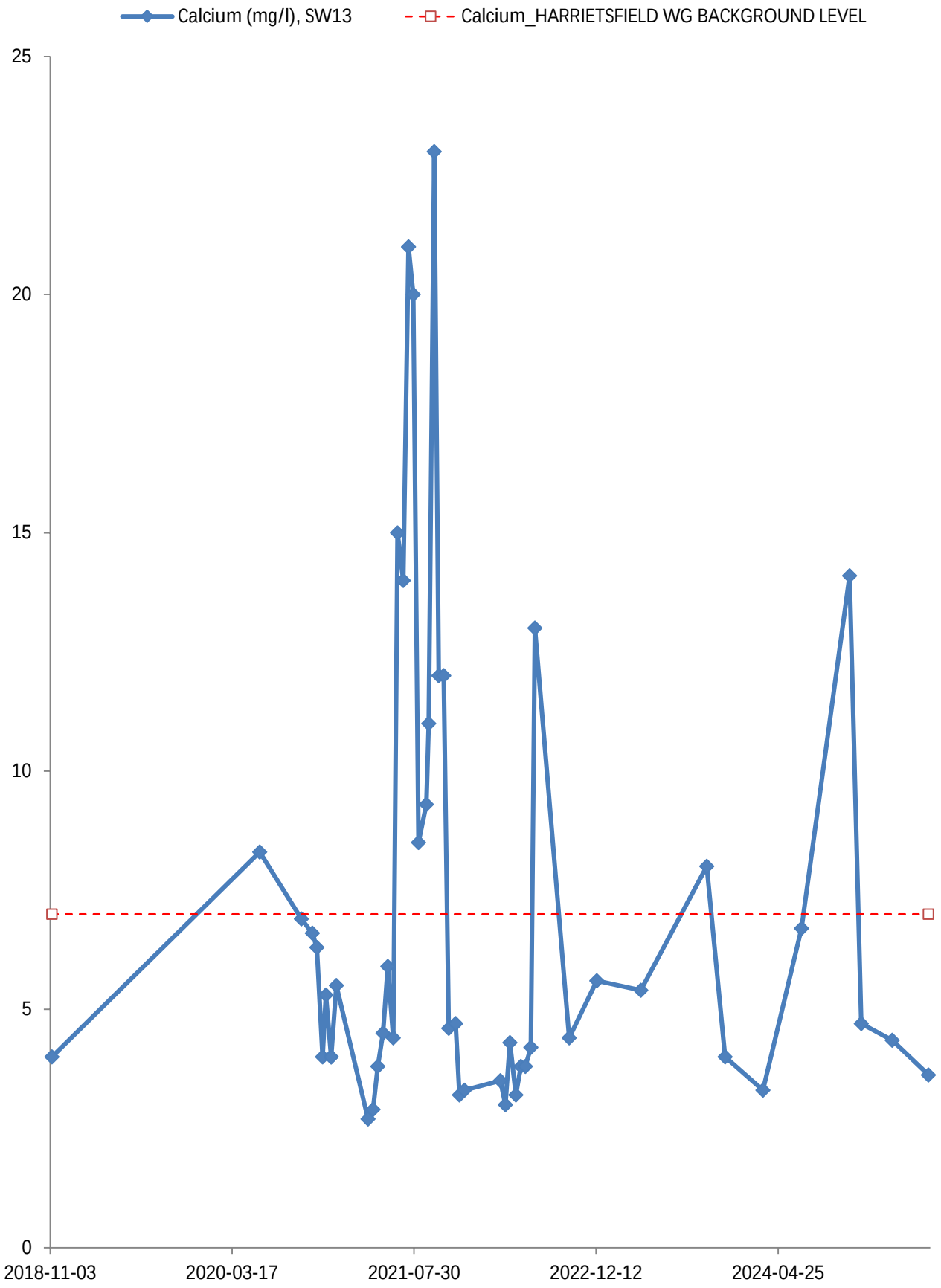
# Boron


Boron (mg/l), SW13
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

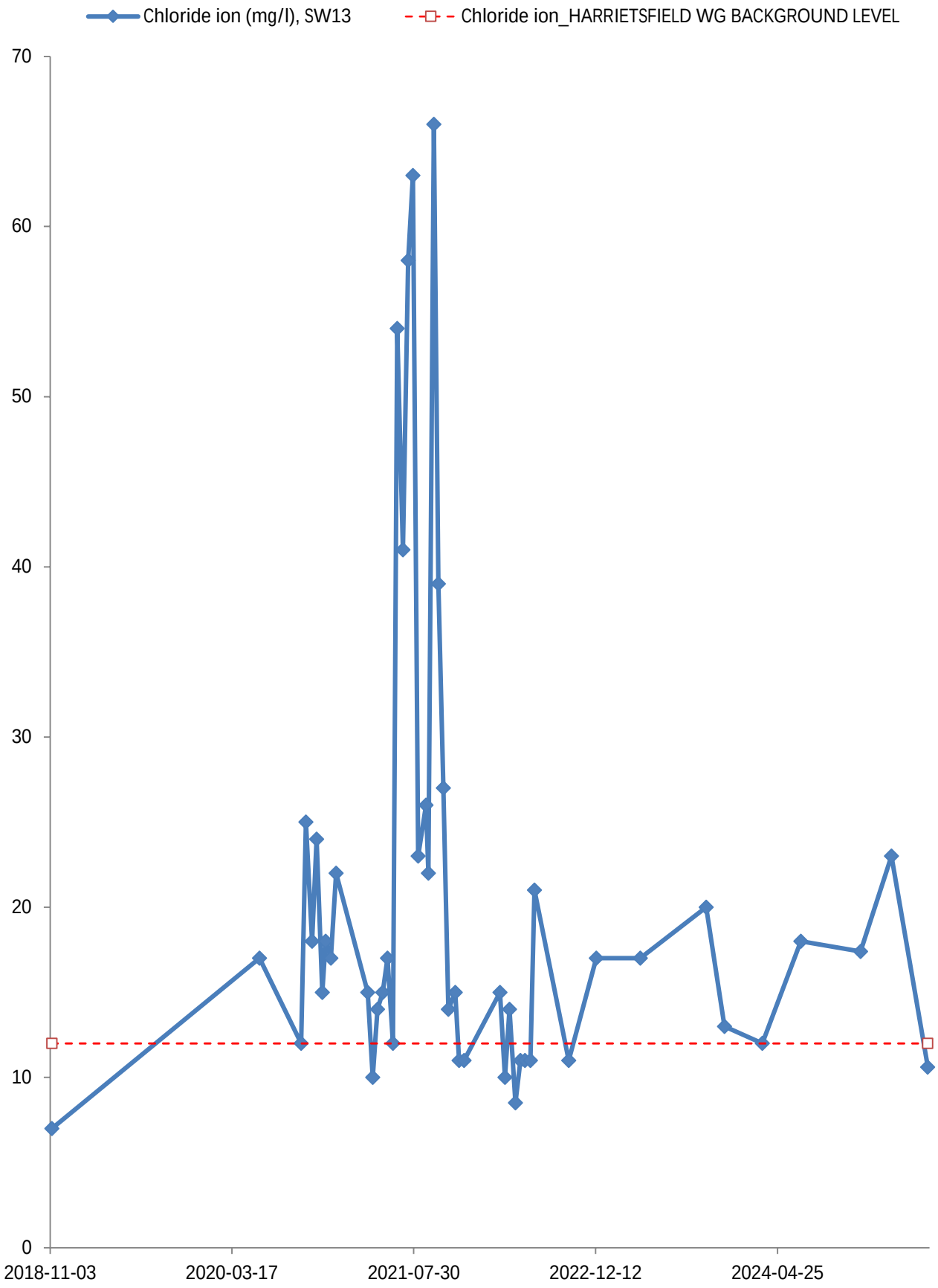
# Cadmium


Cadmium (mg/l), SW13
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00018
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Calcium

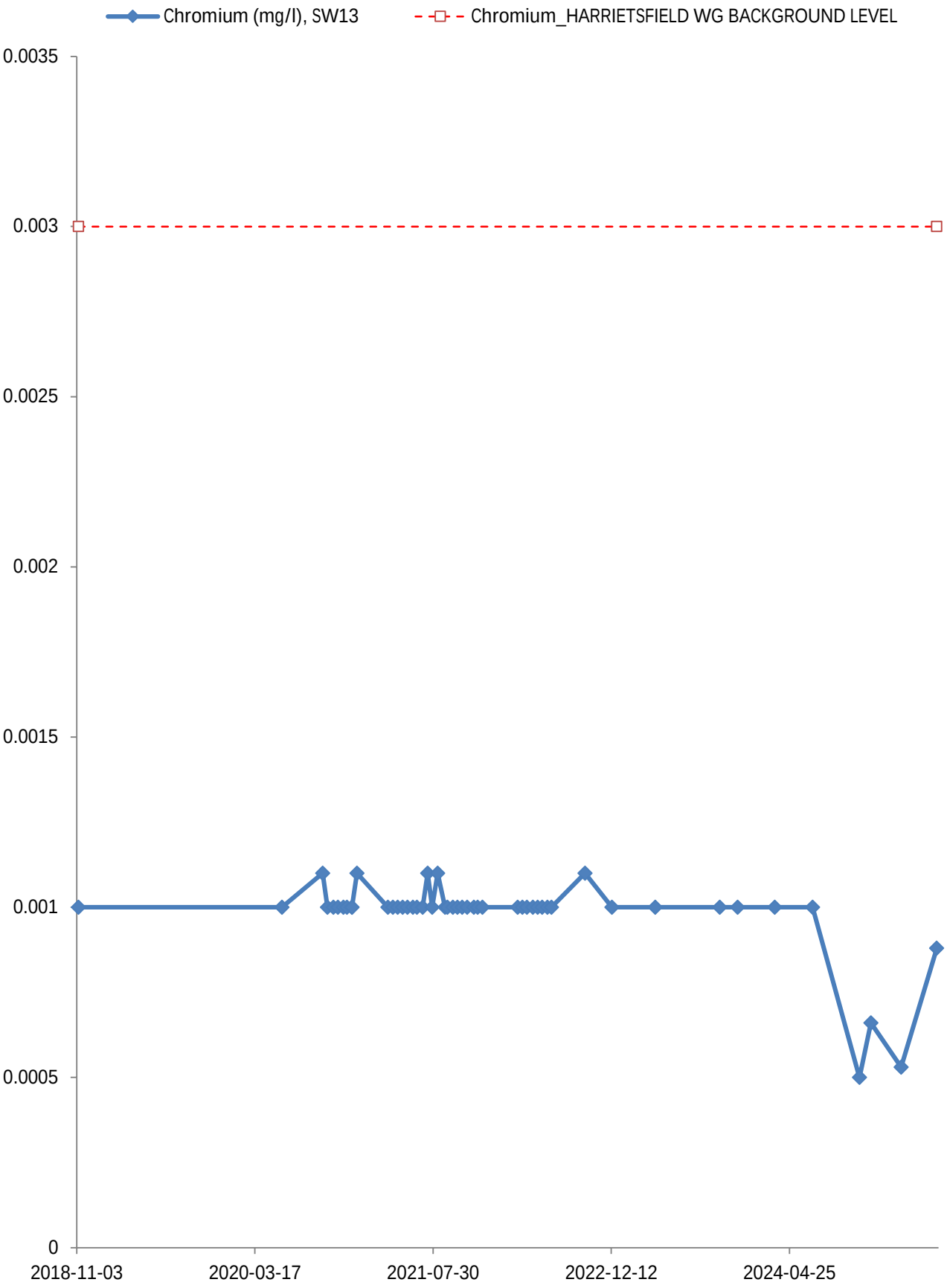

Calcium (mg/l), SW13
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Chloride ion



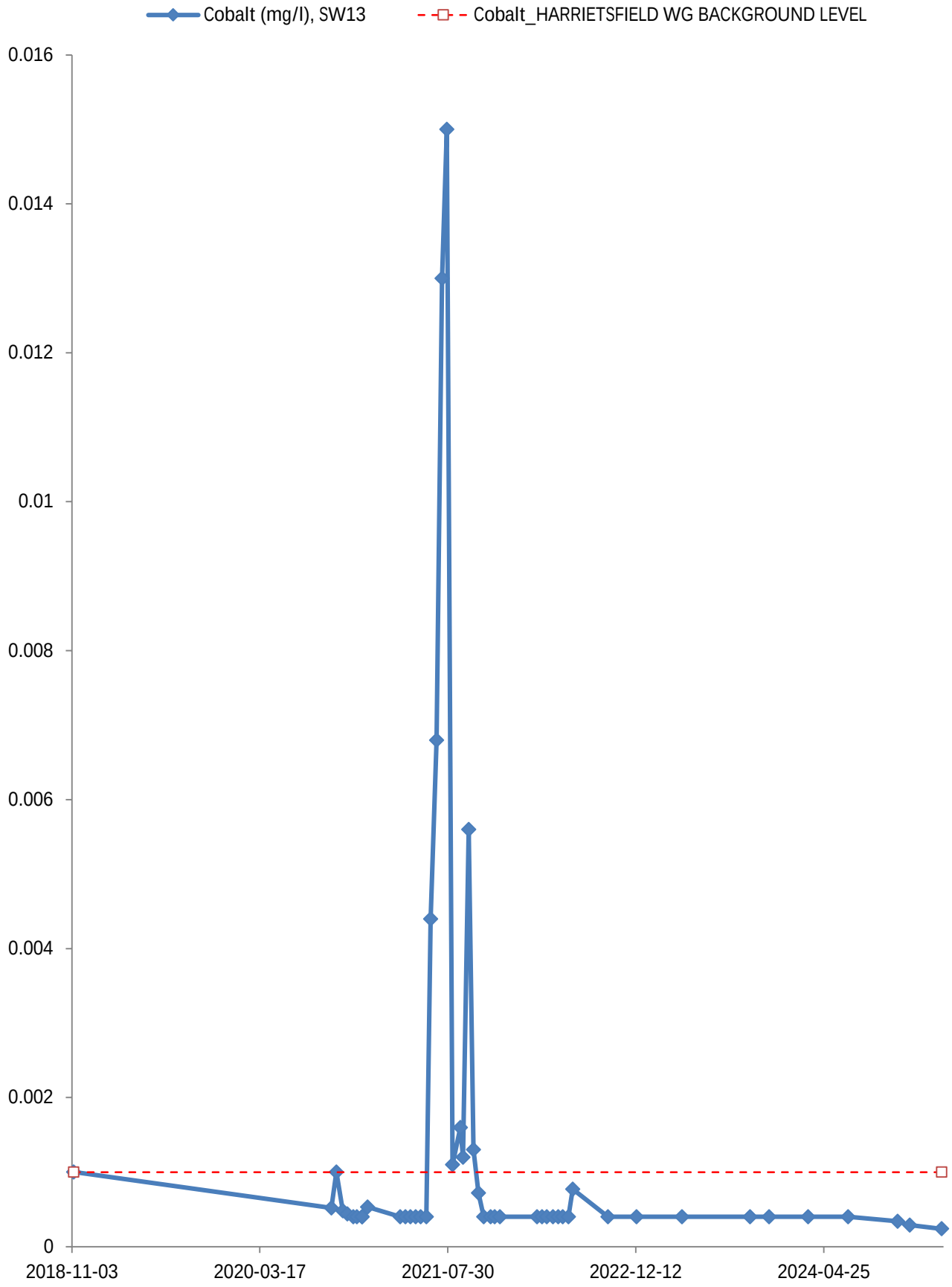
# Chromium



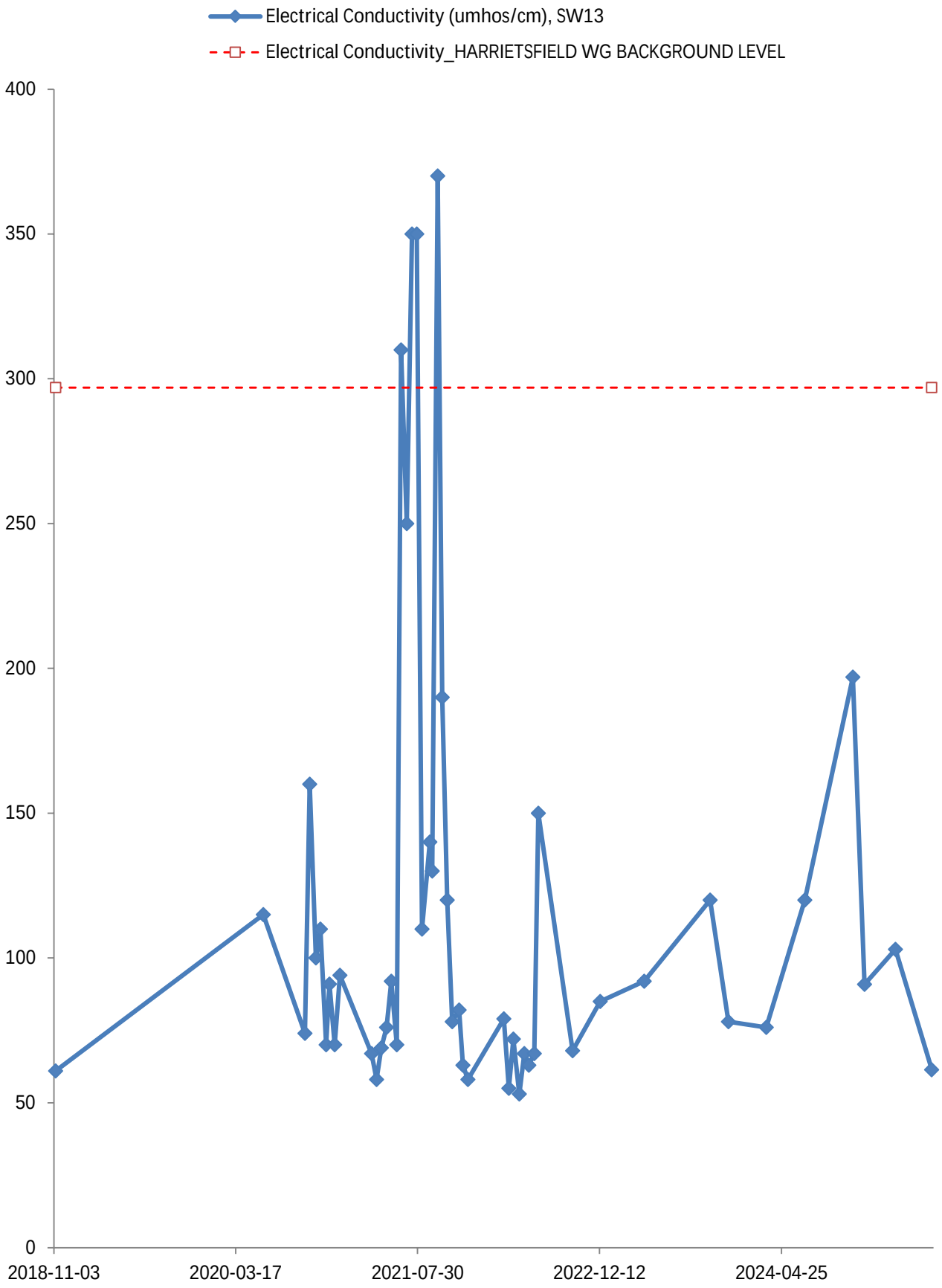

Chromium (mg/l), SW13
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Cobalt



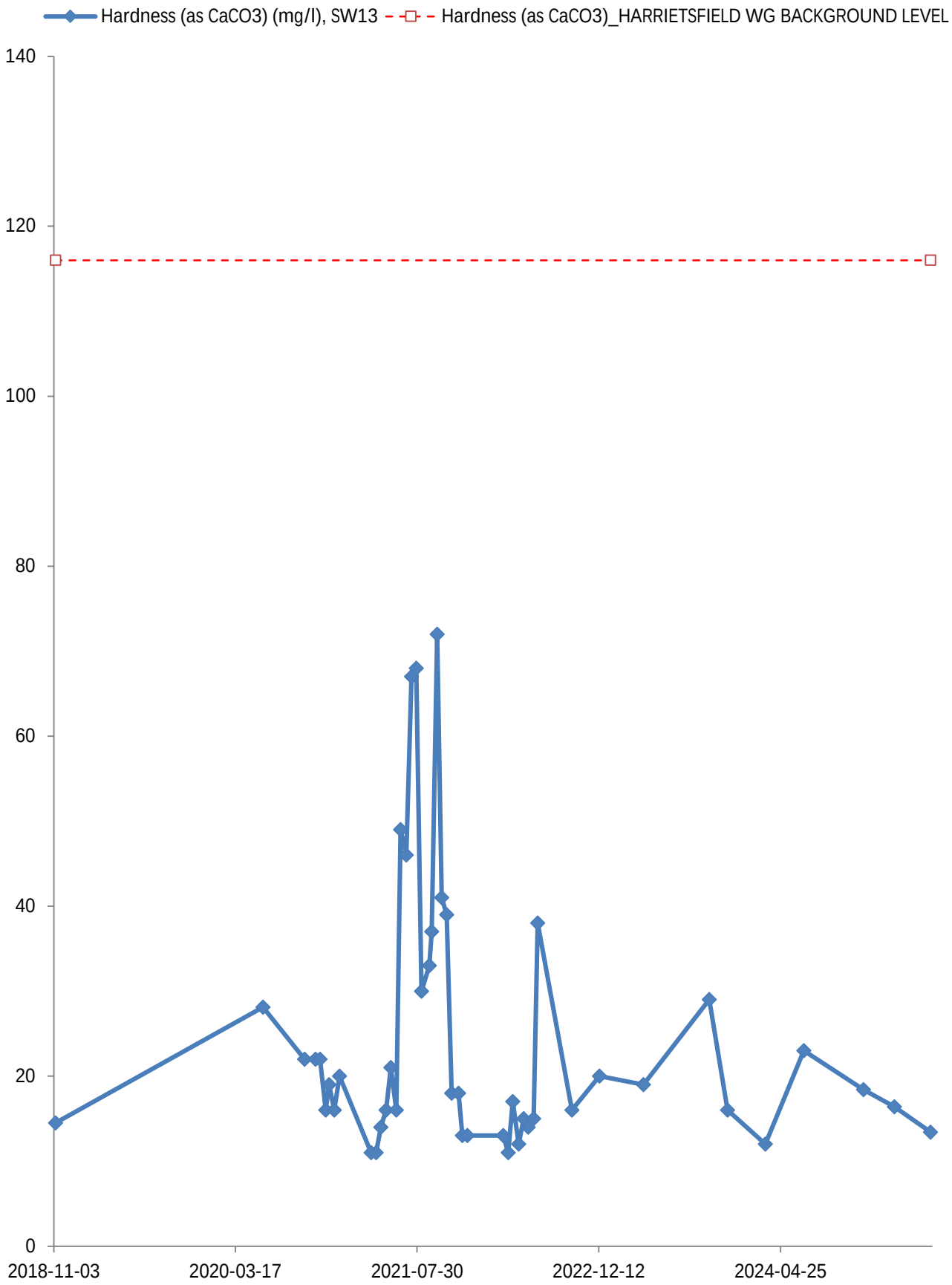

Cobalt (mg/l), SW13
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Electrical Conductivity



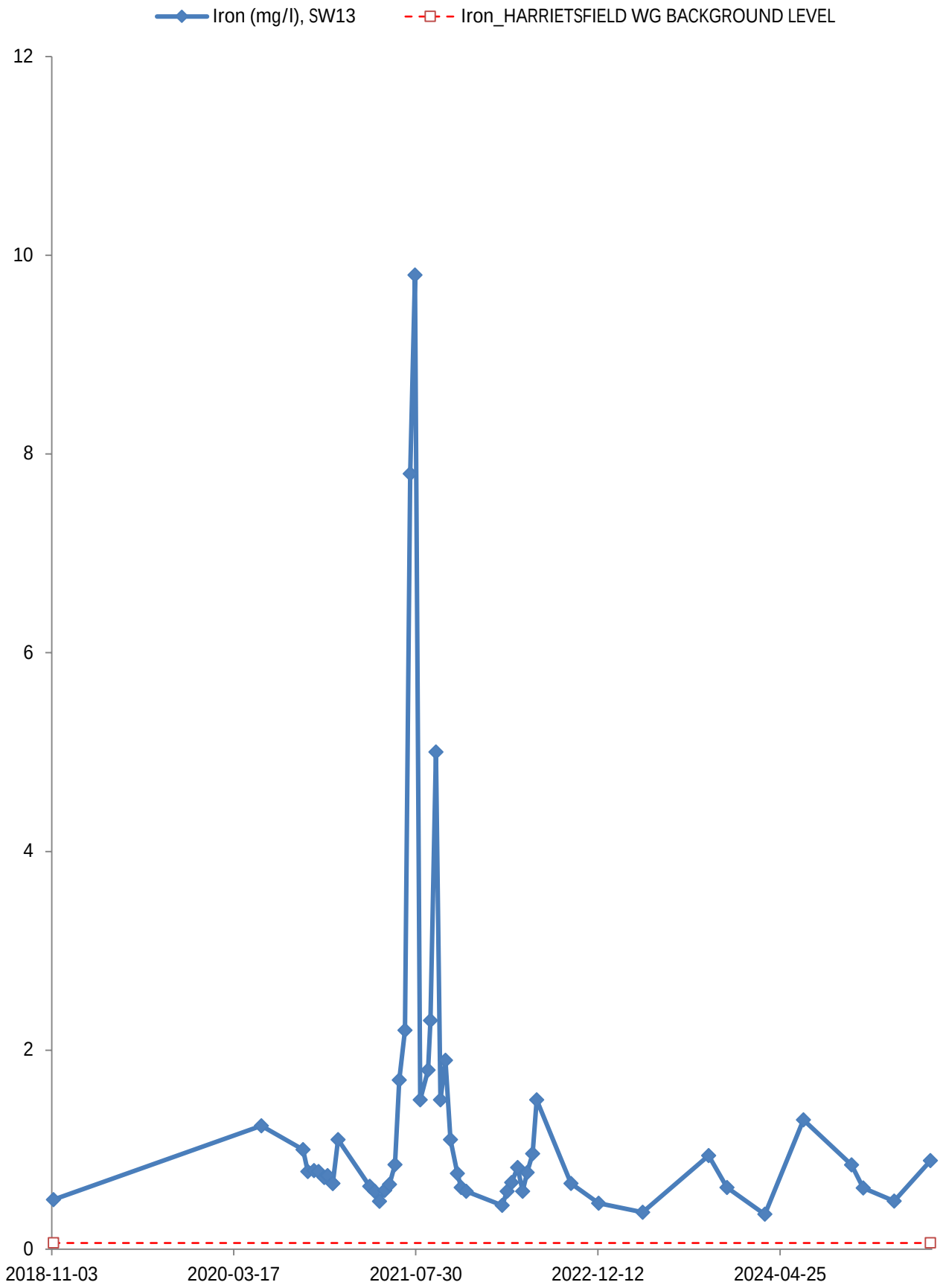
# Hardness (as CaCO3)





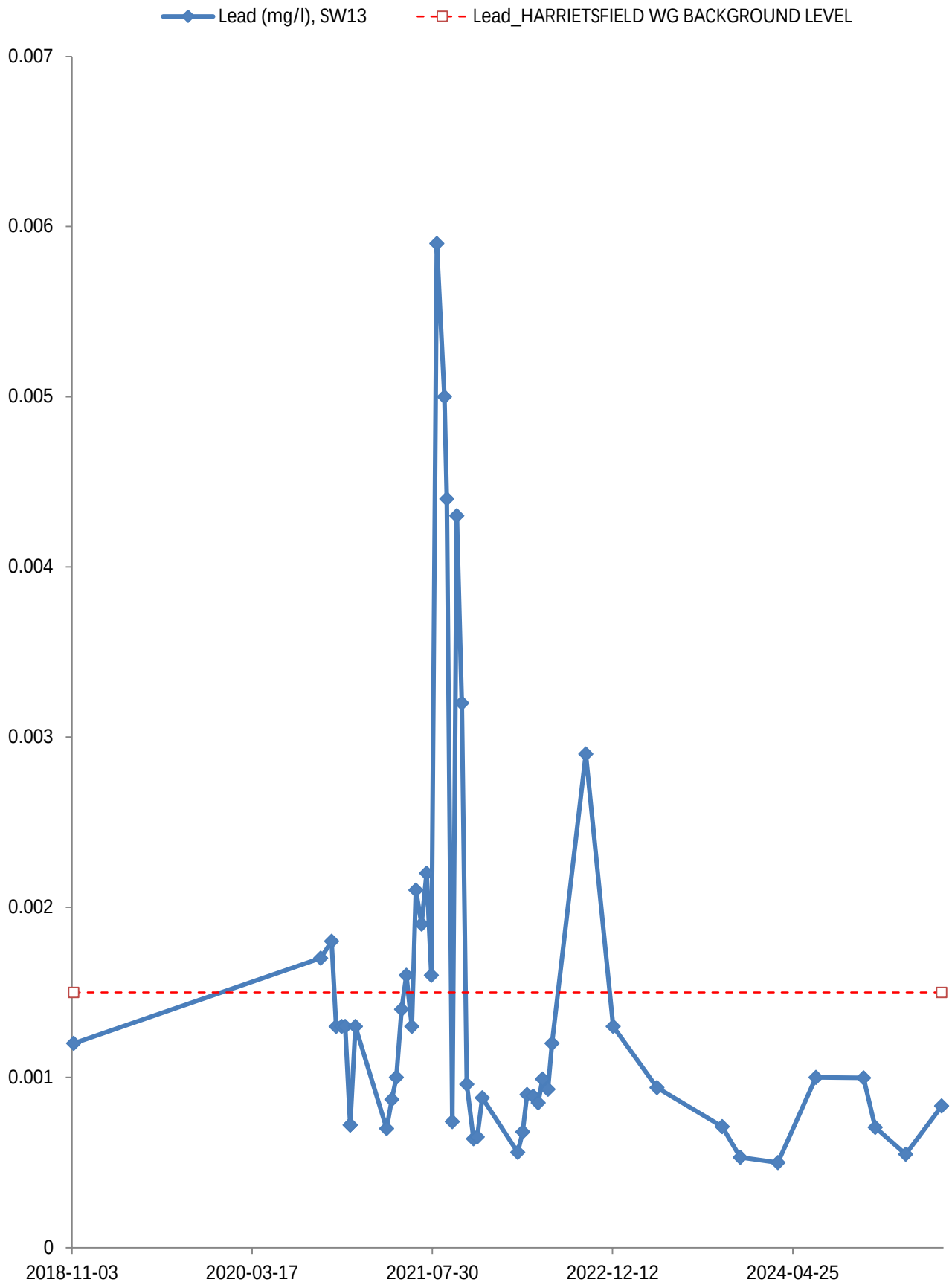
# Iron



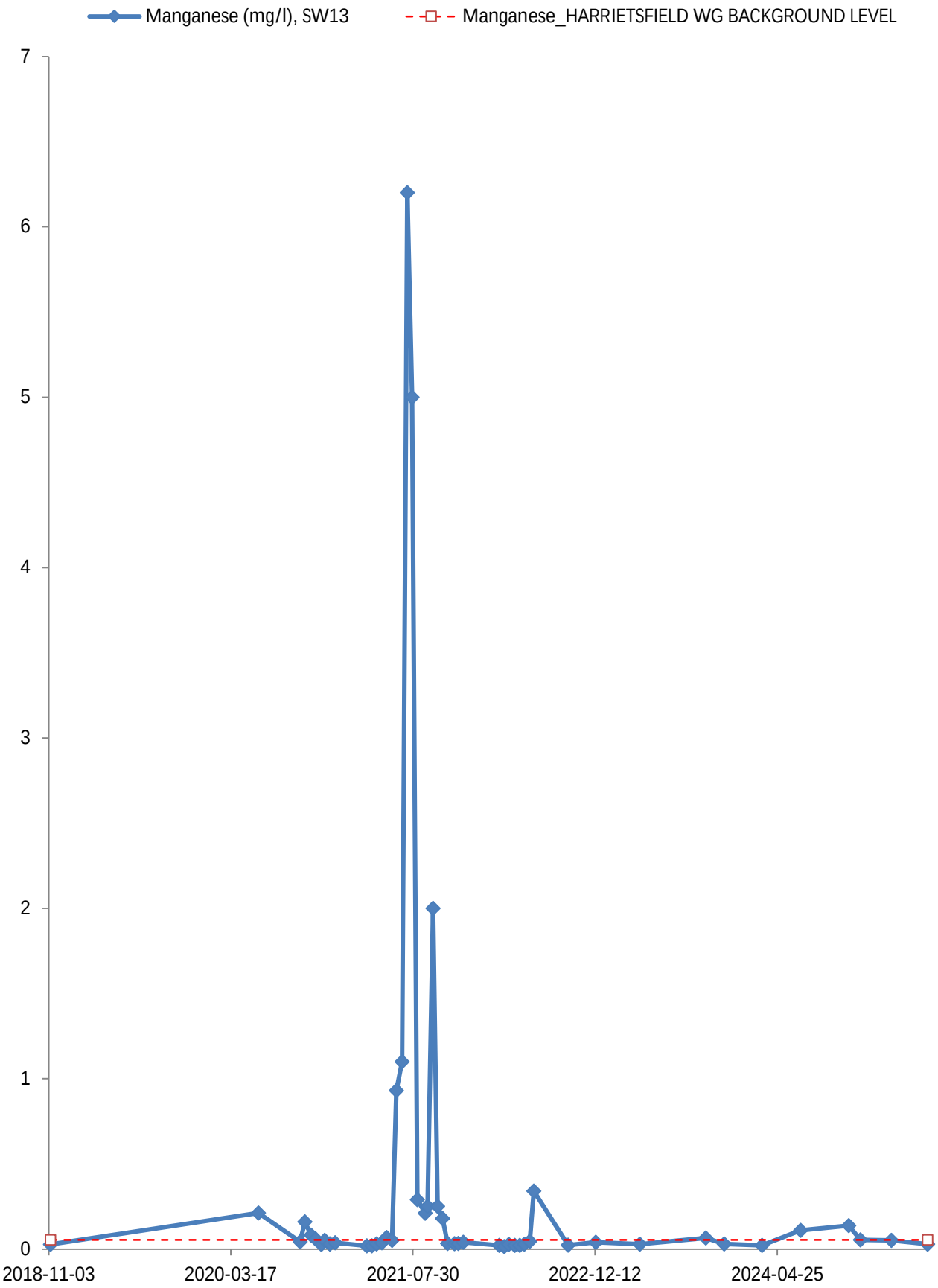

Iron (mg/l), SW13
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
12
10
8
6
4
2
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Lead



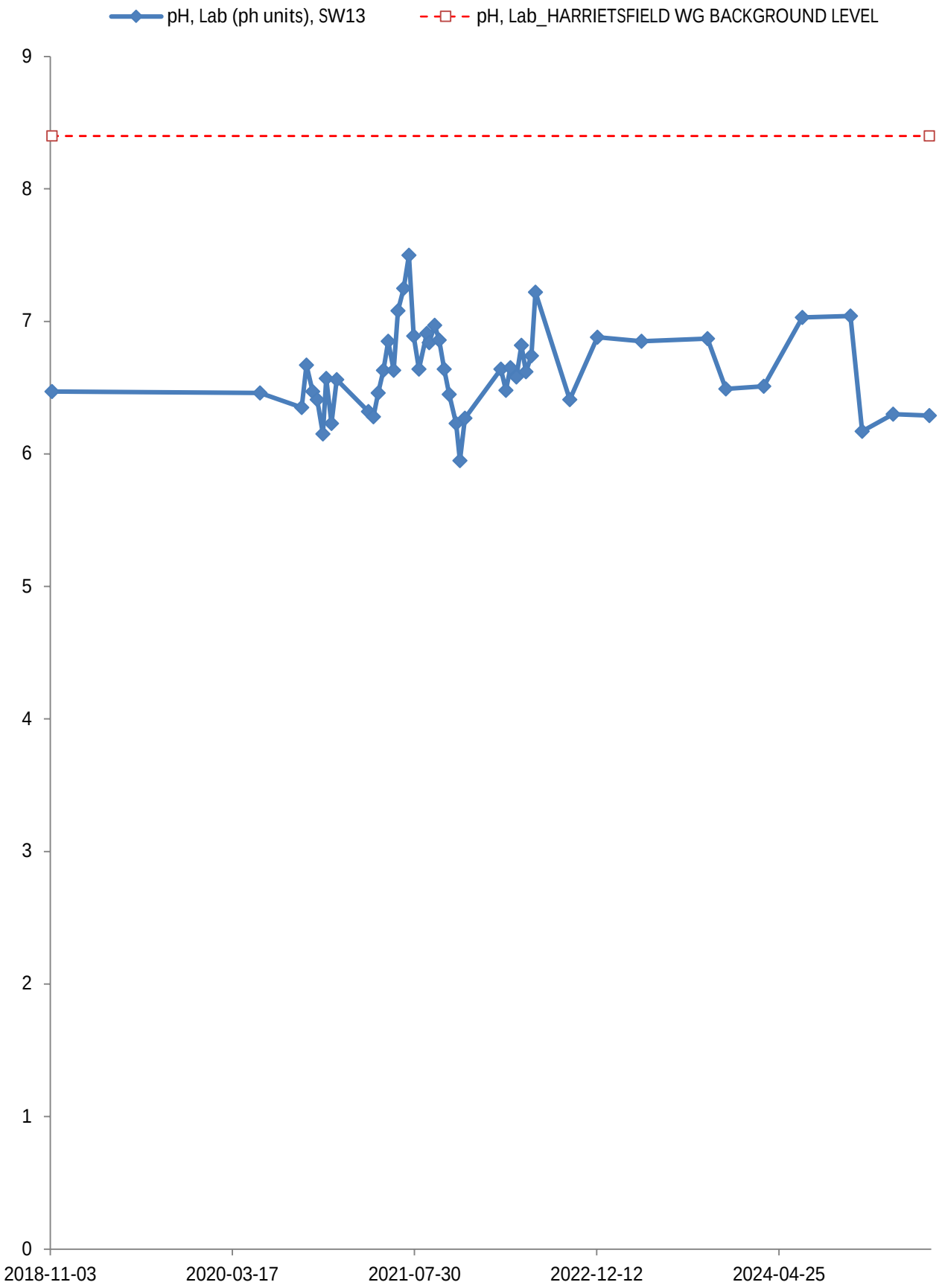

Lead (mg/l), SW13
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Manganese


Manganese (mg/l), SW13
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
7
6
5
4
3
2
1
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

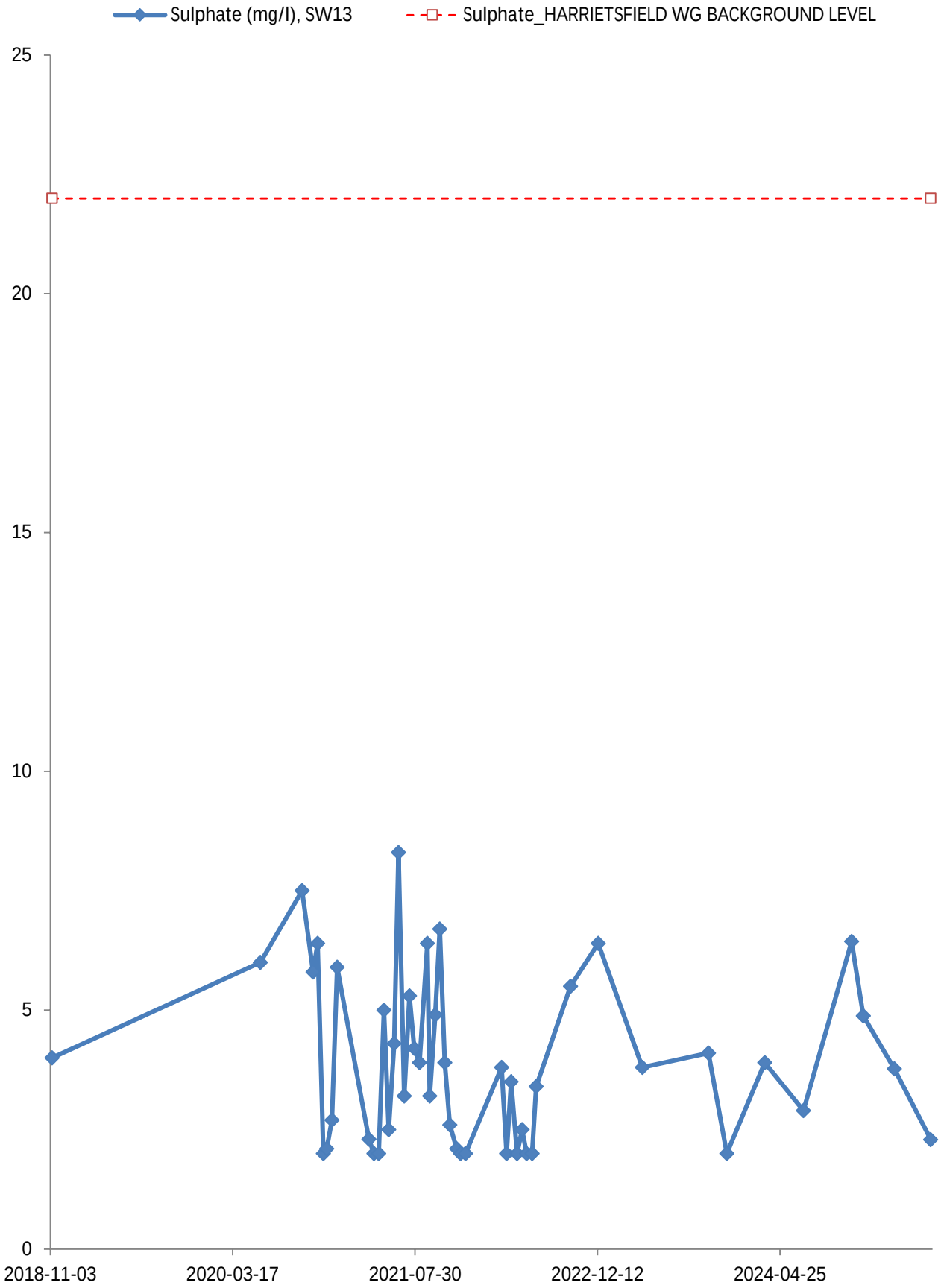
# pH, Lab



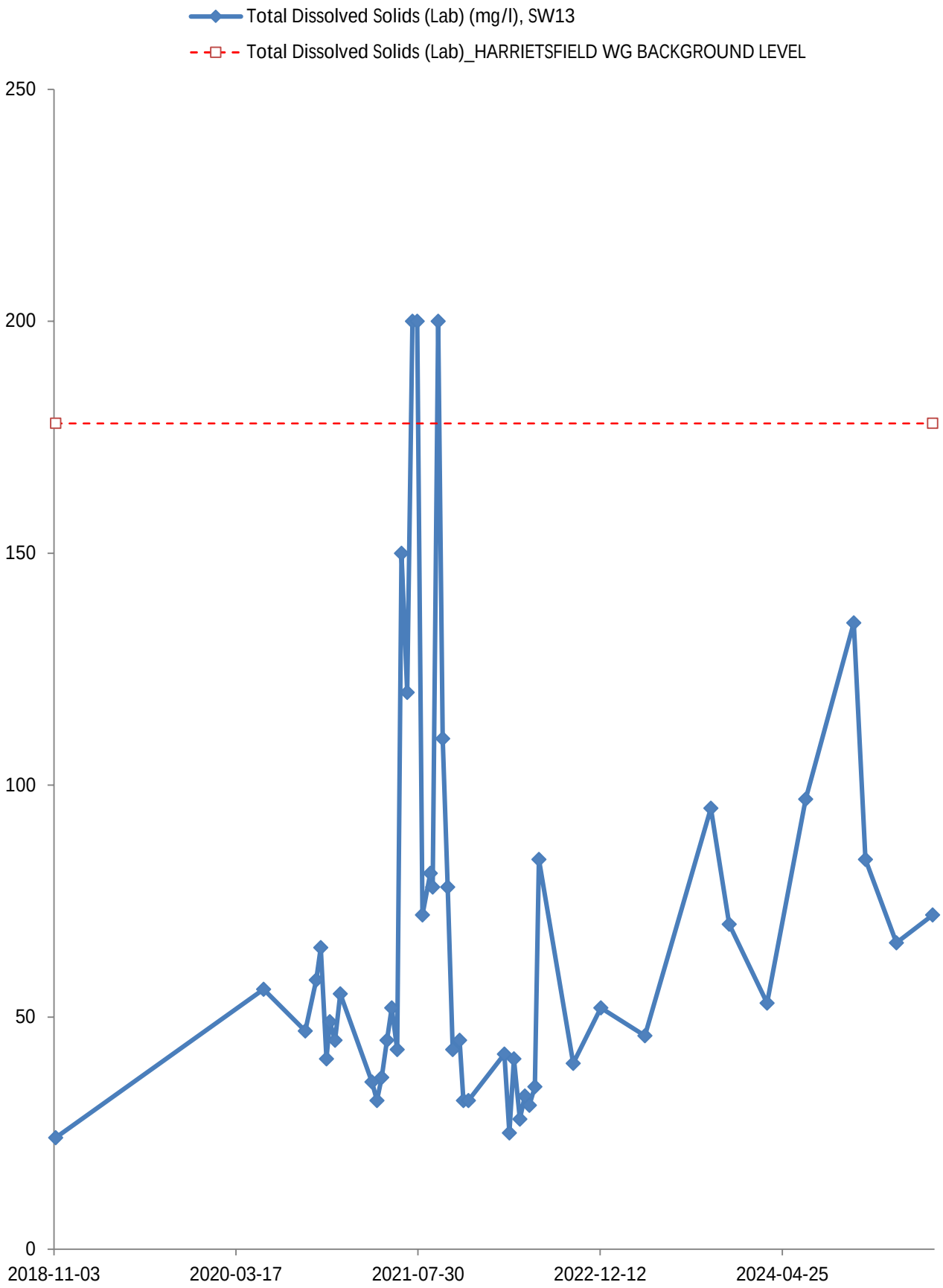

pH, Lab (ph units), SW13
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
9
8
7
6
5
4
3
2
1
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Sulphate



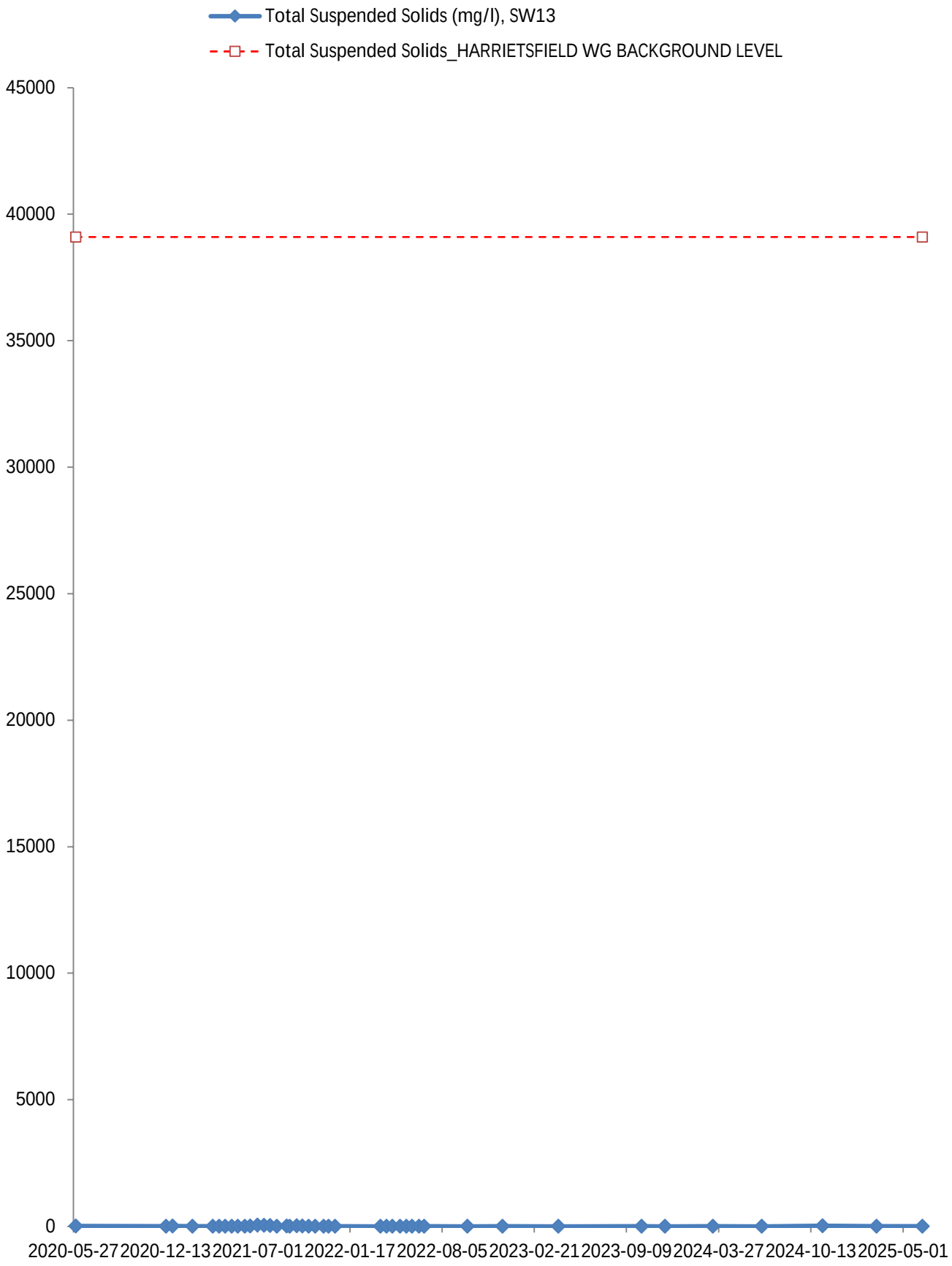

Sulphate (mg/l), SW13
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
25
20
15
10
5
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

# Total Dissolved Solids (5

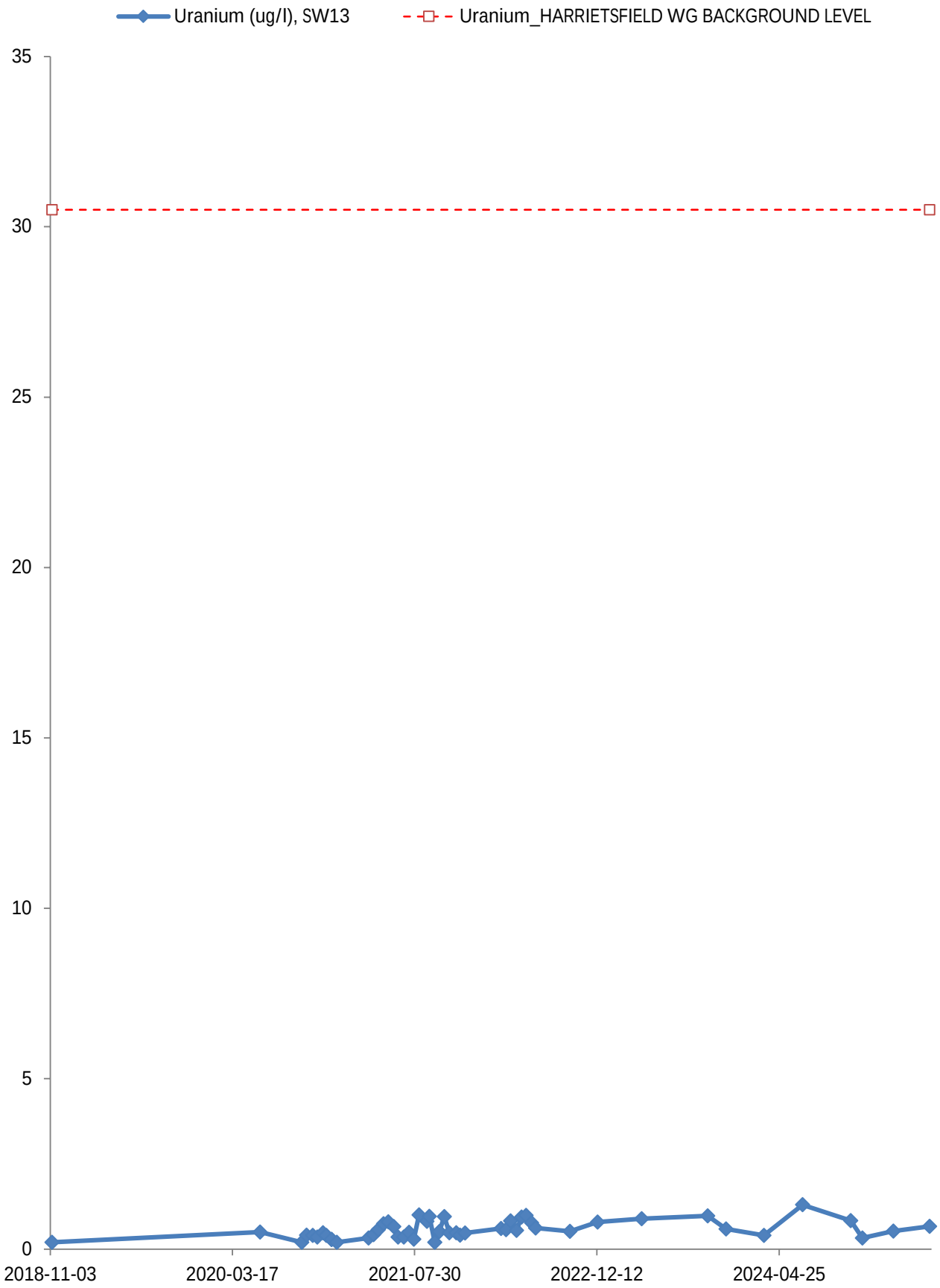


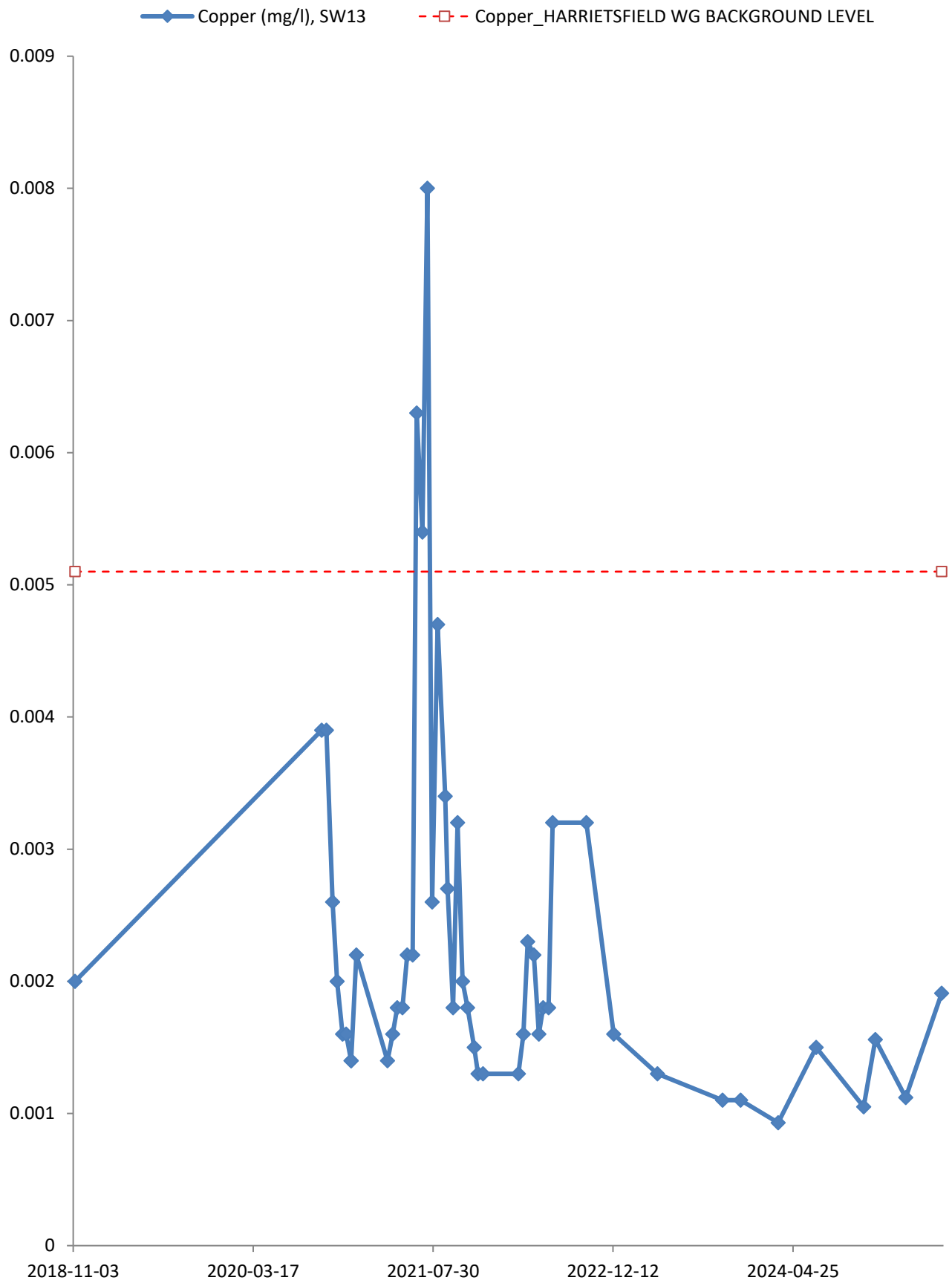
# Total Suspended Solids

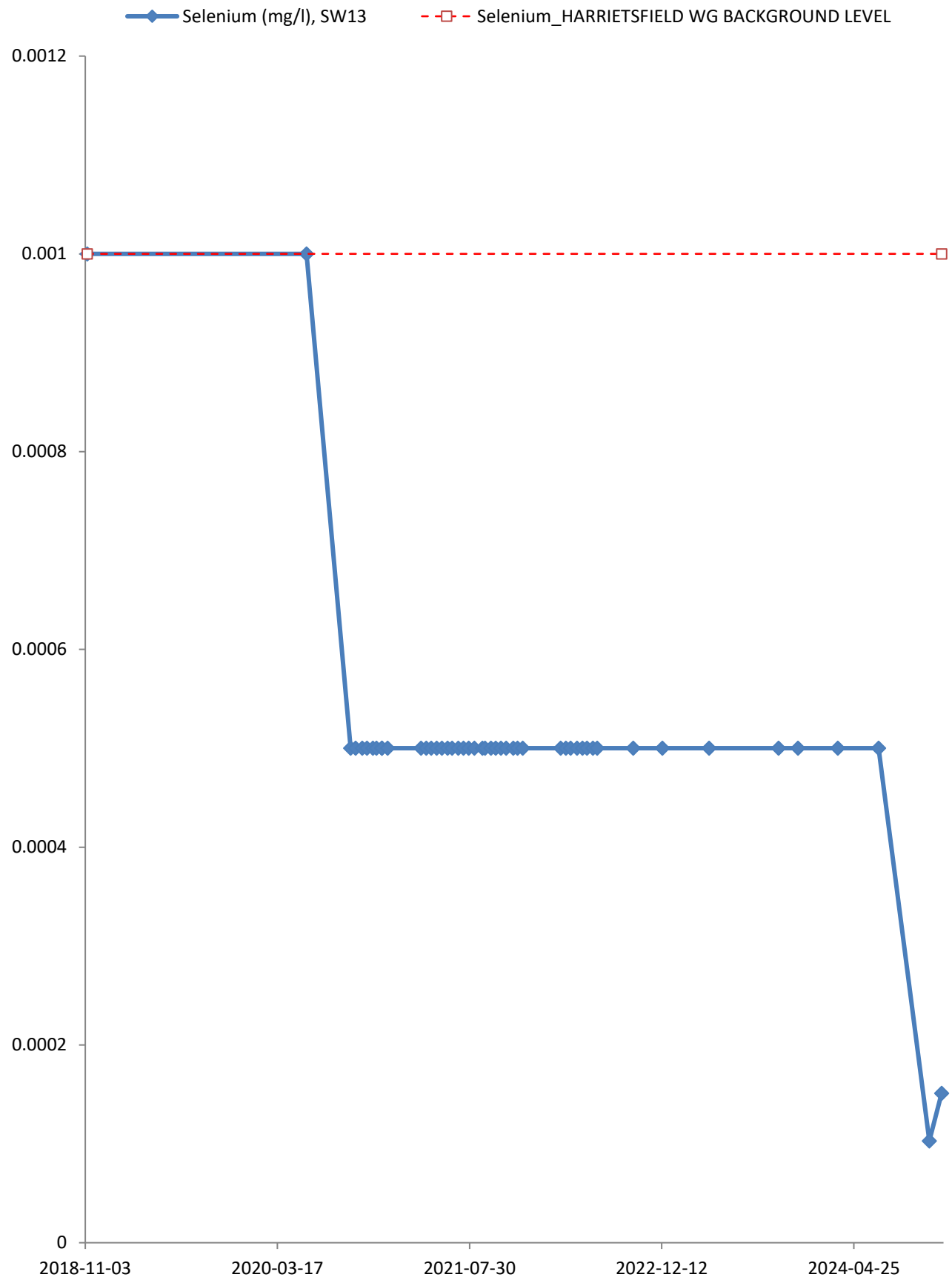


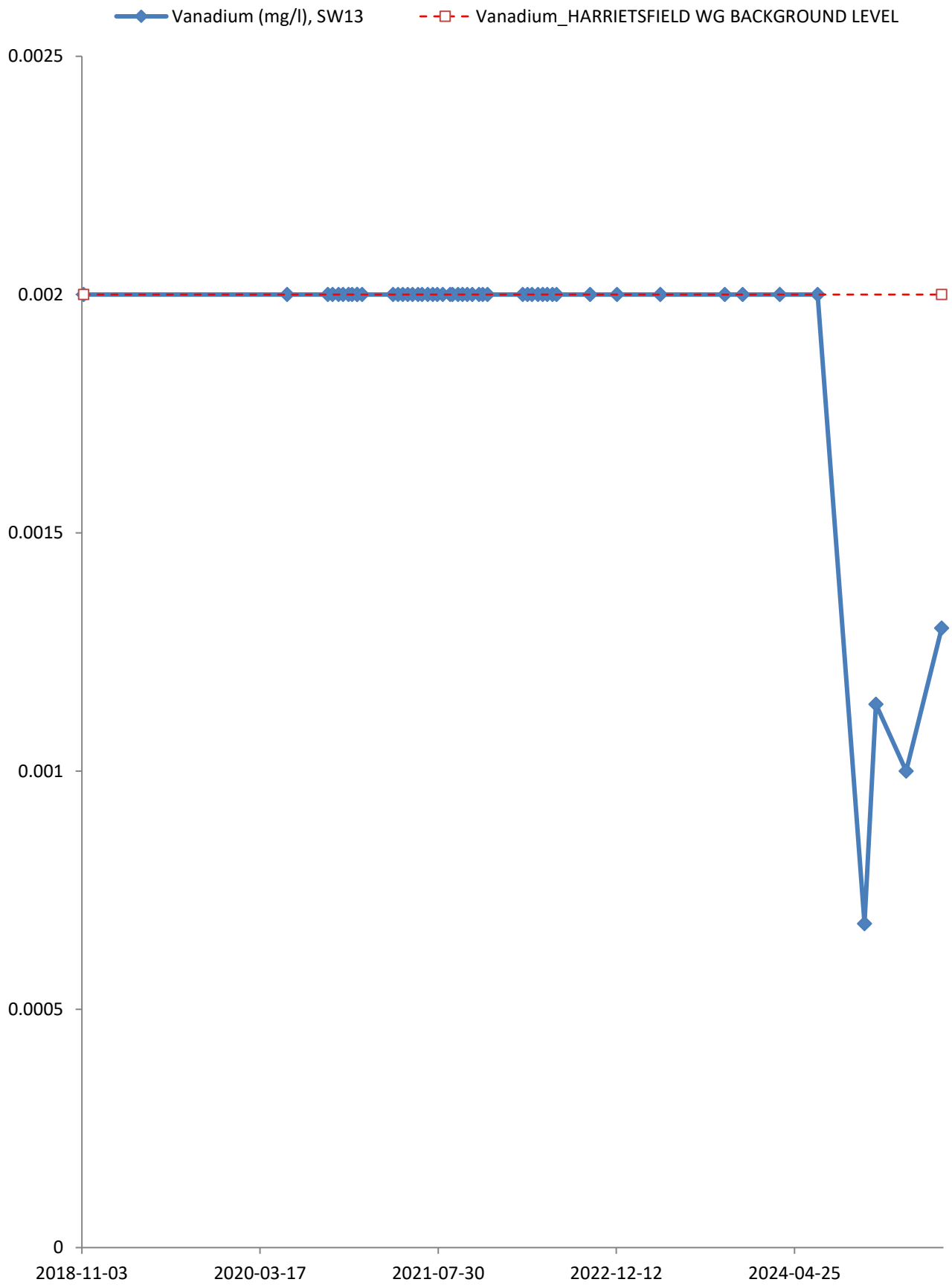


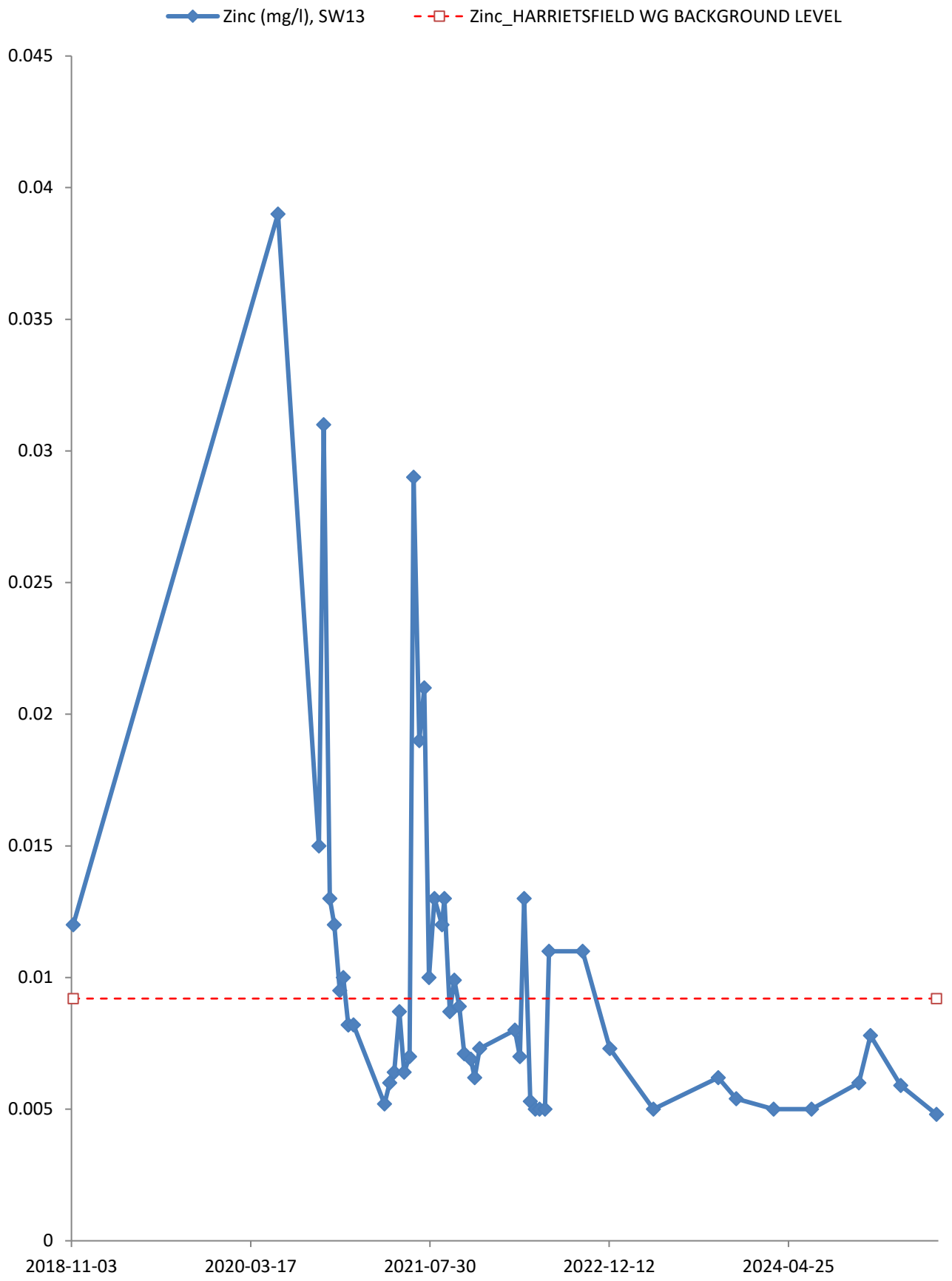
# Uranium


Uranium (ug/l), SW13
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
35
30
25
20
15
10
5
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25


Copper (mg/l), SW13
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

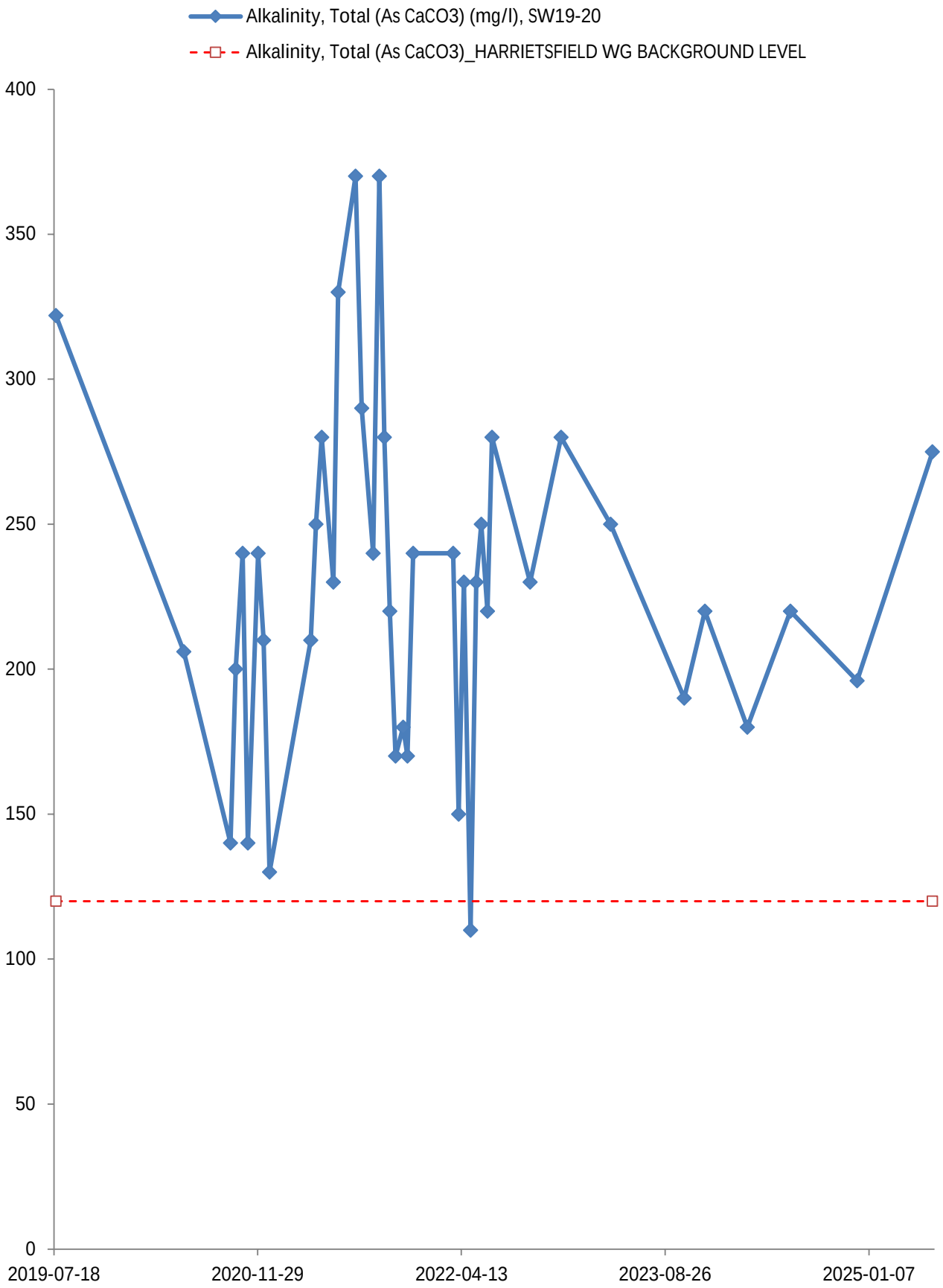

Selenium (mg/l), SW13
Selenium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25


Vanadium (mg/l), SW13
Vanadium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25


Zinc (mg/l), SW13
Zinc_HARRIETSFIELD WG BACKGROUND LEVEL
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
2018-11-03
2020-03-17
2021-07-30
2022-12-12
2024-04-25

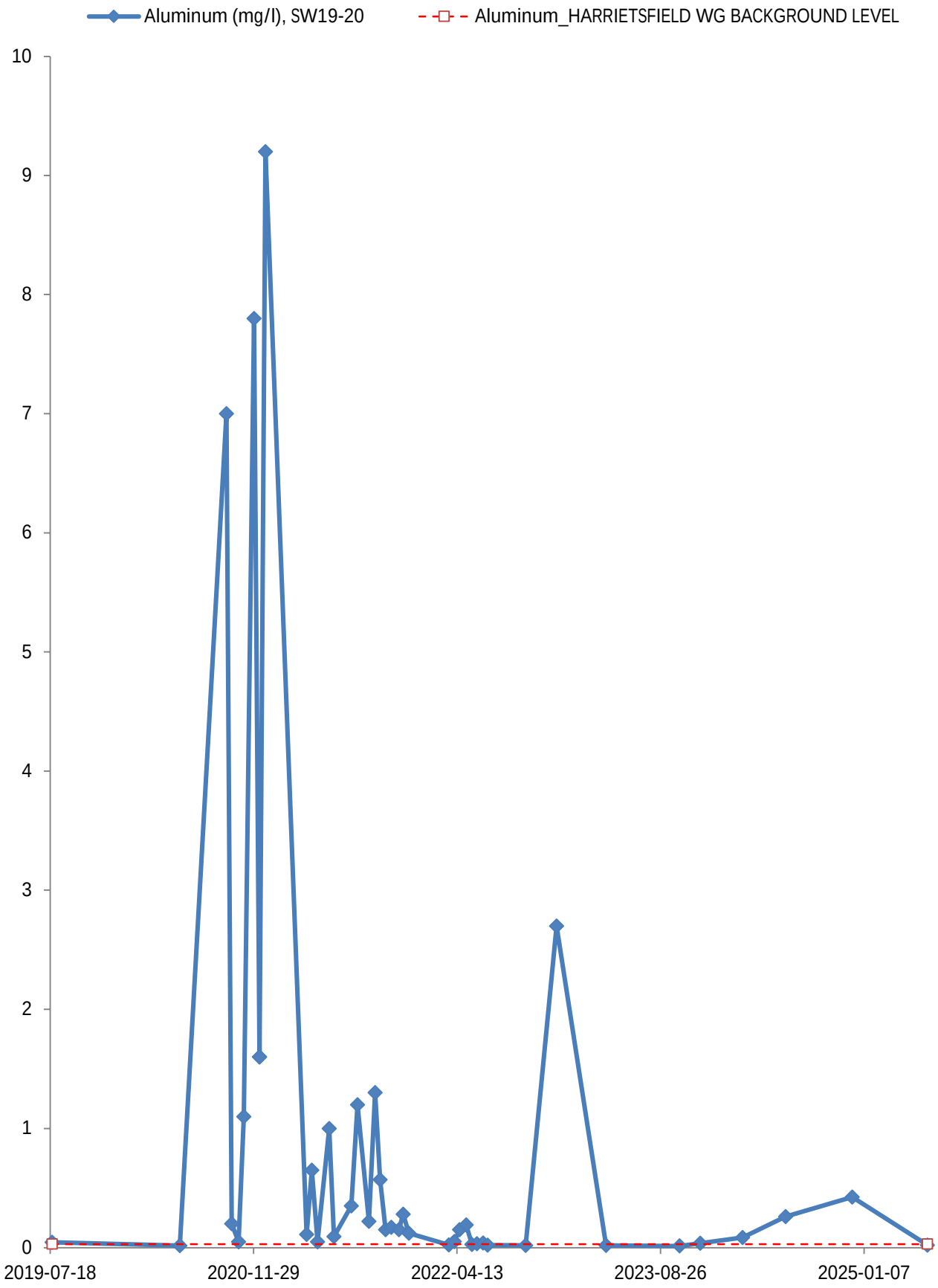
# Alkalinity, Total





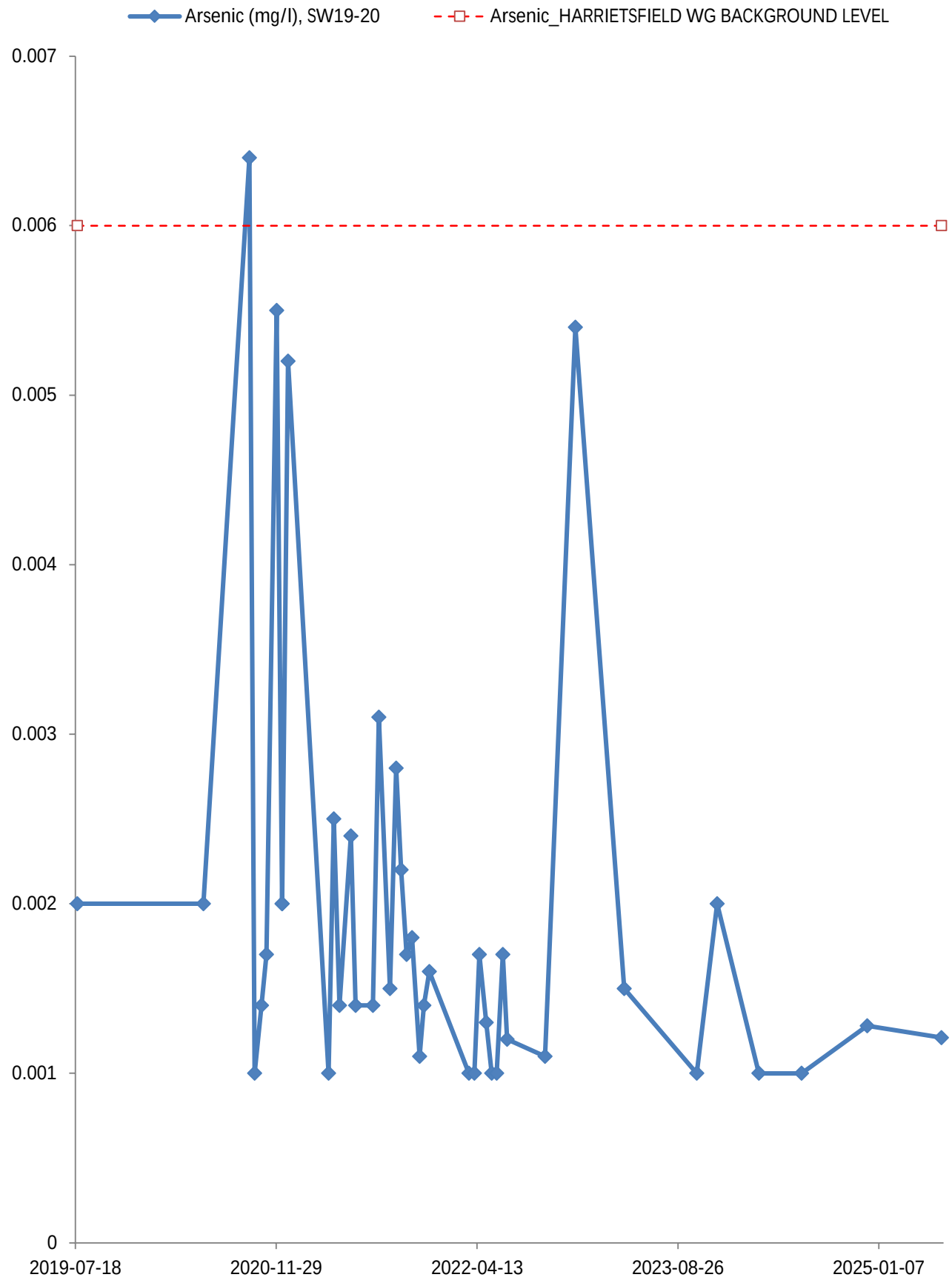
# Aluminum




Aluminum (mg/l), SW19-20
Aluminum_HARRIETSFIELD WG BACKGROUND LEVEL
10
9
8
7
6
5
4
3
2
1
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

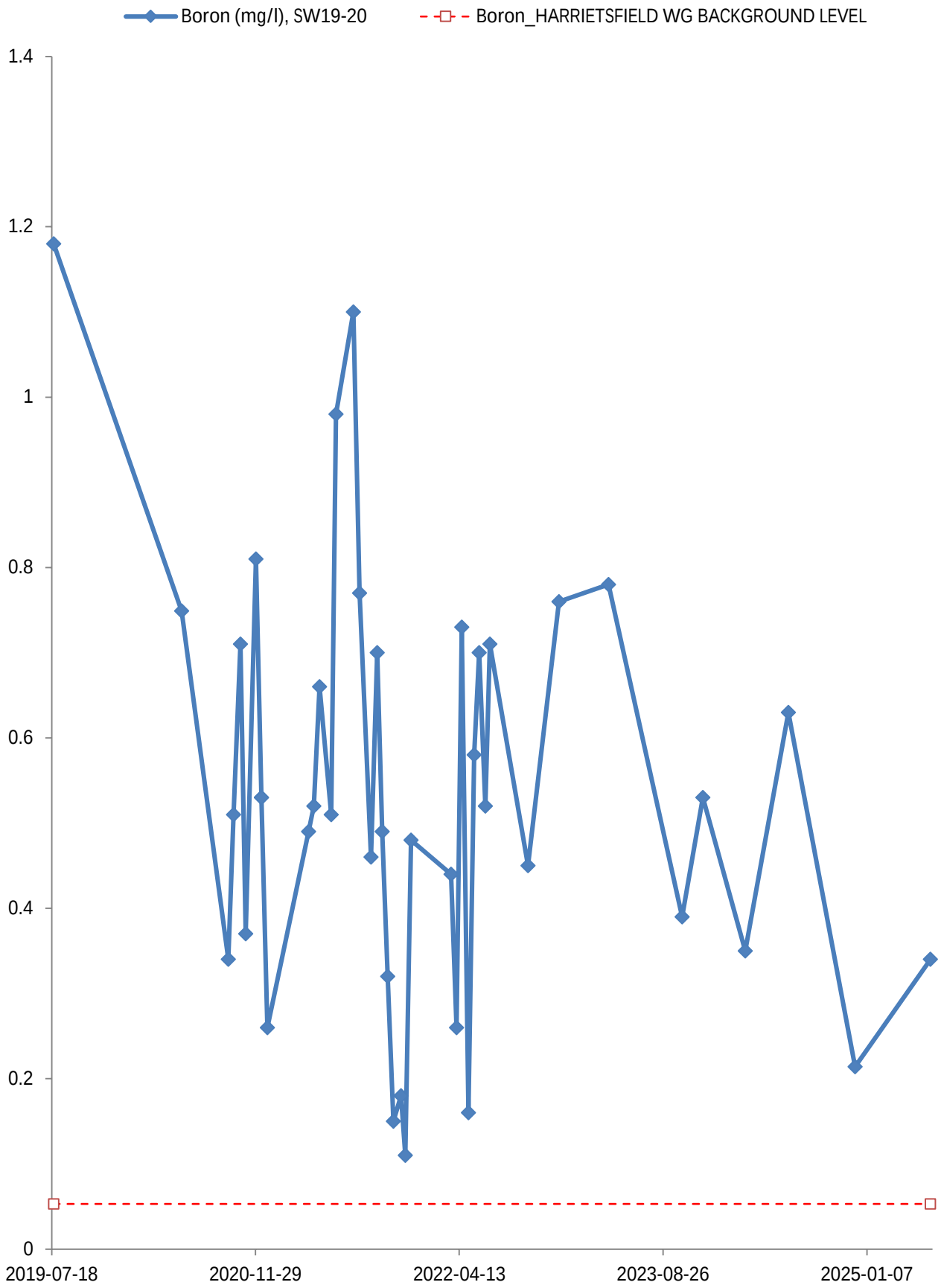
# Arsenic



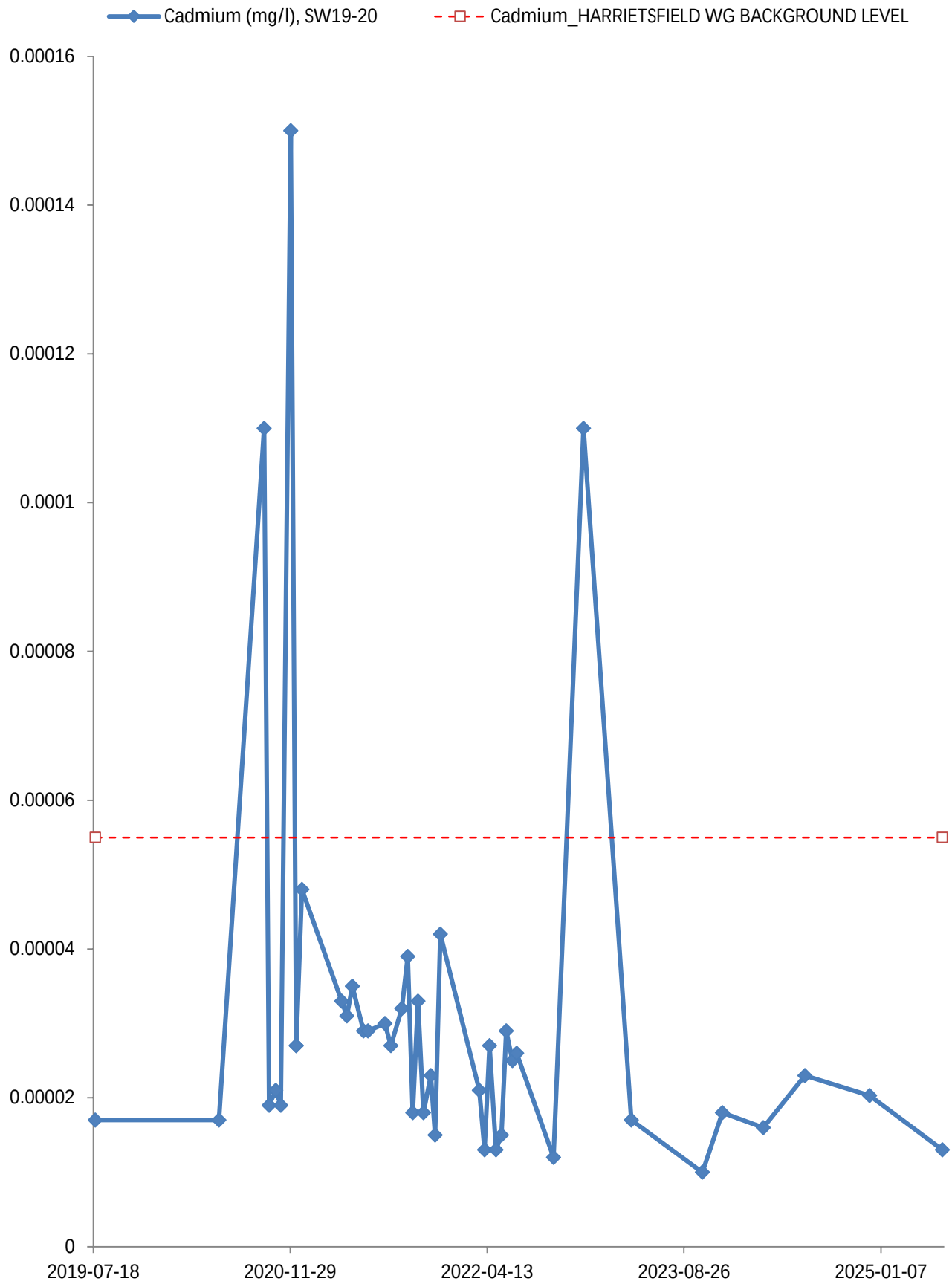

Arsenic (mg/l), SW19-20
Arsenic_HARRIETSFIELD WG BACKGROUND LEVEL
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Boron

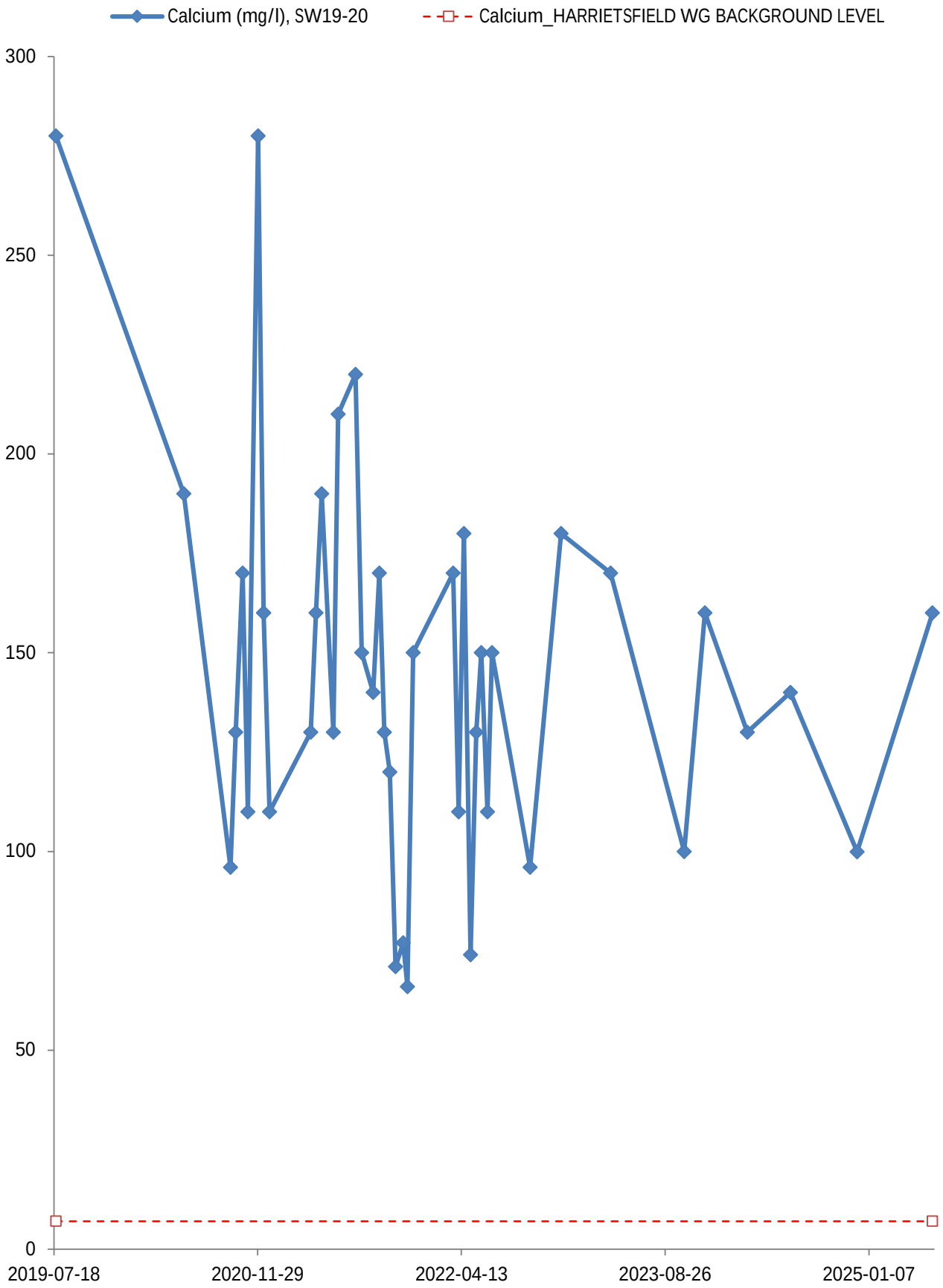



Boron (mg/l), SW19-20
Boron_HARRIETSFIELD WG BACKGROUND LEVEL
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Cadmium

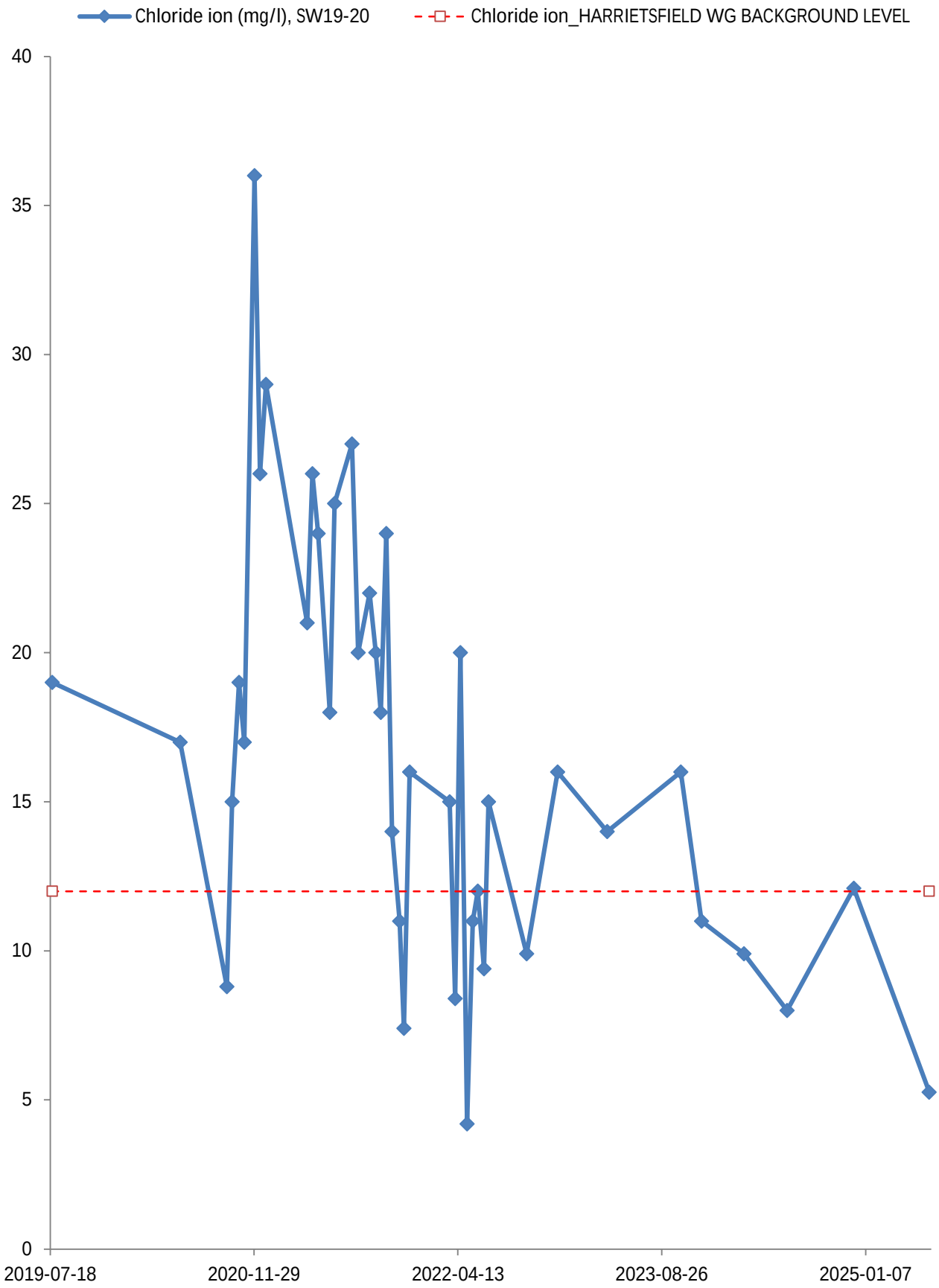

Cadmium (mg/l), SW19-20
Cadmium_HARRIETSFIELD WG BACKGROUND LEVEL
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Calcium

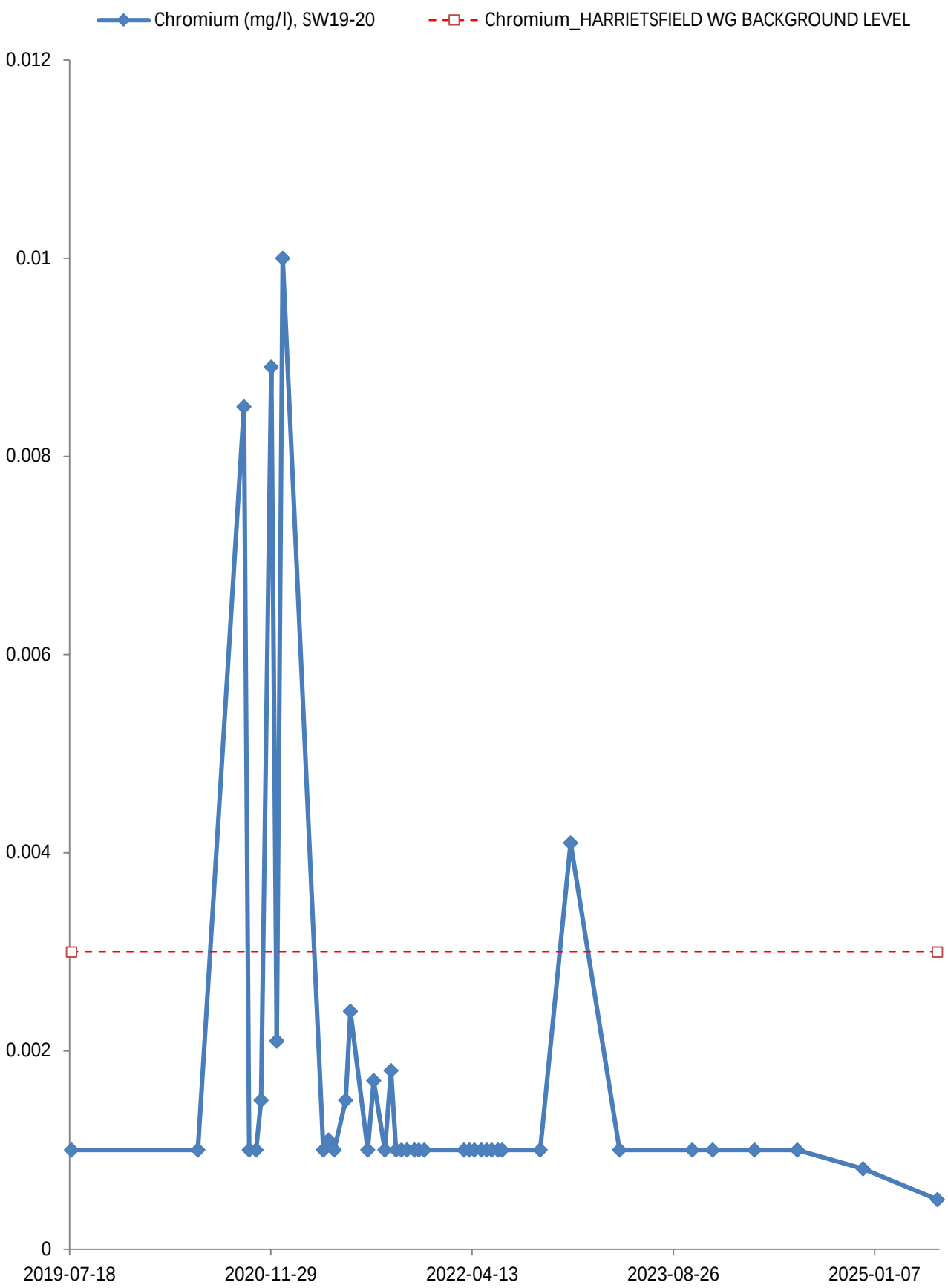

Calcium (mg/l), SW19-20
Calcium_HARRIETSFIELD WG BACKGROUND LEVEL
300
250
200
150
100
50
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Chloride ion

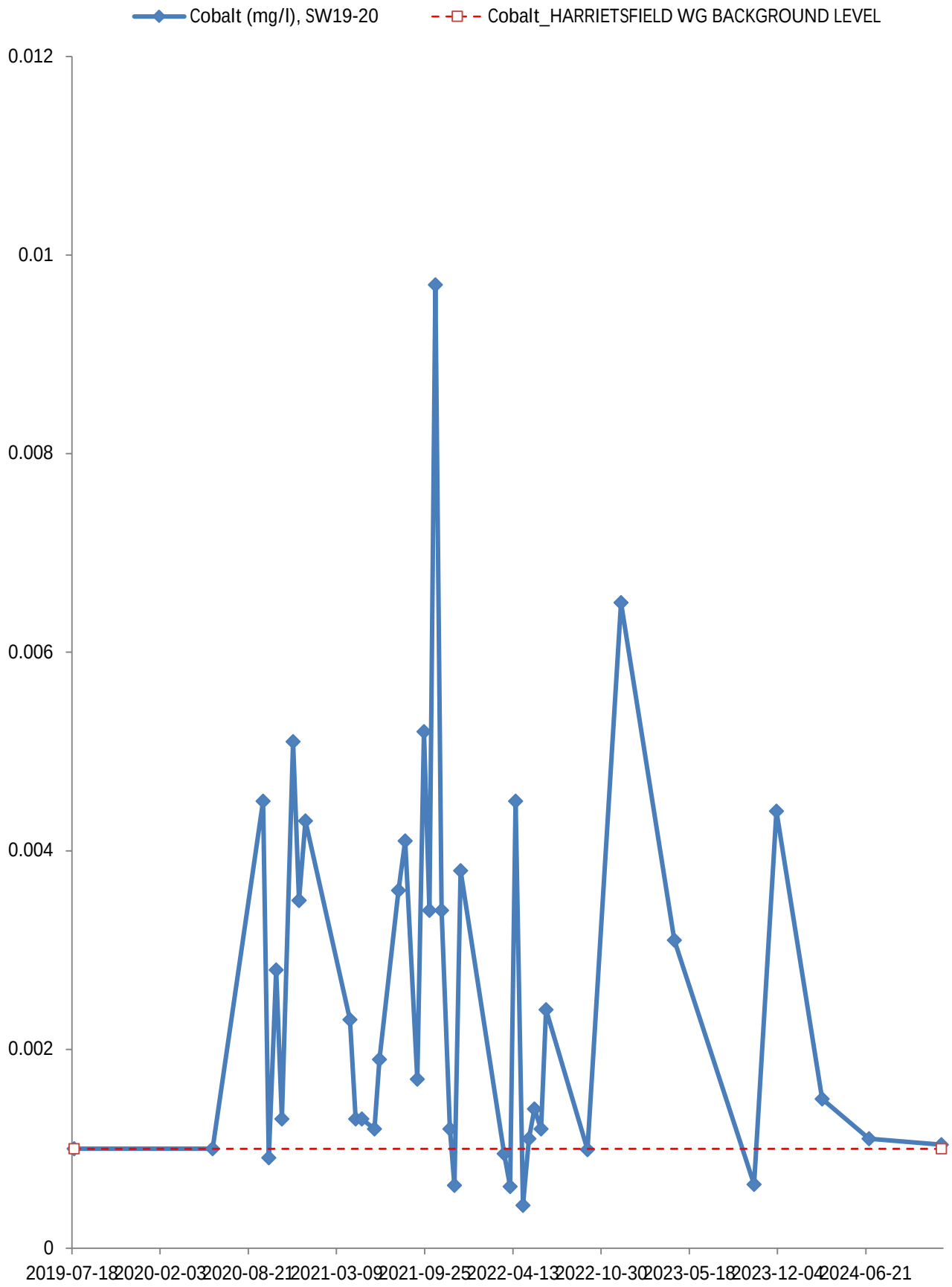




# Chromium

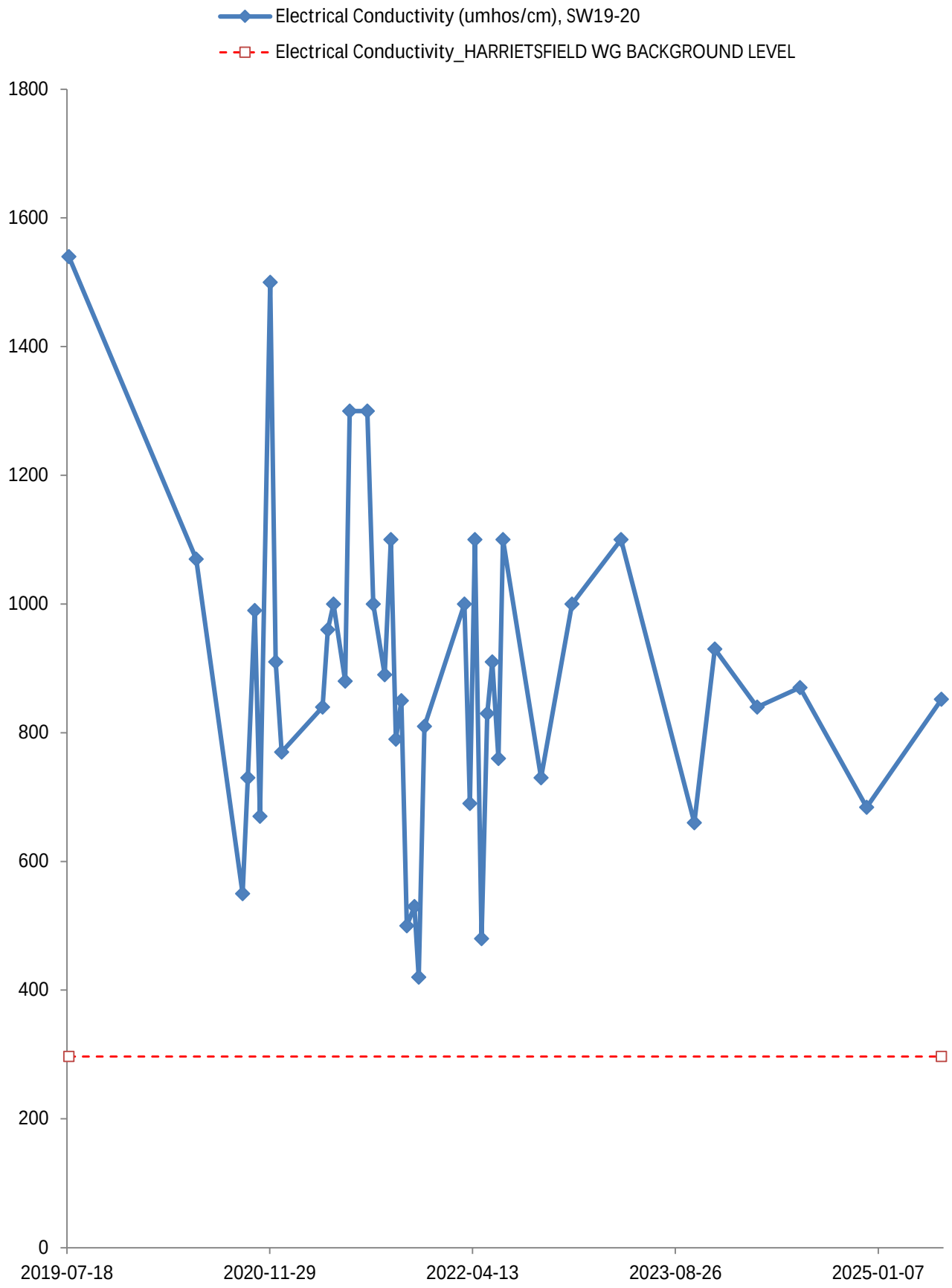

Chromium (mg/l), SW19-20
Chromium_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Cobalt


Cobalt (mg/l), SW19-20
Cobalt_HARRIETSFIELD WG BACKGROUND LEVEL
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-18
2020-02-03
2020-08-21
2021-03-09
2021-09-25
2022-04-13
2022-10-30
2023-05-18
2023-12-04
2024-06-21

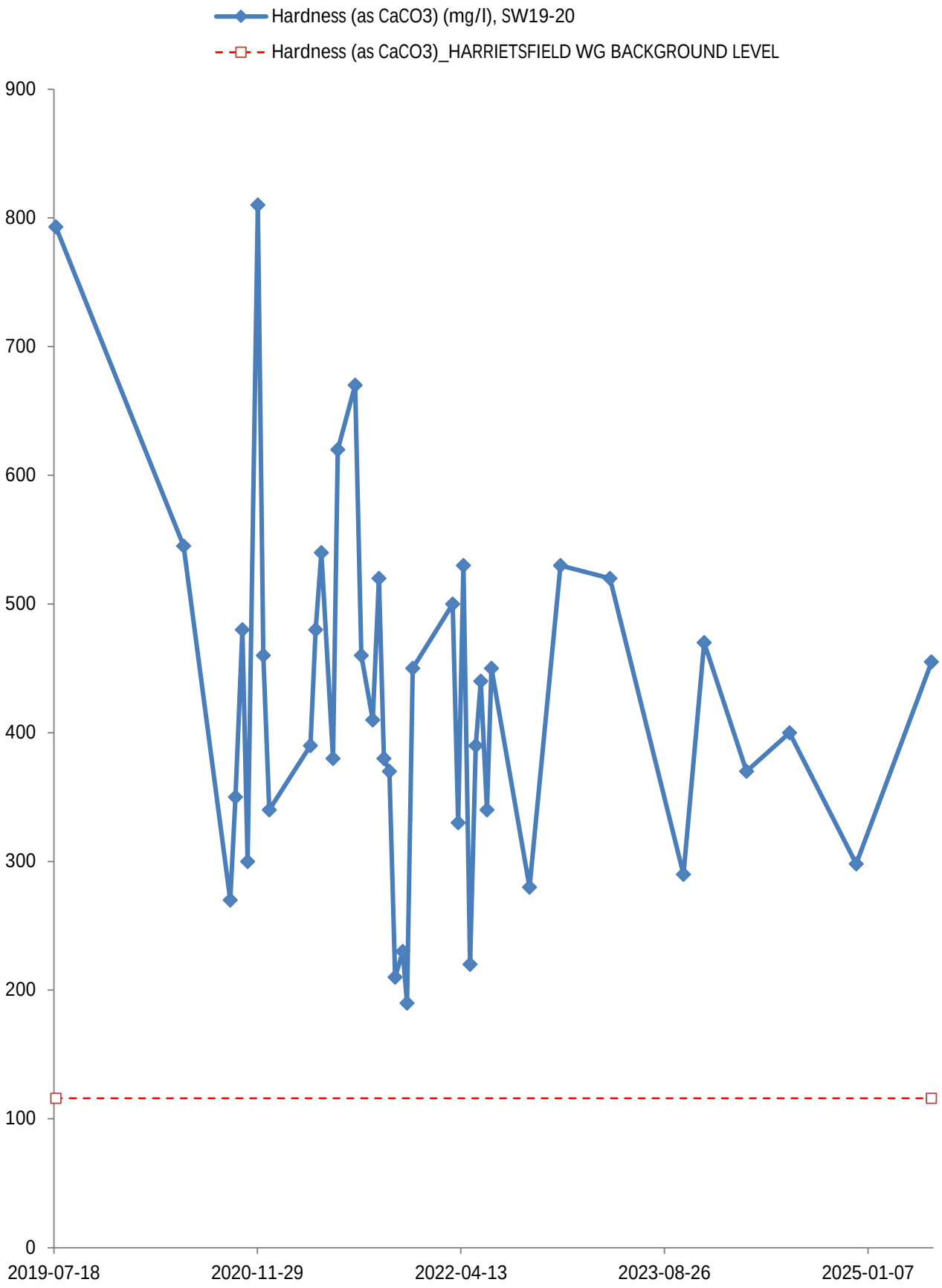
# Electrical Conductivity





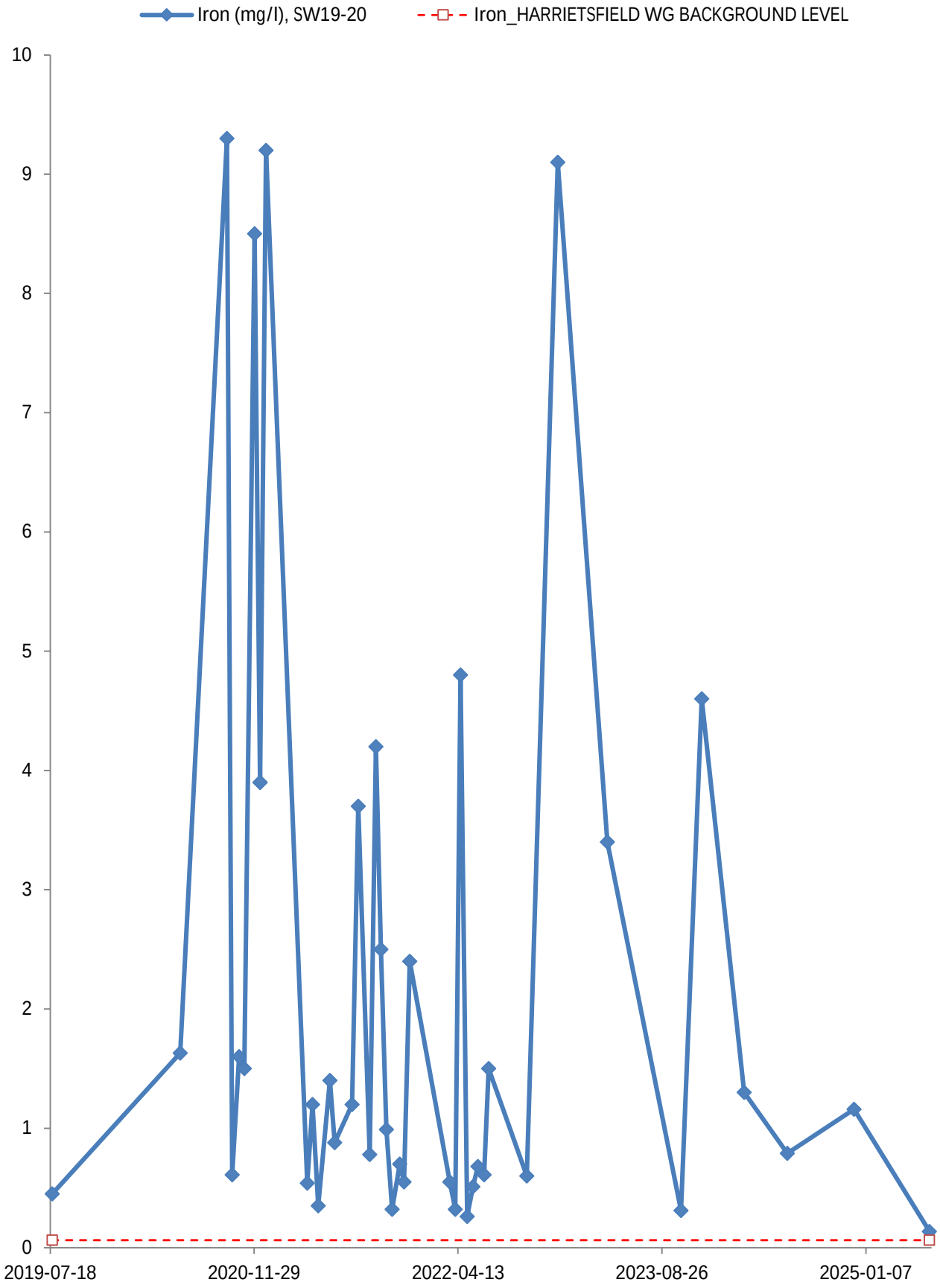
# Hardness (as CaCO3)





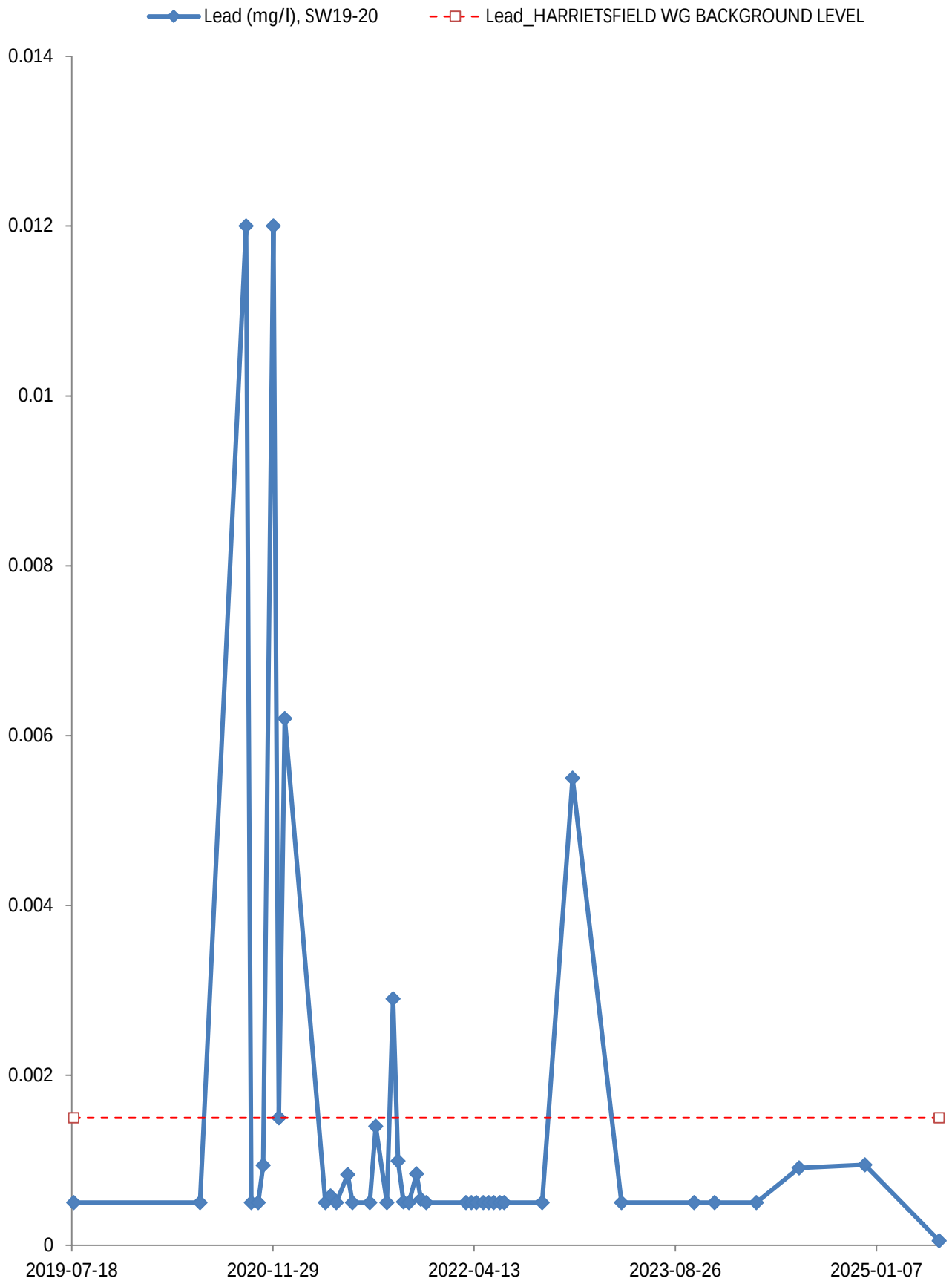
# Iron




Iron (mg/l), SW19-20
Iron_HARRIETSFIELD WG BACKGROUND LEVEL
10
9
8
7
6
5
4
3
2
1
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

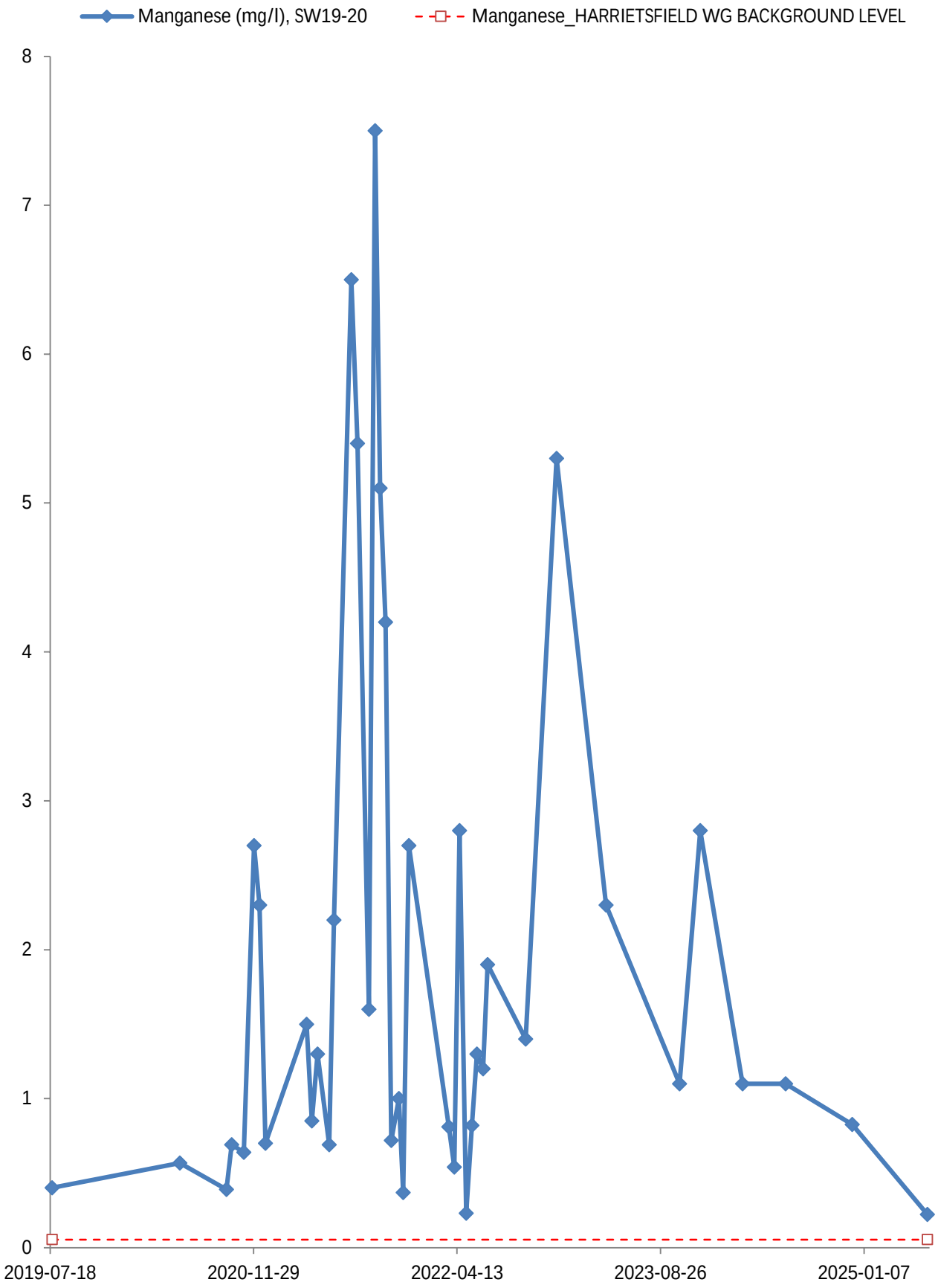
# Lead



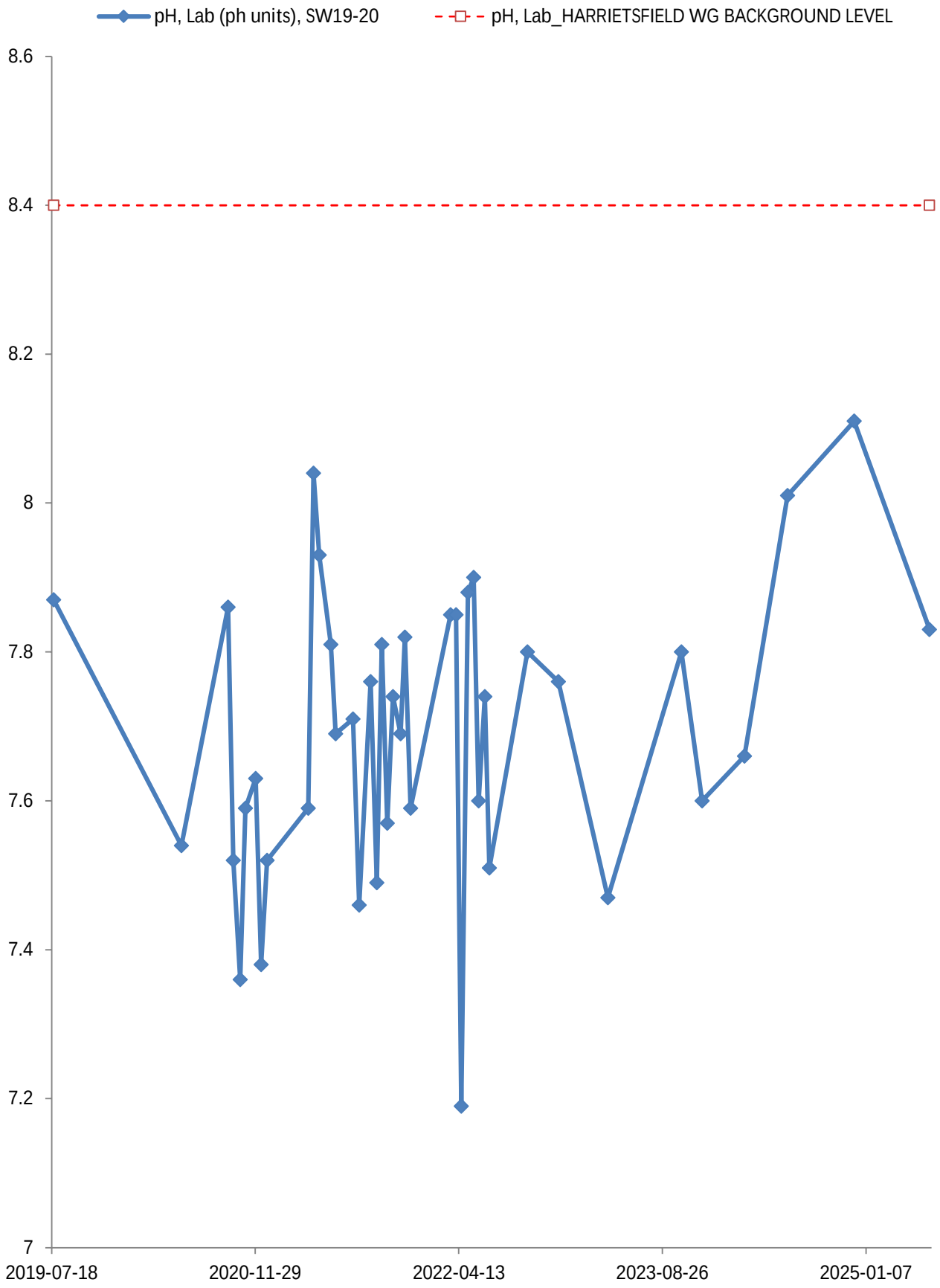

Lead (mg/l), SW19-20
Lead_HARRIETSFIELD WG BACKGROUND LEVEL
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Manganese

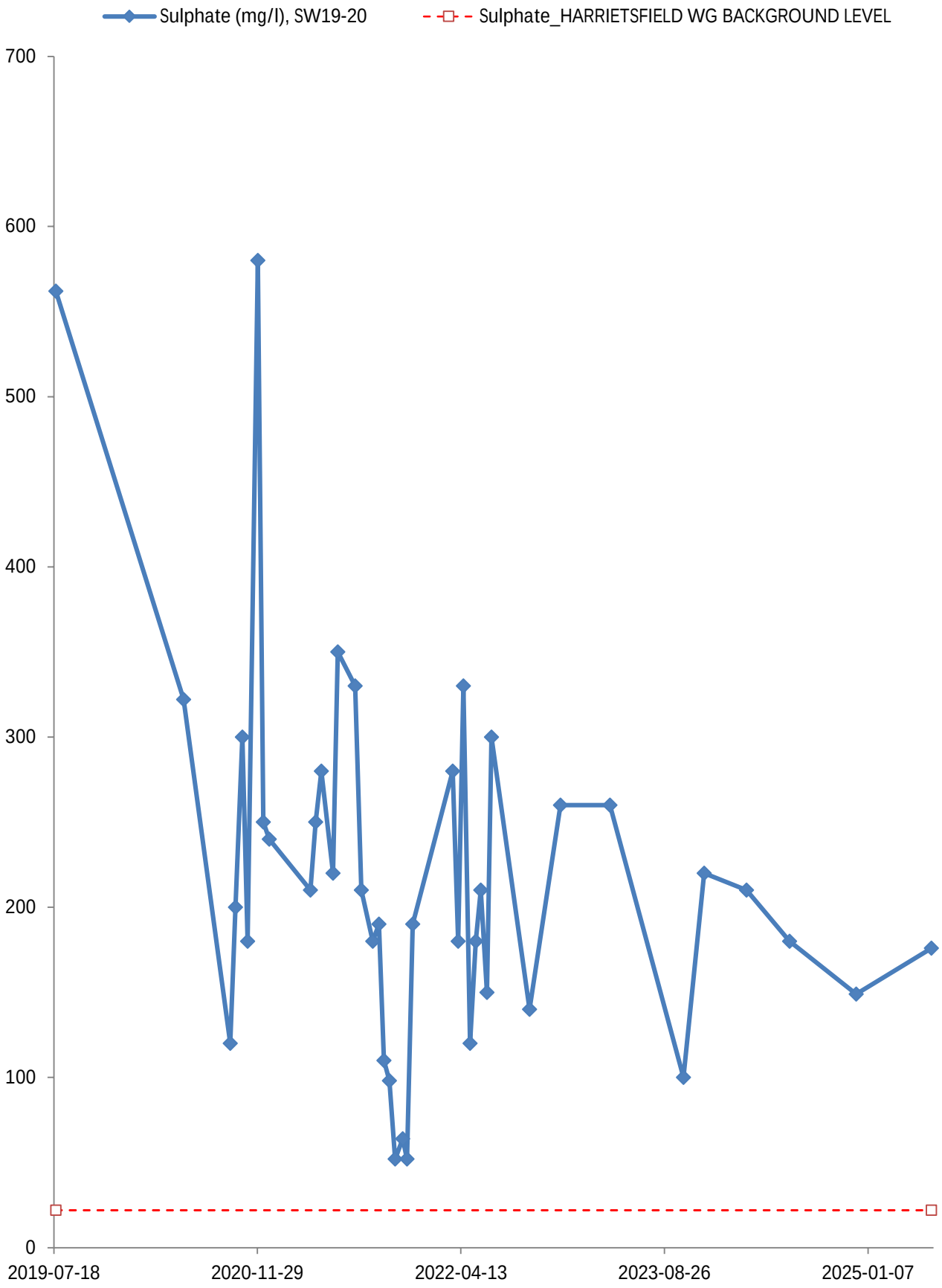



Manganese (mg/l), SW19-20
Manganese_HARRIETSFIELD WG BACKGROUND LEVEL
8
7
6
5
4
3
2
1
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

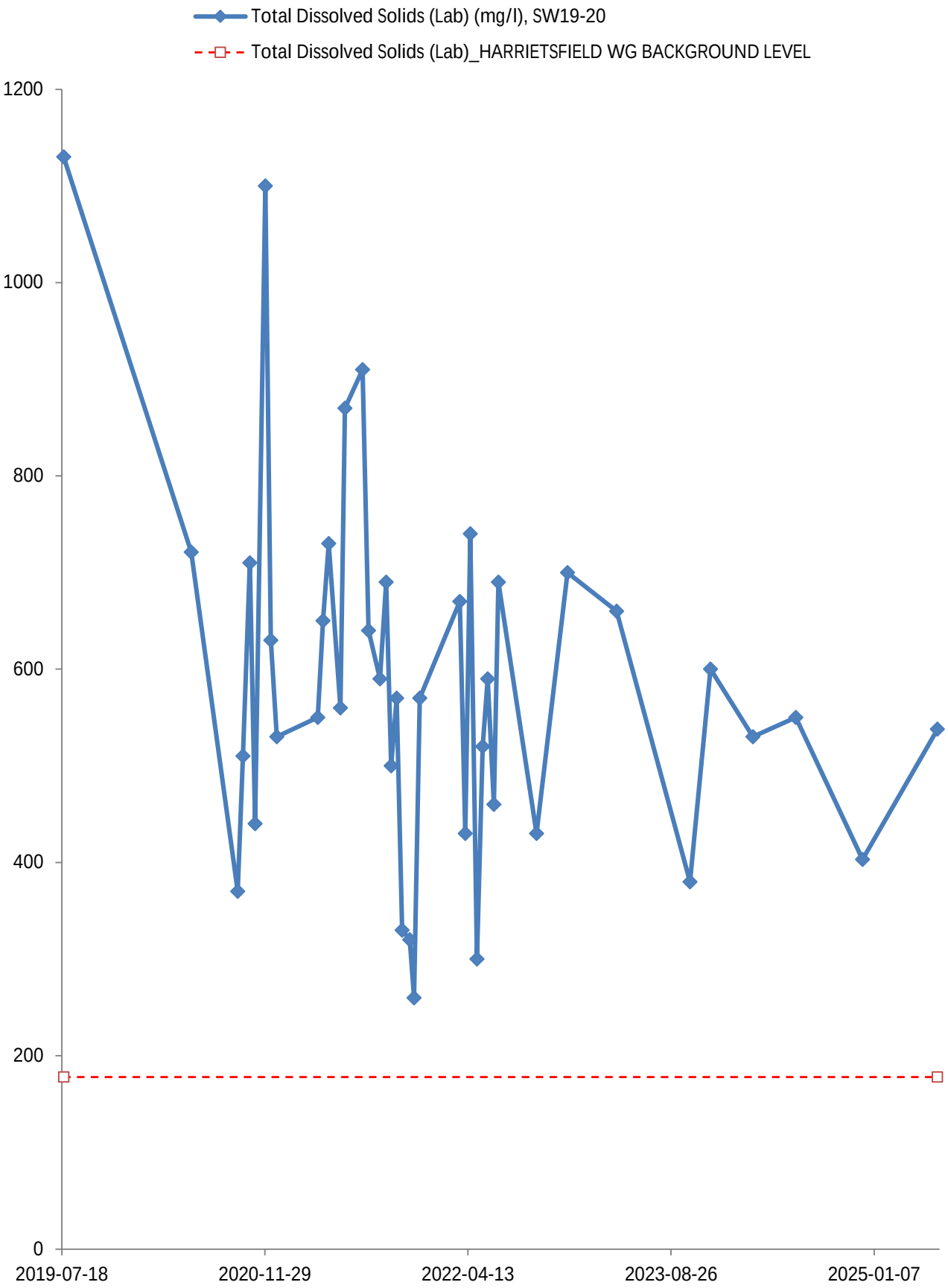
# pH, Lab


pH, Lab (ph units), SW19-20
pH, Lab_HARRIETSFIELD WG BACKGROUND LEVEL
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
7
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Sulphate

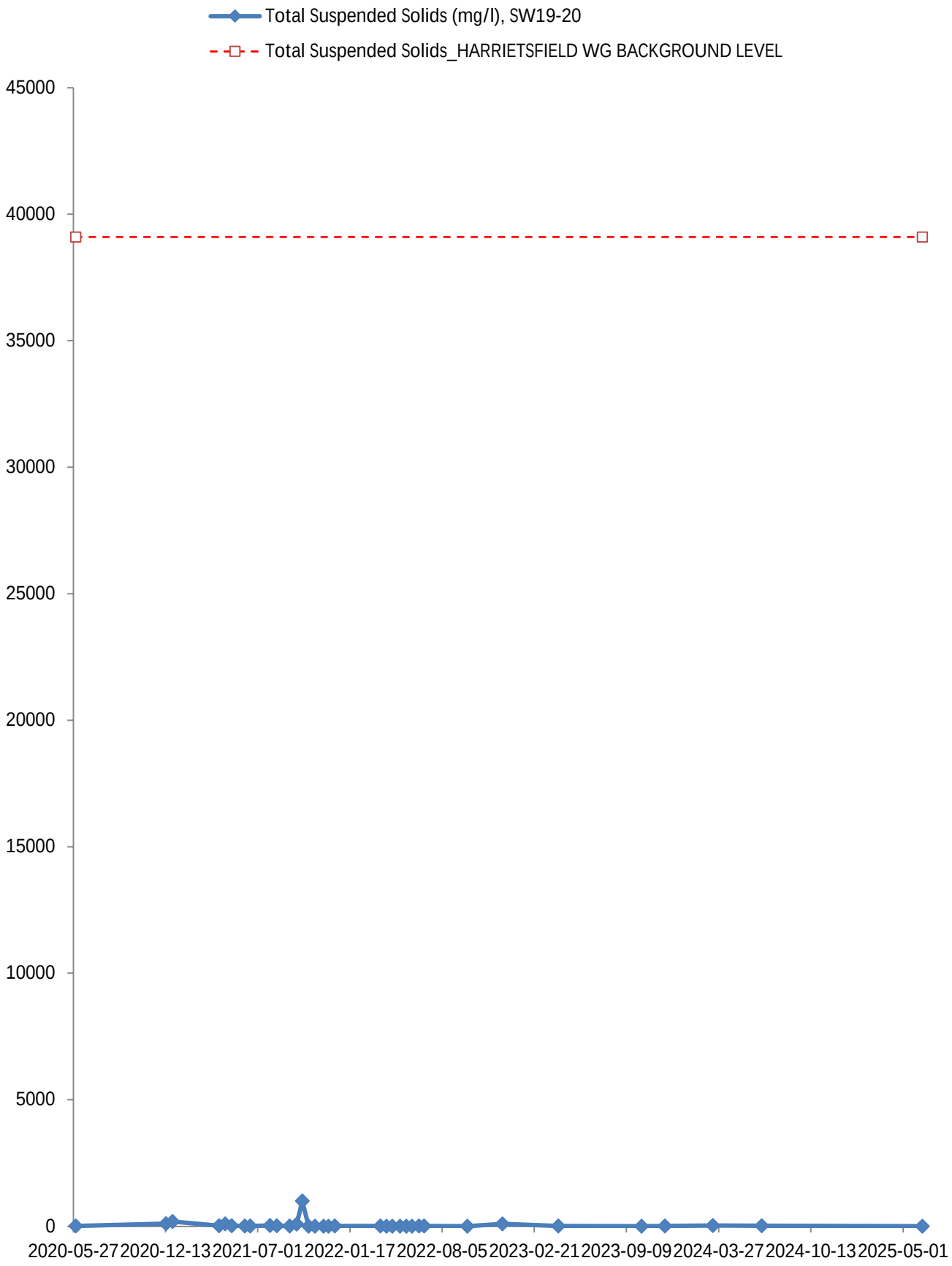

Sulphate (mg/l), SW19-20
Sulphate_HARRIETSFIELD WG BACKGROUND LEVEL
700
600
500
400
300
200
100
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Total Dissolved Solids (5

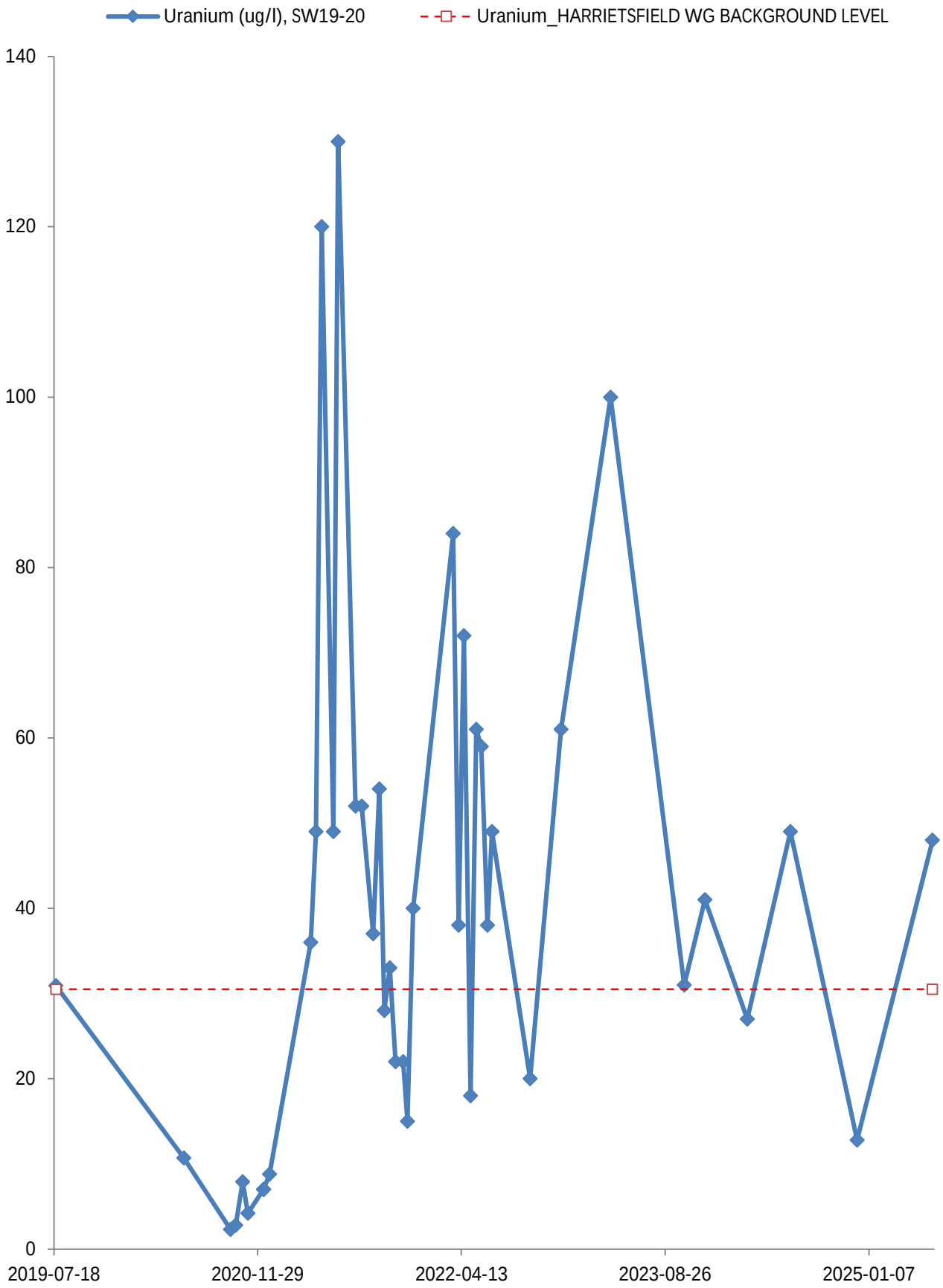


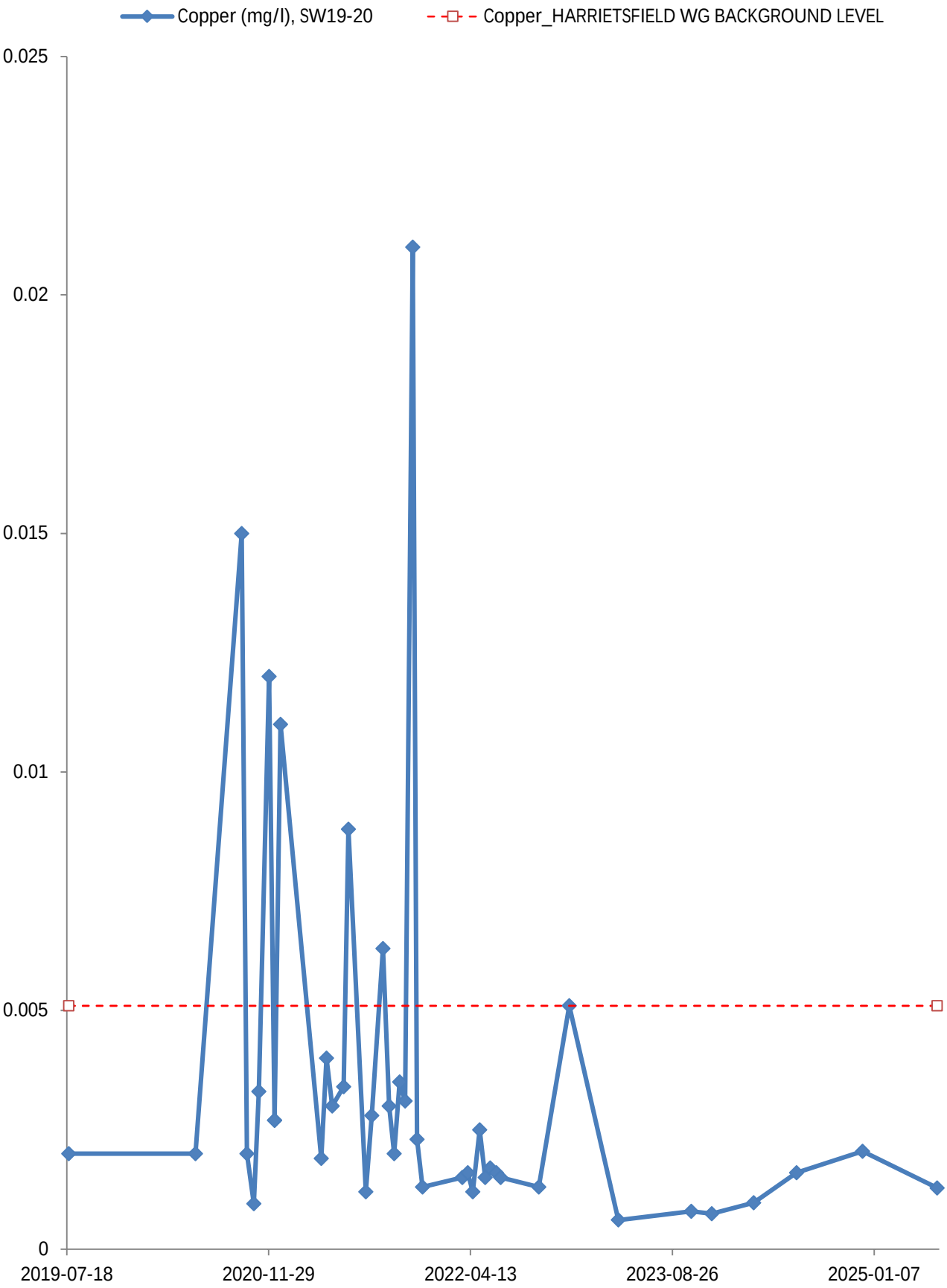
# Total Suspended Solids

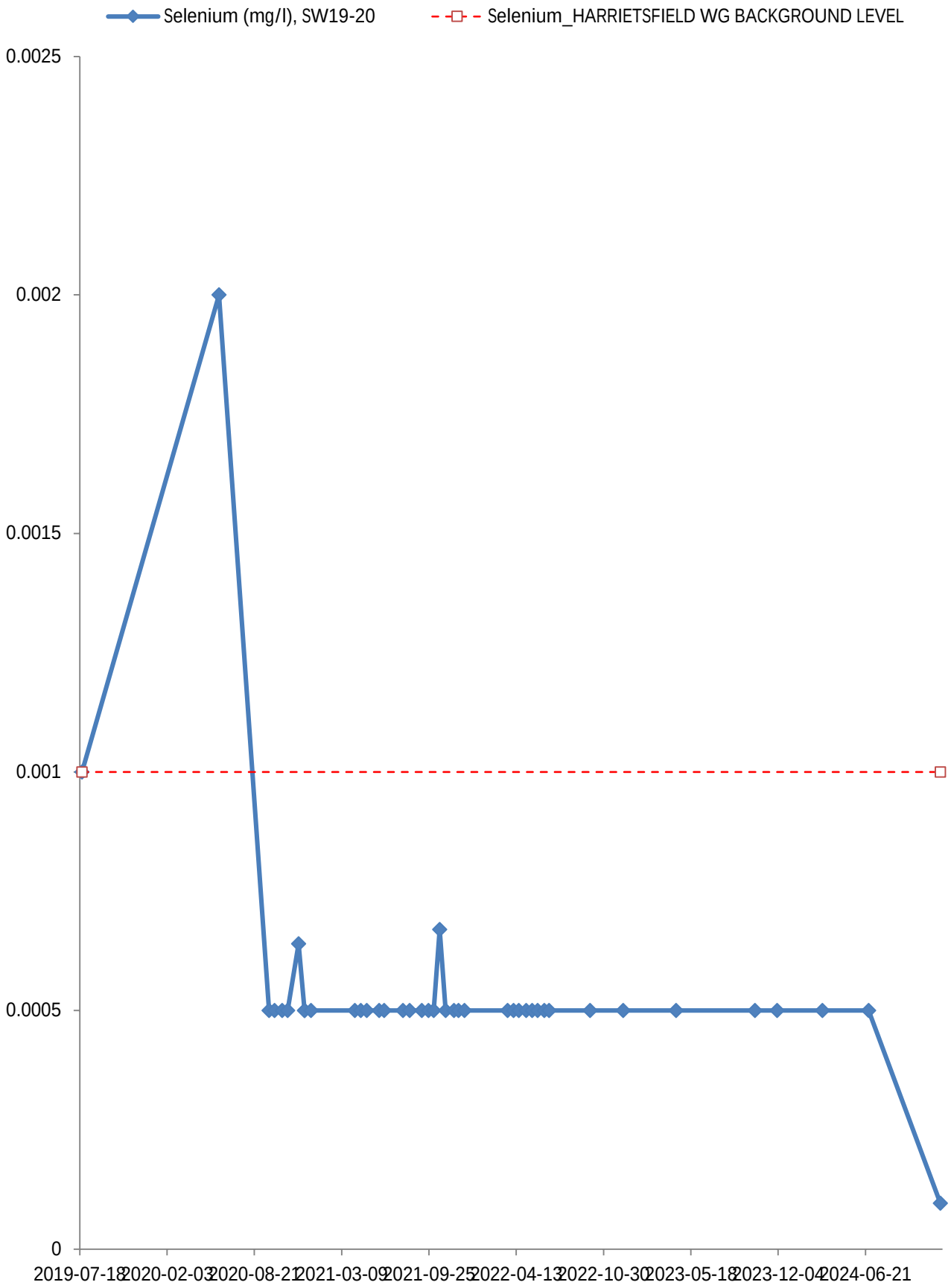


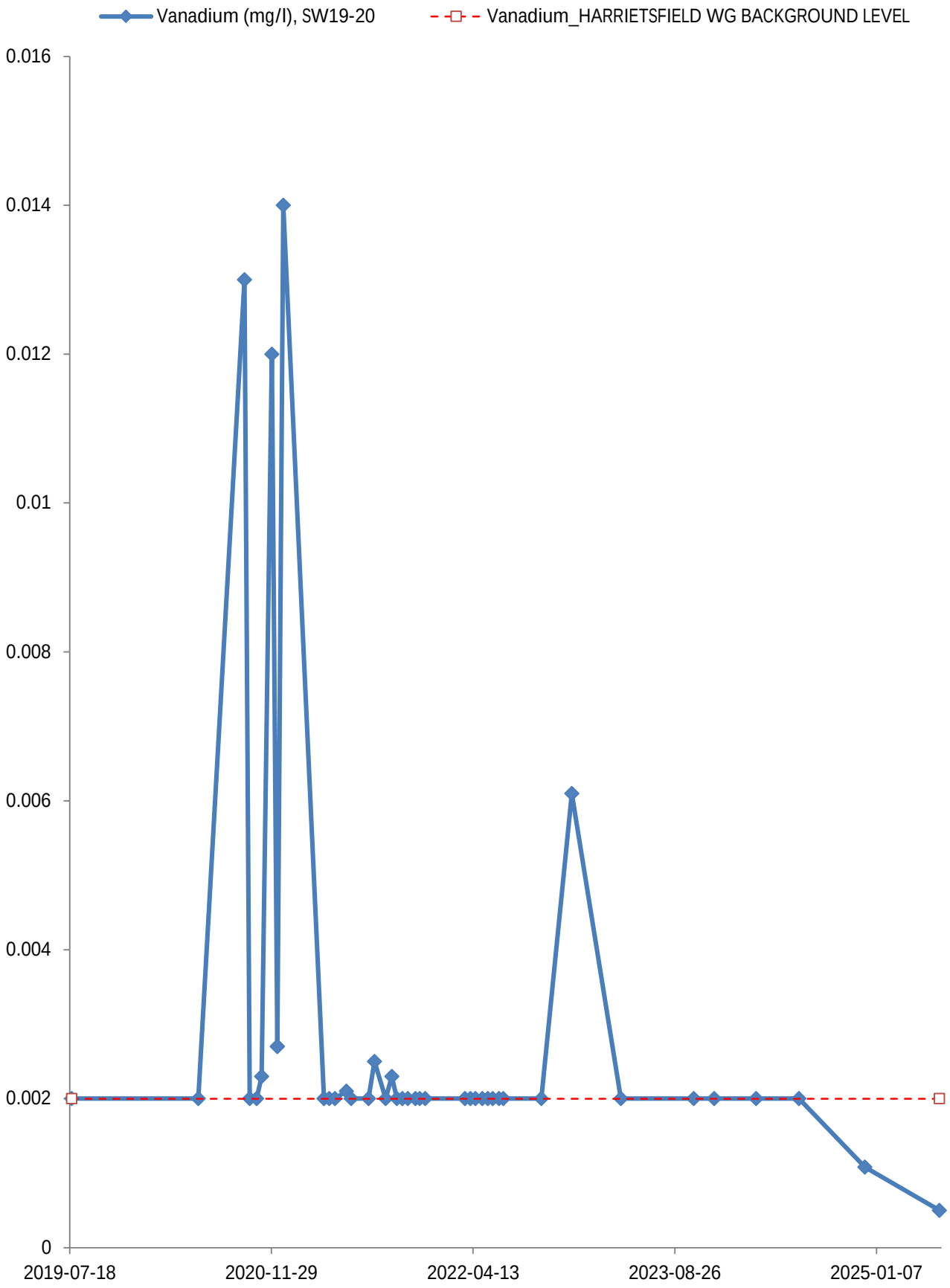


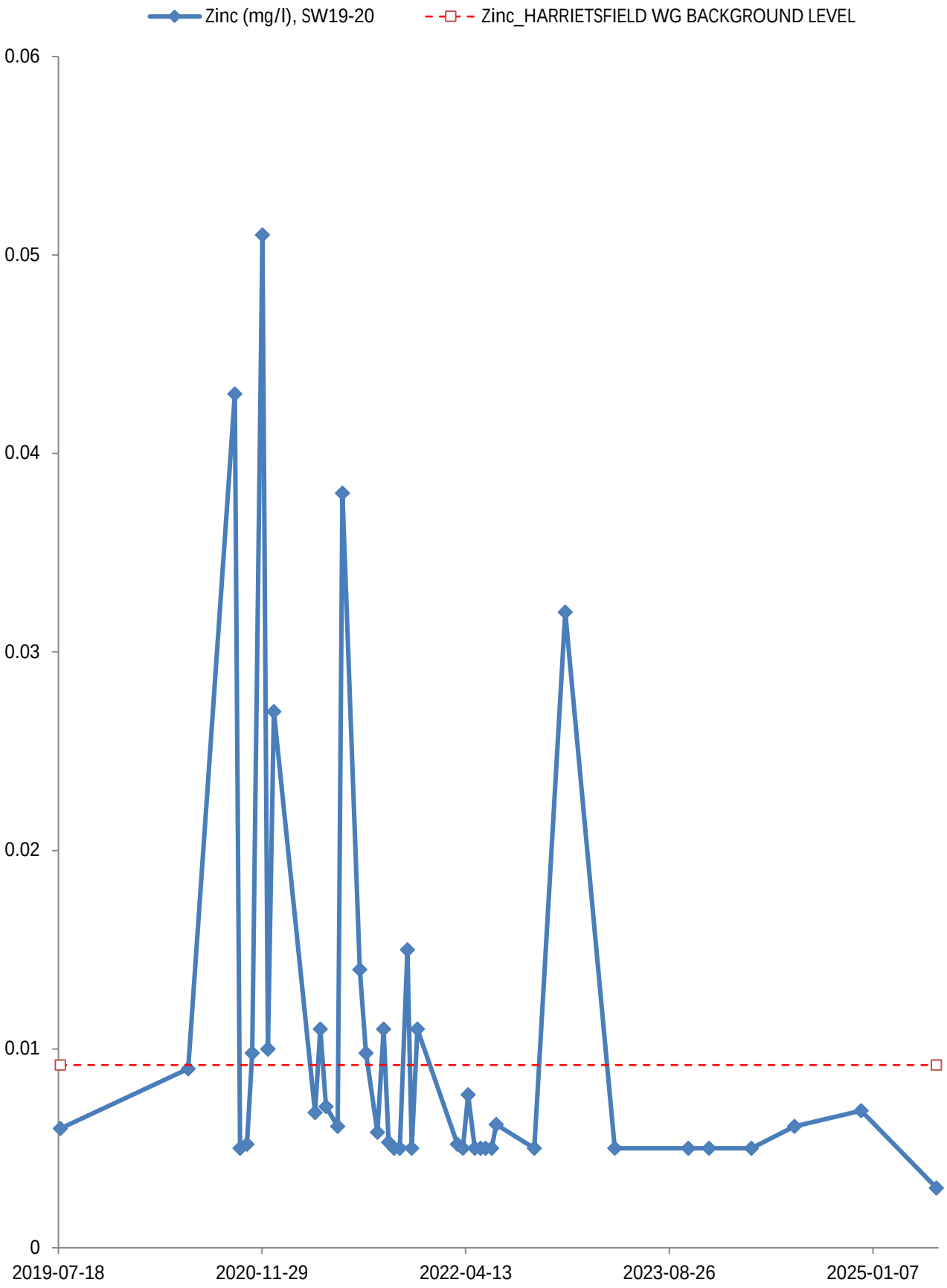
# Uranium


Uranium (ug/l), SW19-20
Uranium_HARRIETSFIELD WG BACKGROUND LEVEL
140
120
100
80
60
40
20
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07


Copper (mg/l), SW19-20
Copper_HARRIETSFIELD WG BACKGROUND LEVEL
0.025
0.02
0.015
0.01
0.005
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07


Selenium (mg/l), SW19-20
Selenium_HARRIETSFIELD WG BACKGROUND LEVEL
0.0025
0.002
0.0015
0.001
0.0005
0
2019-07-18
2020-02-03
2020-08-21
2021-03-09
2021-09-25
2022-04-13
2022-10-30
2023-05-18
2023-12-04
2024-06-21


Vanadium (mg/l), SW19-20
Vanadium_HARRIETSFIELD WG BACKGROUND LEVEL
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07


Zinc (mg/l), SW19-20
Zinc_HARRIETSFIELD WG BACKGROUND LEVEL
0.06
0.05
0.04
0.03
0.02
0.01
0
2019-07-18
2020-11-29
2022-04-13
2023-08-26
2025-01-07

# Appendix G. Field Data Summary Tables

**Table G4: Groundwater Levels and Elevations (December 2024)**

| Well ID | Date | GPS Coordinates | | TOC ELEVATION | Static Water Level (mbtoc) | Bottom of Well (mbtoc) | GW Elevation | Temp (°C) | pH | Cond (m/s) |
|---|---|---|---|---|---|---|---|---|---|---|
| Static Water Levels | | | | | | | | Field Parameters | | |
| MW1-S | A | 4936163.536 | 25568040.815 | 86.012 | 1.180 | 1.960 | 84.832 | 4.4 | 6.88 | 368 |
| MW1-D | A | 4936162.568 | 25568040.673 | 85.685 | 2.140 | 5.820 | 83.545 | 8.5 | 6.50 | 1245 |
| MW2-S | A | 4936277.310 | 25568375.605 | 91.820 | 1.280 | 3.363 | 90.540 | 5.0 | 6.72 | 211 |
| MW2-M | A | 4936274.757 | 25568375.361 | 91.449 | 4.440 | 8.298 | 87.009 | 7.4 | 6.59 | 256 |
| MW2-D | A | 4936272.861 | 25568375.262 | 91.406 | 4.710 | 12.025 | 86.696 | 8.2 | 6.82 | 340 |
| MW3 | A | 4936457.437 | 25568057.254 | 113.582 | 2.040 | 11.157 | 111.542 | 7.8 | 8.13 | 164 |
| MW5-S | A | 4936482.333 | 25568427.429 | 97.217 | 1.310 | 4.976 | 95.907 | 7.3 | 6.52 | 129.3 |
| MW5-D | A | 4936483.003 | 25568426.186 | 97.211 | 1.670 | 9.595 | 95.541 | 8.5 | 6.82 | 155 |
| MW6-S | A | 4936176.081 | 25568121.534 | 89.726 | 2.350 | 3.480 | 87.376 | 2.1 | 6.6 | 152.6 |
| MW6-D | A | 4936174.415 | 25568121.994 | 89.760 | 2.400 | 6.390 | 87.360 | 8.2 | 6.43 | 1107 |
| MW7-S | A | 4936202.281 | 25568000.533 | 88.540 | 1.380 | 2.905 | 87.160 | 5.4 | 6.9 | 287.0 |
| MW7-D | A | 4936202.901 | 25567999.515 | 88.574 | 2.670 | 5.070 | 85.904 | 7.9 | 6.36 | 328 |
| MW8-S | A | 4936310.700 | 25568302.379 | 98.204 | 3.640 | 7.525 | 94.564 | - | - | - |
| MW8-D | A | 4936311.210 | 25568303.588 | 97.882 | 5.580 | 23.905 | 92.302 | 4.4 | 6.75 | 238 |
| MW19-03D | A | 4936457.362 | 25568056.050 | 113.514 | 8.430 | 14.525 | 105.084 | 8.0 | 7.94 | 140 |
| MW19-09S | A | 4936315.097 | 25567976.210 | 95.753 | | 7.110 | 95.753 | - | - | - |
| MW19-10S | A | 4936383.454 | 25568157.550 | 102.697 | | 5.130 | 102.697 | - | - | - |
| MW19-11M | A | 4936205.289 | 25568220.310 | 90.382 | 1.700 | 5.255 | 88.682 | 7.4 | 6.53 | 412 |
| MW19-11D | A | 4936206.602 | 25568220.720 | 90.487 | 1.970 | 7.955 | 88.517 | 8.2 | 6.63 | 796 |
| PW19-01 | A | 4936311.923 | 25568005.700 | 95.980 | 1.430 | 7.230 | 94.550 | - | - | - |
| MW19-12S | A | 4936362.937 | 25568382.920 | 95.684 | 3.810 | 3.100 | 91.874 | 7.2 | 7.34 | 836 |
| MW19-12D | A | 4936364.332 | 25568382.470 | 95.579 | 5.620 | 7.685 | 89.959 | 7.5 | 7.47 | 350 |
| MW19-13S | A | 4936123.500 | 25567992.758 | 76.949 | 2.020 | 4.335 | 74.929 | 6.1 | 6.50 | 105 |
| MW19-13D | A | 4936123.422 | 25567991.611 | 76.979 | 3.820 | 8.580 | 73.159 | 7.8 | 6.06 | 132 |
| MW20-14S | A | 4936220.664 | 25568307.2 | 90.727 | 2.020 | 5.377 | 88.707 | 5.2 | 6.19 | 140 |
| MW20-14D | A | 4936220.163 | 25568306.64 | 90.615 | 4.020 | 9.920 | 86.595 | 8.5 | 6.15 | 316 |
| MW20-15S | A | 4936242.801 | 25568334.52 | 93.05 | 3.850 | 5.520 | 89.200 | 8.5 | 6.7 | 295.4 |
| MW20-15D | A | 4936242.238 | 25568333.65 | 92.999 | 6.870 | 9.090 | 86.129 | 7.5 | 6.90 | 690 |
| MW20-16 | A | 4936523.067 | 25568356.68 | 103.832 | | 12.325 | 103.832 | - | - | - |
| MW20-17S | A | 4936428.866 | 25567865.24 | 102.516 | 1.580 | 8.500 | 100.936 | 7.1 | 8.11 | 151 |
| MW20-17D | A | 4936428.017 | 25567864.95 | 102.969 | 5.790 | 12.860 | 97.179 | 7.7 | 7.70 | 142 |

Measurement Date A: 10 December 2024

**Table G4: Groundwater Levels and Elevations (June 2025)**

| Well ID | Date | GPS Coordinates | | TOC ELEVATION | Static Water Level (mbtoc) | Bottom of Well (mbtoc) | GW Elevation | Temp (°C) | pH | Cond (m/s) |
|---|---|---|---|---|---|---|---|---|---|---|
| Static Water Levels | | | | | | | | Field Parameters | | |
| MW1-S | A | 4936163.536 | 25568040.815 | 86.012 | 0.765 | 1.960 | 85.247 | 11.3 | 7.33 | 871 |
| MW1-D | A | 4936162.568 | 25568040.673 | 85.685 | 1.940 | 5.820 | 83.745 | 8.1 | 6.88 | 1604 |
| MW2-S | B | 4936277.310 | 25568375.605 | 91.820 | 1.265 | 3.363 | 90.555 | 9.8 | 7.52 | 208 |
| MW2-M | B | 4936274.757 | 25568375.361 | 91.449 | 4.260 | 8.298 | 87.189 | 7.3 | 9.31 | 267 |
| MW2-D | B | 4936272.861 | 25568375.262 | 91.406 | 4.525 | 12.025 | 86.881 | 7.9 | 9.01 | 449 |
| MW3 | B | 4936457.437 | 25568057.254 | 113.582 | 1.900 | 11.157 | 111.682 | 10.7 | 8.20 | 225 |
| MW5-S | B | 4936482.333 | 25568427.429 | 97.217 | 1.245 | 4.976 | 95.972 | 8.8 | 6.70 | 172.5 |
| MW5-D | B | 4936483.003 | 25568426.186 | 97.211 | 1.270 | 9.595 | 95.941 | 7.5 | 7.02 | 208 |
| MW6-S | A | 4936176.081 | 25568121.534 | 89.726 | 2.060 | 3.480 | 87.666 | 13.1 | 6.7 | 434.9 |
| MW6-D | A | 4936174.415 | 25568121.994 | 89.760 | 2.160 | 6.390 | 87.600 | 9.6 | 7.28 | 1608 |
| MW7-S | A | 4936202.281 | 25568000.533 | 88.540 | 1.030 | 2.905 | 87.510 | 12.1 | 6.8 | 241.2 |
| MW7-D | A | 4936202.901 | 25567999.515 | 88.574 | 2.405 | 5.070 | 86.169 | 11.7 | 7.37 | 360 |
| MW8-S | B | 4936310.700 | 25568302.379 | 98.204 | 3.910 | 7.525 | 94.294 | 9.2 | 7.59 | 102 |
| MW8-D | B | 4936311.210 | 25568303.588 | 97.882 | 5.620 | 23.905 | 92.262 | 9.7 | 6.90 | 392 |
| MW19-03D | B | 4936457.362 | 25568056.050 | 113.514 | 8.520 | 14.525 | 104.994 | - | - | - |
| MW19-09S | - | 4936315.097 | 25567976.210 | 95.753 | - | 7.110 | 95.753 | - | - | - |
| MW19-10S | - | 4936383.454 | 25568157.550 | 102.697 | - | 5.130 | 102.697 | - | - | - |
| MW19-11M | A | 4936205.289 | 25568220.310 | 90.382 | 1.575 | 5.255 | 88.807 | 8.8 | 7.47 | 849 |
| MW19-11D | A | 4936206.602 | 25568220.720 | 90.487 | 1.820 | 7.955 | 88.667 | 8.4 | 7.46 | 1374 |
| PW19-01 | B | 4936311.923 | 25568005.700 | 95.980 | 1.380 | 7.230 | 94.600 | 11.7 | 7.34 | 455 |
| MW19-12S | B | 4936362.937 | 25568382.920 | 95.684 | 1.230 | 3.100 | 94.454 | 13.3 | 8.46 | 427 |
| MW19-12D | B | 4936364.332 | 25568382.470 | 95.579 | 1.080 | 7.685 | 94.499 | 9.4 | 7.33 | 362 |
| MW19-13S | A | 4936123.500 | 25567992.758 | 76.949 | 2.130 | 4.335 | 74.819 | 10.4 | 6.02 | 116 |
| MW19-13D | A | 4936123.422 | 25567991.611 | 76.979 | 3.550 | 8.580 | 73.429 | 9.4 | 6.90 | 191 |
| MW20-14S | A | 4936220.664 | 25568307.2 | 90.727 | 1.650 | 5.377 | 89.077 | 10.9 | 6.75 | 56 |
| MW20-14D | A | 4936220.163 | 25568306.64 | 90.615 | 3.900 | 9.920 | 86.715 | 9.3 | 4.41 | 404 |
| MW20-15S | B | 4936242.801 | 25568334.52 | 93.05 | 4.190 | 5.520 | 88.860 | 9.8 | 5.4 | 475.0 |
| MW20-15D | B | 4936242.238 | 25568333.65 | 92.999 | 6.350 | 9.090 | 86.649 | 9.4 | 5.47 | 1054 |
| MW20-16 | B | 4936523.067 | 25568356.68 | 103.832 | 5.575 | 12.325 | 98.257 | 9.2 | 7.59 | 102 |
| MW20-17S | B | 4936428.866 | 25567865.24 | 102.516 | 1.290 | 8.500 | 101.226 | 9.1 | 9.74 | 376 |
| MW20-17D | B | 4936428.017 | 25567864.95 | 102.969 | 5.610 | 12.860 | 97.359 | 9.4 | 7.55 | 188 |

Measurement Date A: 11 June 2025

Measurement Date B: 12 June 2025

**Table G4: Surface Water Field Parameters**

| SW Location | Diffuser | | SW1 | | SW2 | | SW3 | | SW4 | | SW13 | | SW14 | | SW19-20 | | LDO | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameters | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) | pH | Cond (us/cm) |
| **2018** | | | | | | | | | | | | | | | | | | |
| 2018-11-08 | - | - | 7.68 | 556.0 | 6.14 | 63.9 | 6.14 | 35.1 | 6.55 | 46.5 | 8.48 | 573.0 | 7.79 | 354.7 | - | - | - | - |
| **2019** | | | | | | | | | | | | | | | | | | |
| 2019-11-19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **2020** | | | | | | | | | | | | | | | | | | |
| 2020-04-01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2020-06-01 | 5.22 | 31.5 | 5.19 | 33.2 | 5.33 | 32.7 | 5.41 | 32.2 | 5.28 | 31.8 | 7.42 | 121.9 | - | - | 6.69 | 1069 | - | - |
| 2020-07-17 | 4.90 | 36.3 | 4.83 | 34.5 | 4.97 | 36.0 | 5.32 | 43.3 | 4.96 | 36.6 | - | - | - | - | - | - | - | - |
| 2020-07-29 | 5.35 | 35.3 | 5.56 | 35.6 | 5.90 | 36.2 | 5.81 | 40.9 | 5.25 | 35.5 | - | - | - | - | - | - | - | - |
| 2020-08-11 | 5.62 | 118.3 | 5.71 | 116.6 | 5.57 | 121.2 | 5.54 | 123.8 | 5.47 | 118.0 | - | - | - | - | - | - | - | - |
| 2020-08-24 | 5.90 | 122.5 | 5.88 | 124.6 | 6.22 | 132.3 | 5.81 | 130.3 | 5.84 | 124.0 | DRY | DRY | DRY | DRY | DRY | DRY | - | - |
| 2020-09-08 | 5.95 | 125.5 | 6.14 | 131.6 | 5.88 | 125.9 | 5.86 | 127.9 | - | - | DRY | DRY | DRY | DRY | DRY | DRY | - | - |
| 2020-09-23 | 4.84 | 183.5 | 5.53 | 181.4 | 6.31 | 184.4 | 4.94 | 187.9 | 4.89 | 186.2 | 5.97 | 223.1 | 6.94 | 1272 | 7.54 | 1951 | - | - |
| 2020-10-06 | 4.92 | 152.1 | 4.92 | 156.7 | 5.11 | 153.8 | 5.24 | 218.8 | 5.09 | 157.7 | 6.69 | 425.3 | DRY | DRY | 7.10 | 2302 | - | - |
| 2020-10-23 | 4.67 | 175.2 | 4.41 | 180.4 | 4.71 | 175.7 | 5.59 | 226.1 | 4.78 | 181.1 | 6.56 | 291.6 | DRY | DRY | 7.06 | 3460 | - | - |
| 2020-11-05 | 5.09 | 181.7 | 4.41 | 184.9 | 4.67 | 186.5 | 5.56 | 199.3 | 4.97 | 185.0 | 7.01 | 333.2 | DRY | DRY | 7.28 | 2480 | - | - |
| 2020-11-20 | 4.60 | 183.4 | 4.93 | 177.1 | 4.60 | 182.7 | 5.54 | 326.7 | 4.92 | 184.4 | 6.33 | 266.7 | DRY | DRY | DRY | DRY | - | - |
| 2020-11-30 | 5.16 | 184.9 | 5.60 | 180.7 | 5.21 | 185.9 | 5.92 | 449.3 | 5.01 | 191.2 | 6.55 | 316.4 | DRY | DRY | 7.29 | 5318 | - | - |
| 2020-12-14 | 3.97 | 51.2 | 4.54 | 55.6 | 4.02 | 52.6 | 4.11 | 51.1 | 3.97 | 51.2 | 5.24 | 82.0 | DRY | DRY | 5.84 | 938 | - | - |
| 2020-12-28 | 4.71 | 55.9 | 4.21 | 52.8 | 4.74 | 54.8 | 5.62 | 99.6 | 4.88 | 55.5 | 5.73 | 84.9 | DRY | DRY | 6.59 | 564 | - | - |
| **2021** | | | | | | | | | | | | | | | | | | |
| 2021-03-25 | 5.78 | 37.3 | 6.16 | 35.1 | 6.00 | 37.8 | 5.77 | 40.7 | 5.79 | 39.1 | 7.21 | 67.7 | 6.29 | 478.2 | Frozen | Frozen | - | - |
| 2021-04-08 | 4.64 | 32.7 | 5.14 | 32.9 | 4.71 | 32.6 | 5.33 | 51.0 | 4.69 | 32.7 | 8.07 | 62.6 | DRY | DRY | 6.71 | 871 | - | - |
| 2021-04-21 | 4.57 | 35.8 | 4.64 | 36.2 | 4.87 | 37.0 | 4.98 | 37.7 | 4.67 | 36.9 | 7.26 | 75.1 | DRY | DRY | 5.89 | 945 | - | - |
| 2021-05-05 | 5.84 | 36.3 | 6.10 | 35.9 | 6.69 | 37.8 | 5.84 | 46.7 | 5.71 | 36.9 | 8.00 | 80.4 | DRY | DRY | 6.11 | 997 | - | - |
| 2021-05-19 | 5.31 | 33.4 | 5.44 | 32.6 | 6.08 | 34.2 | 5.47 | 34.2 | 5.20 | 33.5 | 7.56 | 102.5 | DRY | DRY | DRY | DRY | - | - |
| 2021-06-03 | 5.83 | 37.8 | 5.71 | 34.2 | 5.93 | 37.4 | 5.86 | 39.4 | 5.66 | 37.6 | 7.00 | 77.6 | DRY | DRY | 6.61 | 852 | - | - |
| 2021-06-14 | 5.65 | 37.6 | 6.50 | 37.0 | 6.17 | 36.8 | 5.72 | 37.7 | 5.89 | 37.6 | 6.51 | 360.6 | DRY | DRY | 6.78 | 1233 | - | - |
| 2021-06-30 | 6.08 | 40.0 | 6.38 | 41.1 | 6.15 | 39.5 | 5.79 | 43.0 | 5.78 | 39.9 | 6.30 | 350.6 | DRY | DRY | DRY | DRY | - | - |
| 2021-07-14 | 6.11 | 40.4 | 5.88 | 41.1 | 6.06 | 40.6 | 6.61 | 41.2 | 6.74 | 40.9 | 6.41 | 324.2 | DRY | DRY | DRY | DRY | - | - |
| 2021-07-27 | 5.68 | 40.7 | 5.61 | 41.1 | 5.67 | 40.8 | 5.63 | 41.1 | 5.62 | 62.6 | 6.58 | 87.7 | DRY | DRY | 6.93 | 1314 | - | - |
| 2021-08-11 | 4.60 | 40.7 | 4.65 | 40.8 | 4.72 | 40.8 | 4.76 | 40.8 | 4.72 | 40.4 | 6.81 | 103.5 | DRY | DRY | 6.69 | 1001 | - | - |
| 2021-09-08 | 5.70 | 44.8 | 7.87 | 46.2 | 6.33 | 44.7 | 5.86 | 46.7 | 5.76 | 44.9 | 6.68 | 289.8 | DRY | DRY | 7.27 | 864 | - | - |
| 2021-09-23 | 5.53 | 42.7 | 5.74 | 40.6 | 5.48 | 43.3 | 5.59 | 47.7 | 5.66 | 42.9 | 6.22 | 280.4 | DRY | DRY | 6.65 | 1143 | - | - |
| 2021-10-06 | 5.21 | 44.9 | 6.67 | 44.0 | 5.52 | 45.2 | 5.26 | 49.7 | 5.08 | 45.0 | 6.66 | 316.0 | DRY | DRY | 6.63 | 776 | - | - |
| 2021-10-19 | 4.82 | 44.8 | 5.35 | 42.1 | 4.89 | 44.9 | 5.07 | 56.2 | 5.02 | 44.7 | 5.36 | 248.1 | DRY | DRY | 5.14 | 873 | - | - |
| 2021-11-02 | 4.51 | 44.2 | 4.51 | 43.2 | 4.65 | 44.5 | 4.66 | 45.2 | 4.60 | 44.3 | 6.37 | 390.8 | DRY | DRY | 6.78 | 1038 | - | - |
| 2021-11-21 | - | - | 4.66 | 63.8 | 4.88 | 50.0 | 4.68 | 60.9 | 4.53 | 49.9 | 6.21 | 87.6 | DRY | DRY | 5.44 | 721 | - | - |
| 2021-12-01 | - | - | * | * | * | * | 6.68 | 47.9 | * | * | 6.58 | 68.5 | DRY | DRY | 5.87 | 429 | - | - |
| 2021-12-15 | - | - | 4.53 | 43.0 | 3.63 | 43.6 | 3.76 | 47.2 | 3.21 | 46.2 | 5.99 | 70.4 | DRY | DRY | 4.90 | 556 | - | - |
| **2022** | | | | | | | | | | | | | | | | | | |
| 2022-03-25 | - | - | 4.14 | 36.0 | 5.94 | 37.7 | 6.35 | 37.8 | 5.02 | 36.2 | 6.74 | 72.6 | DRY | DRY | 6.51 | 460 | - | - |
| 2022-04-06 | - | - | 5.58 | 31.9 | 5.51 | 30.9 | 5.31 | 30.5 | 5.04 | 30.4 | 6.79 | 65.2 | DRY | DRY | 6.32 | 392 | - | - |
| 2022-04-19 | - | - | 4.16 | 31.6 | 4.36 | 31.6 | 4.71 | 33.0 | 4.65 | 32.3 | 5.28 | 97.5 | DRY | DRY | 6.47 | 766 | - | - |
| 2022-05-04 | - | - | 8.06† | 30.9 | 8.40† | 30.1 | 8.24† | 30.5 | 8.41† | 30.1 | 9.56† | 48.5 | DRY | DRY | 9.47† | 432 | - | - |
| 2022-05-19 | - | - | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | ‡ | 7.13 | 60.1 | DRY | DRY | 6.64 | 773 | - | - |
| 2022-05-31 | - | - | 4.40 | 34.2 | 4.84 | 34.3 | 5.80 | 57.9 | 5.00 | 53.2 | 6.49 | 66.6 | - | - | 6.67 | 893 | - | - |
| 2022-06-16 | - | - | 4.10 | 36.5 | 5.06 | 34.8 | 4.69 | 35.1 | 4.63 | 34.3 | 5.91 | 65.0 | - | - | 6.61 | 970 | - | - |
| 2022-06-27 | - | - | 4.13 | 35.9 | 5.03 | 37.6 | 4.65 | 40.0 | 4.09 | 36.8 | 7.44 | 88.7 | - | - | 6.27 | 989 | - | - |
| 2022-09-29 | - | - | 3.94 | 28.0 | 5.07 | 29.0 | 6.02 | 57.0 | 4.41 | 26.0 | 5.55 | 39.0 | - | - | 6.86 | 293 | 6.69 | 271 |
| 2022-12-14 | - | - | 3.73 | * | 4.46 | * | 3.92 | * | 3.47 | * | 6.01 | * | - | - | 6.39 | * | 6.76 | * |
| **2023** | | | | | | | | | | | | | | | | | | |
| 2023-04-14 | - | - | 4.46 | 27.4 | 5.76 | 27.1 | 4.68 | 27.1 | 4.46 | 26.7 | 7.31 | 75.8 | - | - | 6.40 | 764 | 6.12 | 350 |
| 2023-10-12 | - | - | 5.73 | 36.80 | - | - | 6.08 | 57.80 | 4.85 | 56.0 | 6.50 | 82.2 | - | - | 7.42 | 449 | 7.27 | 343 |
| 2023-12-01 | | | 4.13 | 27.2 | | | 6.47 | 55.4 | 4.94 | 24.2 | 6.87 | 41.5 | | | 7.43 | 406 | 7.14 | 192 |
| **2024** | | | | | | | | | | | | | | | | | | |
| 2024-03-14 | - | - | 4.35 | 19.30 | - | - | 5.91 | 15.70 | 4.65 | 17.1 | 6.45 | 14.5 | - | - | 7.06 | 36 | 6.73 | 175 |
| 2024-06-28 | - | - | - | - | - | - | - | - | 5.99 | 34.4 | 7.00 | 56.3 | - | - | 7.31 | 593 | - | - |
| 2024-11-07 | - | - | - | - | - | - | - | - | 5.90 | 157.9 | 6.63 | 130.7 | - | - | - | - | - | - |
| 2024-12-09 | - | - | - | - | - | - | - | - | 6.80 | 142.6 | 6.96 | 50.1 | - | - | 7.17 | 281 | - | - |
| **2025** | | | | | | | | | | | | | | | | | | |
| 2025-03-11 | - | - | - | - | - | - | - | - | 5.83 | 15.4 | 5.58 | 57.8 | - | - | - | - | - | - |
| 2025-06-13 | - | - | - | - | - | - | - | - | 5.90 | 44.2 | 6.91 | 62.4 | - | - | 7.74 | 64 | - | - |

"-": data not available or collected

Diffuser installed mid-July 2020 and removed 16 September 2021

SW2 and SW14 not a part of the 2023-2024 Annual Report. Locations removed from program

SW1, SW3, LDO removed from sampling program after March 2024 event

* - Field parameter reading error

† - Field parameter reading error. pH value were consistently too high, but the conductivity values were comperable. Lab results suggested similar assumption

‡ - Sample boat was stolen. Sample points inaccessable. No samples were collected

# Appendix H. Trend Analysis Summary Tables

**TABLE H1: Groundwater Trend Analysis Summary Table**

| Monitoring Well (MW) ID | Shallow or Deep MW | Landfill Cell Area | Former BDAs | LTPA and SPs | METALS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Arsenic | | Boron | | Cadmium | | Cobalt | | Chromium | | Iron | | Lead | | Manganese | | Uranium | |
| | | | | | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 |
| **MW1-S** | **Shallow** | **Downgradient** | Cross-Gradient | Cross-Gradient | no | no | up | no | down | no | no | no | no | no | no | no | no | no | down | no | up | no |
| **MW1-D** | **Deep** | **Downgradient** | Cross-Gradient | Cross-Gradient | no | no | up | no | no | no | no | no | no | no | no | no | no | no | up | no | up | no |
| **MW2-S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **MW2-M** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | up | no | down | no | no | no | no | no | no | no | no | no | down | no | up | no |
| **MW2-D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | up | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **MW3** | **Shallow** | **Upgradient** | **Upgradient** | **Upgradient** | no | no | up | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **MW5-S** | **Shallow** | Upgradient | **Downgradient** | Cross-Gradient | no | no | up | no | down | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **MW5-D** | **Deep** | Upgradient | **Downgradient** | Cross-Gradient | no | no | up | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **MW6-S** | **Shallow** | **Downgradient** | Cross-Gradient | Cross-Gradient | no | no | no | no | down | no | down | oo | no | no | no | no | no | no | no | no | no | no |
| **MW6-D** | **Deep** | **Downgradient** | Cross-Gradient | Cross-Gradient | down* | no | down* | no | down | no | no | no | no | no | down* | no | no | no | down* | no | no | no |
| **MW7-S** | **Shallow** | Cross-Gradient | **Downgradient** | **Downgradient** | no | no | down | no | down | no | no | no | no | no | no | no | no | no | down | no | no | no |
| **MW7-D** | **Deep** | Cross-Gradient | **Downgradient** | **Downgradient** | up | no | no | no | down | no | up | no | no | no | down | no | no | no | up | no | up | no |
| **MW8-S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **MW8-D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | no | no | down | no | no | no | no | no | no | no | no | no | up | no | up | no |
| **MW19-03D** | **Deep** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW19-11M** | **Deep** | **Downgradient** | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW19-11D** | **Deep** | **Downgradient** | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW19-12S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW19-12D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW19-13S** | **Shallow** | Cross-Gradient | **Downgradient** | **Downgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW19-13D** | **Deep** | Cross-Gradient | **Downgradient** | **Downgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-14S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-14D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-15S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-15D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-16** | **Deep** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-17S** | **Shallow** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **MW20-17D** | **Deep** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **PW19-01** | **Shallow** | Upgradient | Cross-Gradient | **Downgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |

| Monitoring Well (MW) ID | Shallow or Deep MW | Landfill Cell Area | Former BDAs | LTPA and SPs | GENERAL CHEMISTRY | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Alkanility | | Calcium | | Chloride | | Conductivity | | Hardness | | pH | | Sulphate | | Total Organic Carbon | | Total Dissolved Solids | |
| | | | | | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 |
| **MW1-S** | **Shallow** | **Downgradient** | Cross-Gradient | Cross-Gradient | up | no | up | no | no | no | no | no | up | no | up | no | no | no | no | - | no | no |
| **MW1-D** | **Deep** | **Downgradient** | Cross-Gradient | Cross-Gradient | up | no | up | no | up | no | up | no | up | no | no | no | up | no | no | - | up | no |
| **MW2-S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | no | no | down | no | down | no | no | no | no | no | down | no | no | - | down | no |
| **MW2-M** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | up | no | no | no | down | no | no | no | no | no | no | no | no | no | no | - | no | no |
| **MW2-D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | up | no | no | no | down | no | no | no | no | no | no | no | no | no | no | - | no | no |
| **MW3** | **Shallow** | **Upgradient** | **Upgradient** | **Upgradient** | no | no | up | no | no | no | no | no | up | no | no | no | no | no | no | - | no | no |
| **MW5-S** | **Shallow** | Upgradient | **Downgradient** | Cross-Gradient | up | no | no | no | no | no | no | no | no | no | no | no | no | no | no | - | no | no |
| **MW5-D** | **Deep** | Upgradient | **Downgradient** | Cross-Gradient | up | no | up | no | no | no | no | no | up | no | no | no | no | no | no | - | no | no |
| **MW6-S** | **Shallow** | **Downgradient** | Cross-Gradient | Cross-Gradient | up | no | no | no | no | no | down | no | down | no | up | no | down | no | no | - | down | no |
| **MW6-D** | **Deep** | **Downgradient** | Cross-Gradient | Cross-Gradient | down* | no | down* | no | no | no | no | no | down* | no | no | no | down* | down | no | - | down* | no |
| **MW7-S** | **Shallow** | Cross-Gradient | **Downgradient** | **Downgradient** | up | no | down | no | down | no | down | no | down | no | up | no | down | no | no | - | down | no |
| **MW7-D** | **Deep** | Cross-Gradient | **Downgradient** | **Downgradient** | up | no | up | no | no | no | no | no | up | no | up | no | no | no | no | - | up | mo |
| **MW8-S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | up | no | no | no | down | no | no | no | no | no | no | no | no | no | no | - | no | no |
| **MW8-D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | no | no | up | no | no | no | no | no | no | no | down | no | up | no | no | - | up | no |
| **MW19-03D** | **Deep** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW19-11M** | **Deep** | **Downgradient** | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW19-11D** | **Deep** | **Downgradient** | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW19-12S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW19-12D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW19-13S** | **Shallow** | Cross-Gradient | **Downgradient** | **Downgradient** | - | no | - | down | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW19-13D** | **Deep** | Cross-Gradient | **Downgradient** | **Downgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-14S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-14D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-15S** | **Shallow** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-15D** | **Deep** | Cross-Gradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-16** | **Deep** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-17S** | **Shallow** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **MW20-17D** | **Deep** | **Upgradient** | **Upgradient** | **Upgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |
| **PW19-01** | **Shallow** | Upgradient | Cross-Gradient | **Downgradient** | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no |

**Notes:**

**Up** = upward trend
**Down** = downward trend
**Down*** = upward trend until 2012, then downward trend
**No** = no trend identified
**No (UC)** = false trend change - unidentified compound
Pre-2015: any changes in trend direction since 2015
Post-2020: any changes in trend direction starting in 2020 (August 2020 when on-site construction commenced)
MW19-xx, PW19-xx and MW20-xx: these wells do not have associated historic data (Pre-2015)
- = Not Applicable

**TABLE H2: Surface Water Trend Analysis Summary Table**

| SW Location | Landfill Cell Area | Former BDAs | LTPA and SPs | METALS | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Aluminum | | Arsenic | | Boron | | Cadmium | | Cobalt | | Chromium | | Iron | | Lead | | Manganese | | Uranium | |
| | | | | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 |
| **SW4** | **Downgradient** | **Downgradient** | **Downgradient** | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | down | no | no | no |
| **SW13** | Upgradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |
| **SW19-20** | **Downgradient** | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | no |

| SW Location | Landfill Cell Area | Former BDAs | LTPA and SPs | GENERAL CHEMISTRY | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alkanility | | Calcium | | Chloride | | Conductivity | | Hardness | | pH | | Sulfate | | Total Organic Carbon | | Total Dissolved Solids | | Total Suspended Solids | |
| | | | | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 | Pre-2015 | Post-2020 |
| **SW4** | **Downgradient** | **Downgradient** | **Downgradient** | no | no | down | no | no | no | down | no | down | no | no | no | down | no | up | - | down | no | - | no |
| **SW13** | Upgradient | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no | - | no |
| **SW19-20** | **Downgradient** | **Downgradient** | Cross-Gradient | - | no | - | no | - | no | - | no | - | no | - | no | - | no | - | - | - | no | - | no |

**Notes:**

**Up** = upward trend

**Down** = downward trend

**No** = no trend identified

Pre-2015: Any changes in trend direction since 2015

Post-2020: Any changes in trend direction starting in 2020 (August 2020 when on-site construction commenced)

SW13, SW19-20, Diffuser: These sample locations do not have associated historical analytical data.

Total Petroleum Hydrocarbons (TPH), Total Suspended Solids (TSS): Collected starting in 2019 / 2020 and do not have associated historical analytical data.

# Appendix I. QA/QC Summary Tables

# Appendix I — QA/QC Summary Tables

## Groundwater

To assess the quality of the analytical data gathered during this program, a review of the laboratory results relating to field duplicate analyses was completed. Criteria was based on the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, and amended as of July 1, 2011, published by the Laboratory Services Branch of the Ministry of the Environment (MOE).

The Quality Control parameter reviewed was duplicate precision (relative percent difference (RPD)).

All field duplicates met the duplicate acceptance limits except for the ones listed in **Table I1** below.

| Field Sample ID | Fraction | Chemical Name | FD Result | Units | Parent Sample ID | QC Criteria | RPD% | Parent Sample Result |
|---|---|---|---|---|---|---|---|---|
| DUP 1_20241210 | D | Aluminum | 0.0016 | mg/l | MW19-12D_20241210 | <30% | 31.58 | 0.0022 |
| DUP 1_20241210 | D | Cadmium | 0.0000062 | mg/l | MW19-12D_20241210 | <30% | 45.00 | 0.0000098 |
| DUP 1_20241210 | D | Zinc | 0.0010 | mg/l | MW19-12D_20241210 | <30% | 123.08 | 0.0042 |
| DUP 1_20241210 | N | Langelier Index (at 4 C) | 0.167 | none | MW19-12D_20241210 | <30% | 45.01 | 0.264 |
| DUP 1_20241210 | N | Total Kjeldahl Nitrogen | 0.083 | mg/l | MW19-12D_20241210 | <30% | 30.56 | 0.061 |
| DUP 1_20241210 | N | Total Dissolved Solids (Lab) | 456 | mg/l | MW19-12D_20241210 | <30% | 32.36 | 329 |
| DUP 2_20241210 | D | Aluminum | 0.0099 | mg/l | MW20-17S_20241210 | <30% | 40.00 | 0.0066 |
| DUP 3_20241210 | D | Copper | 0.00103 | mg/l | MW20-16_20241210 | <30% | 50.18 | 0.00172 |
| DUP 3_20241210 | D | Manganese | 0.00139 | mg/l | MW20-16_20241210 | <30% | 57.07 | 0.00250 |
| DUP 3_20241210 | D | Zinc | 0.0017 | mg/l | MW20-16_20241210 | <30% | 95.38 | 0.0048 |
| DUP 3_20241210 | N | Color | 125 | tcu | MW20-16_20241210 | <30% | 46.06 | 78.2 |
| DUP 3_20241210 | N | Turbidity | 70.3 | ntu | MW20-16_20241210 | <30% | 70.12 | 33.8 |
| DUP1_20250611 | N | Nitrate (as N) | 0.103 | mg/l | MW19-11M_20250611 | <30% | 35.86 | 0.148 |
| DUP3_20250612 | T | Phosphorus | 0.188 | mg/l | MW19-12D_20250612 | <30% | 65.91 | 0.0948 |
| DUP3_20250612 | N | Phenols (Phenolics) | 0.0019 | mg/l | MW19-12D_20250612 | <30% | 31.11 | 0.0026 |

*Notes: Grey - exceedance to applicable NSE-EQS criteria*

The specific analyte results for these samples are likely due to variability caused by sample heterogeneity. The useability of these results are not affected.

## Surface Water

To assess the quality of the analytical data gathered during this program, a review of the laboratory results relating to field duplicate analyses was completed. Criteria was based on the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, and amended as of July 1, 2011, published by the Laboratory Services Branch of the Ministry of the Environment (MOE).

The Quality Control parameter reviewed was duplicate precision (relative percent difference (RPD). The RPD limit for surface water is 30%.

All field duplicates met the duplicate acceptance limits except for the ones listed in **Table I2** below.

### Table I2: Surface Water RPD Summary

| Field Sample ID | Fraction | Chemical Name | FD Result | Units | Parent Sample ID | QC Criteria | RPD% | Parent Sample Result |
|---|---|---|---|---|---|---|---|---|
| DUP1_20241107 | T | Phosphorus | 0.0145 | mg/l | SW13_20241107 | <30% | 48.56 | 0.0238 |
| DUP1_20241107 | T | Total Organic Carbon | 16.6 | mg/l | SW13_20241107 | <30% | 40.58 | 11.0 |
| DUP1_20241107 | T | Aluminum | 0.126 | mg/l | SW13_20241107 | <30% | 30.87 | 0.172 |
| DUP1_20241107 | T | Antimony | 0.00015 | mg/l | SW13_20241107 | <30% | 42.11 | 0.00023 |
| DUP1_20241107 | T | Cadmium | 0.0000150 | mg/l | SW13_20241107 | <30% | 37.40 | 0.0000219 |
| DUP1_20241107 | T | Cobalt | 0.00022 | mg/l | SW13_20241107 | <30% | 42.86 | 0.00034 |
| DUP1_20241107 | T | Iron | 0.573 | mg/l | SW13_20241107 | <30% | 38.48 | 0.846 |
| DUP1_20241107 | T | Lead | 0.000670 | mg/l | SW13_20241107 | <30% | 39.23 | 0.000997 |
| DUP1_20241107 | T | Manganese | 0.102 | mg/l | SW13_20241107 | <30% | 30.00 | 0.138 |
| DUP1_20241107 | T | Titanium | 0.00320 | mg/l | SW13_20241107 | <30% | 83.32 | 0.00777 |
| DUP1_20241209 | N | Alkalinity, Total (As CaCO3) | 182 | mg/l | SW13_20241209 | <30% | 191.40 | 4.0 |
| DUP1_20241209 | N | Bicarbonate (as CaCO3) | 222 | mg/l | SW13_20241209 | <30% | 191.53 | 4.8 |
| DUP1_20241209 | N | Hardness (as CaCO3) | 295 | mg/l | SW13_20241209 | <30% | 176.52 | 18.4 |
| DUP1_20241209 | N | Nitrate plus Nitrite (N) | 0.0250 | mg/l | SW13_20241209 | <30% | 143.18 | 0.151 |
| DUP1_20241209 | N | Saturation pH (at 20 C) | 7.18 | ph units | SW13_20241209 | <30% | 32.83 | 10.0 |
| DUP1_20241209 | N | Saturation pH (at 4 C) | 7.43 | ph units | SW13_20241209 | <30% | 32.37 | 10.3 |
| DUP1_20241209 | D | Chloride ion | 11.6 | mg/l | SW13_20241209 | <30% | 40.00 | 17.4 |
| DUP1_20241209 | N | Fluoride | 0.072 | mg/l | SW13_20241209 | <30% | 109.68 | 0.021 |
| DUP1_20241209 | N | Nitrate (as N) | 0.025 | mg/l | SW13_20241209 | <30% | 143.18 | 0.151 |
| DUP1_20241209 | D | Sulphate | 132 | mg/l | SW13_20241209 | <30% | 185.74 | 4.88 |
| DUP1_20241209 | T | Ammonia-N | 0.0979 | mg/l | SW13_20241209 | <30% | 156.00 | 0.0121 |
| DUP1_20241209 | T | Silica | 7.59 | mg/l | SW13_20241209 | <30% | 37.74 | 5.18 |
| DUP1_20241209 | T | Anion Sum | 6.72 | meq/l | SW13_20241209 | <30% | 163.24 | 0.68 |
| DUP1_20241209 | T | Cation Sum | 6.71 | meq/l | SW13_20241209 | <30% | 154.09 | 0.87 |
| DUP1_20241209 | N | Color | 56.1 | tcu | SW13_20241209 | <30% | 84.39 | 138 |
| DUP1_20241209 | N | Turbidity | 12.6 | ntu | SW13_20241209 | <30% | 112.46 | 3.53 |
| DUP1_20241209 | N | Electrical Conductivity | 628 | umhos/cm | SW13_20241209 | <30% | 149.42 | 90.9 |
| DUP1_20241209 | N | Total Dissolved Solids (Lab) | 366 | mg/l | SW13_20241209 | <30% | 125.33 | 84 |
| DUP1_20241209 | N | Chemical Oxygen Demand | 28 | mg/l | SW13_20241209 | <30% | 46.58 | 45 |
| DUP1_20241209 | T | Total Organic Carbon | 10.2 | mg/l | SW13_20241209 | <30% | 49.45 | 16.9 |
| DUP1_20241209 | T | Aluminum | 0.339 | mg/l | SW13_20241209 | <30% | 45.21 | 0.537 |
| DUP1_20241209 | T | Antimony | 0.00023 | mg/l | SW13_20241209 | <30% | 78.79 | 0.00010 |
| DUP1_20241209 | T | Arsenic | 0.00115 | mg/l | SW13_20241209 | <30% | 73.81 | 0.00053 |
| DUP1_20241209 | T | Barium | 0.0370 | mg/l | SW13_20241209 | <30% | 119.03 | 0.00939 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DUP1_20241209 | T | Beryllium | 0.000028 | mg/l | SW13_20241209 | <30% | 85.71 | 0.000070 |
| DUP1_20241209 | T | Boron | 0.206 | mg/l | SW13_20241209 | <30% | 177.98 | 0.012 |
| DUP1_20241209 | T | Cadmium | 0.0000222 | mg/l | SW13_20241209 | <30% | 59.72 | 0.0000411 |
| DUP1_20241209 | T | Calcium | 99.2 | mg/l | SW13_20241209 | <30% | 181.91 | 4.70 |
| DUP1_20241209 | T | Cesium | 0.000111 | mg/l | SW13_20241209 | <30% | 62.72 | 0.000058 |
| DUP1_20241209 | T | Cobalt | 0.00098 | mg/l | SW13_20241209 | <30% | 108.66 | 0.00029 |
| DUP1_20241209 | T | Iron | 0.952 | mg/l | SW13_20241209 | <30% | 43.17 | 0.614 |
| DUP1_20241209 | T | Magnesium | 11.4 | mg/l | SW13_20241209 | <30% | 150.50 | 1.61 |
| DUP1_20241209 | T | Manganese | 0.763 | mg/l | SW13_20241209 | <30% | 174.07 | 0.0529 |
| DUP1_20241209 | T | Molybdenum | 0.000869 | mg/l | SW13_20241209 | <30% | 166.67 | 0.000079 |
| DUP1_20241209 | T | Potassium | 7.80 | mg/l | SW13_20241209 | <30% | 154.14 | 1.01 |
| DUP1_20241209 | T | Rubidium | 0.00497 | mg/l | SW13_20241209 | <30% | 89.37 | 0.00190 |
| DUP1_20241209 | T | Selenium | 0.000110 | mg/l | SW13_20241209 | <30% | 31.42 | 0.000151 |
| DUP1_20241209 | T | Silicon | 3.55 | mg/l | SW13_20241209 | <30% | 37.86 | 2.42 |
| DUP1_20241209 | T | Strontium | 0.345 | mg/l | SW13_20241209 | <30% | 181.53 | 0.0167 |
| DUP1_20241209 | T | Sulfur, elemental | 48.2 | mg/l | SW13_20241209 | <30% | 187.23 | 1.59 |
| DUP1_20241209 | T | Titanium | 0.0140 | mg/l | SW13_20241209 | <30% | 32.37 | 0.0101 |
| DUP1_20241209 | T | Uranium | 0.0130 | mg/l | SW13_20241209 | <30% | 190.36 | 0.000321 |
| DUP1_20250612 | T | Phosphorus | 0.0193 | mg/l | SW13_20250612 | <30% | 30.33 | 0.0262 |

*Notes: Grey - exceedance to applicable NSE-EQS criteria*

The specific analyte results for these samples are likely due to variability caused by sample heterogeneity. The useability of these results are not affected.