

Flambeau Mining Company
4700 Daybreak Parkway
South Jordan, UT 84095
801-204-2526



January 30, 2026

Ms. Molly Gardner
Wisconsin Department of Natural Resources
Mercer Station
5291 N. State House Circle
Mercer, WI 54547

Dear Ms. Gardner:

The Flambeau Mining Company (Flambeau) is submitting, in electronic format, this 2025 Annual Summary Memorandum pursuant to Sections 2 and 3 of the *Findings of Fact, Conclusions of Law and Revised Mining Permit – Flambeau Mining Company* (Wisconsin Department of Natural Resources, dated December 20, 2022). This submittal also addresses other requirements of the Mining Permit and associated approvals.

Monitoring and evaluations conducted during 2025 continue to document that the Flambeau River remains fully protected and Flambeau remains in full compliance with its permit standards.

The Stream C Data Evaluation memorandum is included in the Annual Summary Memorandum which summarizes work completed on Stream C in 2025.

If you have any comments or questions regarding this submittal, please contact me at fraser.thomson@riotinto.com.

Sincerely,

Signed by:


E259A795505C487...
Fraser Thomson

Vice President – Flambeau Mining Company

attachments

cc: John Moore, Rusk County Board of Supervisors
Erle Barber IV, Town of Grant Chairman
Al Christianson, City of Ladysmith Administrator
Jon Runstrom, Rusk County Zoning Administrator
Leland Roberts, Flambeau Mining Company
Steve Donohue, P.H., Foth Infrastructure & Environment, LLC
Foth File: 17F777.25\4000



Memorandum

2121 Innovation Court, Suite 100
De Pere, WI 54115
(920) 497-2500
foth.com

January 30, 2026

TO: Fraser Thomson, Flambeau Mining Company
Leland Roberts, Flambeau Mining Company

CC: Foth Project #: 17F777.25

FR: Nick Glander, Foth Infrastructure & Environment, LLC
Steve Lehrke, Ph.D., Foth Infrastructure & Environment, LLC
Steve Donohue, P.H., Foth Infrastructure & Environment, LLC

RE: 2025 Annual Summary Memorandum – Reclaimed Flambeau Mine
Flambeau Mining Company

1. Purpose and Need

This 2025 Annual Summary Memorandum documents the work that was completed by Flambeau Mining Company (Flambeau) at the Reclaimed Flambeau Mine Site, Ladysmith, Wisconsin, in 2025, to satisfy the requirements of the Mining Permit (MP). These requirements are summarized in Table 1.

Table 1 – Mine Permit Location Information Key

Condition Number	Location of Information	Condition Requirement
(WDNR, 2022 ¹) MP, 1f	Section 2	<i>"Flambeau Mining Company shall continue to conduct environmental monitoring and long-term care activities as described in the 2020 Updated Monitoring Plan."</i>
(WDNR, 2022 ¹) MP, 1g	Section 2	<i>"Flambeau Mining Company shall maintain all necessary monitoring devices, including wells and piezometers, in good working condition and shall replace or repair any damaged or inoperable devices, as needed."</i>

Condition Number	Location of Information	Condition Requirement
(WDNR, 2022 ¹),1h	Section 3	<i>"Flambeau Mining Company shall maintain the mining site to manage surface water runoff and minimize, to the extent practicable, erosion and sedimentation, and shall repair any areas of excessive erosion, perform routine maintenance, and augment, as necessary, any components of the surface water management system to ensure effective and controlled drainage from the site. Any construction activities affecting the surface water drainage system shall be conducted in compliance with applicable regulatory authorities."</i>
(WDNR, 2022 ¹),1l	Section 3	<i>"If in the course of conducting routine monitoring, maintenance or other construction activities on the site, materials or conditions that could result in significant environmental pollution are encountered, Flambeau Mining Company shall notify the Department within five business days and formulate a plan to investigate and report to the Department on any necessary actions to address the issue in accordance with applicable law and regulatory requirements."</i>
(WDNR, 2022 ¹),1l	Section 3, Attachment A, Attachment B	<i>"By January 31 of each year, Flambeau Mining Company shall submit an annual report to the Department covering the period of January 1 through December 31 of the preceding year. The annual report shall summarize and document all monitoring activities including assessments of any trends detected and any exceedances of groundwater quality standards at the intervention boundary, assess the backfilled pit water quality and potential impacts to the Flambeau River, summarize any routine maintenance activities conducted on the mining site, qualitatively discuss and document overall site conditions, identify any deviations or unanticipated conditions experienced during the year, summarize any remedial measures implemented to prevent or mitigate significant environmental pollution, and document continued coverage of the reclamation bond and long-term care bond required under s. 293.51, Wis. Stats."</i>

1. *Findings of Fact, Conclusions of Law and Revised Mining Permit – Flambeau Mining Company, Wisconsin Department of Natural Resources, December 20, 2022.*

Long-term monitoring is conducted in accordance with the Updated Monitoring Plan (August 2020) and Quality Assurance Project Plan (QAPP) (August 2020) which were amended and submitted to the Wisconsin Department of Natural Resources (Department) in August 2020.

2. 2022 Certificate of Completion Determination

On November 4, 2021, Flambeau submitted a petition seeking issuance of a Certificate of Completion of Reclamation for the Industrial Outlot area of the Reclaimed Flambeau Mine. The Department issued a public notice on June 6, 2022, announcing the request and provided the public a comment period before and after the public hearing held on July 6, 2022. The hearing was conducted virtually, and provisions were also made to accept in-person statements at the Ladysmith Service Center. After the comment period, the Department determined Flambeau met the requirements of the approved Reclamation Plan, as amended by the 1998 Modification Approval. The Certificate of Completion of Reclamation for the Industrial Outlot portion of the mining site was issued on December 20, 2022.

The Certificate of Completion of Reclamation issued in 2007 signified that Flambeau had fulfilled the requirements of reclamation for the mining site, except the Industrial Outlot. As a result, the Certification of Completion of Reclamation for the Industrial Outlot, considered together with the 2007 Certification of Completion of Reclamation, signifies that the Flambeau Mining Company has fulfilled the requirements of reclamation for the entire mine site.

As stated in number 27 of the Findings of Fact to the Revised Mining Permit, the Department has been engaged with Flambeau on a study of Stream C to determine if Stream C is attaining its designated uses. See 2025 Stream C Data Evaluation provided as Attachment C.

3. 2025 Site Monitoring

Environmental monitoring at the Reclaimed Flambeau Mine, during 2025, included assessing the quality of groundwater and backfill pore water. All data obtained during environmental monitoring continues to show that Flambeau remains in compliance with all permit standards and the Flambeau River remains protected.

3.1 Groundwater Sampling and Analysis

Semi-annual groundwater monitoring was performed in accordance with descriptions provided in the Updated Monitoring Plan, the QAPP, and the Local Agreement. Results of the 2025 monitoring were submitted to the Department's Metallic Mine Coordinator on July 8, 2025 and January 14, 2026. Those reports are incorporated by reference.

Figure 1 shows the groundwater potentiometric surface using data obtained during 2025. The map was generated using the shallowest measured water levels and thus represents shallow groundwater flow in the native formations and in the replaced till and sandstone in the backfilled pit footprint. The potentiometric surface shows a direction of regional shallow groundwater flow toward the Flambeau River.

Figure 2 shows the potentiometric surface using the deeper water level for nested wells, where available, and the water levels for the B completion in the backfill monitoring wells. Beyond the pit footprint, the groundwater levels generally mimic the shallow groundwater conditions. Within the pit backfill, the surface reflects a general direction of groundwater flow in the

backfilled Type I and Type II stockpile materials along the axis of the pit toward the Flambeau River.

Figure 3 shows hydraulic head in the cross section along the axis of the pit. The cross section is interpreted to show predominantly horizontal flow in the backfilled Type I and Type II stockpile materials but with a downward hydraulic gradient at the eastern pit area and an upward hydraulic gradient with convergent groundwater flow near the Flambeau River. These observations are consistent with previous, post-mining years.

3.1.1 Trend Analysis

A detailed analysis of statistical trends occurring in the groundwater and surface water data was performed. Statistical tests evaluated the long-term trends occurring during the post-mining period (October 1997 to the present) and the short-term trends for the most recent five years. Historical trend graphs of the data are also presented.

A detailed discussion of the trend results for each well nest is provided in Section 3. In general, the number of more notable concentration trends as observed in earlier Annual Memos has reduced for both the intervention boundary and in-pit wells, indicating a broader stabilization in the groundwater concentrations. Most trends noted through the Mann-Kendall nonparametric test for the most recent five-year dataset are due to slight but consecutive concentration changes (either increasing or decreasing) and not reflective of a substantial overall concentration change. The majority of the observed trends continue to occur in the semi-annual groundwater indicator monitoring parameters.

For the intervention boundary wells, no current trends with substantial concentration change are reported.

For the MW-1013 in-pit well nest, copper and manganese have decreasing trends in MW-1013B which began approximately in 2013. Iron at MW-1013 continues to exhibit a strong degree of seasonal variation where increased concentrations are observed during the fall event with higher values seen in November 2024 and November 2025.

For the in-pit well nest at MW-1014, a smaller increasing trend is present for arsenic at MW-1014C. Copper in MW-1014B remains at lowered concentrations after a substantial decrease in 2019.

No statistical trends were noted in the five-year datasets for surface water.

3.2 Protection of the Flambeau River

Potential impact to the Flambeau River was estimated by performing a concentration reduction factor (CRF) calculation in the Request to Modify the Updated Monitoring Plan (November 2018). This calculation was initially presented in Appendix L of the Mine Permit Application for the Flambeau Project (December 1989) and then updated with current gradient and concentration data for copper, iron, manganese, and sulfate in a memorandum submitted by Flambeau, to the Department, on October 17, 2000, entitled "Backfilled Pit Water Quality Assessment" (October 2000). The 2025 calculation, updated using the current gradient and concentrations, is incorporated by reference. The results of the 2025 calculation were consistent with the 1989 and 2000 CRF calculations, with the CRF being on the order of 0.00000010 and 0.0000010 milligrams per liter (mg/L) for average and low flow conditions,

respectively. This CRF results in negligible, unmeasurable, and incremental impacts to the Flambeau River that are 2 to 5 orders of magnitude lower than background concentrations in the Flambeau River indicating that the river remains protected. The 2025 Flambeau River analytical results are summarized in Attachment A (see Attachment 3) for SW-1, SW-2, and SW-3. The CRF calculation for 2025 is provided in Attachment B.

3.3 Annual Site Inspection

The site was inspected during the 2025 groundwater monitoring events. During these events, there were no areas of erosion or settling observed; vegetative growth appeared normal; and all monitoring devices were functional, with the following exception:

The beaver dam/issue, first observed in 2019, had expanded and was impeding drainage to the weir causing flooding in the local area. The beaver removal began in 2020 and continued in 2021. In spring 2021, the beaver dam was removed, and the trailway was restored. There was no beaver removal activities conducted in 2022. In 2024, the presence of beaver activity in the wetland area was noted during a site inspection. The beaver(s) constructed only a mud hut, with no trees being harvested. With no site damage being noted to trails, trees, or the wetland perimeter, no beaver removal activities were conducted in 2025. Beaver activity will continue to be monitored in spring of 2026.

3.4 Other Activities

The Flambeau River was voluntarily monitored in the spring and fall for copper, iron, manganese, total hardness, zinc, and total suspended solids (TSS). These results are summarized in Attachment A (see Attachment 3) for SW-1, SW-2, and SW-3. The results indicate that the Flambeau River remains protected.

4. References

2024 Annual Summary Memorandum	January 2025
Stream C – April through August Sampling Results Memorandum	November 2024
Stream C Evaluation Work Plan – Revision 2 Memorandum	August 2024
2023 Annual Summary Memorandum	January 2024
Stream C Fall Sampling Results Memorandum	January 2024
Stream C Spring Sampling Results Memorandum	August 2023
2022 Annual Summary Memorandum	January 2023
Findings of Fact, Conclusions of Law and Revised Mining Permit	December 2022
2021 Annual Summary Memorandum	January 2022
2020 Annual Summary Memorandum	January 2021
Reclaimed Flambeau Mine Well Abandonment Documentation Submittal	November 2020
2020 Updated Monitoring Plan	August 2020

Beaver Removal Work Plan	August 2020
2019 Annual Summary Memorandum	January 2020
2018 Annual Summary Memorandum	January 2019
Request to Modify the Updated Monitoring Plan	November 2018
2013 Annual Report	January 2014
2007 Annual Report	January 2008
2007 Annual Reclamation Report	November 2007
Backfilled Pit Water Quality Assessment Memorandum	October 2000
Mining Permit	January 1991
Mine Permit Application	December 1989
Local Agreement	August 1988

5. Submittal Summary

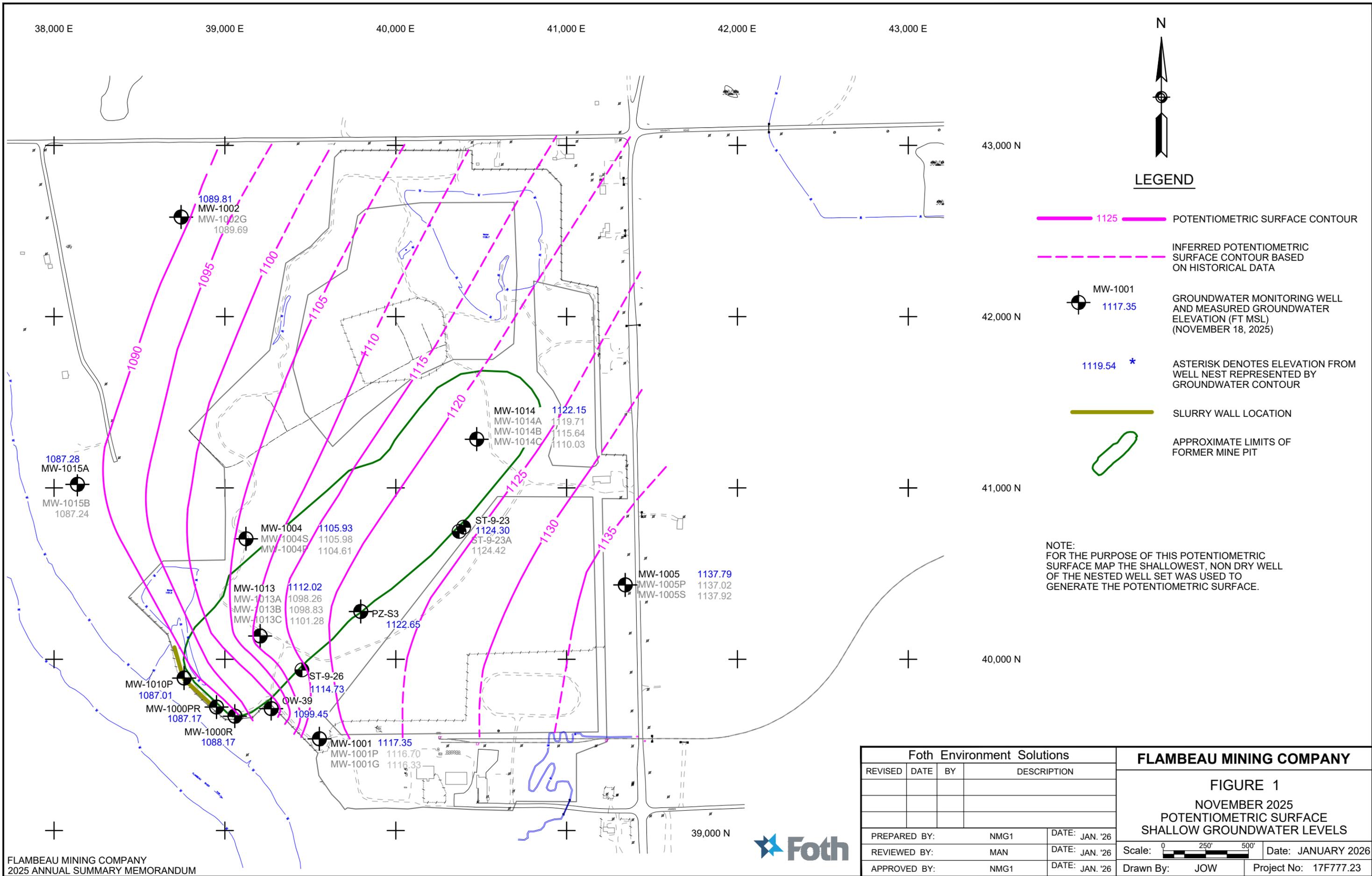
Document	Date	Submittee
2024 Annual Summary Memorandum Addendum 1	February 2025	Molly Gardner ¹
2024 Annual Summary Memorandum	January 2025	Molly Gardner ¹
Environmental Groundwater Monitoring (First half 2025)	July 2025	Molly Gardner ¹
Environmental Groundwater Monitoring (Second half 2025)	January 2026	Molly Gardner ¹

1. Wisconsin Department of Natural Resources
Division of External Services
Bureau of Environmental Analysis & Sustainability

Attachments

Figure 1	November 2025 Potentiometric Surface, Shallow Groundwater Levels
Figure 2	November 2025 Potentiometric Surface, Wells Screened at Mid-Depths
Figure 3	2025 Mine Pit Cross Section A-A' with In-Pit Groundwater Monitoring Wells
Attachment A	Groundwater Quality & Elevation/Surface Water Quality Trends
Attachment B	2025 Concentration Reduction Factor Calculation
Attachment C	2025 Stream C Data Evaluation Memorandum

Figures



LEGEND

- 1125 POTENTIOMETRIC SURFACE CONTOUR
- - - - - INFERRED POTENTIOMETRIC SURFACE CONTOUR BASED ON HISTORICAL DATA
- MW-1001 1117.35 GROUNDWATER MONITORING WELL AND MEASURED GROUNDWATER ELEVATION (FT MSL) (NOVEMBER 18, 2025)
- 1119.54 * ASTERISK DENOTES ELEVATION FROM WELL NEST REPRESENTED BY GROUNDWATER CONTOUR
- SLURRY WALL LOCATION
- APPROXIMATE LIMITS OF FORMER MINE PIT

NOTE:
FOR THE PURPOSE OF THIS POTENTIOMETRIC SURFACE MAP THE SHALLOWEST, NON DRY WELL OF THE NESTED WELL SET WAS USED TO GENERATE THE POTENTIOMETRIC SURFACE.

Foth Environment Solutions			
REVISED	DATE	BY	DESCRIPTION
PREPARED BY:	NMG1	DATE:	JAN. '26
REVIEWED BY:	MAN	DATE:	JAN. '26
APPROVED BY:	NMG1	DATE:	JAN. '26

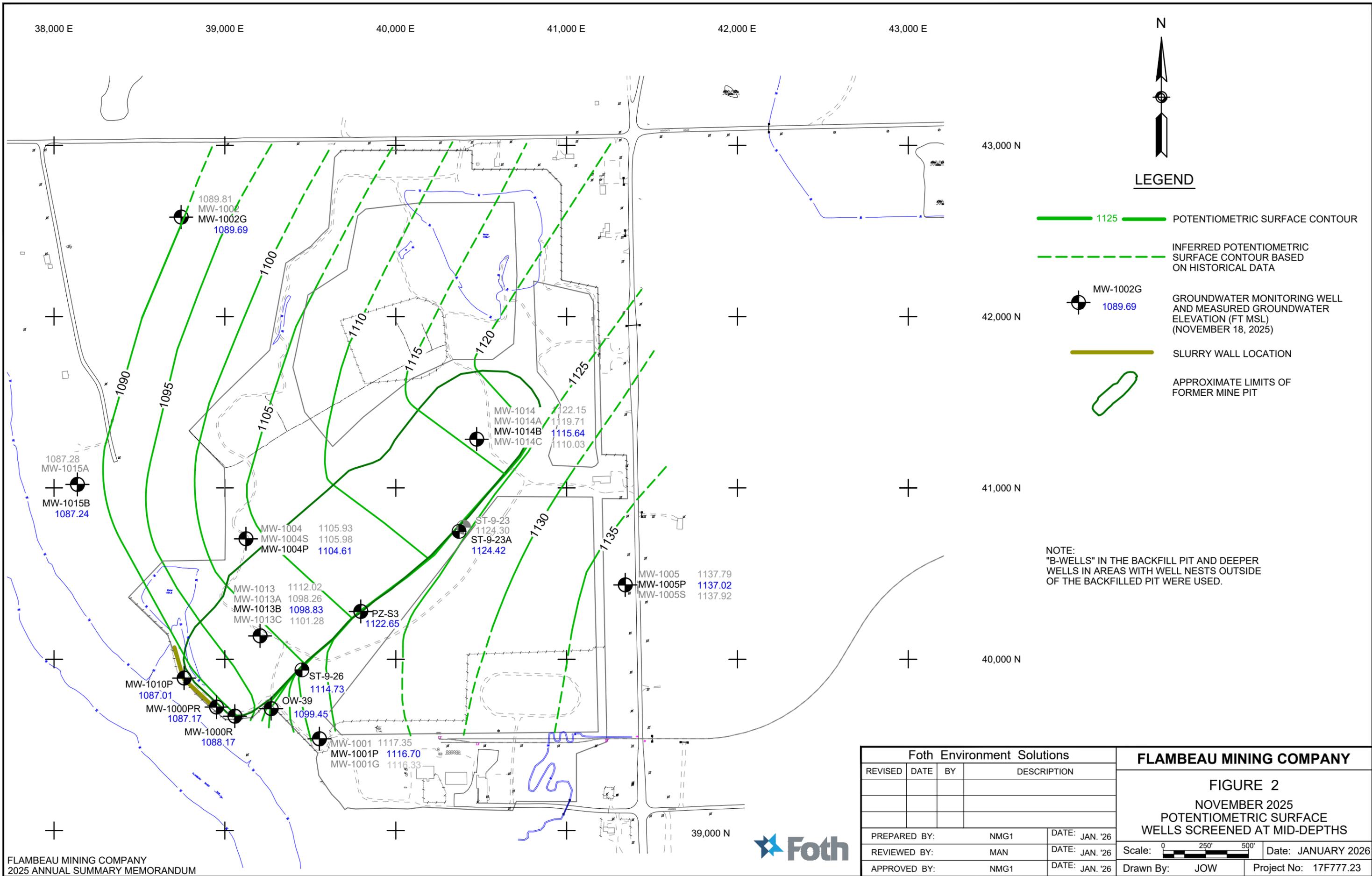
FLAMBEAU MINING COMPANY

FIGURE 1
NOVEMBER 2025
POTENTIOMETRIC SURFACE
SHALLOW GROUNDWATER LEVELS

Scale: Date: JANUARY 2026

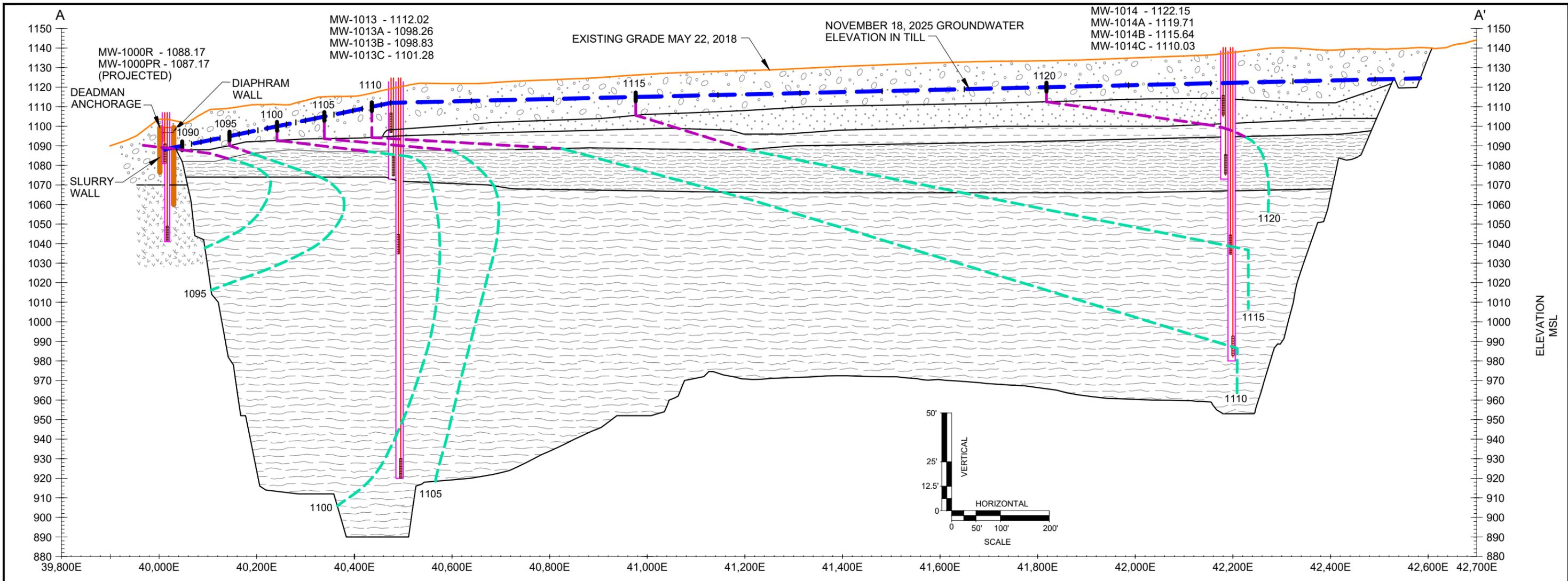
Drawn By: JOW Project No: 17F777.23



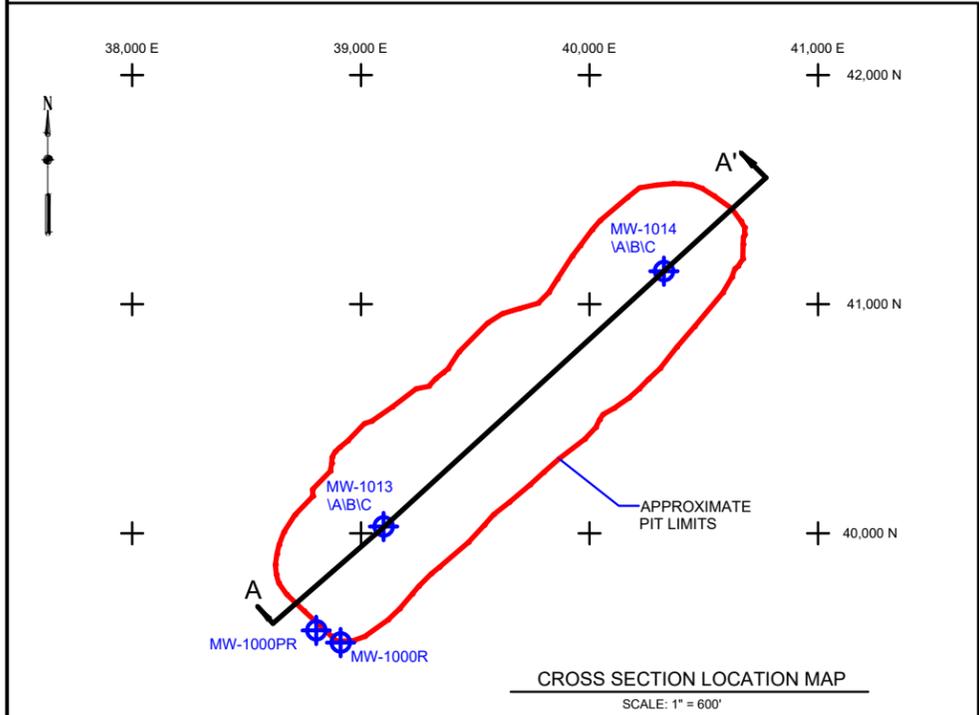


Foth Environment Solutions			
REVISED	DATE	BY	DESCRIPTION
PREPARED BY:	NMG1	DATE:	JAN. '26
REVIEWED BY:	MAN	DATE:	JAN. '26
APPROVED BY:	NMG1	DATE:	JAN. '26





MINE PIT COORDINATES
SECTION A - A'



LEGEND

- TILL
- SANDSTONE
- SAPROLITE
- TYPE I MATERIAL
- TYPE II MATERIAL
- PRECAMBRIAN
- WATER TABLE
- GROUNDWATER EQUIPOTENTIAL LINE IN TYPE I AND II BACKFILL
- GROUNDWATER EQUIPOTENTIAL LINE IN SHALLOW FLOW SYSTEM

Foth Environment Solutions			
REVISED	DATE	BY	DESCRIPTION
PREPARED BY:	NMG1	DATE:	JAN. '26
REVIEWED BY:	MAN	DATE:	JAN. '26
APPROVED BY:	NMG1	DATE:	JAN. '26

FLAMBEAU MINING COMPANY

FIGURE 3
2025 MINE PIT CROSS SECTION A - A'
WITH IN-PIT GROUNDWATER
MONITORING WELLS

Scale: Date: JANUARY 2026

Drawn By: JOW Project No: 17F777.23



Attachment A
Groundwater Quality & Elevation/Surface Water Quality Trends

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January 19, 2026

TO: Fraser Thomsen, Flambeau Mining Company
Leland Roberts, Flambeau Mining Company

CC: Steve Donohue, P.H., Foth Infrastructure & Environment, LLC
Nick Glander, Foth Infrastructure & Environment, LLC

FR: Stephen Lehrke, Ph.D., Foth Infrastructure & Environment, LLC

RE: 2025 Annual Memo – Groundwater and Surface Water Trends

1. Background

Groundwater and surface water sample results collected during the 2025 monitoring programs were added to the analytical monitoring historical database. These results were statistically tested and graphically displayed to determine whether any significant increasing or decreasing trends are occurring in the groundwater or surface water chemistry. This is done to satisfy the requirements of Part 4, Condition 9 of the Mine Permit, to summarize the monitoring activities and any observed trends. The 2025 surface water samples from the Flambeau River were collected voluntarily by Flambeau Mining Company (Flambeau).

The trend analyses presented in this memorandum (memo) reflect the changes to the long-term groundwater monitoring program as provided in the approved 2020 Updated Monitoring Plan (Foth, 2020)¹. Analytes previously collected on a quarterly schedule are now collected semi-annually, and analytes collected on an annual basis are now limited to calcium, chloride, lead, magnesium, potassium, and zinc. Groundwater elevation data is also collected semi-annually at the intervention boundary and in-pit wells, along with eight piezometer locations retained for that purpose.

Groundwater quality results, trend graphs, and statistical test results are included as attachments: Attachment 1 presents the semi-annual monitoring parameters, and Attachment 2 presents the annual monitoring parameters. Surface water quality results, trend graphs, and statistical test results are included as Attachment 3. Hydrographs are included as Attachment 4.

Intervention boundary wells included in the trend analyses are MW-1000R, MW-1000PR, MW-1010P, MW-1002, MW-1002G, MW-1004, MW-1004P, MW-1004S, MW-1005, MW-1005P, and MW-1005S. The in-pit wells included in the trend analyses are MW-1013, MW-1013A, MW-1013B, MW-1013C, MW-1014, MW-1014A, MW-1014B, and MW-1014C. Wells MW-1015A

¹ Foth, 2020. *2020 Updated Monitoring Plan*, Reclaimed Flambeau Mine, Project I.D.: 17F777.20, Flambeau Mining Company, Ladysmith, Wisconsin. August 2020.

and MW-1015B (also included in the analyses) were constructed in January 2001 approximately 1,000 feet northwest of the backfilled pit and adjacent to the compliance boundary.

Statistical trend test methods are described in Section 2 of this memo, with more detailed results provided in Section 3, and a summary of conclusions of the trend results provided in Section 4.

2. Statistical Methods

Groundwater and surface water trends over time were assessed using the non-parametric Mann-Kendall test. This test indicates general increasing or decreasing trends over the time periods evaluated. Two data sets (utilizing two distinct start dates) were assessed: “short-term” trends encompass the results of 2021 through 2025, i.e., the last five years, and “long-term” trends encompass the results from October 1997, when the post-mining period began, through the end of 2025.

Monitoring and long-term trend analyses began in July 1999 for the annual monitoring parameters. Monitoring and long-term trend analyses began in February 1999 for the in-pit wells (i.e., MW-1013B, MW-1013C, MW-1014A, MW-1014B, and MW-1014C), and in April 2001 for wells MW-1015A and MW-1015B. Trend analyses for wells MW-1013, MW-1013A, and MW-1014 began in October 2005, and for MW-1000R and MW-1004 in October 2010, when groundwater levels recovered sufficiently to collect samples.

The statistical results of the non-parametric Mann-Kendall test are used in conjunction with the time series graphs in Attachments 1, 2, and 3 to evaluate trend conditions within the context of the broader site hydrology. It should be noted that a statistically increasing or decreasing trend as determined through the Mann-Kendall test does not necessarily indicate a substantial increase or decrease in actual parameter concentrations. For example, there are situations where variation in the data is small, allowing slight but consecutive increasing or decreasing concentration changes to be detected as a statistically significant trend. Although these minor trends may occur, they should not be construed as an indication of a broader impact on water quality.

In some cases, the Mann-Kendall trend test results of Attachments 1, 2, and 3 may indicate a statistical trend in the “long-term” data (i.e., results since October 1997), while “short-term” data do not illustrate a trend. In these situations, higher or lower concentration data may have been observed in the past, but more recent concentration data has stabilized. The trend result discussion given below focuses on cases that exhibit trends only in the more recent “short-term” data of 2021 through 2025.

The procedure for the Mann-Kendall test is given in Gilbert (1987)² and U.S. Environmental Protection Agency (USEPA) (2009)³. The Type I error for each test was set to 0.01 (two-tailed), with the exception of the five-year trend tests for the annual parameters. To counteract the decrease in statistical power due to small sample sizes in those cases, the type I error (two-

²Gilbert, R.O., 1987. *Statistical Methods for Environmental Pollution Monitoring*, Van Nostrand Reinhold, New York.

³USEPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance*. EPA 530-R-09-007. Office of Resource Conservation and Recovery, Program Implementation and Information Division, Washington, D.C.

tailed) was set to 0.05 to increase the statistical power (power of detecting existing trends). All non-detected values were replaced with a common value below the lowest detected value.

In the trend test results of Attachments 1, 2, and 3, a “+” indicates a statistically increasing trend and a “-” indicates a statistically decreasing trend. If neither a “+” or “-” is given, no statistically significant trend is present as measured by the Mann-Kendall test.

3. Trend Results

The majority of trends, increasing and/or decreasing, were exhibited in the groundwater results for the semi-annual parameters. Statistical trend results at each well are summarized below. Historical trend graphs from Attachment 1 (semi-annual parameters), Attachment 2 (annual parameters), Attachment 3 (surface water), and Attachment 4 (hydrographs) aid in interpretation. The results are organized by well nest and location.

As previously noted, the Mann-Kendall test may at times indicate that a statistical trend exists due to slight but consecutive concentration changes (either increasing or decreasing) in conjunction with low overall variability in the data. In those instances, trend tests (Attachments 1, 2, and 3) indicate either an increasing (“+”) or decreasing (“-”) result which does not reflect a substantial overall concentration change as illustrated in the corresponding time series graphs. The discussion below is limited to statistical trends existing in the recent five-year dataset that show at least a modest change in relative concentration level.

3.1 Semi-Annual Parameters (Attachment 1)

Semi-annual parameters include alkalinity, arsenic, copper, hardness, iron, manganese, sulfate, total dissolved solids (TDS), pH, conductivity, oxidation reduction potential (ORP), and water elevation.

3.1.1 Intervention Boundary Wells

- ◆ **MW-1000R/MW-1000PR/MW-1010P (Figures B-1a through B-1d):** These three wells are located near the immediate southwest boundary and hydraulically downgradient of the reclaimed mine pit.

Changes in Reported Trends from Previous Annual Memo:

- None to report.

Continuing Trends from Previous Annual Memo:

- None to report.

- ◆ **MW-1002/MW-1002G (Figures B-2a through B-2d):** This well nest is located approximately 1,800 feet to the northwest and hydraulically side-gradient to the former mine pit.

Changes in Reported Trends from Previous Annual Memo:

- None to report. No statistical trends in the recent five-year datasets are occurring.

Continuing Trends from Previous Annual Memo:

- None to report.
- ◆ **MW-1004/MW-1004S/MW-1004P (Figures B-3a through B-3d):** This well nest is located near the immediate northwest boundary and is hydraulically downgradient of the former mine pit.

Changes in Reported Trends from Previous Annual Memo:

- None to report. No statistical trends in the recent five-year datasets are occurring.

Continuing Trends from Previous Annual Memo:

- None to report.
- ◆ **MW-1005/MW-1005S/MW-1005P (Figures B-4a through B-4d):** This well nest is located approximately 1,000 feet to the southeast and hydraulically upgradient of the former mine pit.

Changes in Reported Trends from Previous Annual Memo:

- None to report. No statistical trends in the recent five-year datasets are occurring.

Continuing Trends from Previous Annual Memo:

- None to report.
- ◆ **MW-1015A/MW-1015B (Figures B-5a through B-5d):** This well nest is located approximately 1,000 feet to the west and hydraulically downgradient of the former mine pit.

Changes in Reported Trends from Previous Annual Memo:

- None to report.

Continuing Trends from Previous Annual Memo:

- None to report.

3.1.2 In-Pit Wells

- ◆ **MW-1013/MW-1013A/MW-1013B/MW-1013C (Figures B-6a through B-6d):** This well nest is located within the former mine pit on the southwest side.

Changes in Reported Trends from Previous Annual Memo:

- None to report.

Continuing Trends from Previous Annual Memo:

- Copper and manganese indicate statistically decreasing trends in the recent five-year dataset for MW-1013B. The Attachment 1 concentration trend graphs indicate these constituents in MW-1013B began the currently decreasing trend approximately in 2013.
- Although not a statistical trend, a single outlying increased value of sulfate was observed during May 2024 in MW-1013B and MW-1013C, which returned to historical concentrations in November 2024 through November 2025.
- Iron in MW-1013 has historically exhibited a large degree of variation. Between 2006 and 2009, seasonal effects were apparent, with iron being highest during the first and fourth quarter sampling events. While the seasonal effect seemed to diminish following 2009, iron concentrations in this well were elevated in 2013, and again in 2018, and to a lesser degree in 2019. While no five-year statistical trend is currently reported, the seasonal effect was once again stronger during 2020 through 2025, with the fourth quarter concentrations elevated from the second quarter concentrations and historical high observed in November 2024.
- ◆ **MW-1014/MW-1014A/MW-1014B/MW-1014C (Figures B-7a through B-7d):** This well nest is located within the former mine pit on the northeast side.

Changes in Reported Trends from Previous Annual Memo:

- A smaller increasing trend is present for arsenic at MW-1014C. Concentrations remain below the historical high observed in July of 2000.

Continuing Trends from Previous Annual Memo:

- A smaller statistically increasing trend in the five-year dataset is given for manganese in MW-1014A, but concentrations remain below those seen prior to 2004.
- The decreasing trend noted previously for copper in MW-1014B has stabilized. A step drop in copper concentrations from those observed historically for this well occurred generally in 2019.

3.2 Annual Parameters (Attachment 2)

As previously noted, per the 2020 Updated Monitoring Plan, analytes collected on an annual basis are now limited to calcium, chloride, lead, magnesium, potassium, and zinc. Similar to previous trend analyses, the annual groundwater parameters illustrate few statistically significant trends. Of those trends that are noted, most reflect relatively small consecutive concentration changes. The following summary is limited to those trends which show at least a modest change in recent concentrations.

Historical trend charts for the annual parameters are illustrated on Figures B-8a through B-14b of Attachment 2.

Changes in Reported Trends from Previous Annual Memo:

- Although not a statistical trend, a single outlying increased value of chloride was observed during May 2025 in MW-1014A.

Continuing Trends from Previous Annual Memo:

- Calcium, chloride, and magnesium had small concentration increases during 2011 in MW-1005, which remained consistent through 2015. Concentrations of these parameters rose again from 2016 through 2018, potentially attributed to application of road salt on State Highway 27 along with rising water levels and evaporative concentration effects. However, concentrations have since remained generally consistent, with no statistical trend currently reported in the five-year datasets.

3.3 Surface Water (Attachment 3)

Flambeau voluntarily continued surface water sampling of the Flambeau River in 2024. Sampling parameters currently include copper, hardness, iron, manganese, zinc, total suspended solids (TSS), pH, conductivity, dissolved oxygen (DO) and ORP. Concentrations were generally stable with no statistical trends in the five-year data.

3.4 Hydrographs (Attachment 4)

As observed in the hydrographs (Figures B-16a through B-16j), water levels have stabilized in all wells that showed significant drawdown during the production period from 1993 to 1997.

Groundwater elevations increased steadily from 1999 through 2002 for the in-pit wells MW-1013A, MW-1013B, MW-1013C, MW-1014, MW-1014A, MW-1014B, and MW-1014C, and stabilized after 2003. At MW-1013, groundwater elevation rose through 2004 and stabilized during 2005.

Generally, higher groundwater elevations are noted for all wells during 2010 and 2011, reflecting the increased precipitation observed in those years. Elevations dropped in 2012 and rebounded during summer 2013. An increase in water levels was observed from 2014 through 2017 for both the intervention boundary and the in-pit wells. Decreased elevations were observed in 2018, followed by a rebound in 2019, with generally less variation or consistent elevations observed since.

4. Conclusions

A detailed analysis of statistical trends occurring in the groundwater and surface water data was performed. Statistical tests evaluated the long-term trends occurring during the post-mining period (October 1997 to the present) and the short-term trends for the most recent five years. Historical trend graphs of the data are also presented.

A detailed discussion of the trend results for each well nest is provided in Section 3. In general, the number of more notable concentration trends as observed in earlier Annual Memos has reduced for both the intervention boundary and in-pit wells, indicating a broader stabilization in the groundwater concentrations. Most trends noted through the Mann-Kendall nonparametric test for the most recent five-year dataset are due to slight but consecutive concentration changes (either increasing or decreasing) and not reflective of a substantial overall

concentration change. The majority of the observed trends continue to occur in the semi-annual groundwater indicator monitoring parameters.

For the intervention boundary wells, no current trends with substantial concentration change are reported.

For the MW-1013 in-pit well nest, copper and manganese have decreasing trends in MW-1013B which began approximately in 2013. Iron at MW-1013 continues to exhibit a strong degree of seasonal variation where increased concentrations are observed during the fall event with higher values seen in November 2024 and November 2025.

For the in-pit well nest at MW-1014, a smaller increasing trend is present for arsenic at MW-1014C. Copper in MW-1014B remains at lowered concentrations after a substantial decrease in 2019.

No statistical trends were noted in the five-year datasets for surface water.

Attachments

- Attachment 1: Groundwater – Semi-Annual Parameters
- Attachment 2: Groundwater – Annual Parameters
- Attachment 3: Surface Water
- Attachment 4: Hydrographs and Groundwater Elevation Data

Attachment 1
Groundwater – Semi-Annual Parameters

Trend Analysis
Trend Graphs
2025 Data

**Trend Analysis Results - Groundwater (Semi-Annual Parameters)
Year Ending 2025**

	Alkalinity	Arsenic	Copper	Hardness	Iron	Manganese	Sulfate	TDS	Field pH (su)	Cond (umhos /cm)	Redox (mV)	Grd Water El (Feet)
MW-1000PR												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	11	-5	9	-5	-7	-26	1	-24	-11	-3	27	-10
p-Level	0.380	0.728	0.484	0.728	0.600	0.022	1.000	0.037	0.380	0.862	0.016	0.432
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	101	82	101	101	101	101	101	101	101	101	85	101
Mann-Kendall S	2034	1656	-1172	-3717	-337	-3359	-3808	-3647	1450	-3678	-1498	1482
p-Level	0.000	0.000	0.001	0.000	0.324	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Trend	+	+	-	-	-	-	-	-	+	-	-	+
MW-1000R												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	9	9	13	5	0	5	11	-3	-9	-5	17	-13
p-Level	0.484	0.484	0.292	0.728	1	0.728	0.38	0.862	0.484	0.728	0.156	0.292
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	49	49	49	49	49	49	49	49	49	49	48	100
Mann-Kendall S	-553	-28	-586	-518	-275	-629	-220	-501	-64	-576	-386	1708
p-Level	0.000	0.749	0.000	0.000	0.001	0.000	0.059	0.000	0.587	0.000	0.001	0.000
Trend	-		-	-	-	-	-	-		-	-	+
MW-1010P												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	8	11	0	6	15	25	31	-14	13	-7	13	-9
p-Level	0.542	0.380	1.000	0.664	0.216	0.028	0.004	0.254	0.292	0.600	0.292	0.484
Trend							+					
Trend Results for All Data Since Oct. 1997												
Sample Size	101	82	101	101	101	101	101	101	101	101	86	101
Mann-Kendall S	1836	969	-1179	3773	-1690	-709	4067	1864	814	3094	438	1184
p-Level	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.017	0.000	0.103	0.001
Trend	+	+	-	+	-		+	+		+		+
MW-1002												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-8	0	0	-5	0	0	9	0	-16	-13	3	-15
p-Level	0.542	1.000	1.000	0.728	1.000	1.000	0.484	1.000	0.186	0.292	0.862	0.216
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	101	79	101	101	101	101	101	101	101	101	36	101
Mann-Kendall S	1598	-74	-122	1679	-771	-383	-2210	394	-595	1424	-119	1019
p-Level	0.000	0.415	0.622	0.000	0.003	0.077	0.000	0.249	0.081	0.000	0.109	0.003
Trend	+			+	-		-			+		+
MW-1002G												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	8	0	0	19	0	0	-23	6	-11	7	5	-15
p-Level	0.542	1.000	1.000	0.108	1.000	1.000	0.046	0.664	0.380	0.600	0.728	0.216
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	101	79	101	101	101	101	101	101	101	101	36	101
Mann-Kendall S	2583	-125	249	3557	-532	-24	-640	2151	-799	3022	-143	947
p-Level	0.000	0.053	0.178	0.000	0.028	0.913	0.061	0.000	0.019	0.000	0.052	0.006
Trend	+			+				+		+		+

**Trend Analysis Results - Groundwater (Semi-Annual Parameters)
Year Ending 2025**

	Alkalinity	Arsenic	Copper	Hardness	Iron	Manganese	Sulfate	TDS	Field pH (su)	Cond (umhos /cm)	Redox (mV)	Grd Water El (Feet)
MW-1004												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	3	0	-1	6	-12	-14	-6	-24	-19	-3	1	-11
p-Level	0.862	1	1	0.664	0.336	0.254	0.664	0.037	0.108	0.862	1	0.38
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	48	48	48	48	48	48	48	48	48	48	47	88
Mann-Kendall S	-209	-22	201	-182	-127	-74	-165	47	212	-96	-398	934
p-Level	0.064	0.655	0.075	0.108	0.247	0.502	0.145	0.682	0.061	0.398	0.000	0.001
Trend											-	+
MW-1004S												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-11	0	19	-8	0	-9	-13	-6	-23	-19	9	-11
p-Level	0.380	1.000	0.108	0.542	1.000	0.484	0.292	0.664	0.046	0.108	0.484	0.380
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	101	81	101	101	101	101	101	101	101	101	86	101
Mann-Kendall S	-13	-63	1339	372	-896	-349	1884	-806	63	-405	-1379	1765
p-Level	0.972	0.438	0.000	0.276	0.000	0.195	0.000	0.018	0.856	0.236	0.000	0.000
Trend			+		-		+				-	+
MW-1004P												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-7	-2	0	-10	-10	6	0	-9	-1	3	-3	-13
p-Level	0.600	0.931	1.000	0.432	0.432	0.664	1.000	0.484	1.000	0.862	0.862	0.292
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	102	82	102	102	102	102	102	102	102	102	82	102
Mann-Kendall S	1716	979	-995	1682	2559	2414	660	40	678	1340	-1277	2025
p-Level	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.910	0.050	0.000	0.000	0.000
Trend	+	+	-	+	+	+				+	-	+
MW-1005												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-9	10	-7	-19	11	1	-29	-22	5	-7	1	-13
p-Level	0.484	0.432	0.600	0.108	0.380	1.000	0.010	0.059	0.728	0.600	1.000	0.292
Trend							-					
Trend Results for All Data Since Oct. 1997												
Sample Size	101	79	101	101	101	101	101	101	101	101	36	100
Mann-Kendall S	-402	-413	564	2488	-104	1285	1697	2426	-1189	2470	-133	1791
p-Level	0.239	0.079	0.041	0.000	0.762	0.000	0.000	0.000	0.000	0.000	0.072	0.000
Trend				+		+	+	+	-	+		+
MW-1005S												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	12	0	0	-4	-14	-12	-8	3	13	1	1	-13
p-Level	0.336	1.000	1.000	0.795	0.254	0.336	0.542	0.862	0.292	1.000	1.000	0.292
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	101	79	101	101	101	101	101	101	101	101	36	101
Mann-Kendall S	-829	-36	-49	-546	-1273	-853	406	-1202	286	-253	41	1850
p-Level	0.013	0.881	0.631	0.103	0.000	0.011	0.200	0.000	0.403	0.460	0.589	0.000
Trend					-			-				+

**Trend Analysis Results - Groundwater (Semi-Annual Parameters)
Year Ending 2025**

	Alkalinity	Arsenic	Copper	Hardness	Iron	Manganese	Sulfate	TDS	Field pH (su)	Cond (umhos /cm)	Redox (mV)	Grd Water El (Feet)
MW-1005P												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	9	-9	0	-17	7	-25	1	-7	7	-1	1	-19
p-Level	0.484	0.484	1.000	0.156	0.600	0.028	1.000	0.600	0.600	1.000	1.000	0.108
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	101	79	101	101	101	101	101	101	101	101	88	101
Mann-Kendall S	979	792	-183	1127	2930	1209	-476	-208	-137	900	-278	1440
p-Level	0.003	0.000	0.341	0.001	0.000	0.000	0.024	0.543	0.690	0.008	0.318	0.000
Trend	+	+		+	+	+				+		+
MW-1015A												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	4	0	0	-4	0	33	9	5	-14	7	13	-17
p-Level	0.795	1.000	1.000	0.795	1.000	0.002	0.484	0.728	0.254	0.600	0.292	0.156
Trend						+						
Trend Results for All Data Since Oct. 1997												
Sample Size	95	88	95	95	96	96	95	95	96	96	72	96
Mann-Kendall S	2062	-179	89	2089	-161	-452	31	528	455	2165	-788	677
p-Level	0.000	0.041	0.610	0.000	0.359	0.153	0.923	0.089	0.150	0.000	0.000	0.032
Trend	+			+						+	-	
MW-1015B												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-16	0	0	2	-1	-13	8	-6	9	5	7	-17
p-Level	0.186	1.000	1.000	0.931	1.000	0.292	0.542	0.664	0.484	0.728	0.600	0.156
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	95	88	95	95	96	96	95	95	96	96	73	96
Mann-Kendall S	102	0	73	1828	-225	-1529	805	30	612	1543	1068	723
p-Level	0.720	1.000	0.444	0.000	0.478	0.000	0.000	0.926	0.053	0.000	0.000	0.022
Trend				+		-	+			+	+	
MW-1013												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-11	21	-16	13	15	10	-35	-3	4	3	7	-17
p-Level	0.380	0.072	0.186	0.292	0.216	0.432	0.000	0.862	0.795	0.862	0.600	0.156
Trend							-					
Trend Results for All Data Since Oct. 1997												
Sample Size	69	69	69	69	69	69	69	69	69	69	69	96
Mann-Kendall S	582	316	67	-766	589	1119	-1972	-322	-31	-702	-953	3047
p-Level	0.003	0.092	0.730	0.000	0.002	0.000	0.000	0.096	0.876	0.000	0.000	0.000
Trend	+			-	+	+	-			-	-	+
MW-1013A												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	9	-5	0	9	3	7	-3	-11	-4	-7	-1	-16
p-Level	0.484	0.728	1.000	0.484	0.862	0.600	0.862	0.380	0.795	0.600	1.000	0.186
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	69	69	69	69	69	69	69	69	69	69	68	96
Mann-Kendall S	1040	-92	-218	262	35	1118	12	533	-243	-130	-805	2485
p-Level	0.000	0.532	0.160	0.176	0.854	0.000	0.954	0.006	0.209	0.504	0.000	0.000
Trend	+					+		+			-	+

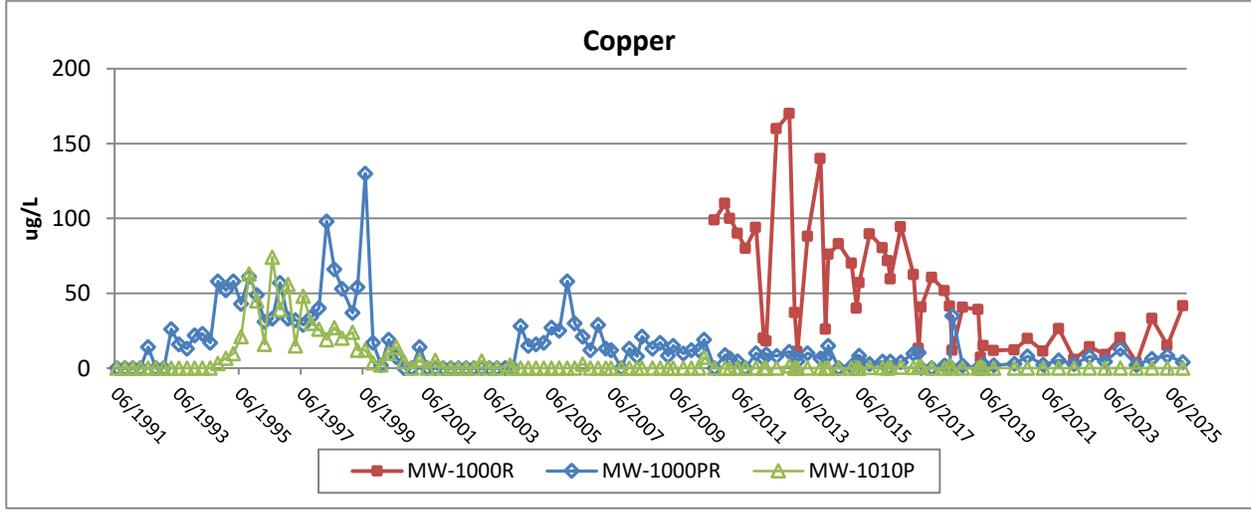
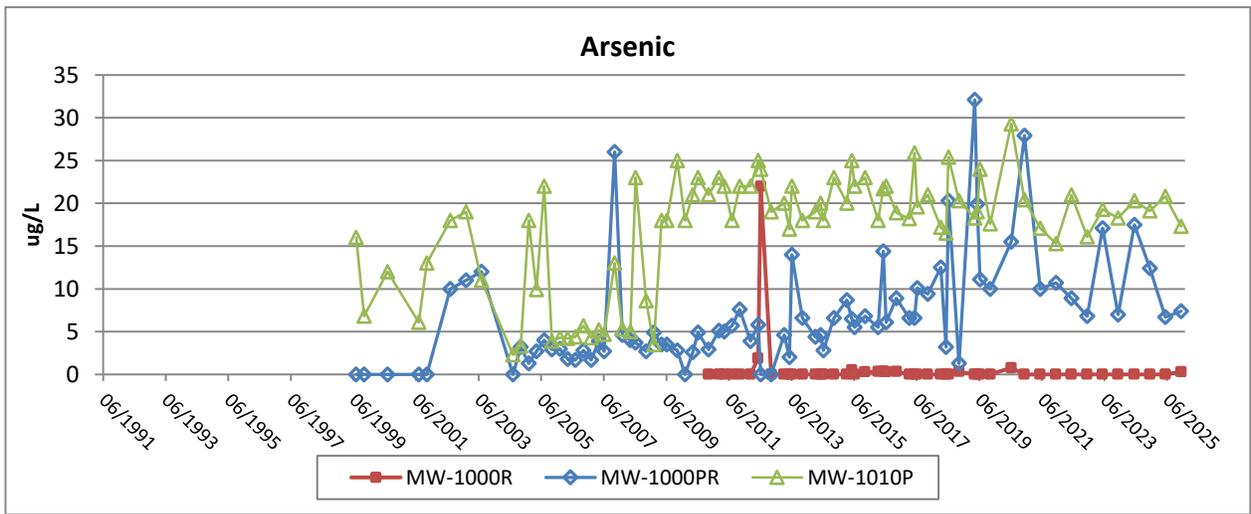
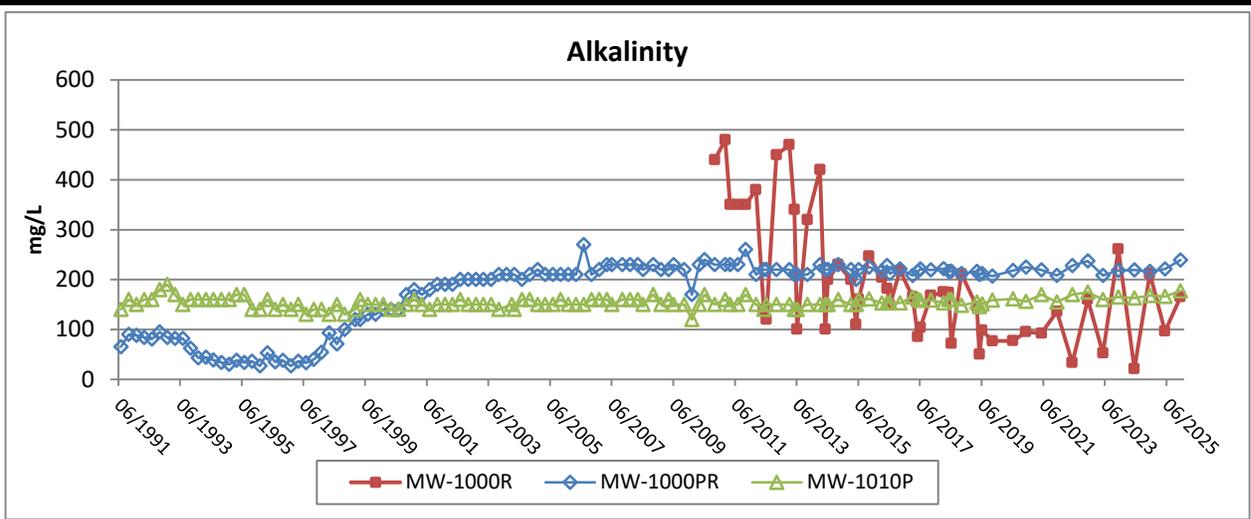
**Trend Analysis Results - Groundwater (Semi-Annual Parameters)
Year Ending 2025**

	Alkalinity	Arsenic	Copper	Hardness	Iron	Manganese	Sulfate	TDS	Field pH (su)	Cond (umhos /cm)	Redox (mV)	Grd Water El (Feet)
MW-1013B												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-31	-15	-36	16	6	-34	0	-17	9	-9	-5	-15
p-Level	0.004	0.216	0.000	0.186	0.664	0.001	1.000	0.156	0.484	0.484	0.728	0.216
Trend	-		-			-						
Trend Results for All Data Since Oct. 1997												
Sample Size	96	84	96	96	96	96	96	96	96	96	88	96
Mann-Kendall S	-507	-58	1607	-644	-754	-1383	1796	-1649	-570	-1551	-1056	2512
p-Level	0.109	0.817	0.000	0.037	0.008	0.000	0.000	0.000	0.071	0.000	0.000	0.000
Trend			+		-	-	+	-		-	-	+
MW-1013C												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-17	-11	-3	-2	2	-25	-11	-21	-10	9	13	-17
p-Level	0.156	0.380	0.862	0.931	0.931	0.028	0.380	0.072	0.432	0.484	0.292	0.156
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	96	84	96	96	96	96	96	96	96	95	88	96
Mann-Kendall S	227	1940	33	-2120	3782	-201	-820	-2765	401	-2350	-610	2535
p-Level	0.474	0.000	0.894	0.000	0.000	0.525	0.008	0.000	0.205	0.000	0.028	0.000
Trend		+		-	+		-	-		-		+
MW-1014												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	20	-13	-8	-10	-7	-23	11	-17	-12	1	-1	-18
p-Level	0.090	0.292	0.542	0.432	0.600	0.046	0.380	0.156	0.336	1.000	1.000	0.132
Trend												
Trend Results for All Data Since Oct. 1997												
Sample Size	69	69	69	69	69	69	69	69	69	69	69	93
Mann-Kendall S	619	-7	-540	634	-38	901	-35	539	-186	-152	-1067	2467
p-Level	0.001	0.962	0.005	0.001	0.743	0.000	0.860	0.005	0.337	0.434	0.000	0.000
Trend	+		-	+		+		+			-	+
MW-1014A												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-16	-19	13	1	0	31	-10	-17	3	3	-3	-9
p-Level	0.186	0.108	0.292	1.000	1.000	0.004	0.432	0.156	0.862	0.862	0.862	0.484
Trend						+						
Trend Results for All Data Since Oct. 1997												
Sample Size	91	81	91	91	91	91	91	91	91	91	88	96
Mann-Kendall S	1325	375	1776	402	-1421	-1376	363	-456	-597	-1282	-1088	2733
p-Level	0.000	0.110	0.000	0.153	0.000	0.000	0.213	0.110	0.041	0.000	0.000	0.000
Trend	+		+		-	-				-	-	+
MW-1014B												
Trend Results for Most Recent 5 Years												
Sample Size	12	12	12	12	12	12	12	12	12	12	12	12
Mann-Kendall S	-26	-32	-6	-23	23	-22	-28	-32	12	-16	0	-38
p-Level	0.086	0.032	0.738	0.134	0.134	0.152	0.062	0.032	0.460	0.310	1.000	0.008
Trend												-
Trend Results for All Data Since Oct. 1997												
Sample Size	96	84	96	96	96	96	96	96	97	97	88	97
Mann-Kendall S	-1527	-244	-2184	-2481	371	-3731	-1540	-2668	492	-2677	-2203	2586
p-Level	0.000	0.338	0.000	0.000	0.078	0.000	0.000	0.000	0.125	0.000	0.000	0.000
Trend	-		-	-		-	-	-		-	-	+

**Trend Analysis Results - Groundwater (Semi-Annual Parameters)
Year Ending 2025**

	Alkalinity	Arsenic	Copper	Hardness	Iron	Manganese	Sulfate	TDS	Field pH (su)	Cond (umhos /cm)	Redox (mV)	Grd Water El (Feet)
MW-1014C												
Trend Results for Most Recent 5 Years												
Sample Size	10	10	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	-9	31	0	-9	-14	-16	0	-29	-3	1	-1	-17
p-Level	0.484	0.004	1.000	0.484	0.254	0.186	1.000	0.010	0.862	1.000	1.000	0.156
Trend		+						-				
Trend Results for All Data Since Oct. 1997												
Sample Size	96	84	96	96	96	96	96	96	96	96	88	96
Mann-Kendall S	-2951	2429	-12	-2464	-3425	-3092	-2244	-2398	969	-3267	-440	2397
p-Level	0.000	0.000	0.957	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.114	0.000
Trend	-	+		-	-	-	-	-	+	-		+

Notes: Overall increasing trend denoted by "+".
Overall decreasing trend denoted by "-".
All trend tests performed at a Type I (two-tailed) error rate of 0.01.



Note: Fourth quarter 2010 was the first time MW-1000R had sufficient water recovery for sampling.

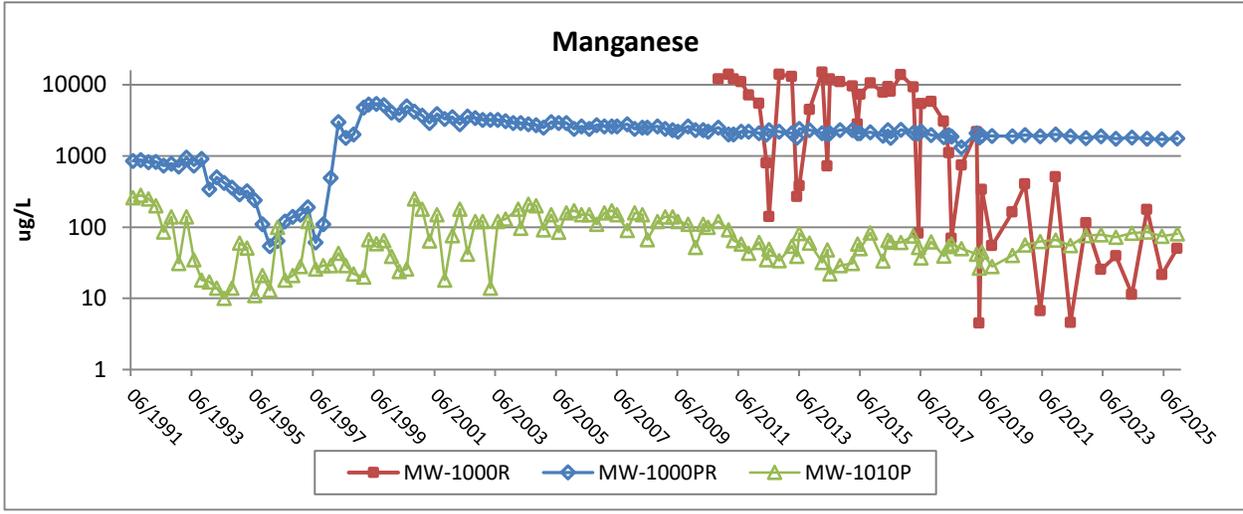
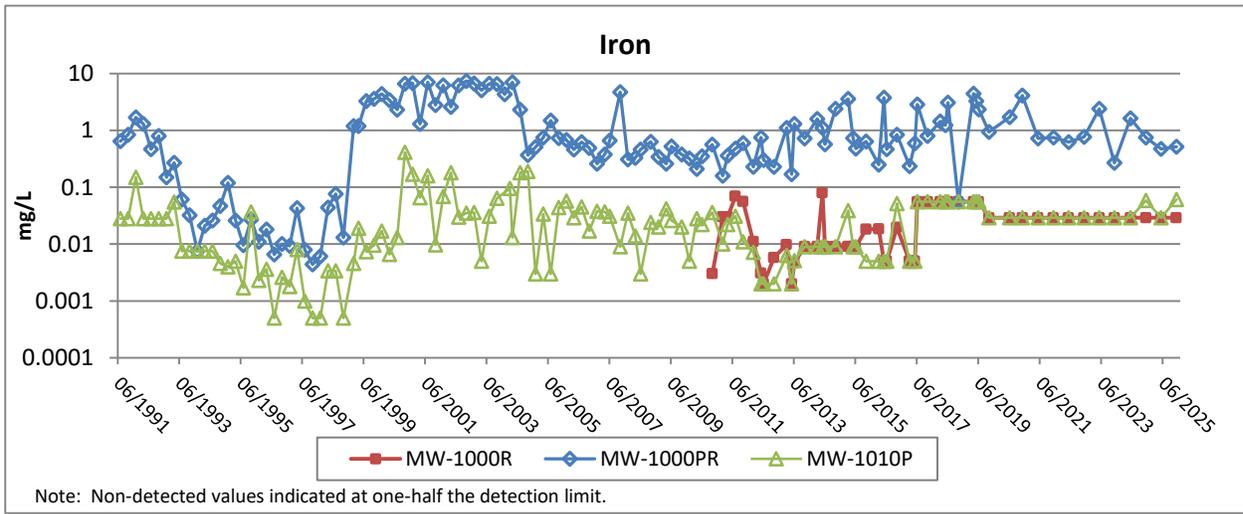
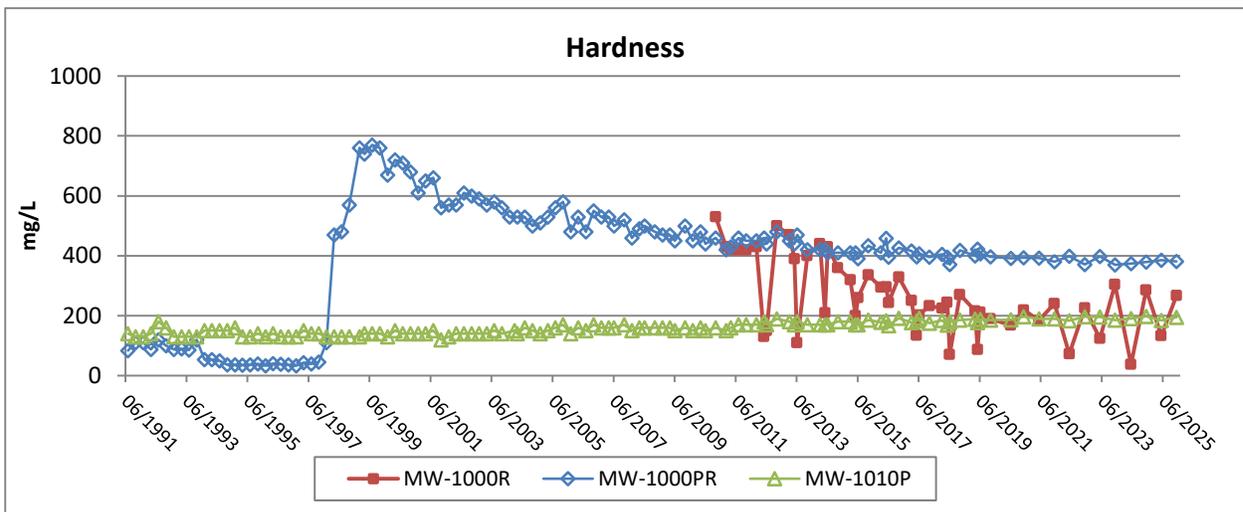
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FLAMBEAU MINING COMPANY

Figure B-1a
Groundwater Trend Graphs - Semi-Annual Results
MW-1000R/MW-1000PR/MW-1010P

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



Note: Iron trend graphs are displayed on a logarithmic scale so the trend patterns of MW-1000R, MW-1000PR and MW-1010P are visible at different concentration scales.

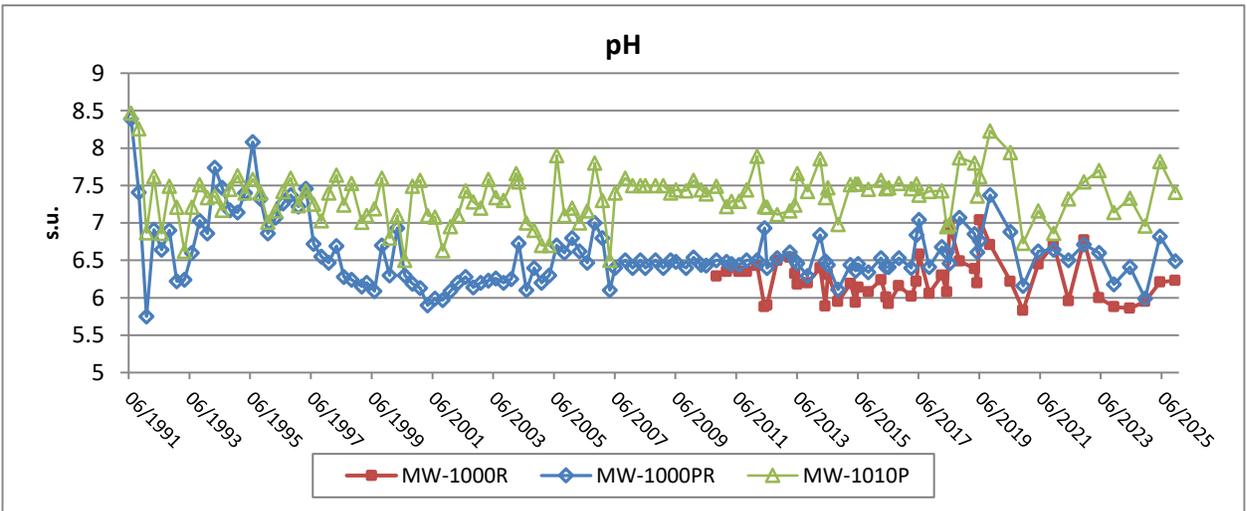
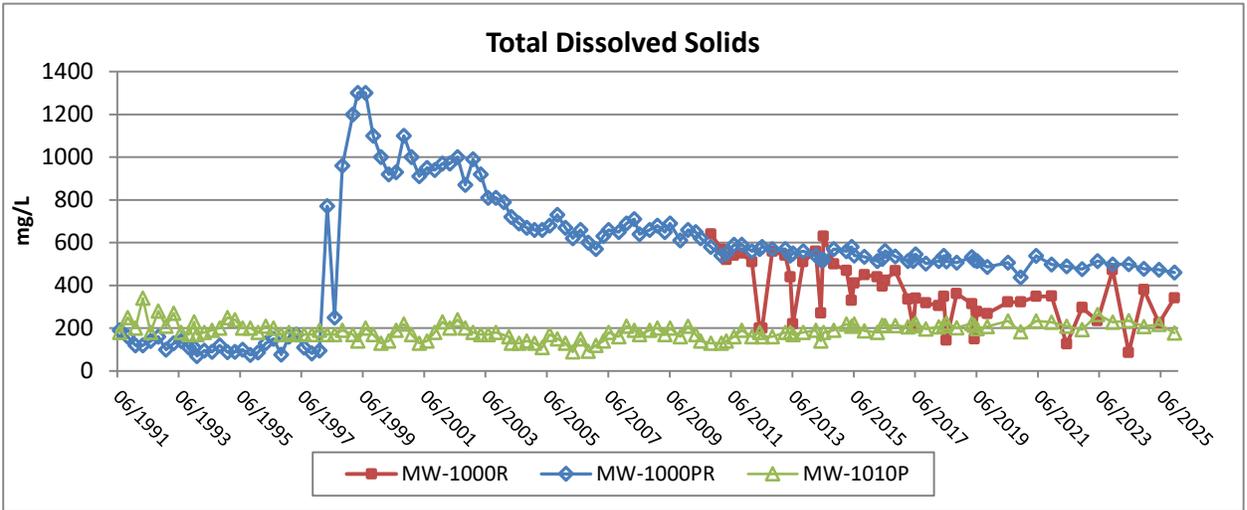
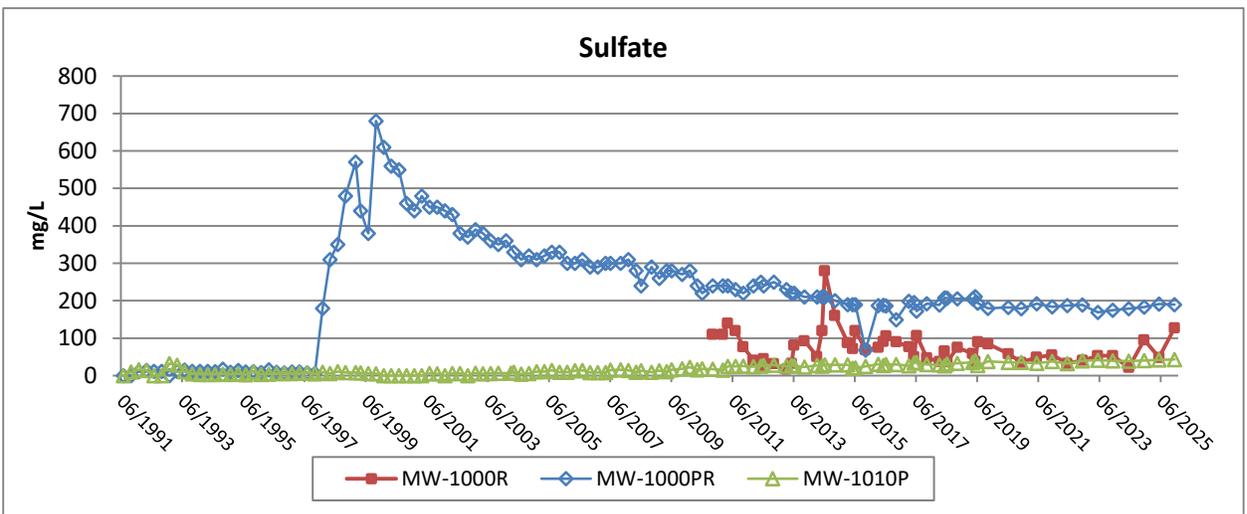
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FLAMBEAU MINING COMPANY

Figure B-1b
Groundwater Trend Graphs - Semi-Annual Results
MW-1000R/MW-1000PR/MW-1010P

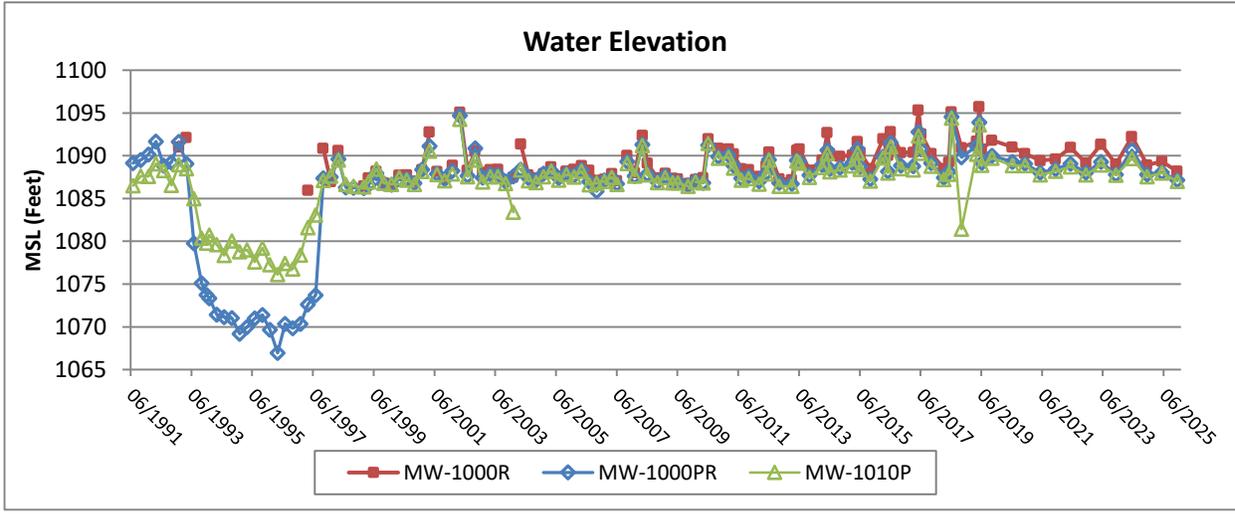
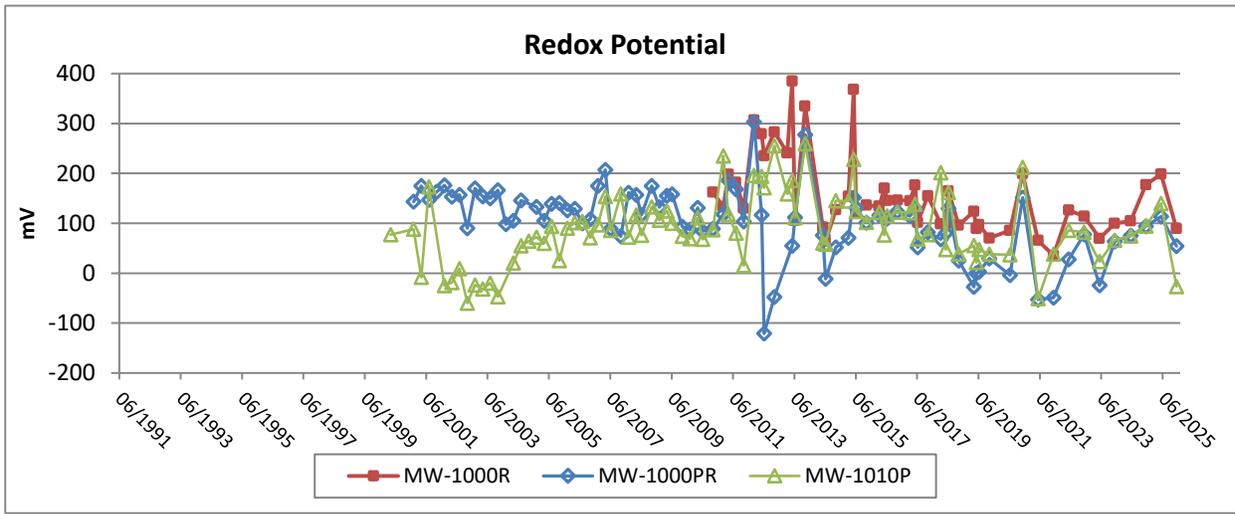
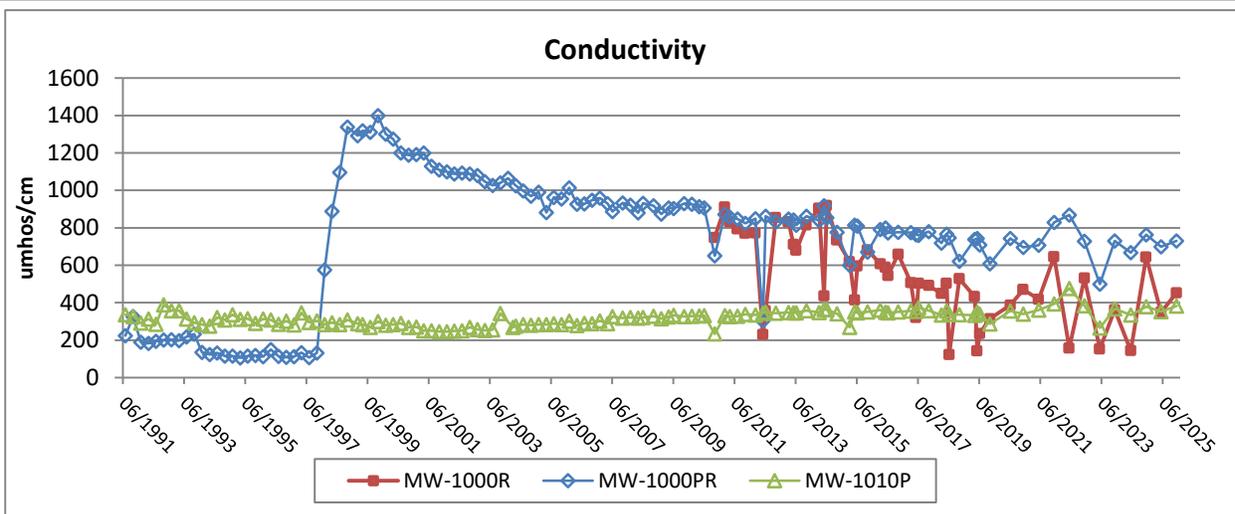
Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



Note: May 2023 pH result is from lab analysis since a malfunction occurred with the pH field meter.

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FLAMBEAU MINING COMPANY		
Figure B-1c Groundwater Trend Graphs - Semi-Annual Results MW-1000R/MW-1000PR/MW-1010P		
Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25

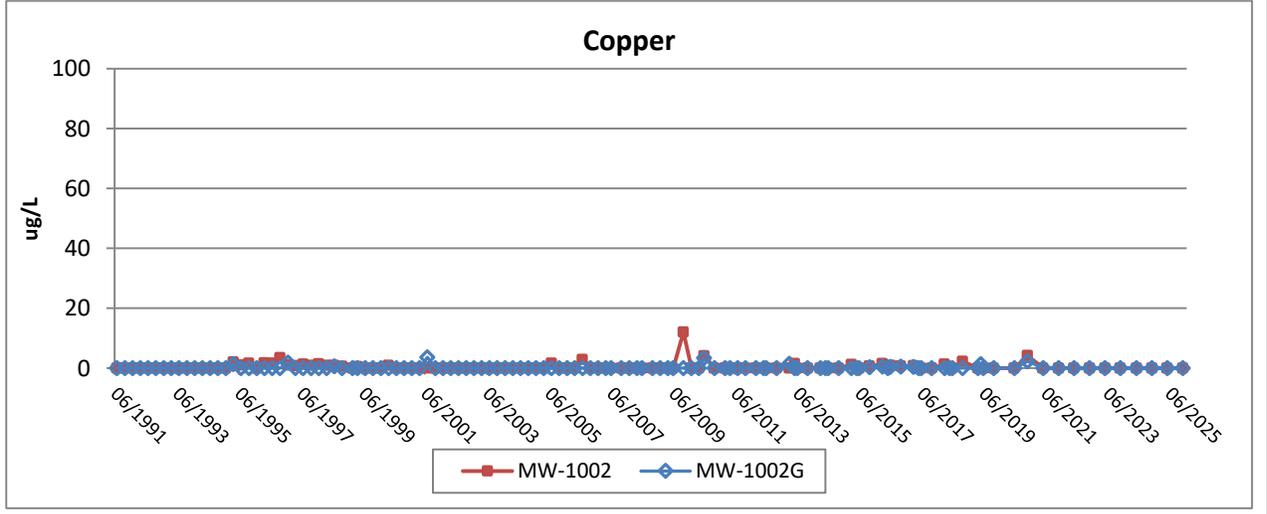
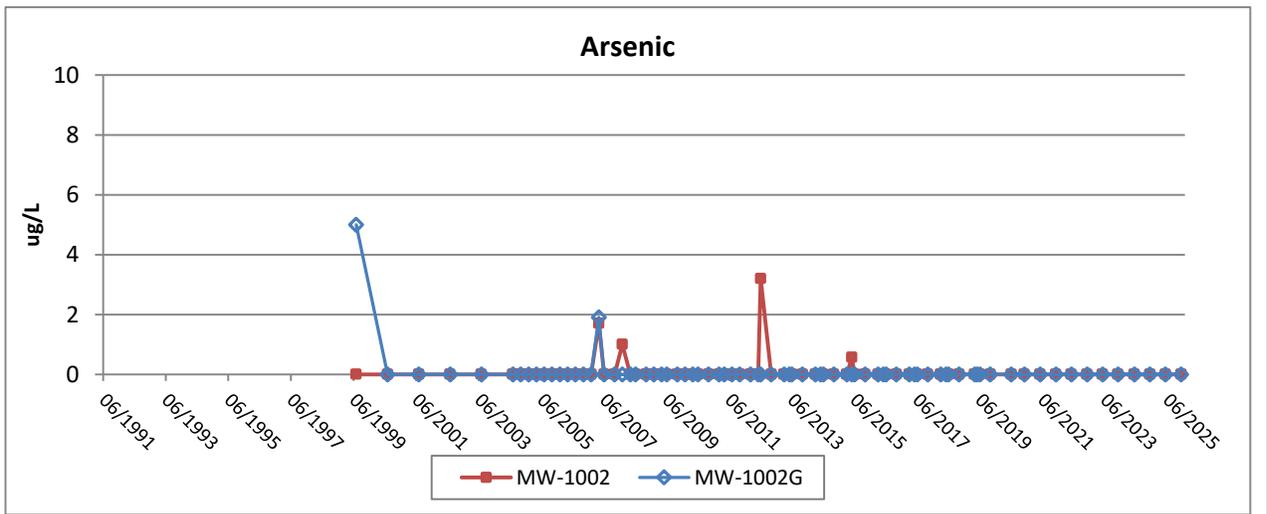
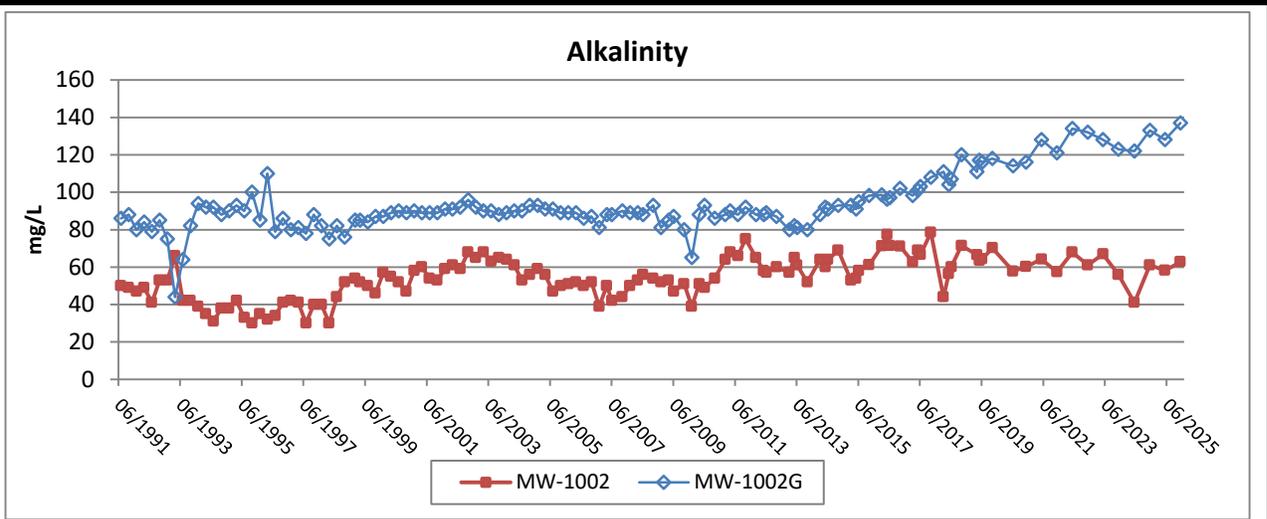




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Figure B-1d
Groundwater Trend Graphs - Semi-Annual Results
MW-1000R/MW-1000PR/MW-1010P

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



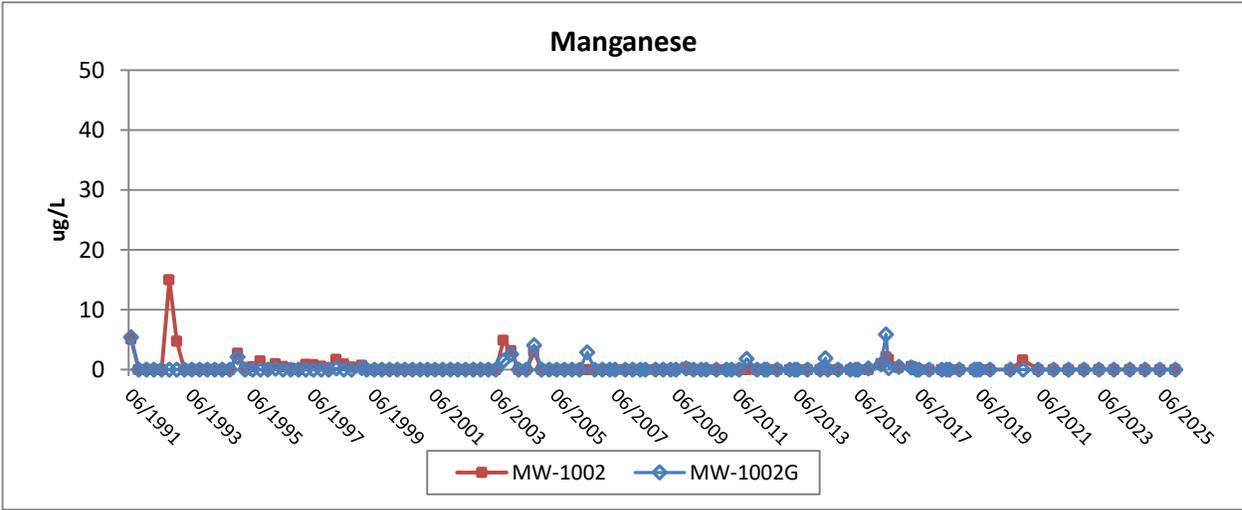
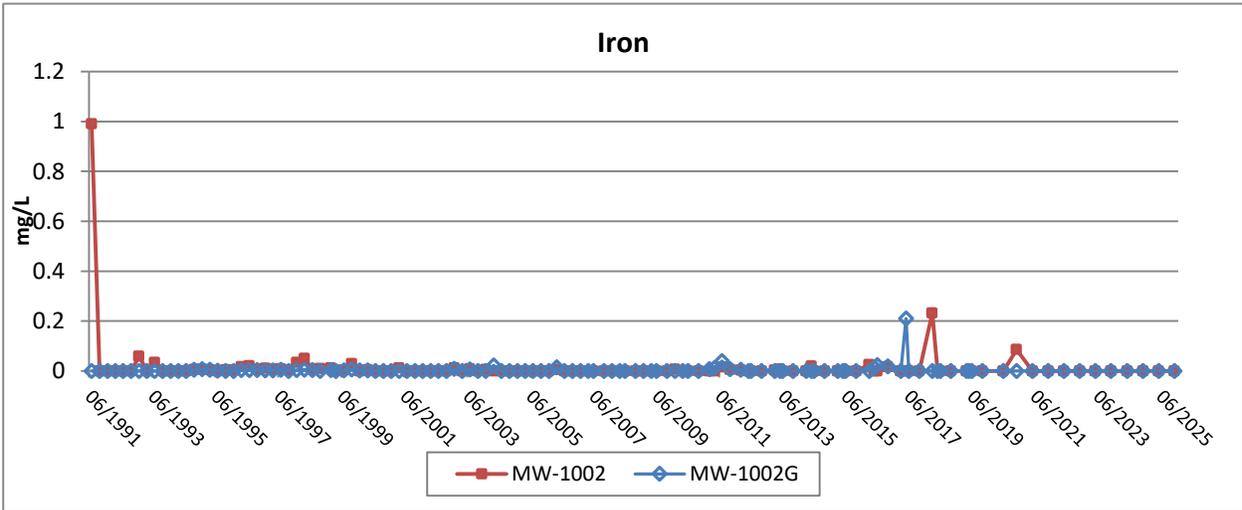
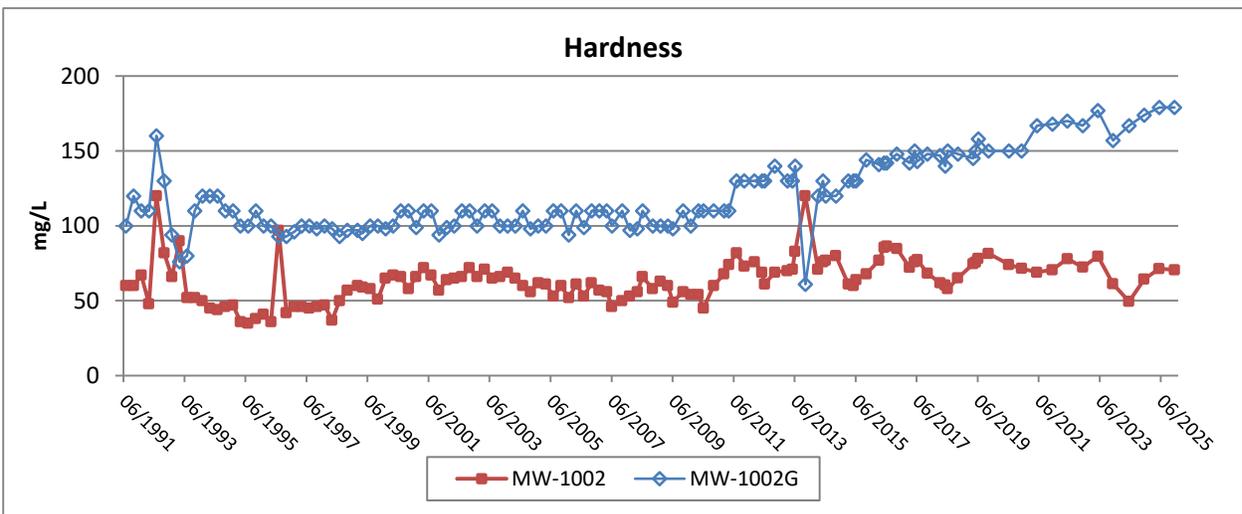


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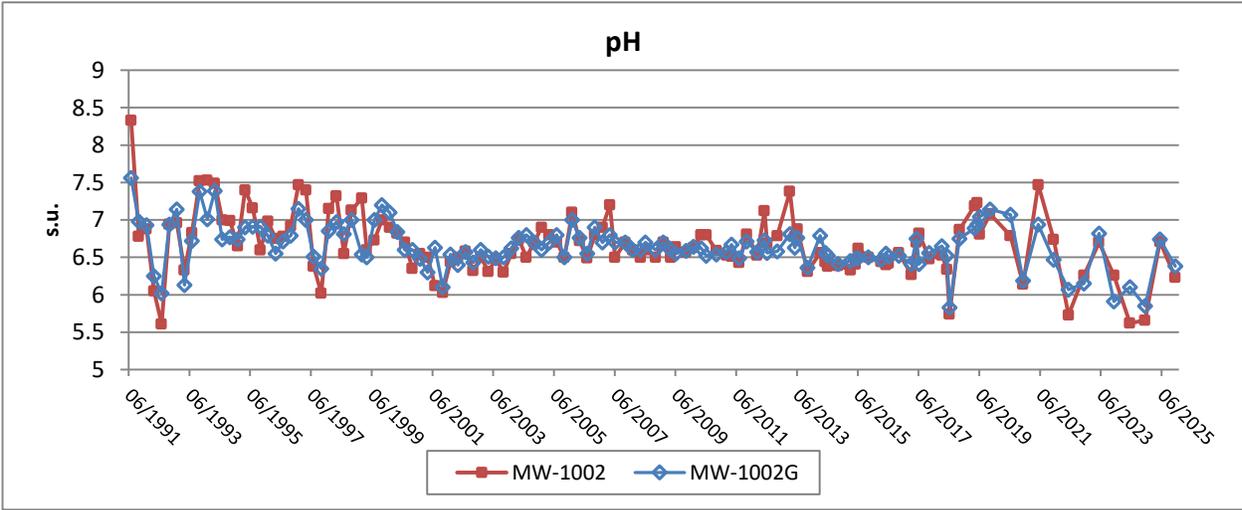
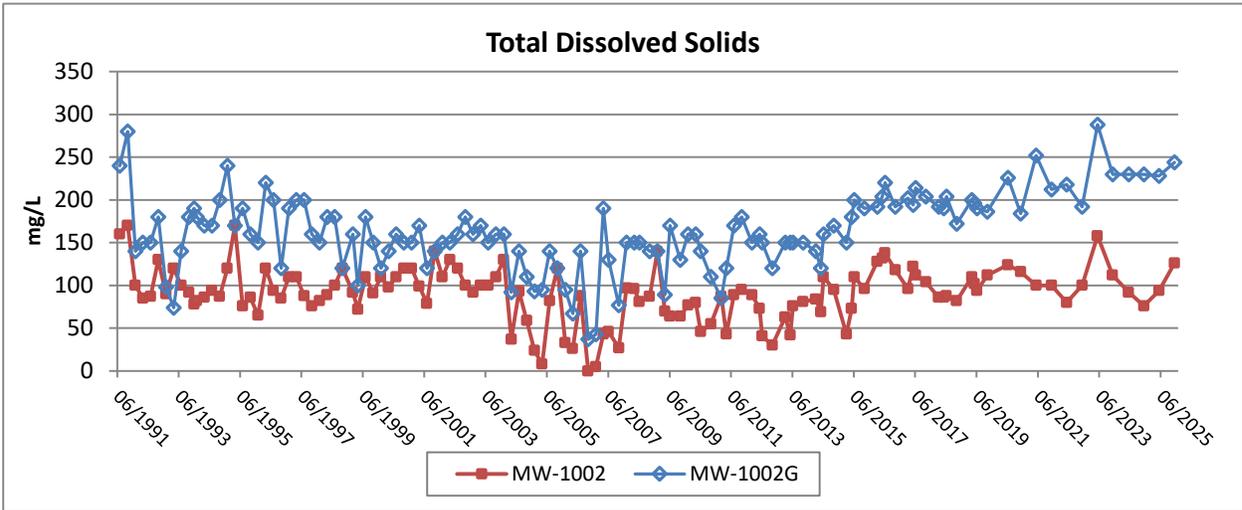
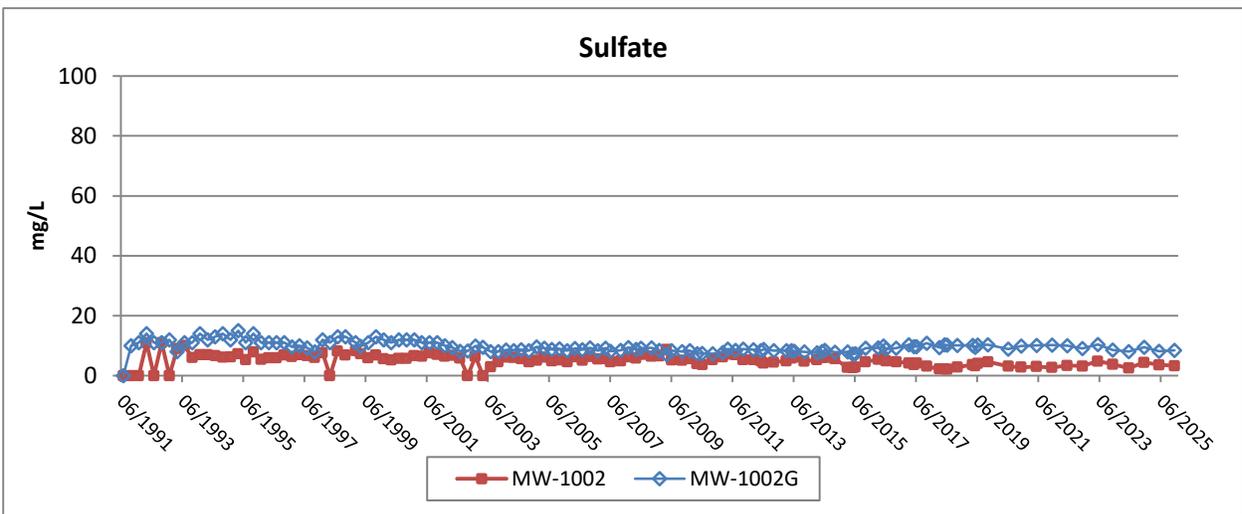
Figure B-2a
Groundwater Trend Graphs - Semi-Annual Results
MW-1002/MW-1002G

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

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Foth		
FLAMBEAU MINING COMPANY		
Figure B-2b Groundwater Trend Graphs - Semi-Annual Results MW-1002/MW-1002G		
Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25



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Figure B-2c
Groundwater Trend Graphs - Semi-Annual Results
MW-1002/MW-1002G

Scale: NA

Date: January 2026

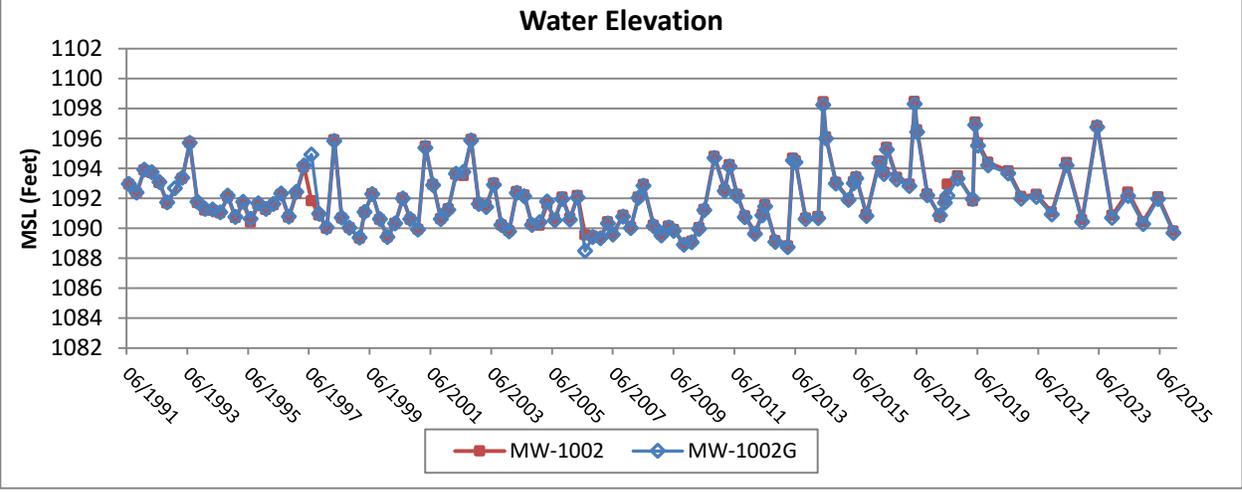
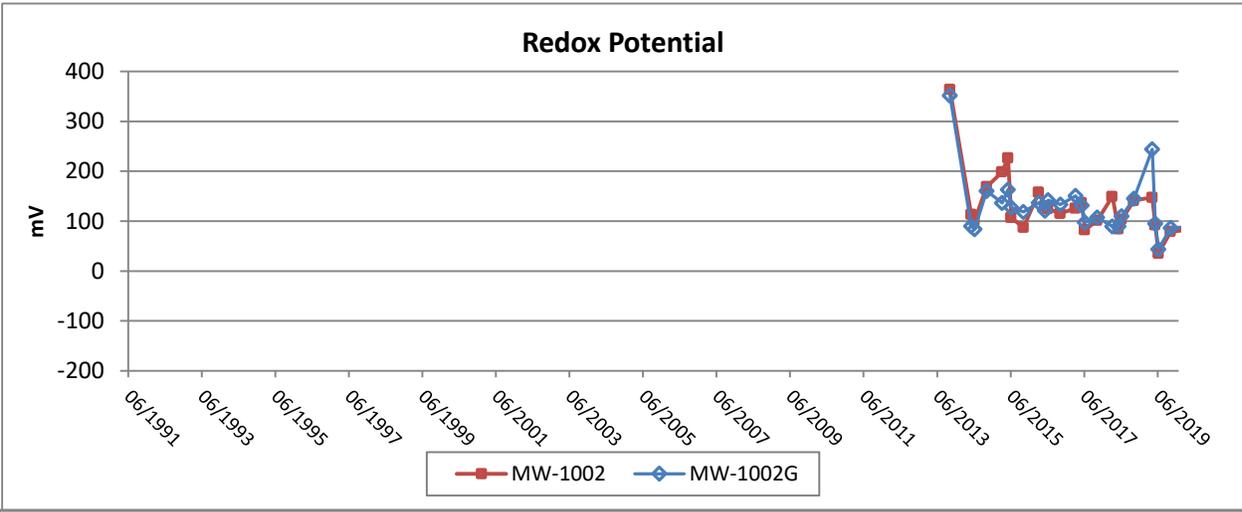
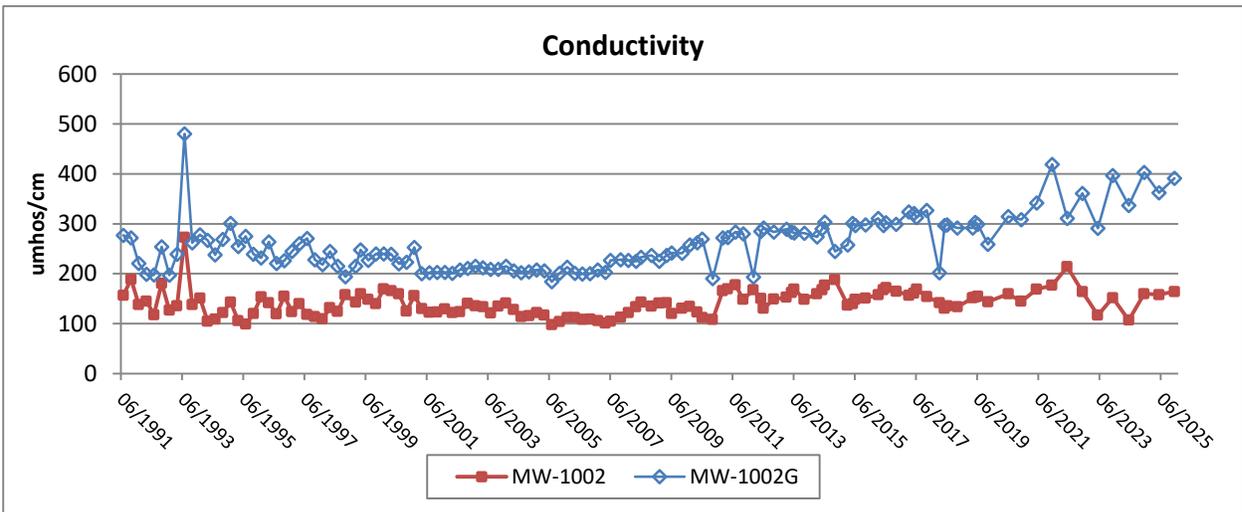
Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

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Figure B-2d
Groundwater Trend Graphs - Semi-Annual Results
MW-1002/MW-1002G

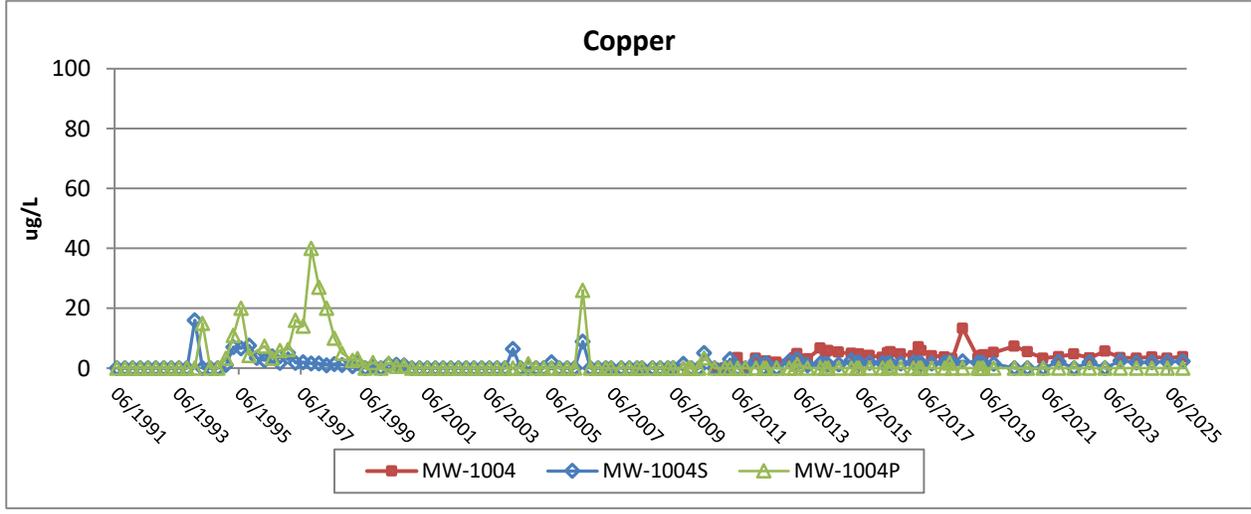
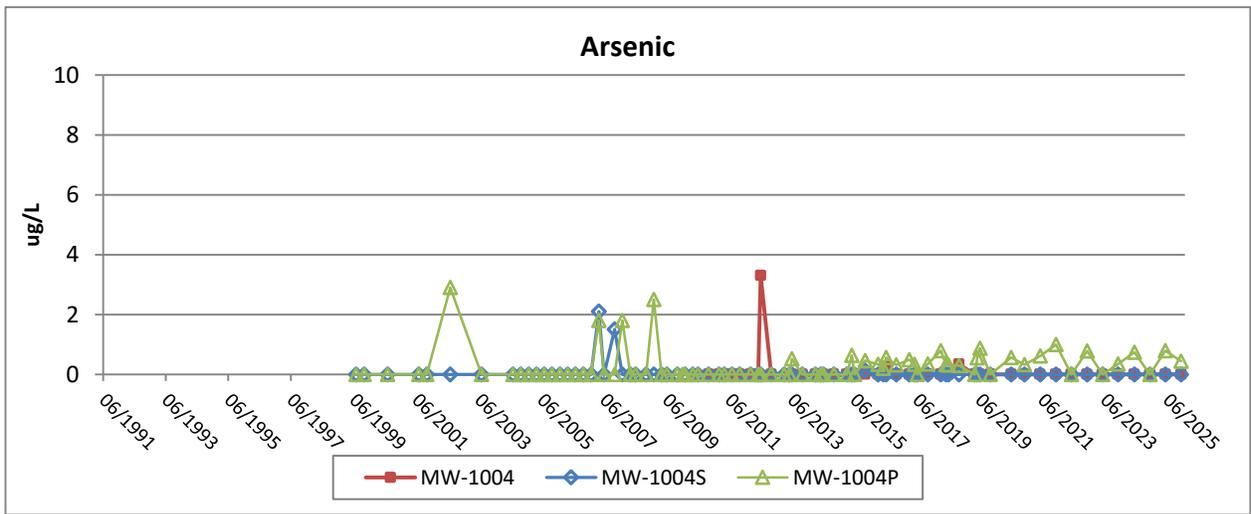
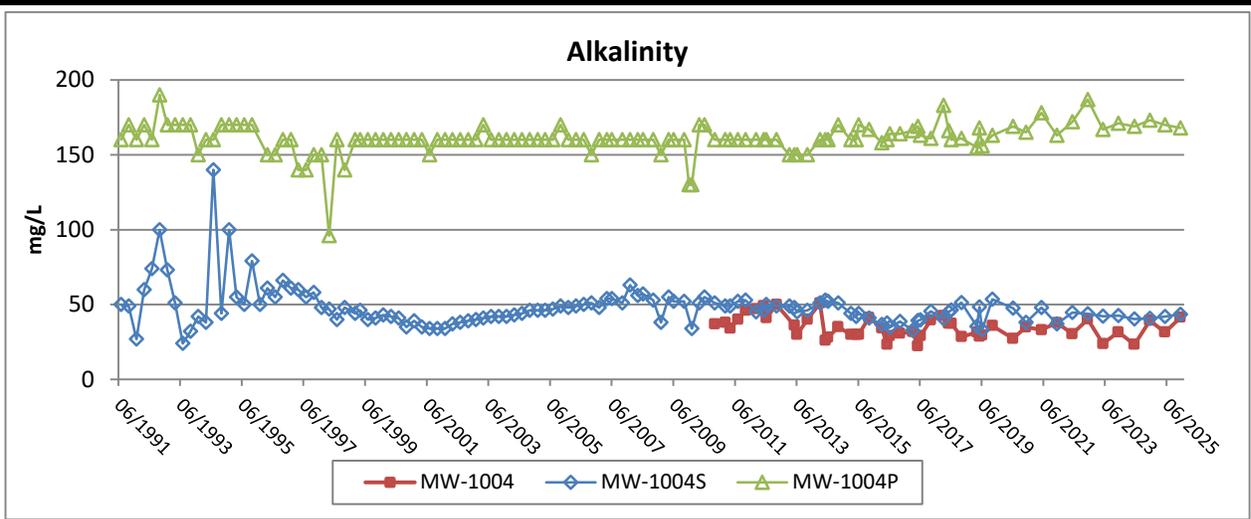
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Date: January 2026

Prepared By: SGL

Checked By: NMG1

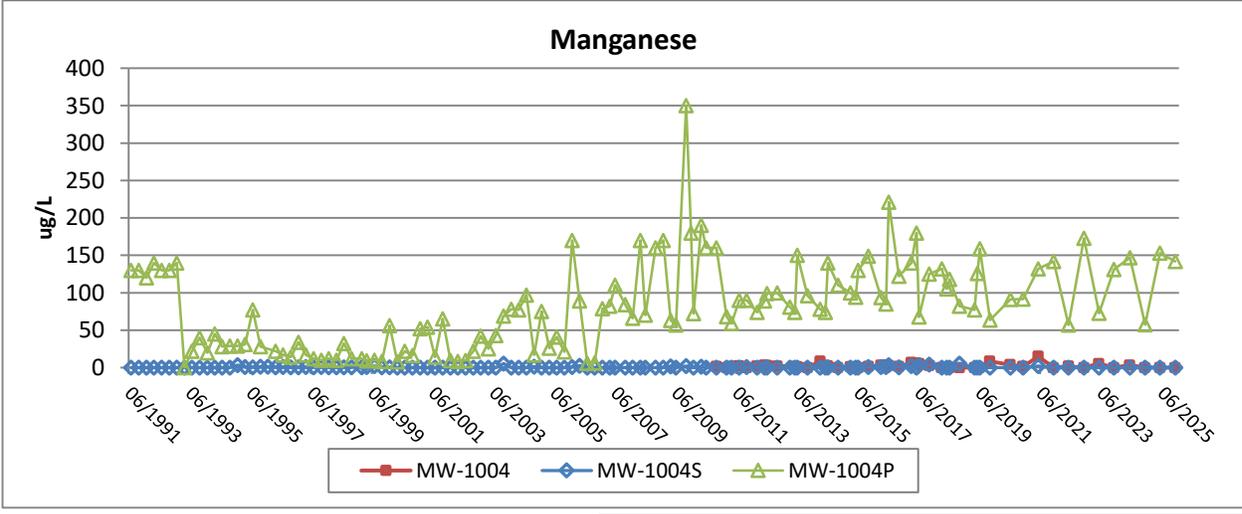
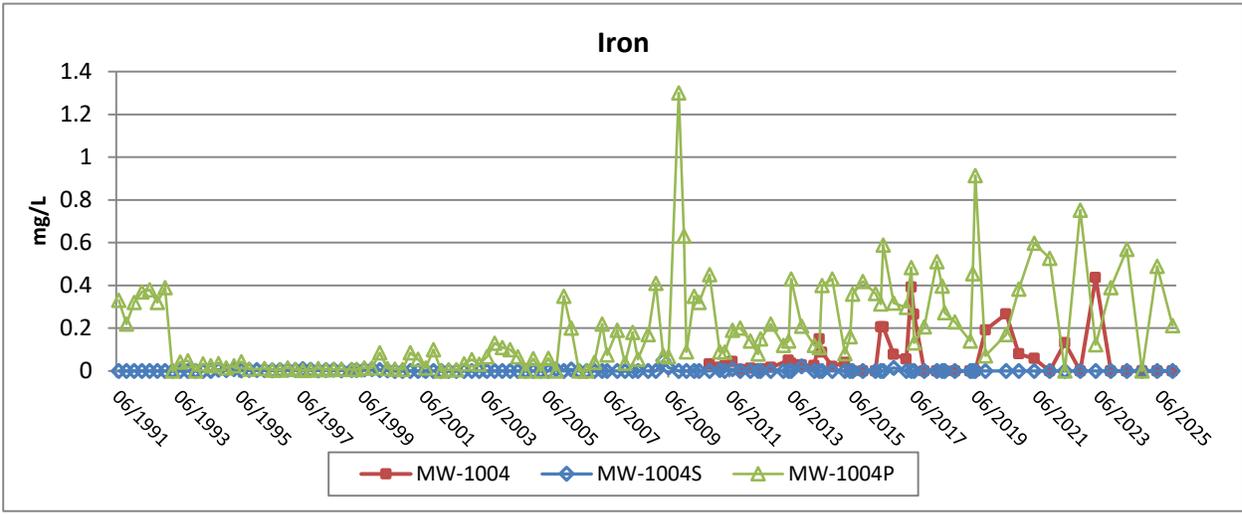
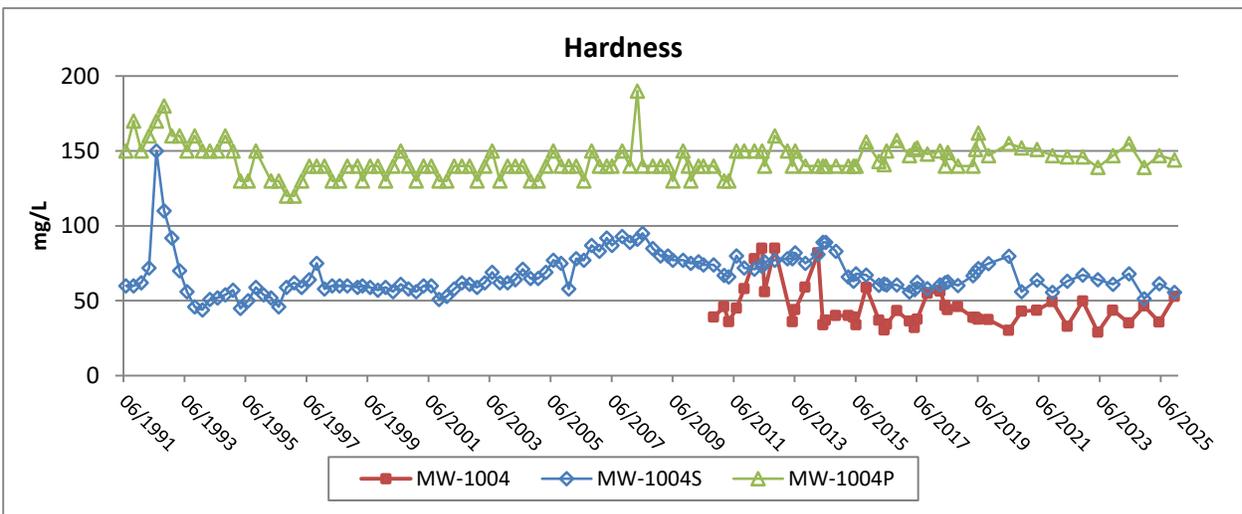
Project: 17F777.25



Note: Fourth quarter 2010 was the first time MW-1004 had sufficient water recovery for sampling.

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Figure B-3a Groundwater Trend Graphs - Semi-Annual Results MW-1004/MW-1004S/MW-1004P		
Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25



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Figure B-3b
Groundwater Trend Graphs - Semi-Annual Results
MW-1004/MW-1004S/MW-1004P

Scale: NA

Date: January 2026

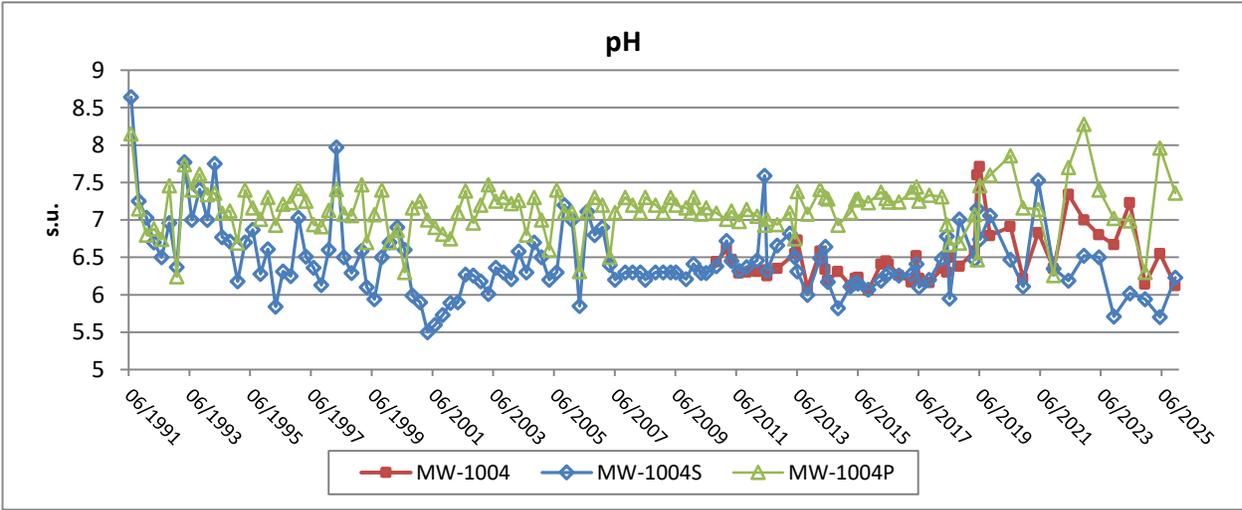
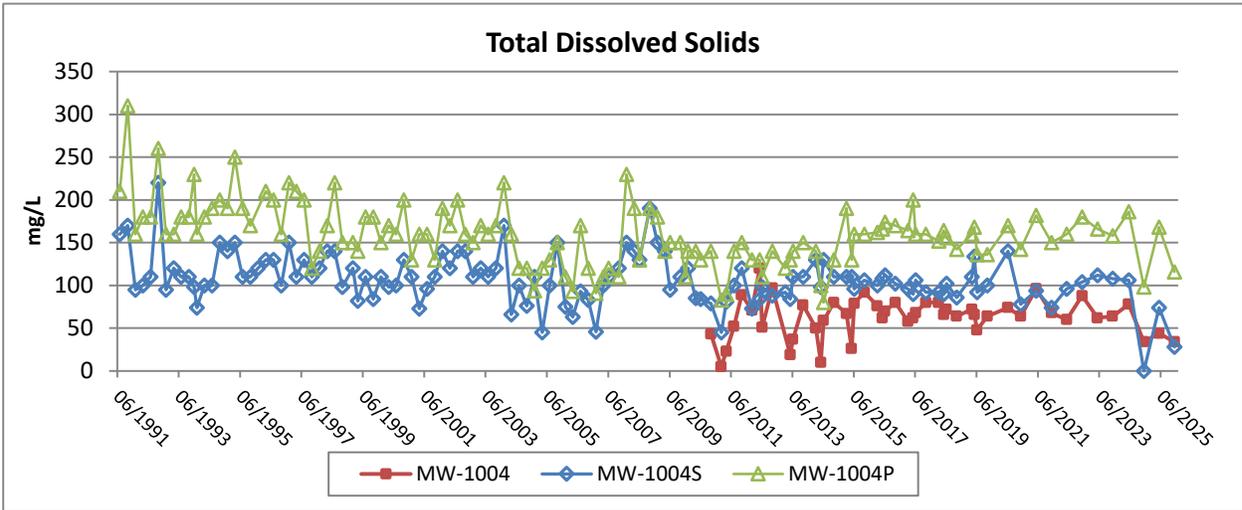
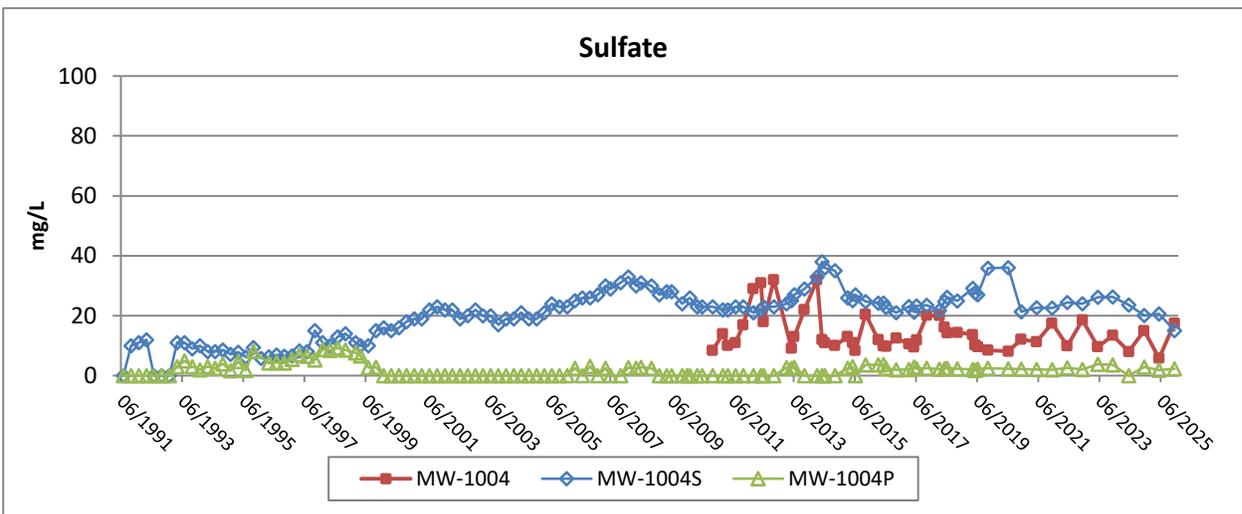
Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

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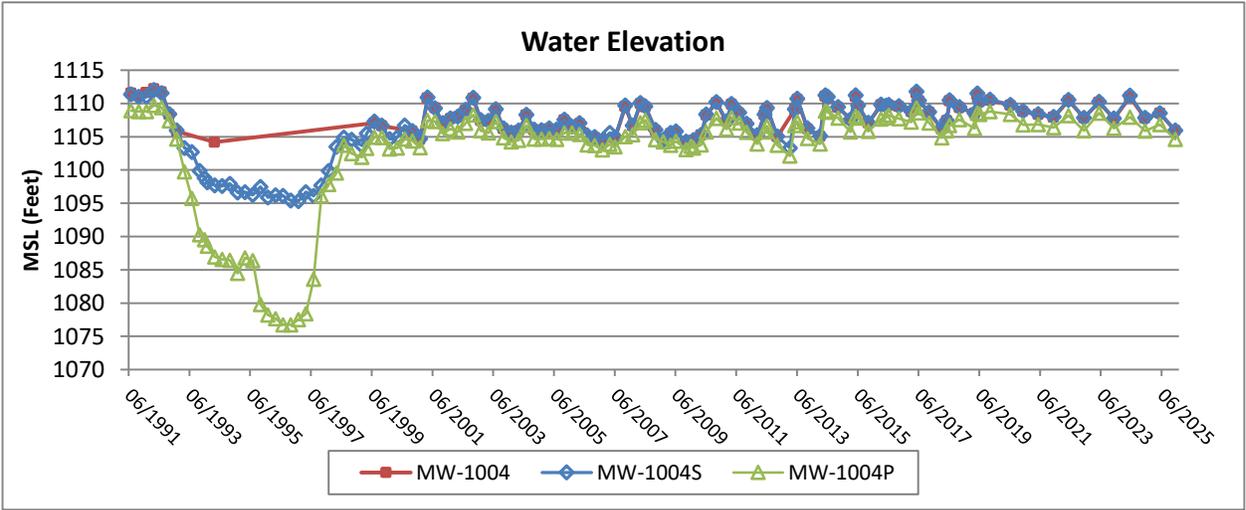
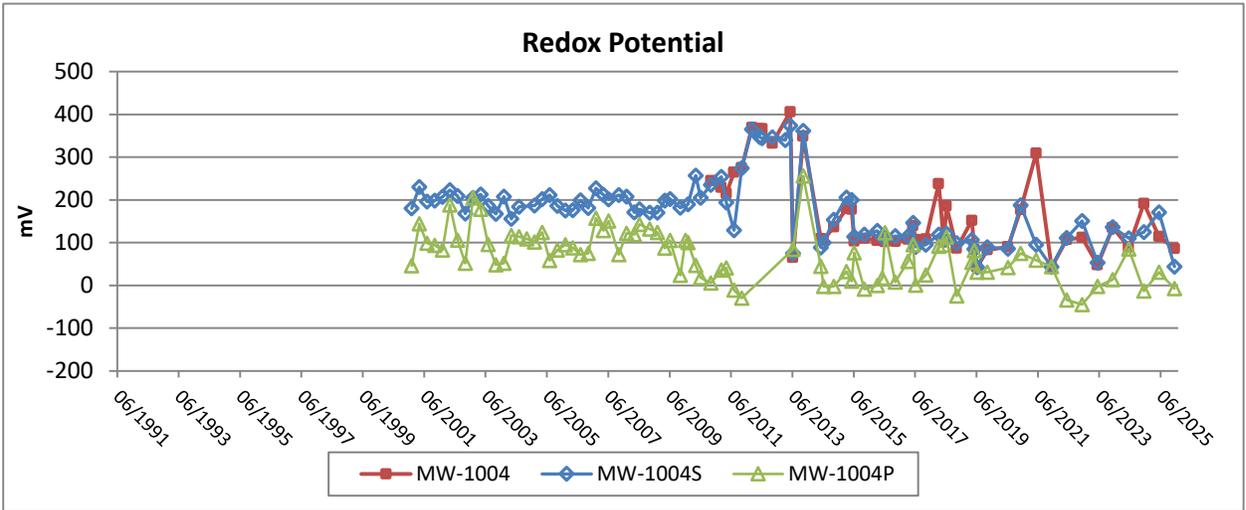
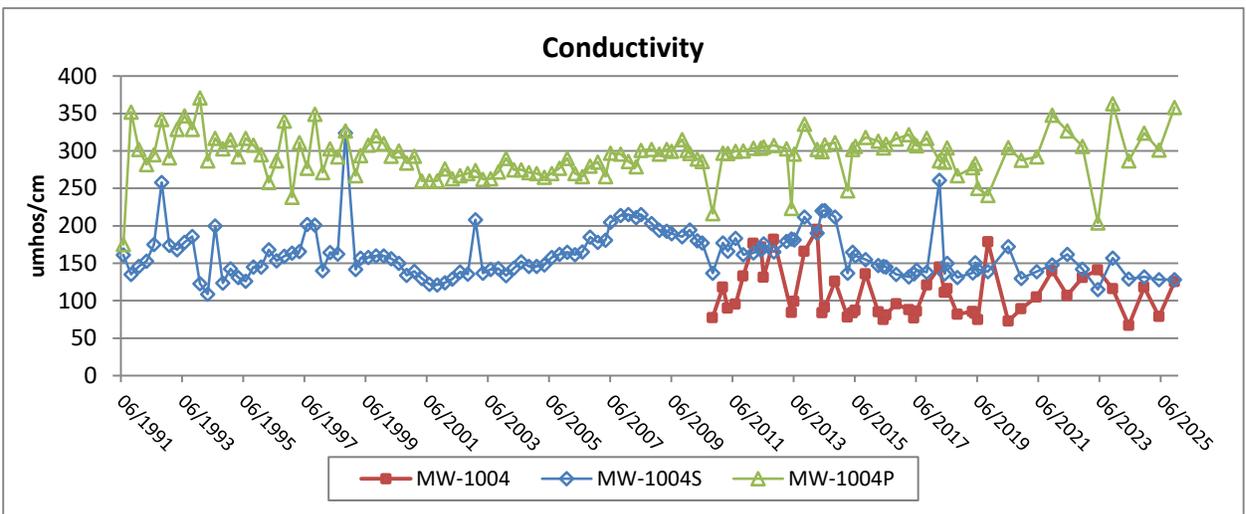
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Note: May 2023 pH result is from lab analysis since a malfunction occurred with the pH field meter.

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Figure B-3c Groundwater Trend Graphs - Semi-Annual Results MW-1004/MW-1004S/MW-1004P		
Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25



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Figure B-3d
Groundwater Trend Graphs - Semi-Annual Results
MW-1004/MW-1004S/MW-1004P

Scale: NA

Date: January 2026

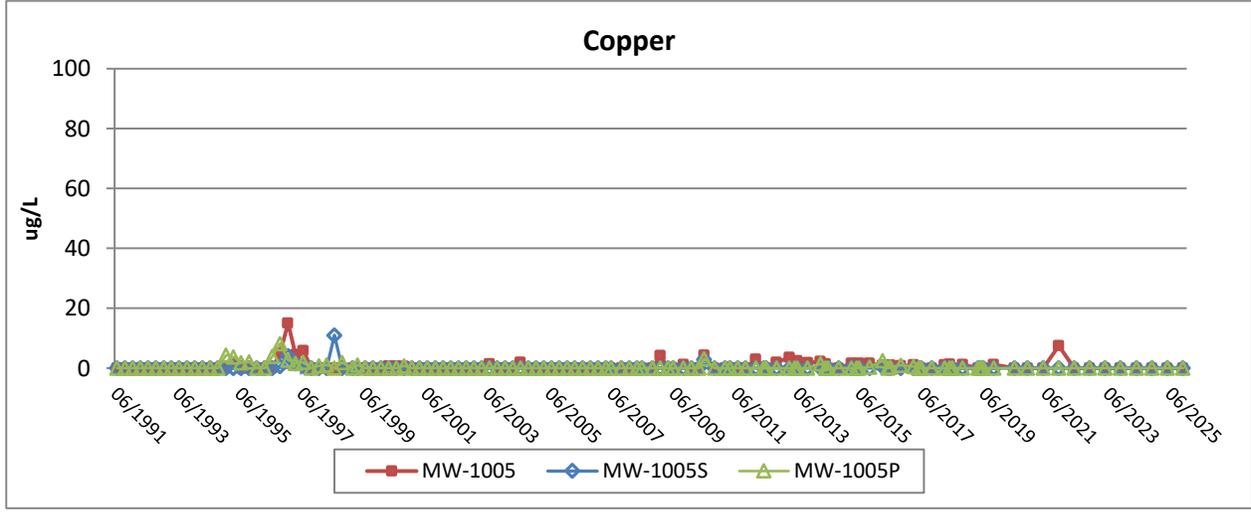
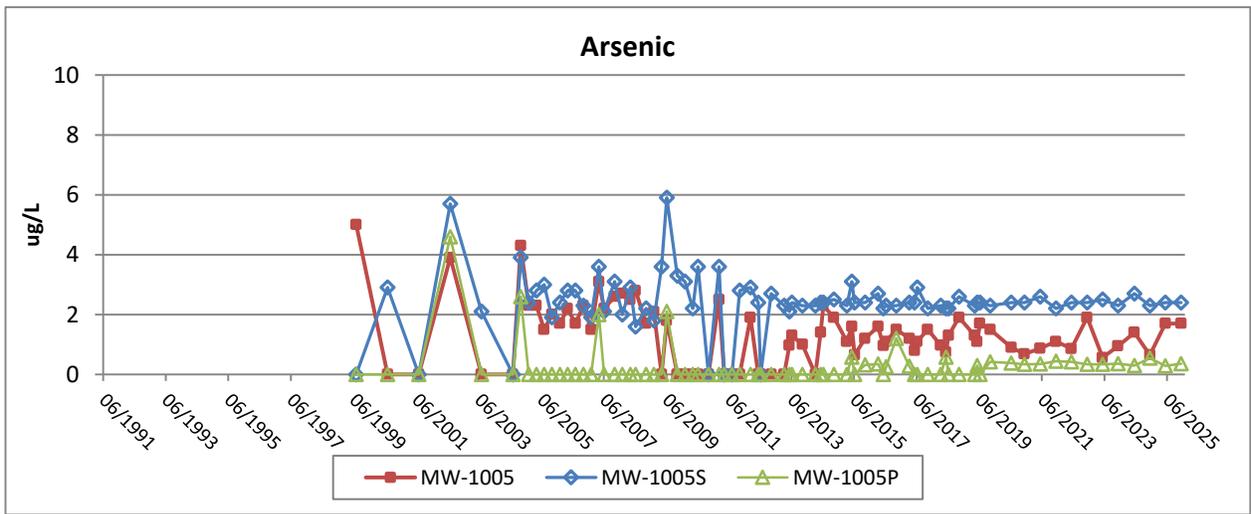
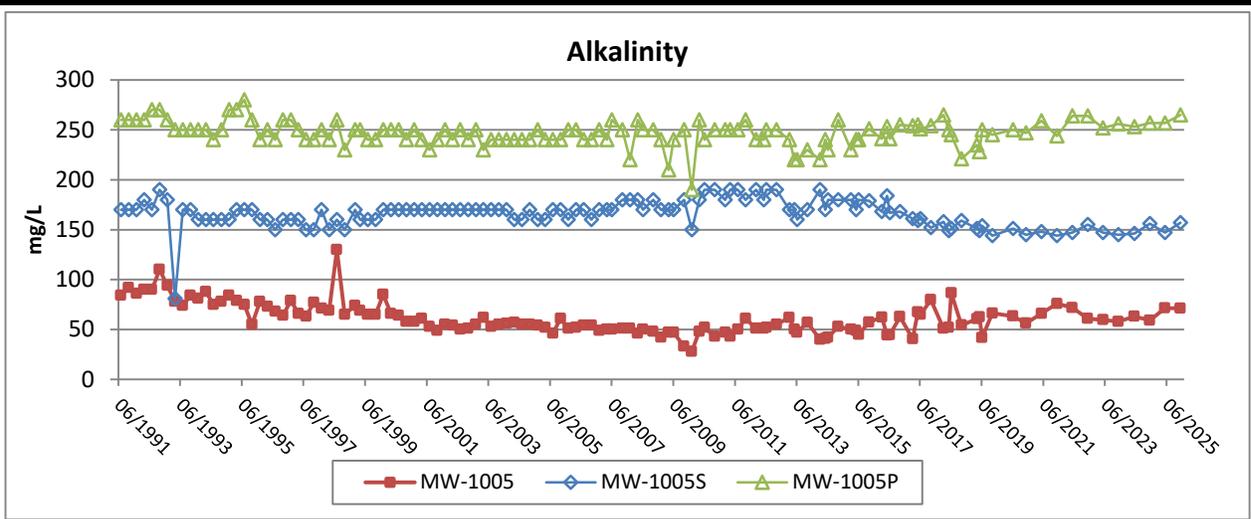
Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

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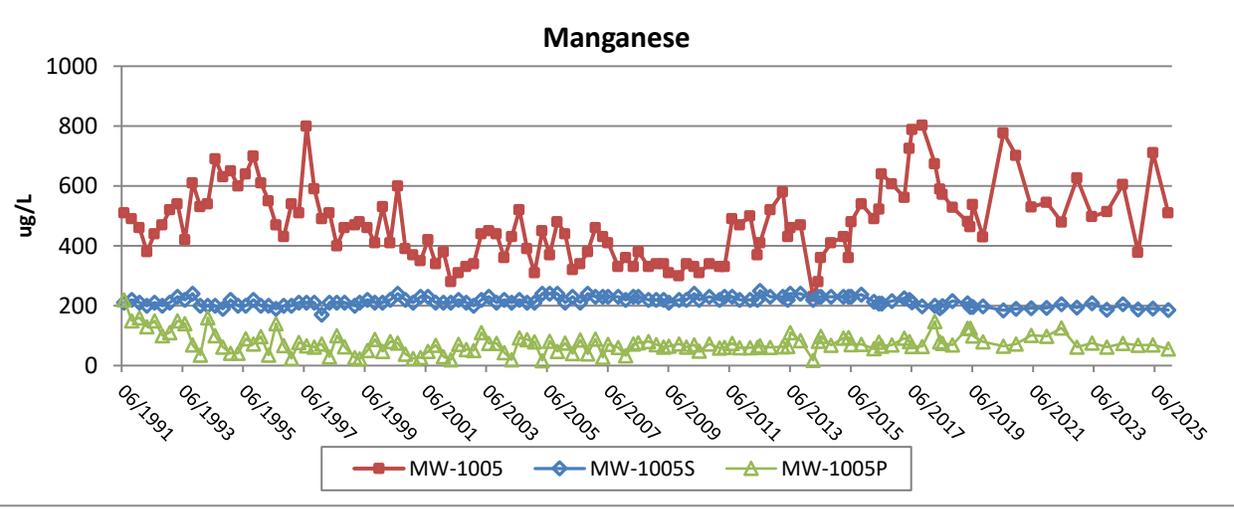
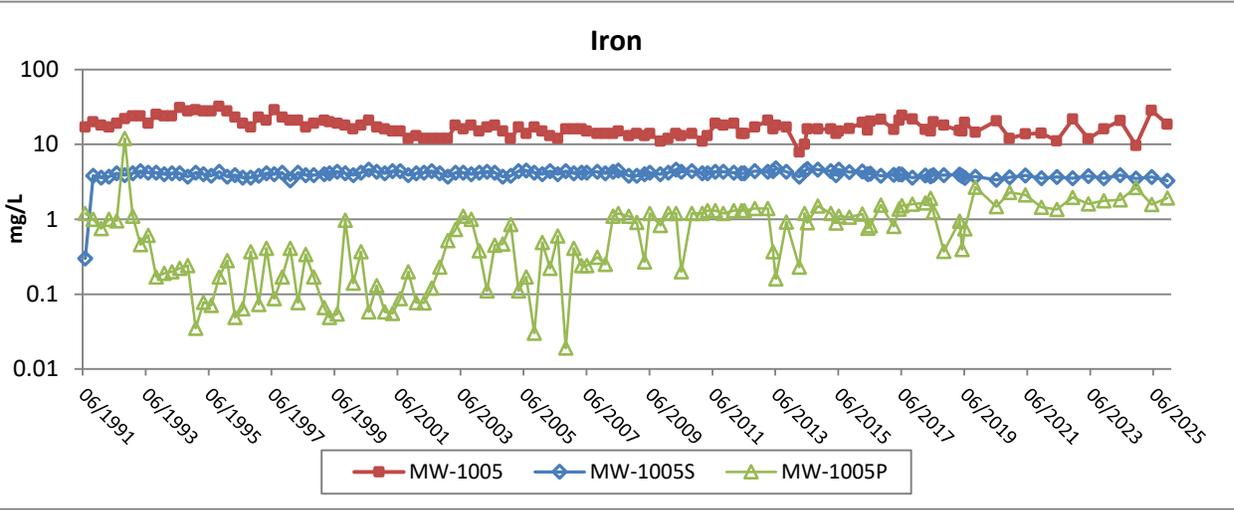
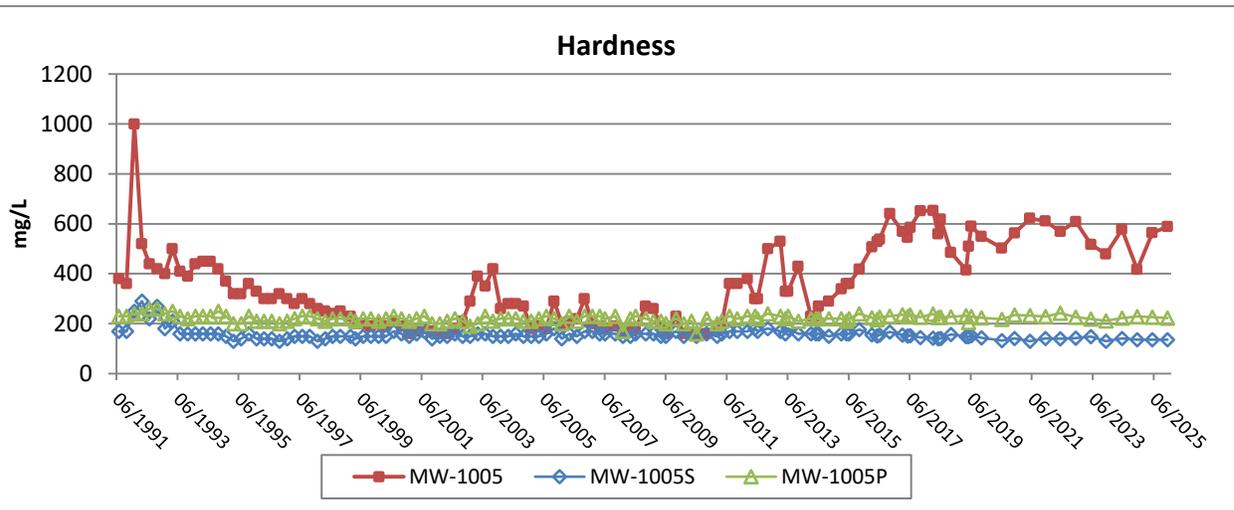




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Figure B-4a
Groundwater Trend Graphs - Semi-Annual Results
MW-1005/MW-1005S/MW-1005P

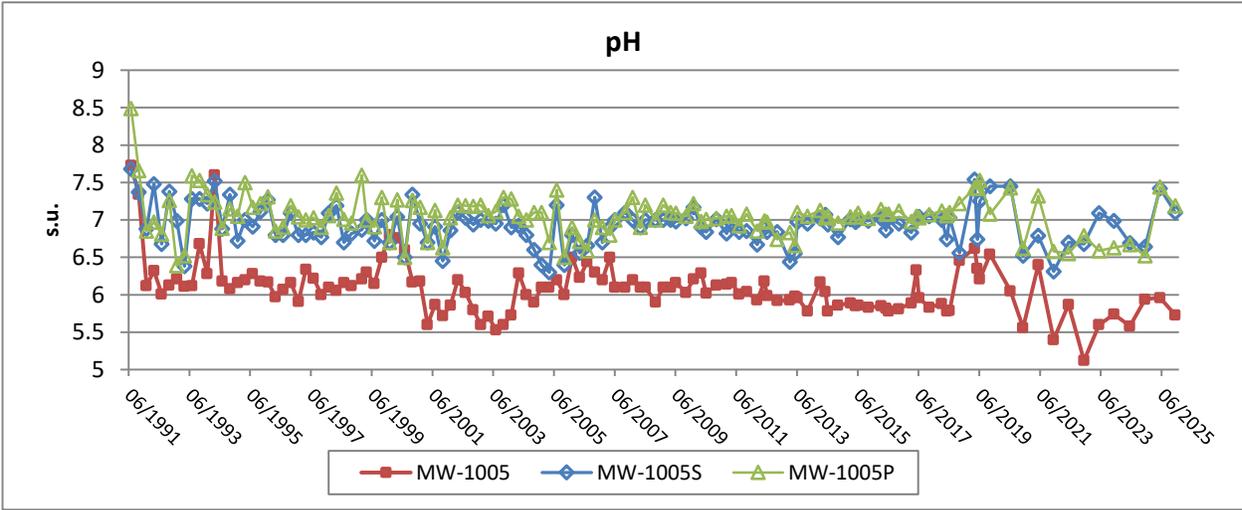
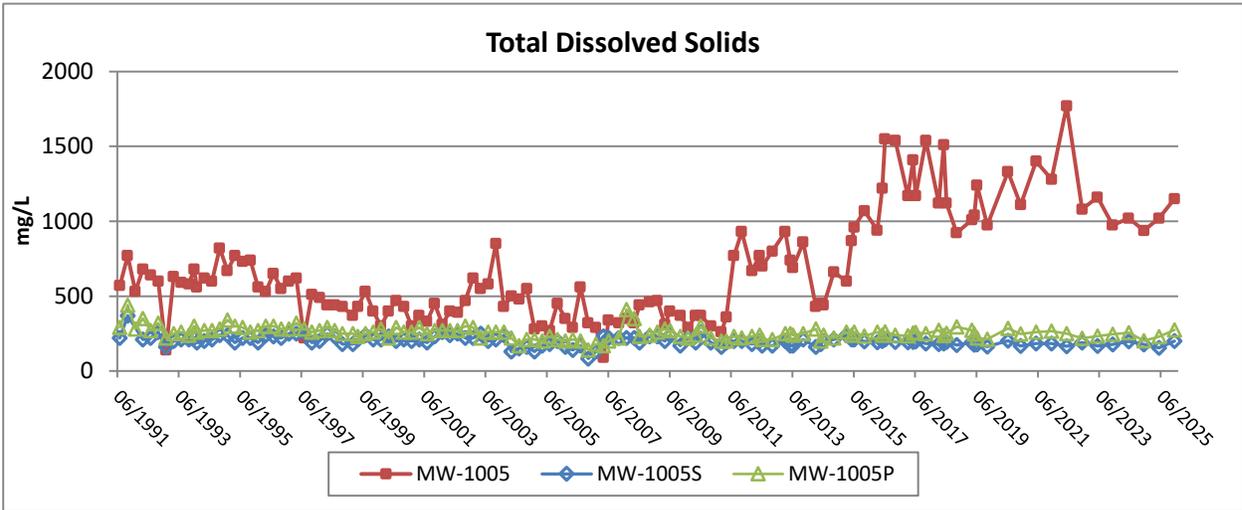
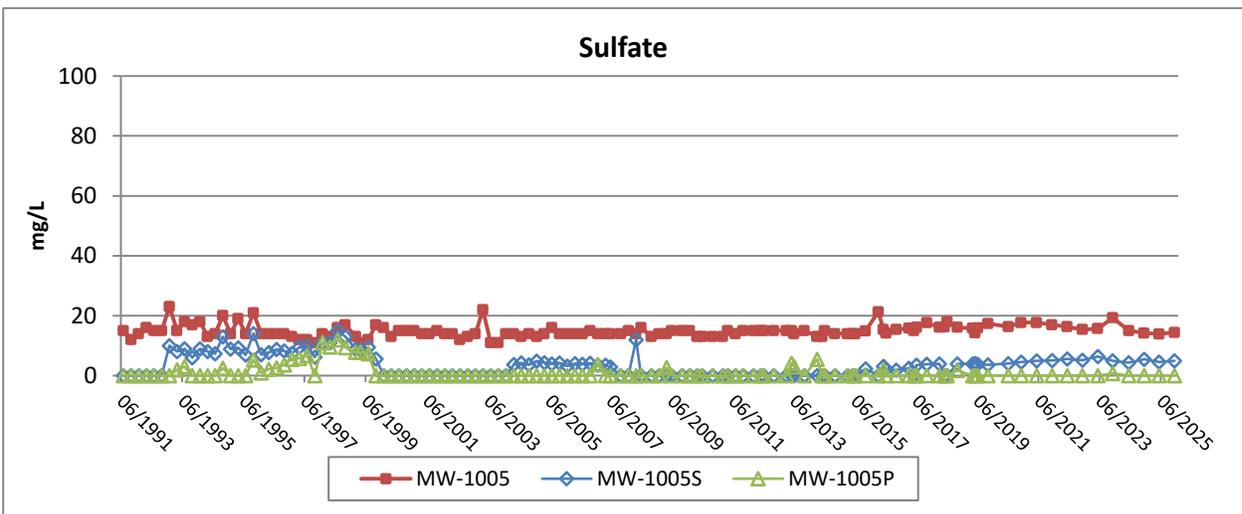
Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



Note: Iron trend graphs are displayed on a logarithmic scale so the trend patterns of MW-1005, MW-1005S and MW-1005P are visible at different concentration scales.

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Figure B-4b Groundwater Trend Graphs - Semi-Annual Results MW-1005/MW-1005S/MW-1005P		
Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25



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Figure B-4c
Groundwater Trend Graphs - Semi-Annual Results
MW-1005/MW-1005S/MW-1005P

Scale: NA

Date: January 2026

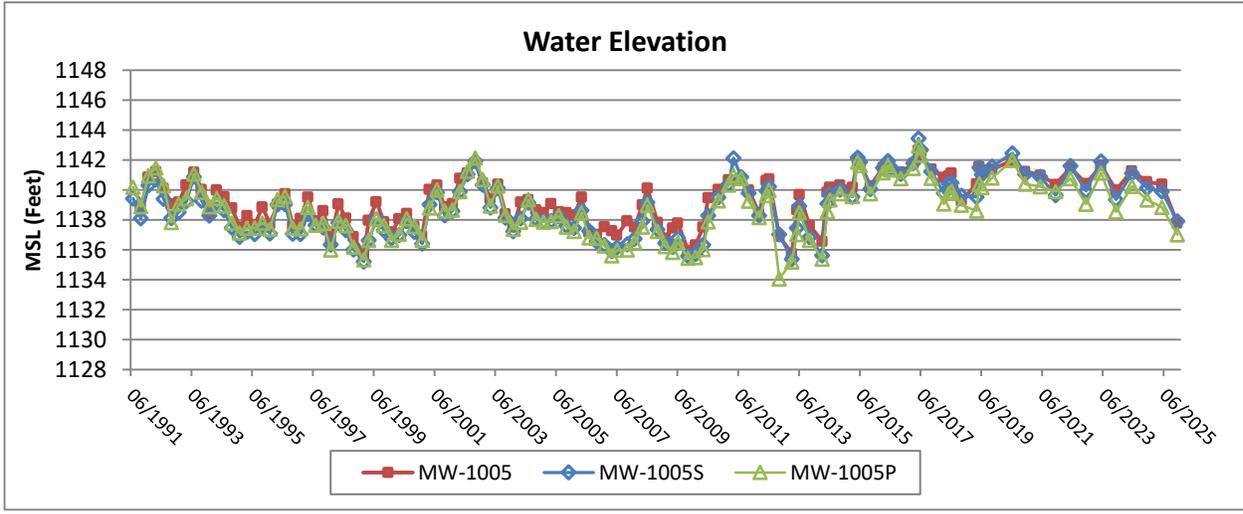
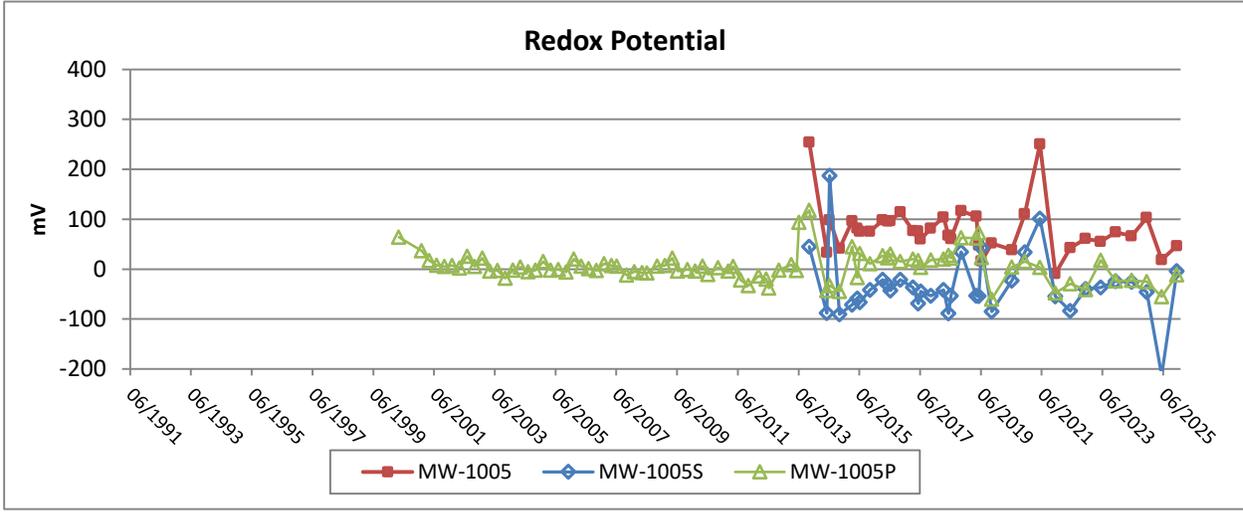
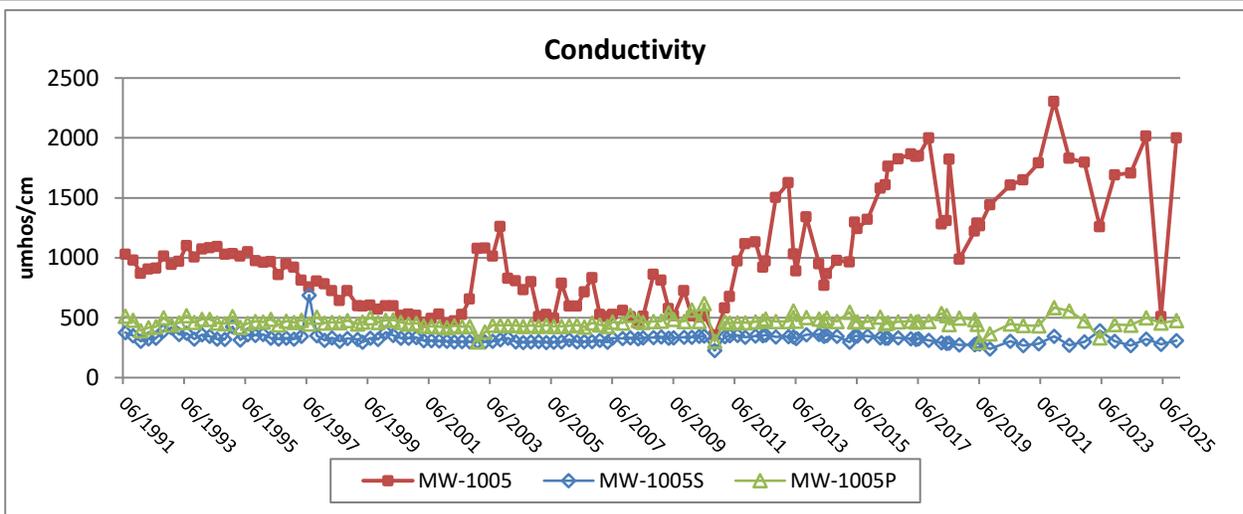
Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

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Figure B-4d
Groundwater Trend Graphs - Semi-Annual Results
MW-1005/MW-1005S/MW-1005P

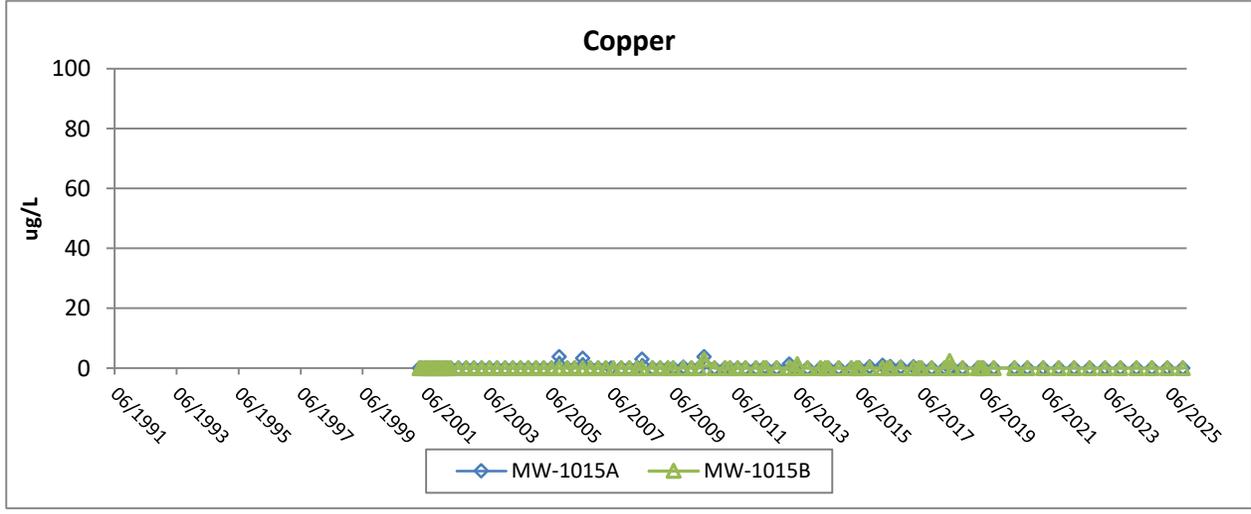
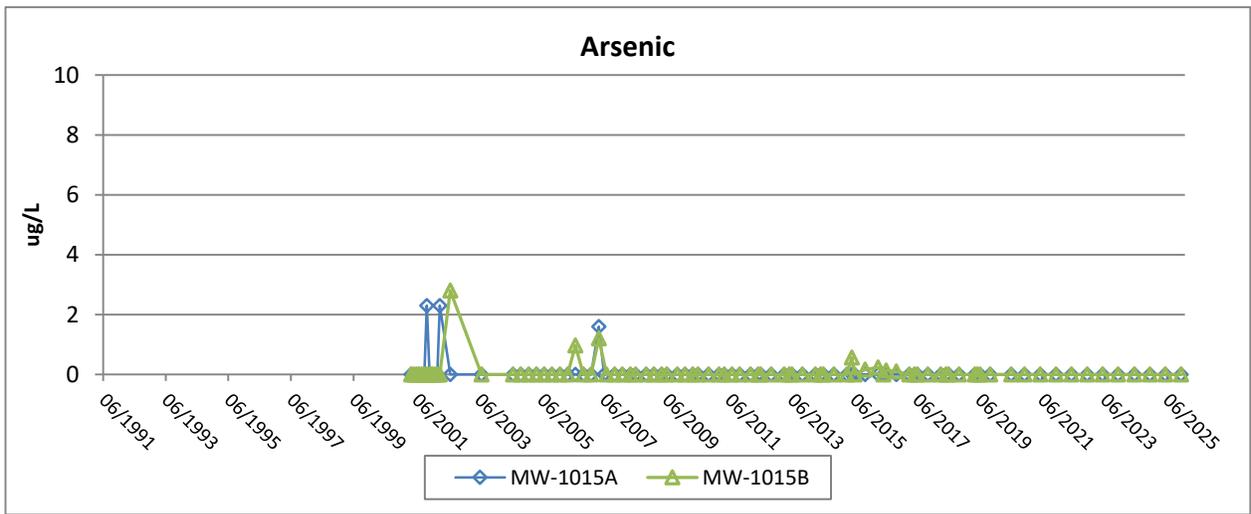
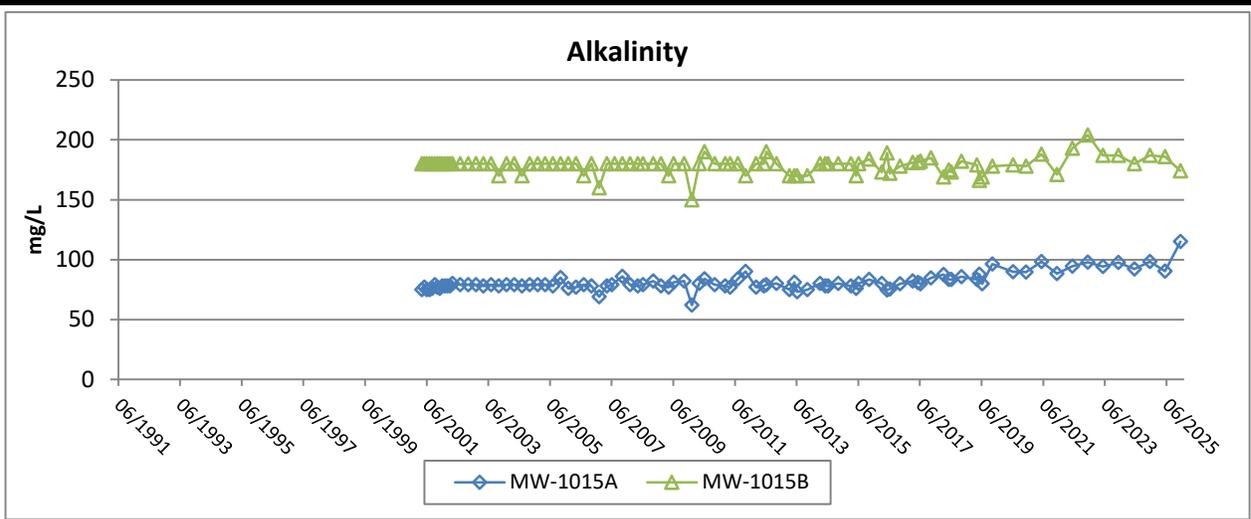
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Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

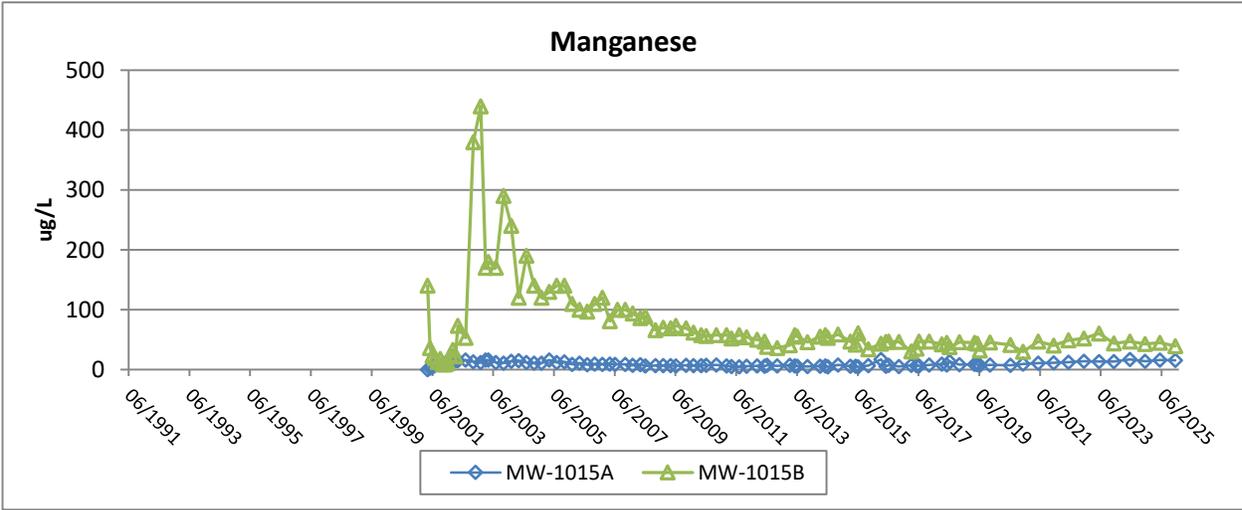
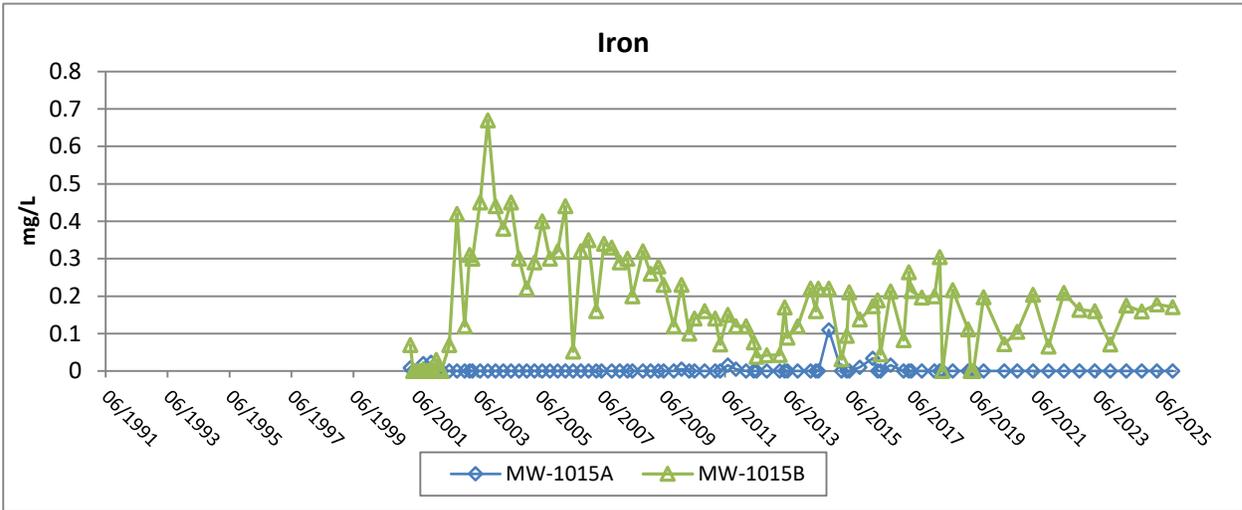
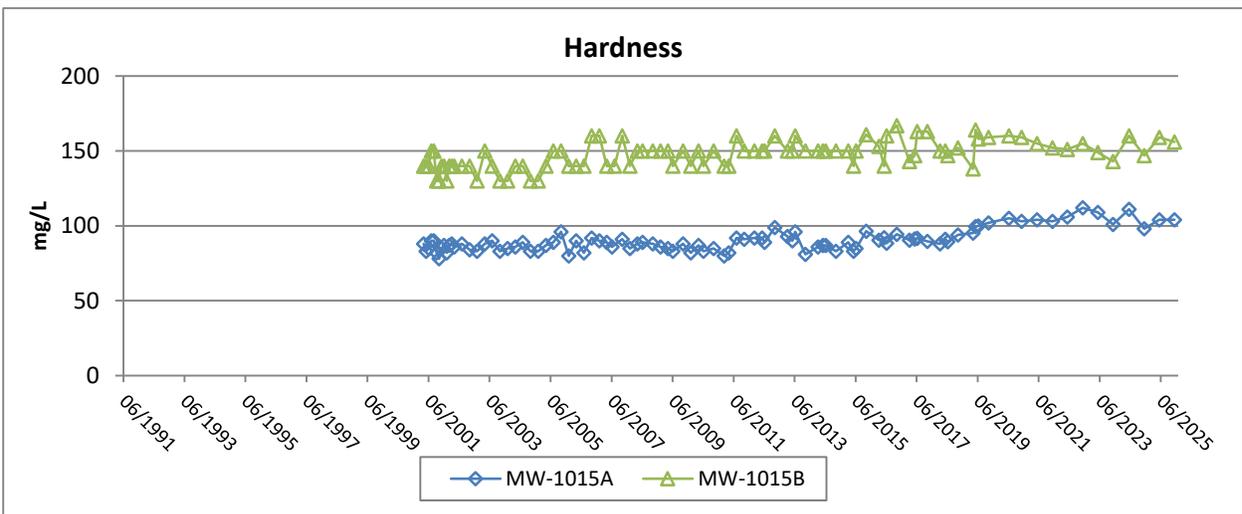




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Figure B-5a
Groundwater Trend Graphs - Semi-Annual Results
MW-1015A/MW-1015B

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



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Figure B-5b
Groundwater Trend Graphs - Semi-Annual Results
MW-1015A/MW-1015B

Scale: NA

Date: January 2026

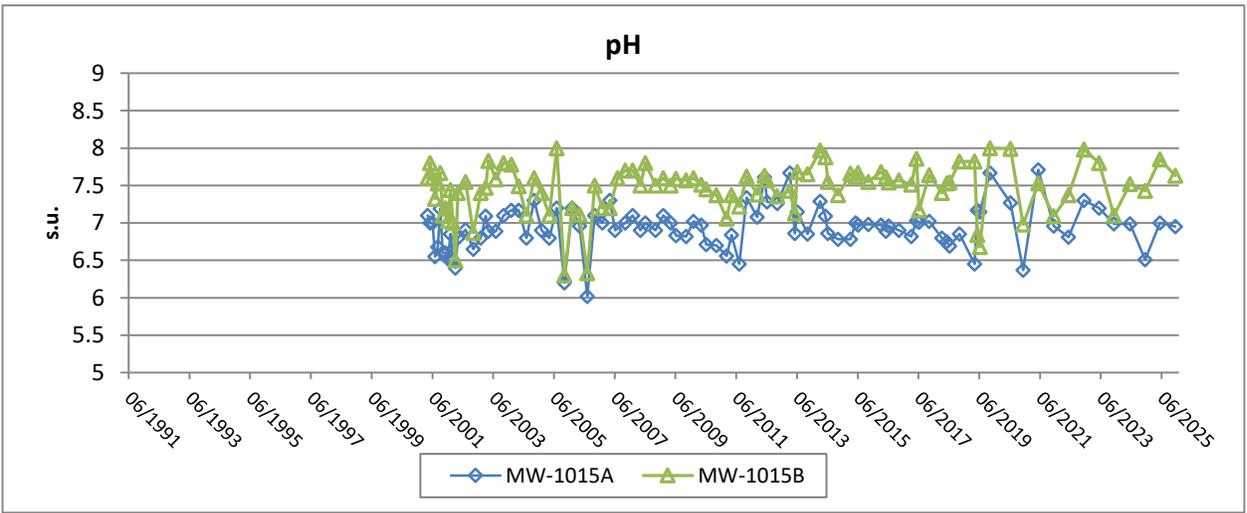
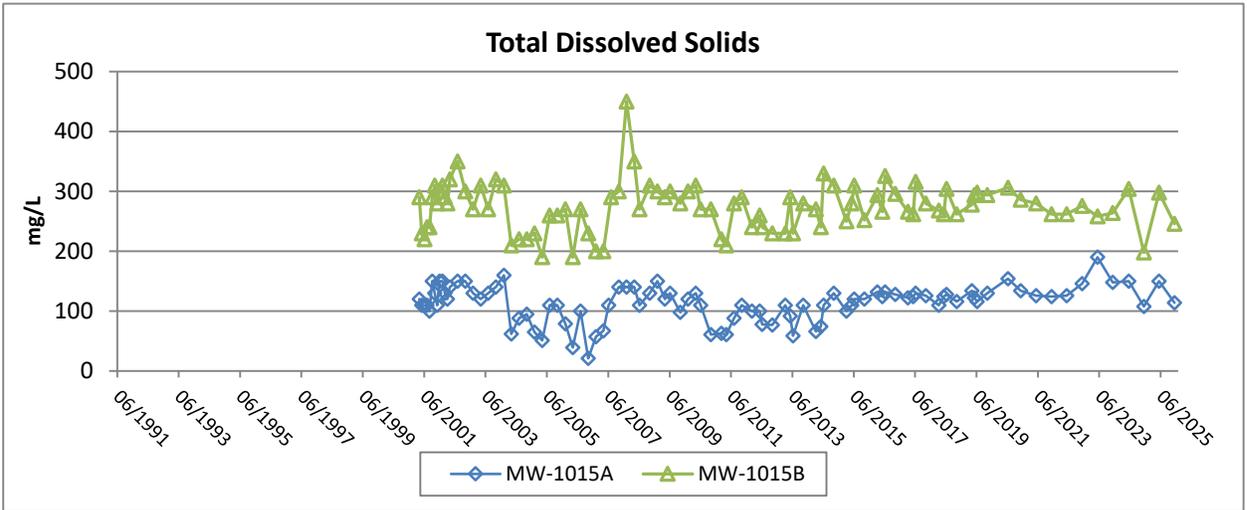
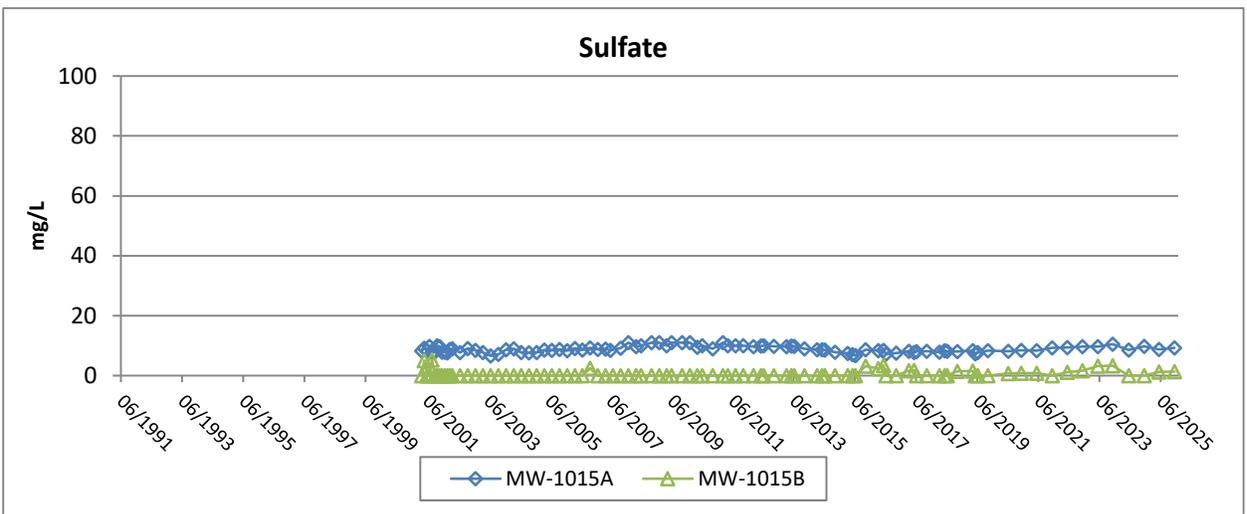
Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

Flambeau Mining Co.

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Note: May 2023 pH result is from lab analysis since a malfunction occurred with the pH field meter.

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Figure B-5c
Groundwater Trend Graphs - Semi-Annual Results
MW-1015A/MW-1015B

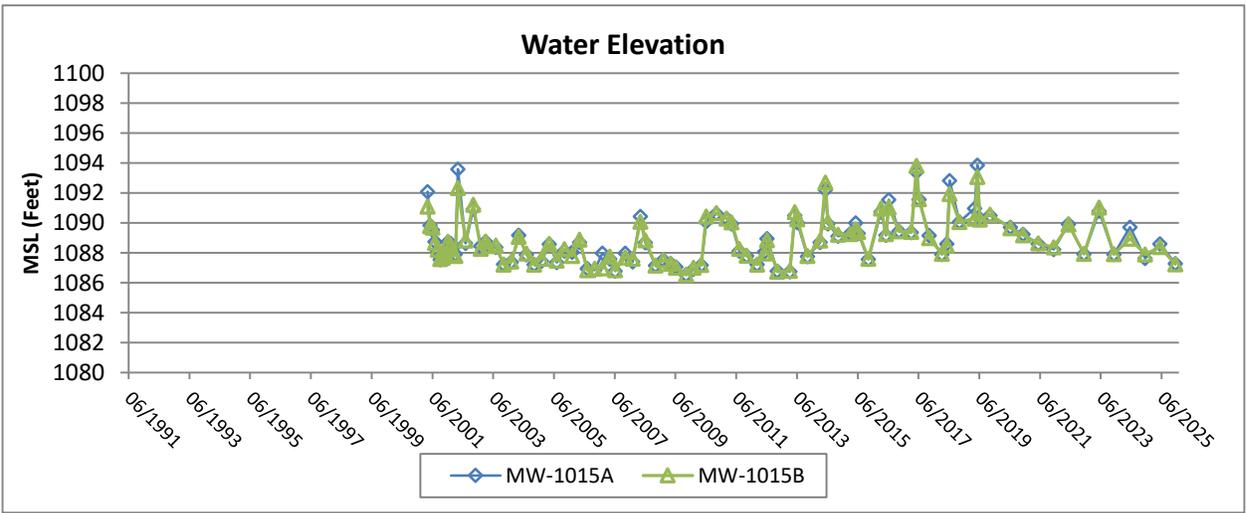
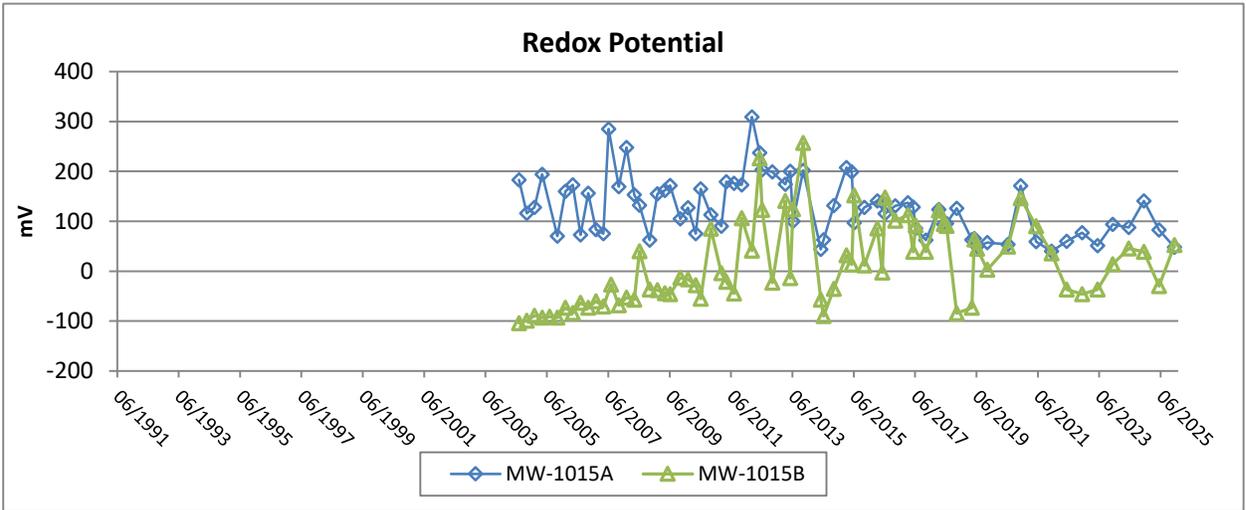
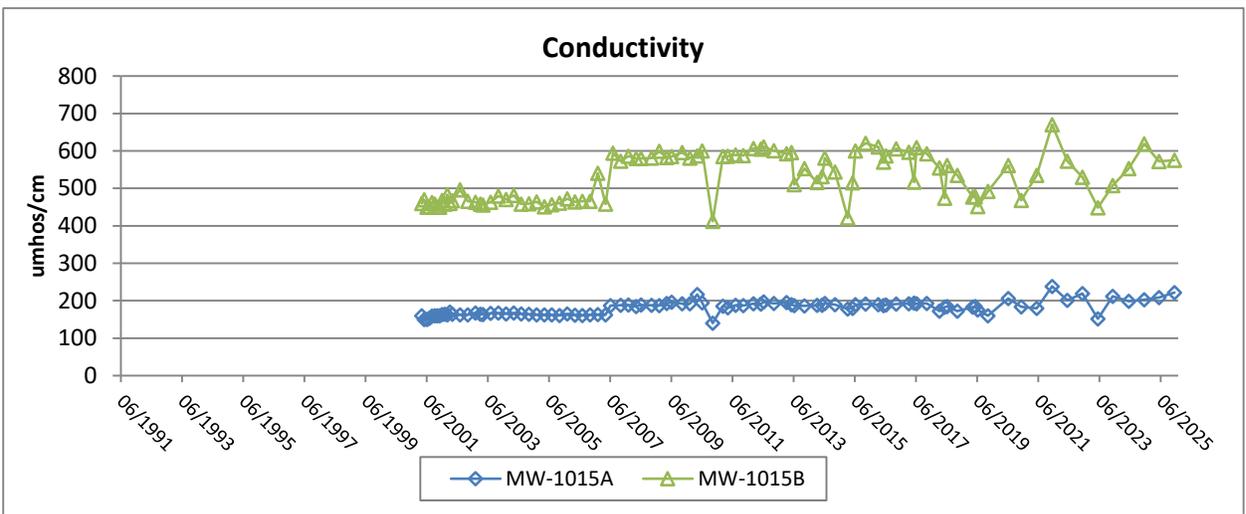
Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25



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Figure B-5d
Groundwater Trend Graphs - Semi-Annual Results
MW-1015A/MW-1015B

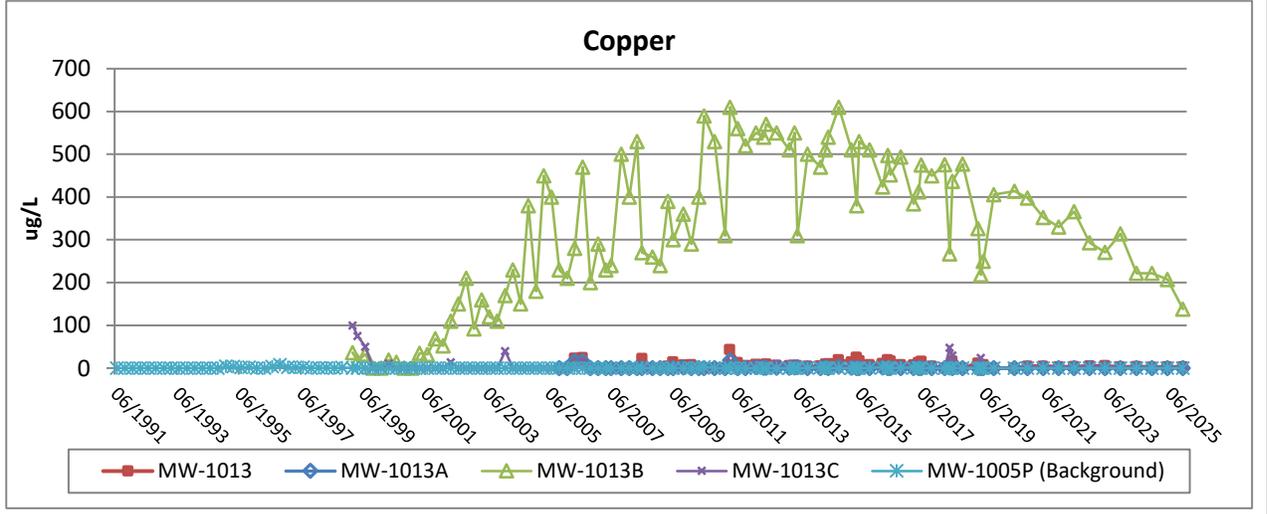
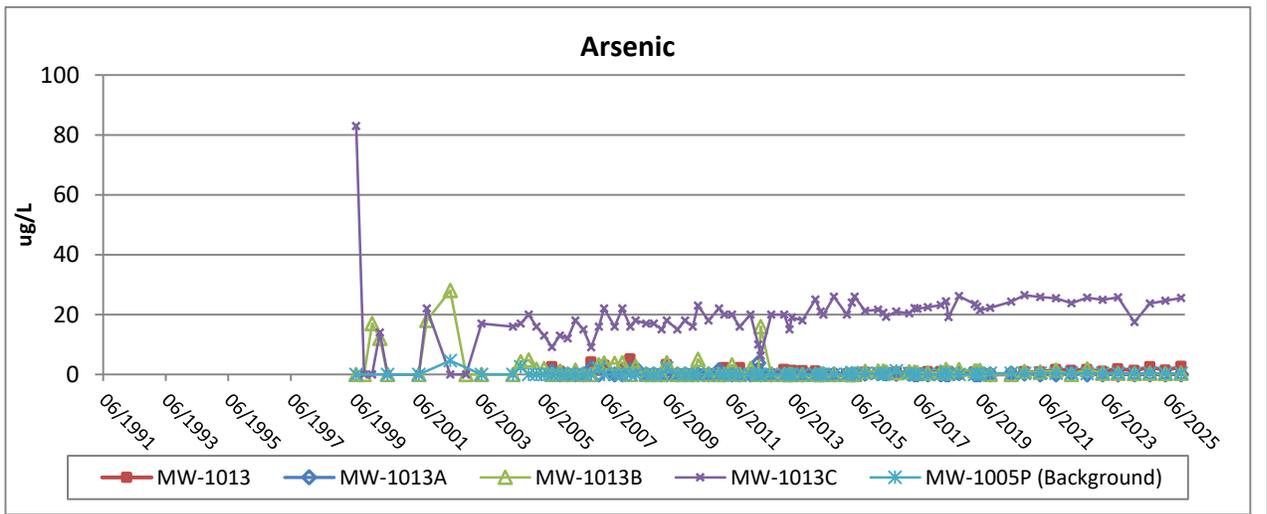
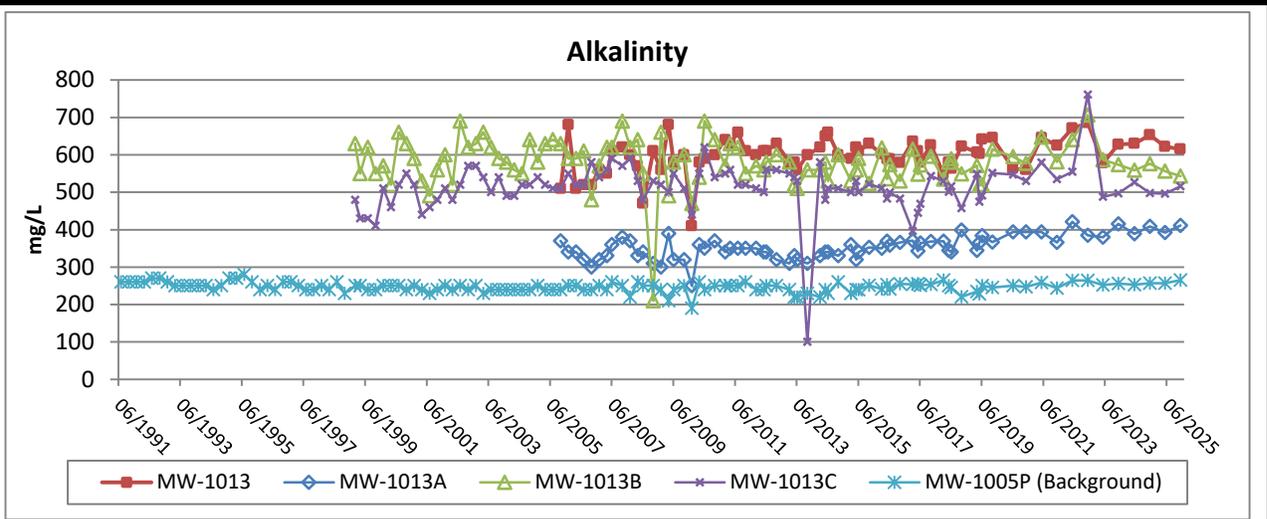
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Checked By: NMG1

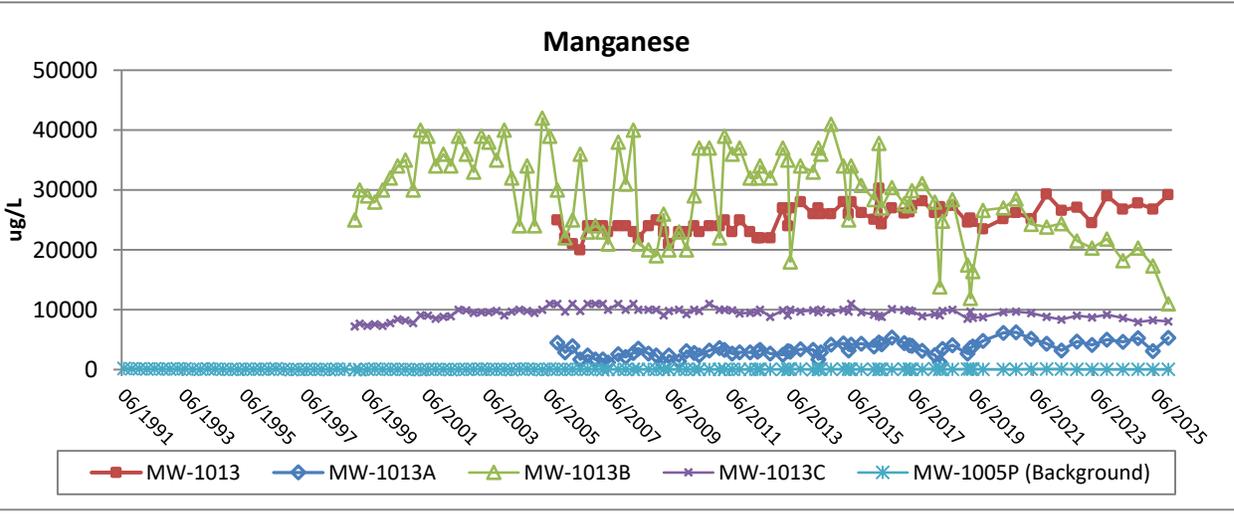
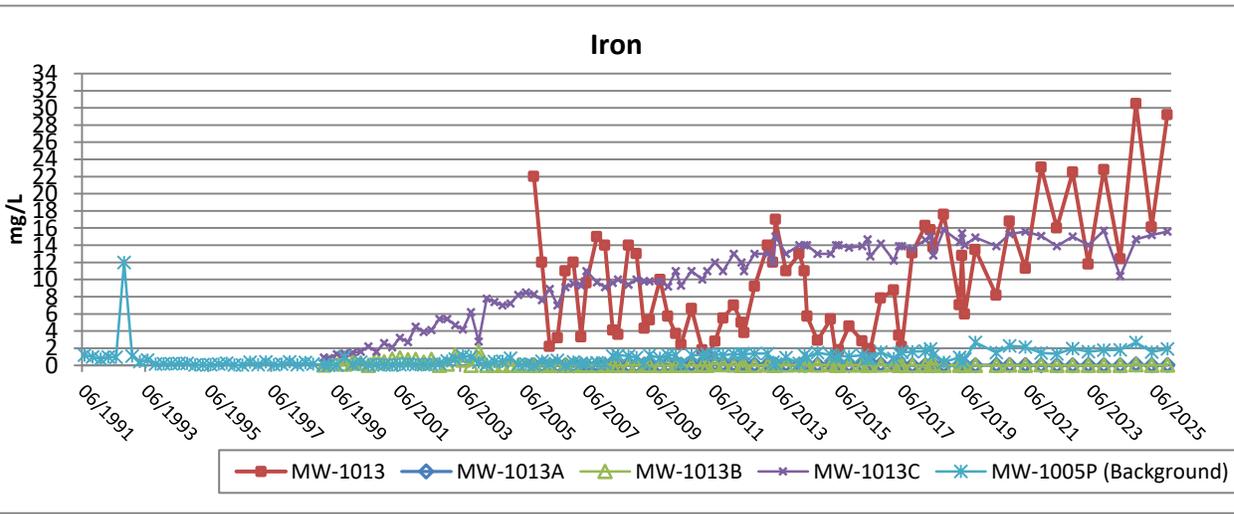
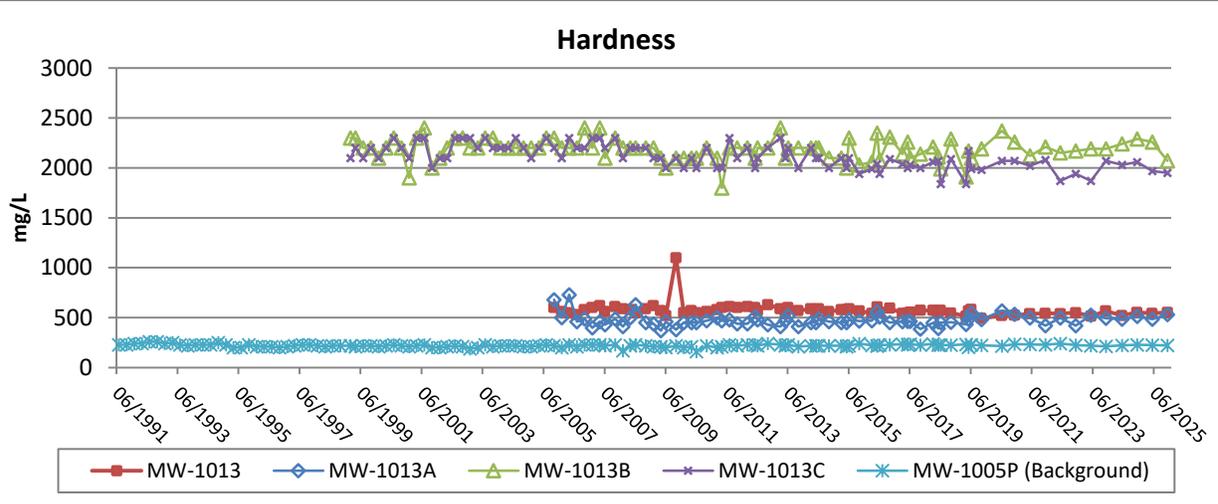
Project: 17F777.25



Note: Fourth quarter 2005 was the first time MW-1013 had sufficient water recovery for sampling.

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Foth		
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Figure B-6a		
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)		
MW-1013/MW-1013A/MW-1013B/MW-1013C		
Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25



FLAMBEAU MINING COMPANY

Figure B-6b
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1013/MW-1013A/MW-1013B/MW-1013C

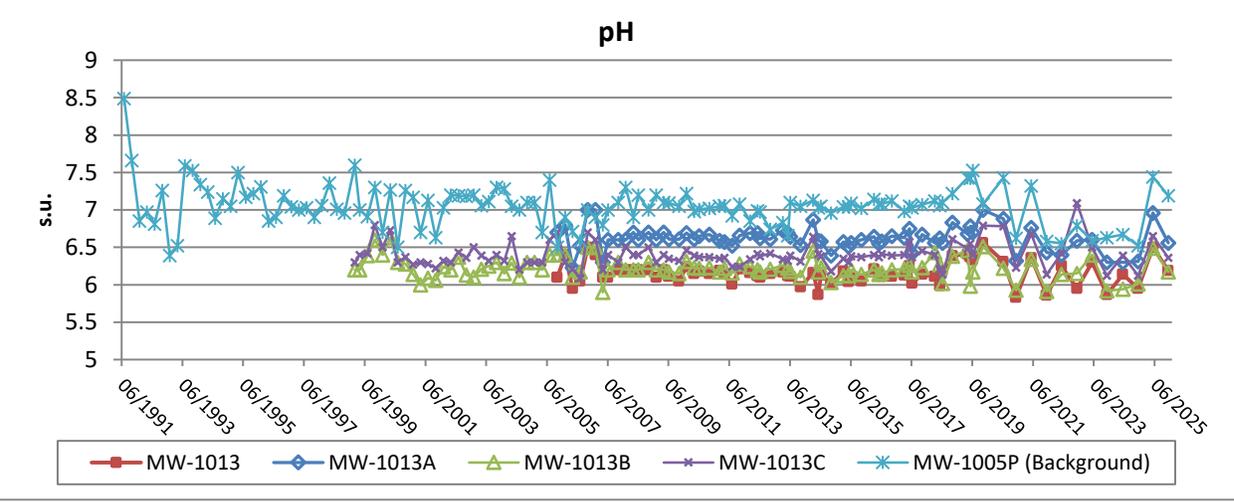
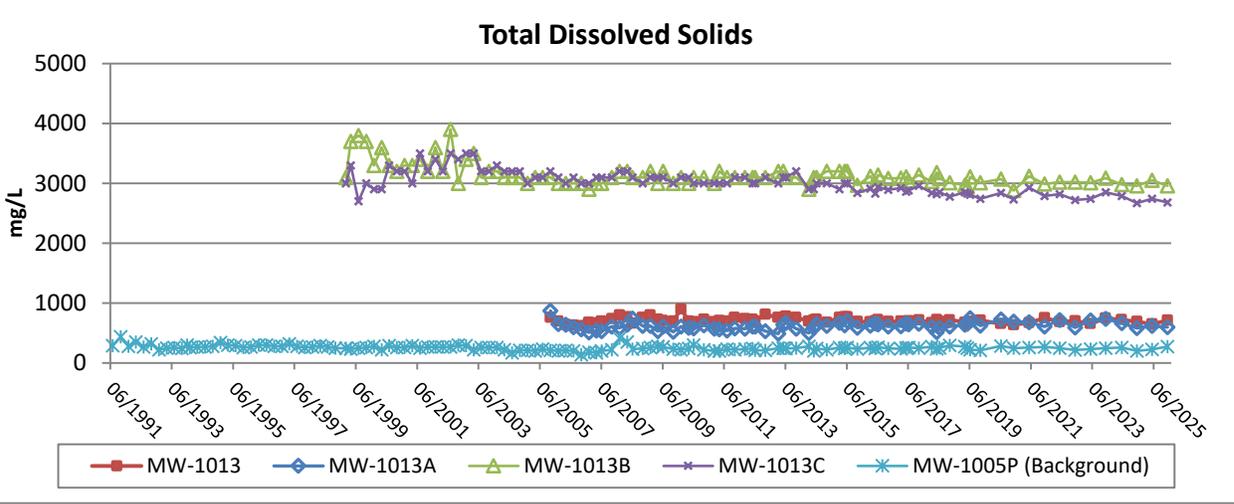
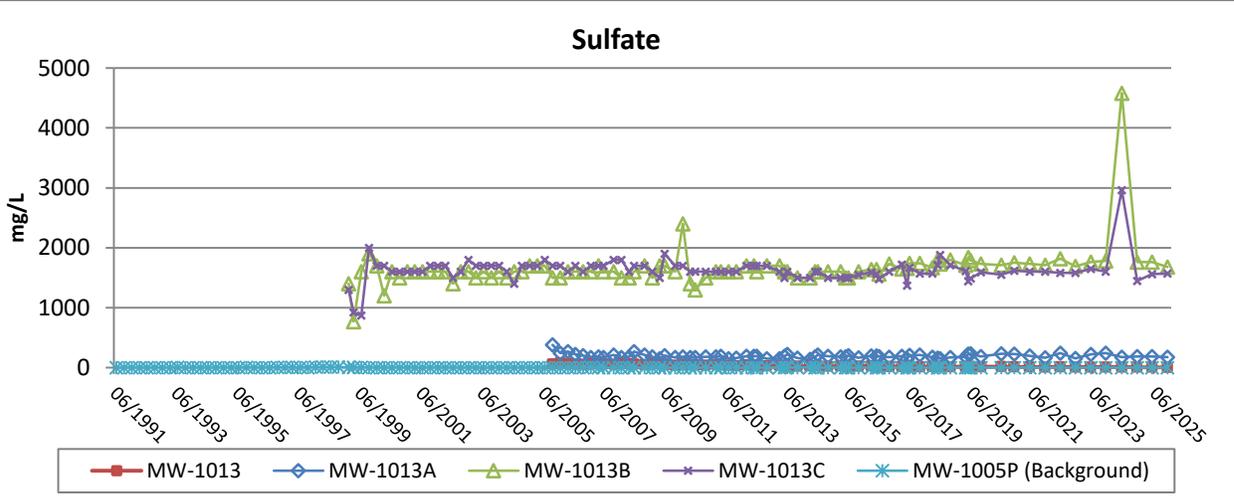
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Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25



Note: May 2023 pH result is from lab analysis since a malfunction occurred with the pH field meter.

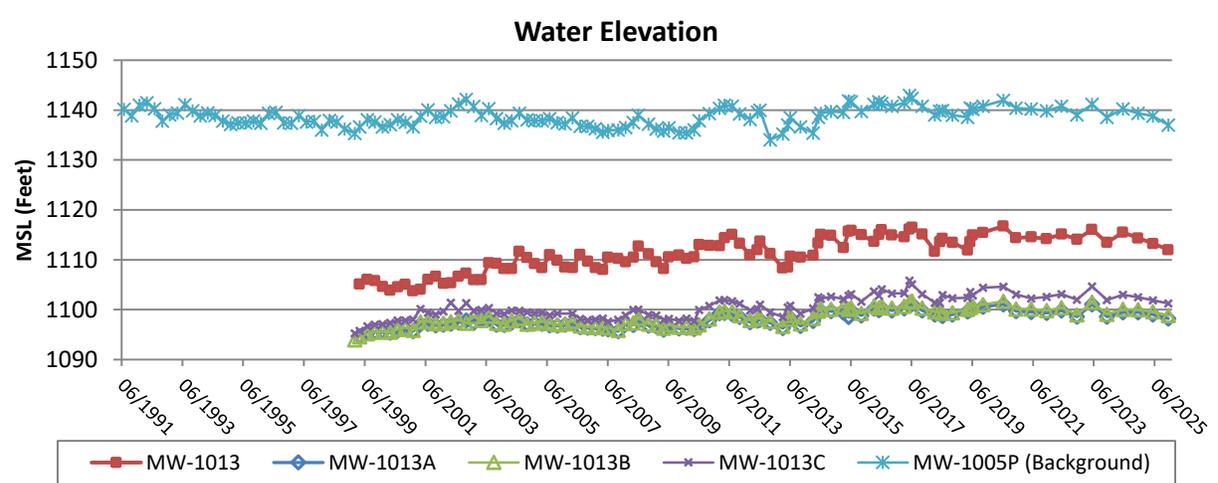
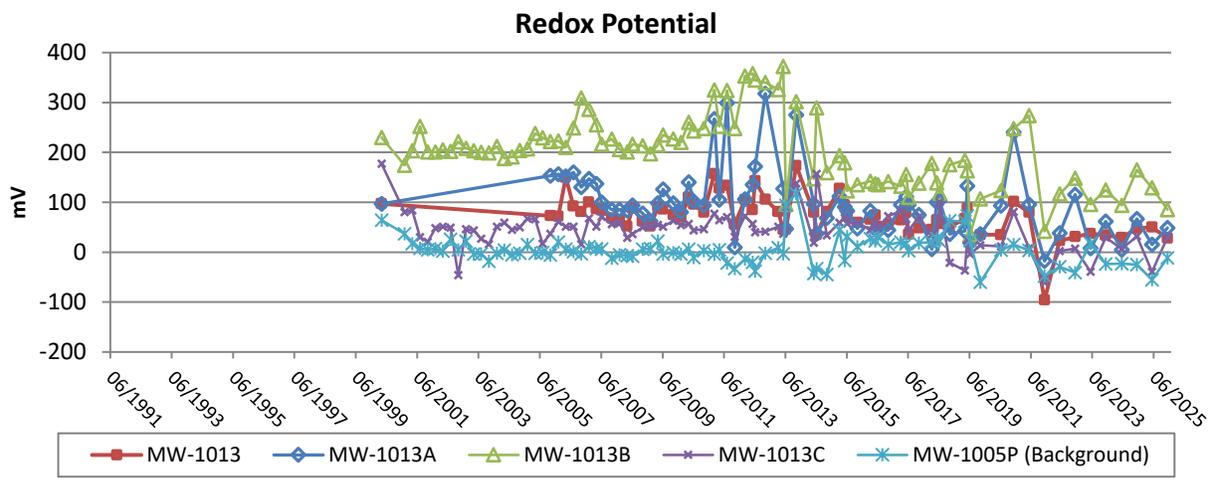
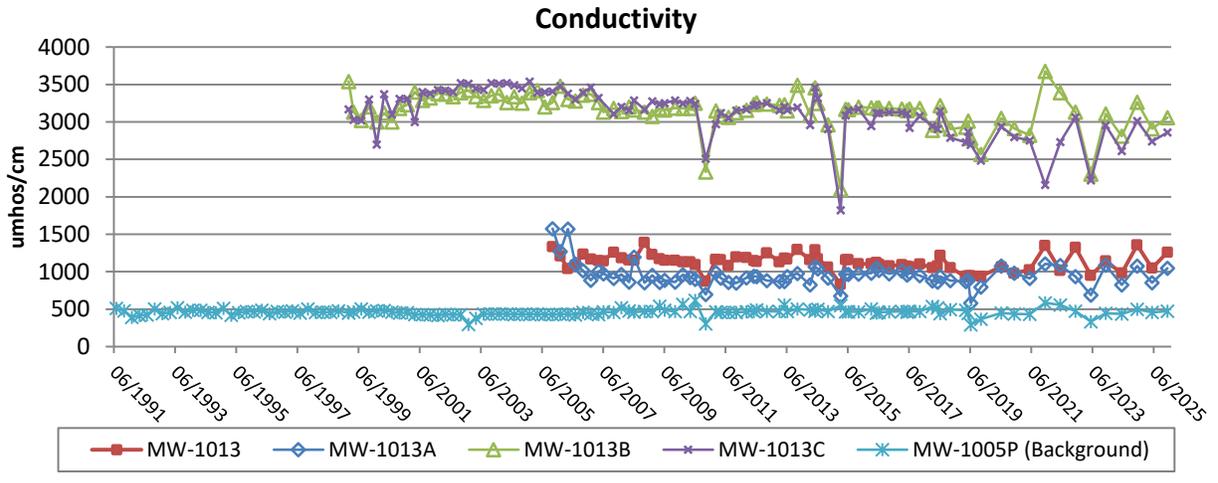
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Figure B-6c
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1013/MW-1013A/MW-1013B/MW-1013C

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



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Figure B-6d
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1013/MW-1013A/MW-1013B/MW-1013C

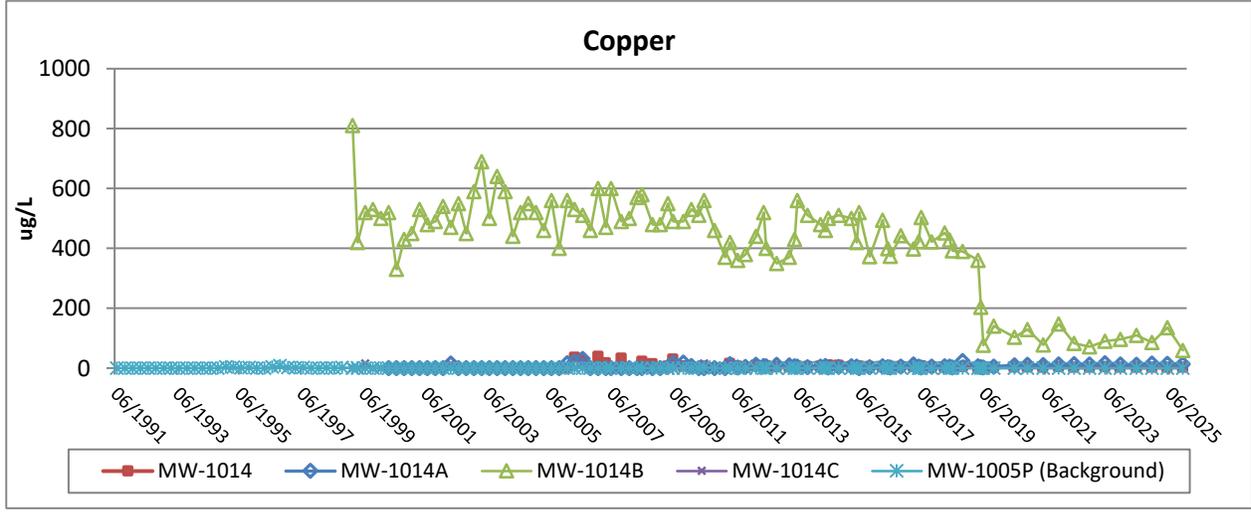
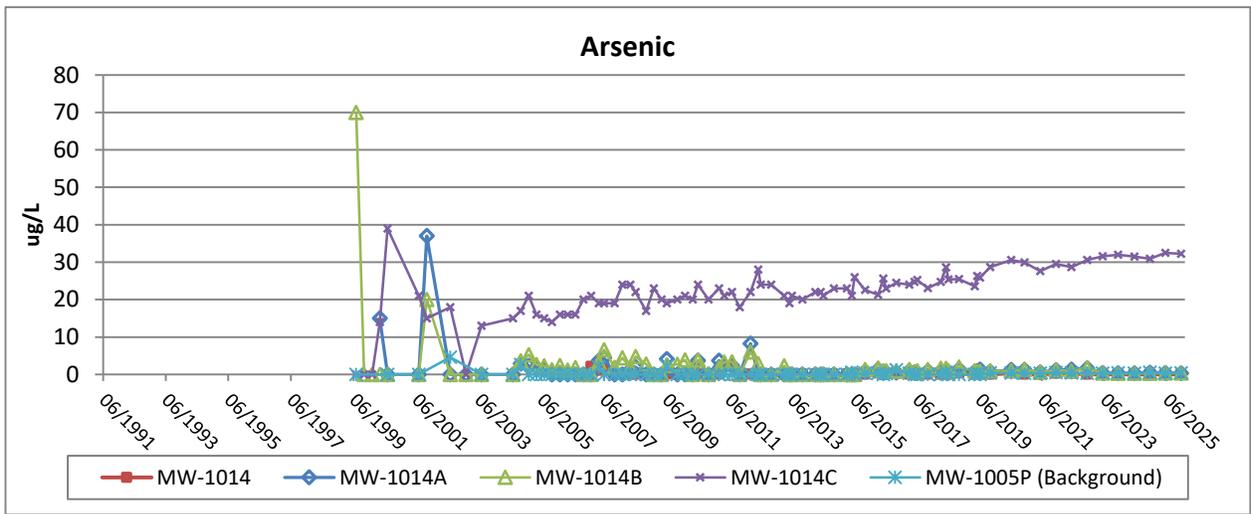
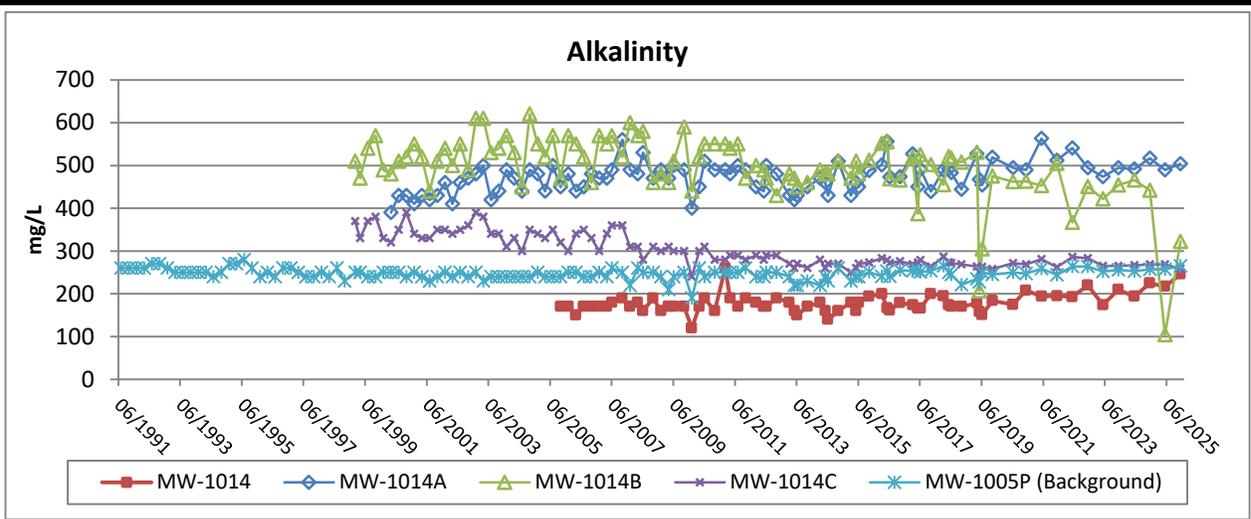
Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

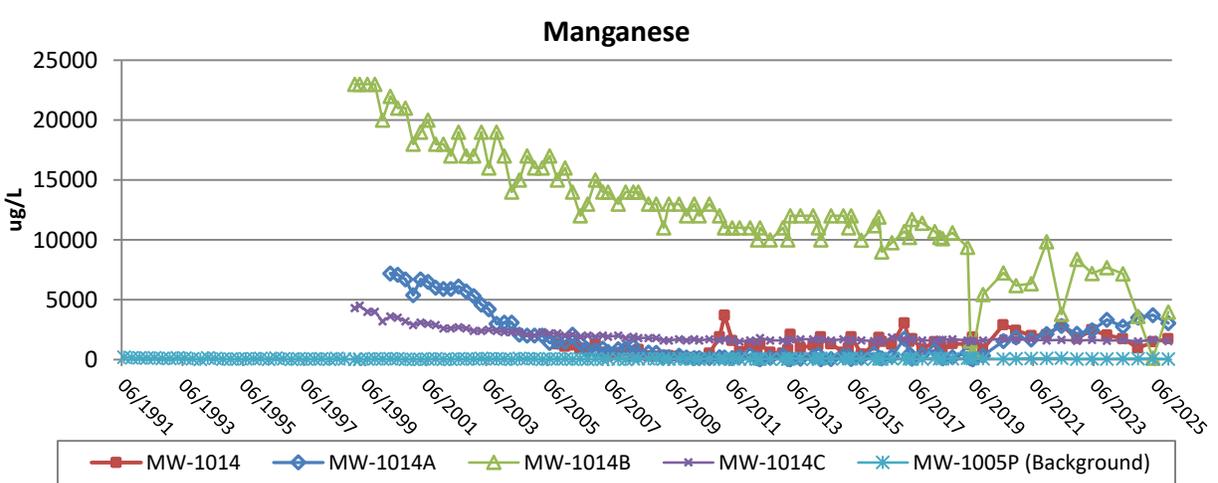
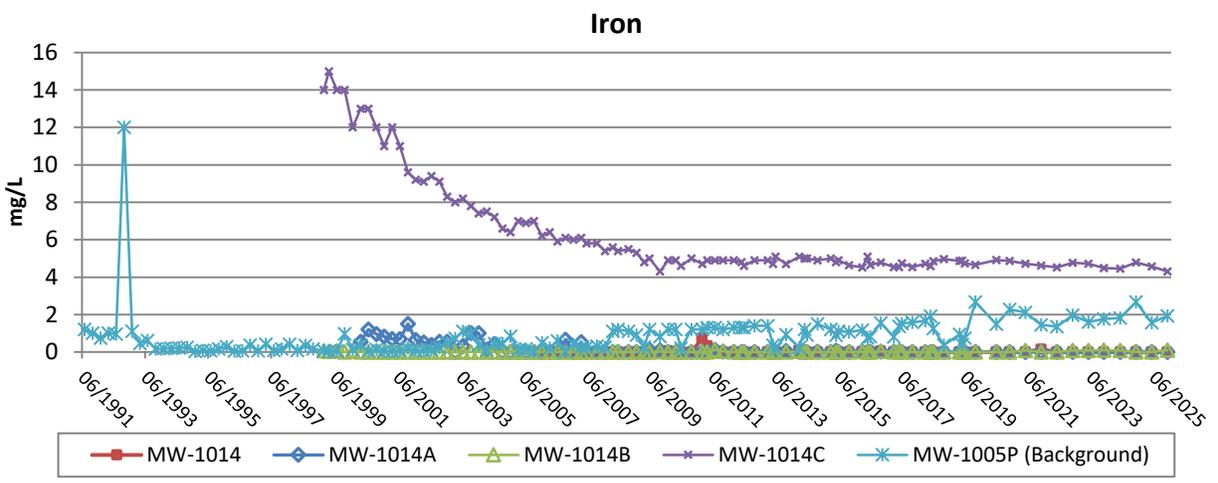
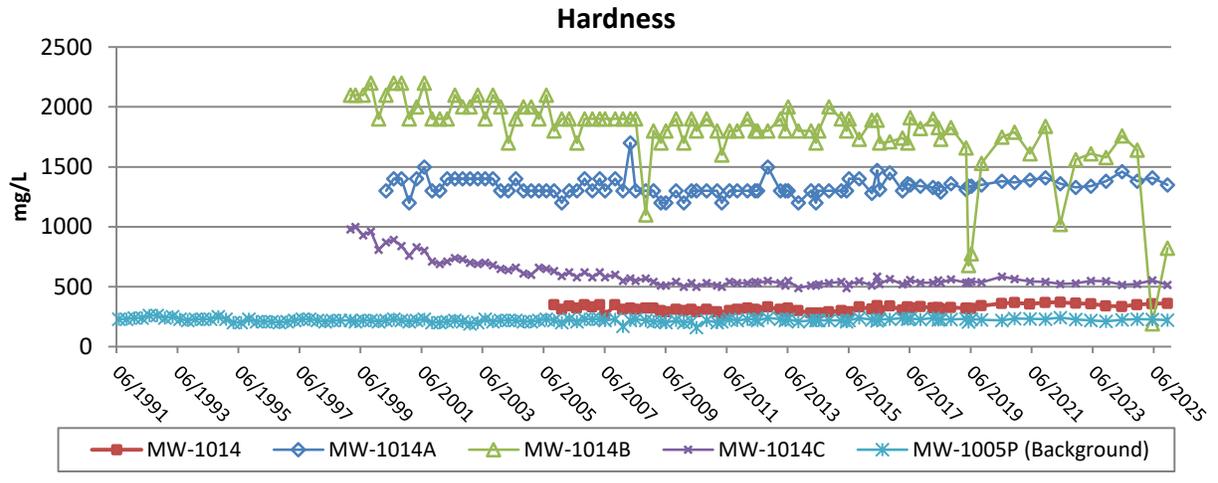




FLAMBEAU MINING COMPANY

Figure B-7a
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1014/MW-1014A/MW-1014B/MW-1014C

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



FLAMBEAU MINING COMPANY

Figure B-7b
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1014/MW-1014A/MW-1014B/MW-1014C

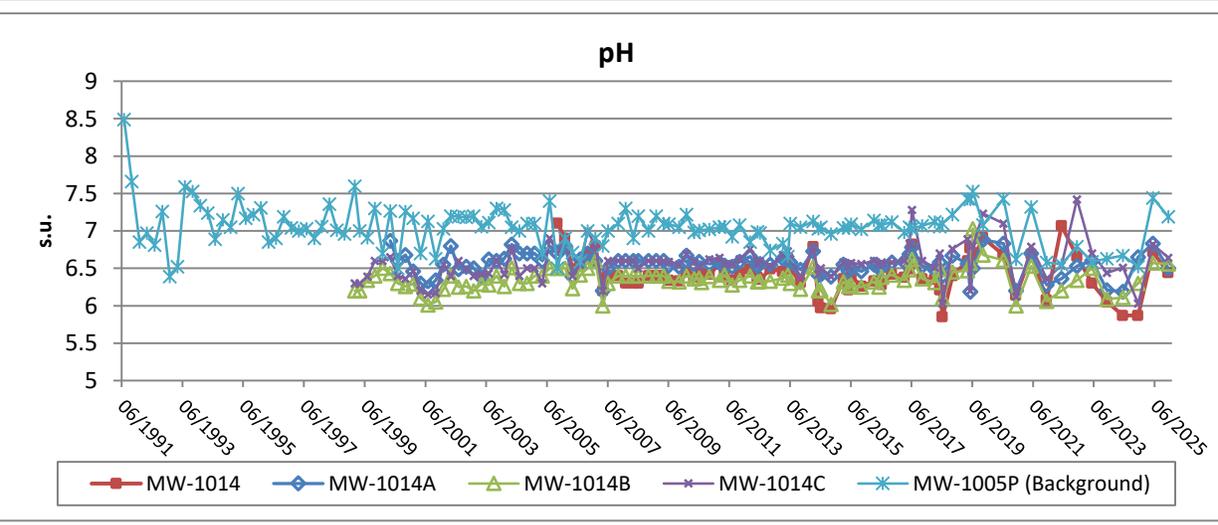
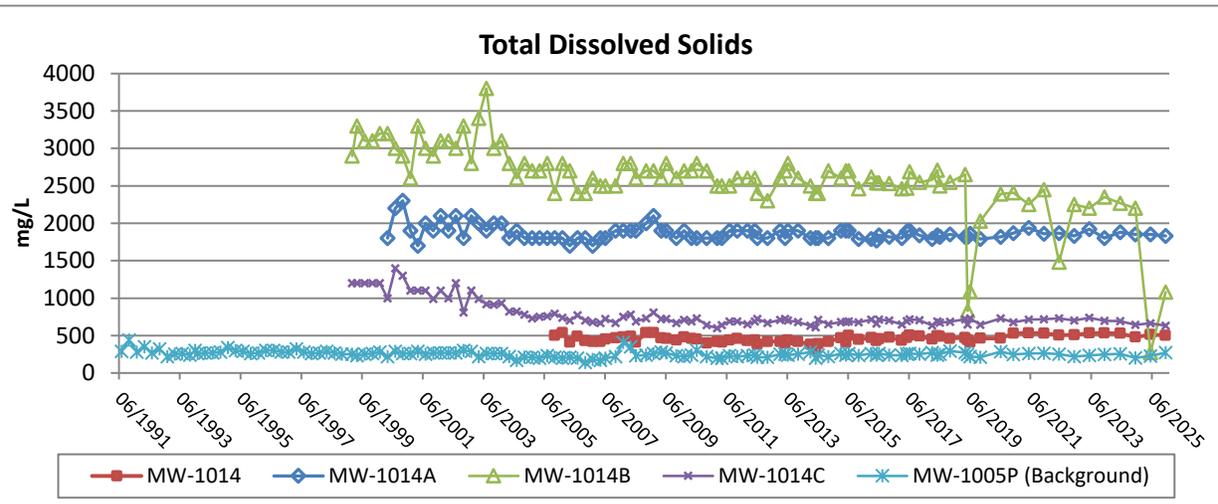
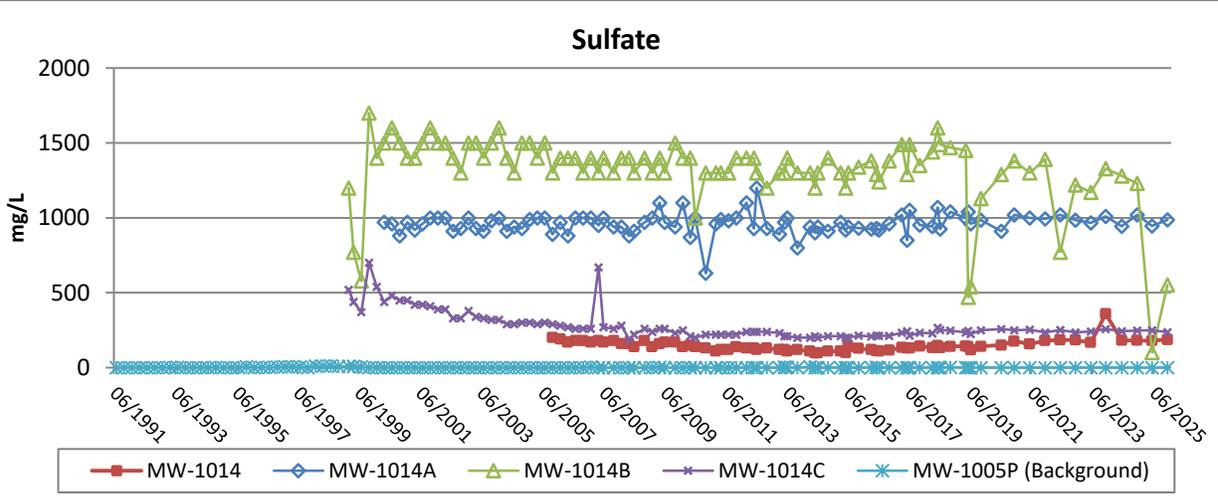
Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25



Note: May 2023 pH result is from lab analysis since a malfunction occurred with the pH field meter.

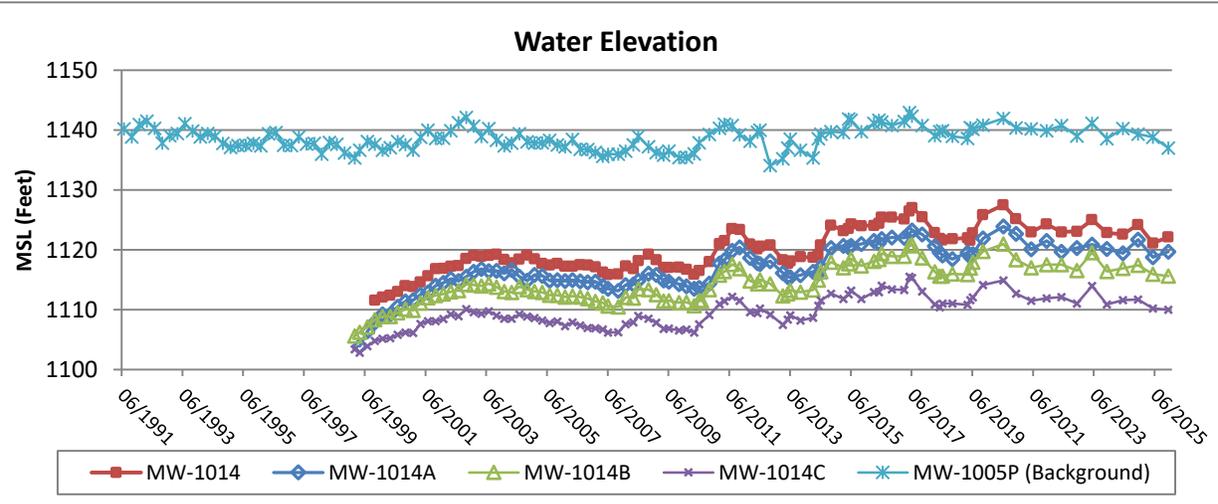
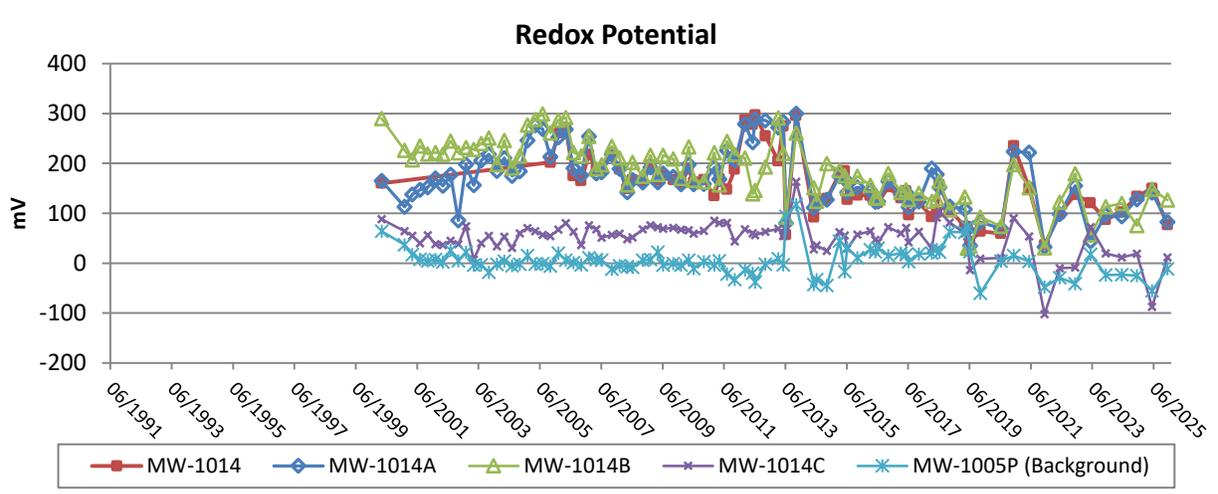
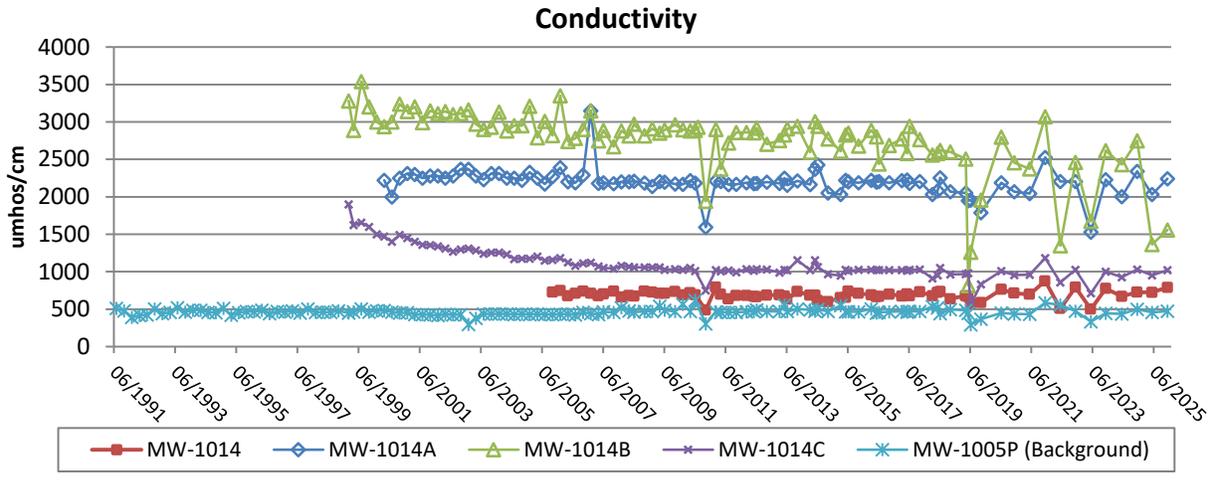
Flambeau Mining Co.
2025 Annual Summary Memorandum



FLAMBEAU MINING COMPANY

Figure B-7c
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1014/MW-1014A/MW-1014B/MW-1014C

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



FLAMBEAU MINING COMPANY

Figure B-7d
Groundwater Trend Graphs - Semi-Annual Results (In-Pit Wells)
MW-1014/MW-1014A/MW-1014B/MW-1014C

Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

2025 Groundwater Results - Semi-Annual Parameters

Sample Date (yyyy-mm)	Location	Water Elevation ft	Alkalinity as CaCO3 mg/l	Arsenic ug/l	Copper ug/l	Hardness mg/l	Iron mg/l	Manganese ug/l	Sulfate mg/l	Total Dissolved Solids mg/l	pH s.u.	Conductivity umhos/cm	Redox Potential mV
2025-05	MW-1000PR	1088.05	221	6.7	8.2	385	0.473	1710	191	474	6.82	699.74	113.8
2025-05	MW-1000R	1089.33	96.3	< 0.28	15.2	133	< 0.0580	21.6	48.5	224	6.21	348.35	198.6
2025-05	MW-1002	1092.1	58.2	< 0.28	< 1.9	71.5	< 0.0580	< 1.2	3.6	94.0	6.71	158.19	200.7
2025-05	MW-1002G	1091.96	128	< 0.28	< 1.9	179	< 0.0580	< 1.2	8.1	228	6.74	362.30	196.9
2025-05	MW-1002G	Dup.	130	< 0.28	< 1.9	178	< 0.0580	< 1.2	8.6	220			
2025-05	MW-1004	1108.52	31.5	< 0.28	3.3	35.7	< 0.0580	< 1.2	5.8	44.0	6.55	78.88	114.2
2025-05	MW-1004P	1106.86	170	0.79	< 1.9	147	0.489	153	1.9	168	7.96	301.06	30.6
2025-05	MW-1004S	1108.55	41.9	< 0.28	2.2	61.4	< 0.0580	< 1.2	20.6	74.0	5.70	128.33	171.0
2025-05	MW-1005	1140.38	71.4	1.7	< 1.9	564	28.3	711	13.9	1020	5.96	508.90	18.7
2025-05	MW-1005P	1138.84	257	0.29	< 1.9	226	1.57	69.0	< 0.44	228	7.44	455.89	-55.4
2025-05	MW-1005S	1139.89	147	2.4	< 1.9	136	3.67	191	4.5	154	7.42	279.46	-212.8
2025-05	MW-1010P	1087.99	166	20.8	< 1.9	184	< 0.0580	74.9	42.4	218	7.82	352.61	139.6
2025-05	MW-1013	1113.24	622	1.4	2.9	543	16.1	26800	6.7	652	6.50	1047.90	50.1
2025-05	MW-1013A	1099.02	392	< 0.28	< 1.9	484	< 0.0580	3110	188	618	6.96	853.83	15.0
2025-05	MW-1013B	1099.6	556	0.33	207	2260	< 0.0580	17300	1760	3050	6.49	2908.20	129.2
2025-05	MW-1013C	1101.86	496	24.6	< 1.9	1970	15.2	8240	1560	2740	6.65	2739.40	-39.3
2025-05	MW-1014	1121.1	217	< 0.28	2.5	357	< 0.0580	1480	180	512	6.72	723.94	150.0
2025-05	MW-1014A	1118.78	490	0.36	15.1	1410	< 0.0580	3720	946	1850	6.83	2033.60	141.7
2025-05	MW-1014B	1115.94	104	0.37	135	192	< 0.0580	137	101	274	6.57	1363.75	148.0
2025-05	MW-1014C	1110.23	269	32.5	< 1.9	555	4.57	1650	250	662	6.82	952.56	-87.2
2025-05	MW-1014C	Dup.	274	31.7	< 1.9	545	4.45	1600	259	676			
2025-05	MW-1015A	1088.59	90.4	< 0.28	< 1.9	104	< 0.0580	16.0	8.8	150	7.00	208.51	82.9
2025-05	MW-1015B	1088.39	186	< 0.28	< 1.9	159	0.178	45.0	1.2	298	7.85	571.90	-29.9
2025-11	MW-1000PR	1087.17	239	7.4	4.0	381	0.518	1770	190	460	6.49	731.00	54.5
2025-11	MW-1000R	1088.17	165	0.31	41.5	267	< 0.0580	50.3	127	342	6.23	453.20	89.2
2025-11	MW-1002	1089.81	62.8	< 0.28	< 1.9	70.5	< 0.0580	< 1.2	3.3	126	6.23	164.30	89.2
2025-11	MW-1002G	1089.69	137	< 0.28	< 1.9	179	< 0.0580	< 1.2	8.5	244	6.38	391.60	45.4
2025-11	MW-1002G	Dup.	138	< 0.28	< 1.9	171	< 0.0580	< 1.2	8.6	244			
2025-11	MW-1004	1105.93	41.4	< 0.28	3.8	52.8	< 0.0580	< 1.2	17.5	34.0	6.12	125.50	86.2
2025-11	MW-1004P	1104.61	168	0.44	< 1.9	144	0.212	142	2.3	116	7.36	358.00	-7.0
2025-11	MW-1004S	1105.98	43.5	< 0.28	2.3	55.7	< 0.0580	< 1.2	15.0	28.0	6.23	128.20	43.7
2025-11	MW-1005	1137.79	71.2	1.7	< 1.9	589	18.6	510	14.4	1150	5.73	2001.00	46.6
2025-11	MW-1005P	1137.02	265	0.36	< 1.9	222	1.93	55.6	< 0.44	274	7.19	475.80	-11.6
2025-11	MW-1005S	1137.92	157	2.4	< 1.9	136	3.29	186	4.9	200	7.10	309.00	-4.2
2025-11	MW-1010P	1087.01	177	17.3	< 1.9	195	0.0605	81.1	43.2	178	7.41	382.70	-26.9
2025-11	MW-1013	1112.02	615	2.6	2.4	553	29.2	29200	< 8.9	712	6.19	1260.00	28.2
2025-11	MW-1013A	1098.26	411	< 0.28	< 1.9	531	0.0613	5290	178	598	6.56	1048.00	48.4
2025-11	MW-1013B	1098.83	543	0.35	138	2070	0.0636	11000	1680	2960	6.17	3056.00	85.0
2025-11	MW-1013C	1101.28	516	25.5	< 1.9	1950	15.6	8060	1570	2680	6.36	2860.00	30.1
2025-11	MW-1014	1122.15	246	< 0.28	2.9	360	< 0.0580	1740	187	502	6.44	791.00	77.1
2025-11	MW-1014A	1119.71	504	0.33	13.6	1350	< 0.0580	3050	988	1830	6.50	2242.00	82.5
2025-11	MW-1014B	1115.64	322	0.43	59.4	823	0.103	3970	552	1080	6.56	1556.00	126.5
2025-11	MW-1014C	1110.03	259	32.2	< 1.9	514	4.31	1560	238	630	6.64	1024.00	11.3
2025-11	MW-1014C	Dup.	257	32.1	< 1.9	517	4.34	1570	244	650			
2025-11	MW-1015A	1087.28	115	< 0.28	< 1.9	104	< 0.0580	15.7	9.3	114	6.95	221.60	47.8
2025-11	MW-1015B	1087.24	174	< 0.28	< 1.9	156	0.171	39.2	1.3	246	7.63	575.00	52.1

Attachment 2
Groundwater - Annual Parameters

Trend Analysis
Trend Graphs
2025 Data

**Trend Analysis Results - Groundwater (Annual Parameters)
Year Ending 2025**

	Calcium	Chloride	Lead	Magnesium	Potassium	Zinc
MW-1000PR						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-5	1	-4	0	-6	8
p-Level	0.359	1.000	0.484	1.000	0.234	0.084
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	31	25	31	31	23	39
Mann-Kendall S	-380	-74	35	-378	-79	-478
p-Level	0.000	0.088	0.566	0.000	0.038	0.000
Trend	-			-		-
MW-1000R						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-2	-2	0	-2	-4	0
p-Level	0.816	0.816	1	0.816	0.484	1
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	15	15	15	15	15	15
Mann-Kendall S	-47	31	-9	-48	-62	-8
p-Level	0.02	0.14	0.698	0.018	0.002	0.734
Trend					-	
MW-1010P						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-2	3	-4	6	-4	0
p-Level	0.816	0.650	0.484	0.234	0.484	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	31	25	31	31	23	39
Mann-Kendall S	339	159	21	337	-17	51
p-Level	0.000	0.000	0.736	0.000	0.676	0.548
Trend	+	+		+		
MW-1002						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-1	4	0	-1	-2	0
p-Level	1.000	0.484	1.000	1.000	0.816	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	26	22	27	26	22	37
Mann-Kendall S	78	145	0	84	31	0
p-Level	0.090	0.000	1.000	0.067	0.402	1.000
Trend		+				
MW-1002G						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	1	8	0	5	0	0
p-Level	1.000	0.084	1.000	0.359	1.000	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	26	22	27	26	22	37
Mann-Kendall S	237	187	0	243	80	-26
p-Level	0.000	0.000	1.000	0.000	0.024	0.746
Trend	+	+		+		

**Trend Analysis Results - Groundwater (Annual Parameters)
Year Ending 2025**

	Calcium	Chloride	Lead	Magnesium	Potassium	Zinc
MW-1004						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	0	-4	0	0	-6	0
p-Level	1	0.484	1	1	0.234	1
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	15	15	15	15	15	15
Mann-Kendall S	-42	29	-4	-43	-4	-4
p-Level	0.041	0.168	0.884	0.036	0.884	0.884
Trend						
MW-1004S						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	0	-2	0	0	0	0
p-Level	1.000	0.816	1.000	1.000	1.000	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	29	23	29	29	23	38
Mann-Kendall S	40	-155	1	13	-55	0
p-Level	0.468	0.000	0.993	0.824	0.156	1.000
Trend		-				
MW-1004P						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-4	-3	0	2	-8	0
p-Level	0.484	0.650	1.000	0.816	0.084	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	29	23	29	29	23	38
Mann-Kendall S	137	67	0	122	6	-1
p-Level	0.010	0.082	1.000	0.022	0.896	1.000
Trend	+					
MW-1005						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-5	2	0	2	-4	0
p-Level	0.359	0.816	1.000	0.816	0.484	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	26	22	27	26	22	37
Mann-Kendall S	158	152	-5	178	153	18
p-Level	0.000	0.000	0.934	0.000	0.000	0.826
Trend	+	+		+	+	
MW-1005S						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	2	-1	0	2	-4	0
p-Level	0.816	1.000	1.000	0.816	0.484	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	26	22	27	26	22	37
Mann-Kendall S	-128	67	9	-105	-98	0
p-Level	0.004	0.062	0.868	0.020	0.005	1.000
Trend	-				-	

**Trend Analysis Results - Groundwater (Annual Parameters)
Year Ending 2025**

	Calcium	Chloride	Lead	Magnesium	Potassium	Zinc
MW-1005P						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-4	-7	0	2	-4	2
p-Level	0.484	0.159	1.000	0.816	0.484	0.816
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	27	22	27	27	22	37
Mann-Kendall S	48	82	20	76	2	55
p-Level	0.330	0.021	0.695	0.119	0.978	0.482
Trend						
MW-1015A						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	1	8	0	5	0	0
p-Level	1.000	0.084	1.000	0.359	1.000	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	26	21	36	26	21	41
Mann-Kendall S	161	123	12	197	7	0
p-Level	0.000	0.000	0.882	0.000	0.858	1.000
Trend	+	+		+		
MW-1015B						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	4	0	0	4	2	0
p-Level	0.484	1.000	1.000	0.484	0.816	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	26	21	36	26	21	41
Mann-Kendall S	156	39	9	162	15	0
p-Level	0.000	0.255	0.914	0.000	0.676	1.000
Trend	+			+		
MW-1013						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-4	-4	0	2	-2	0
p-Level	0.484	0.484	1.000	0.816	0.816	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	21	21	21	21	20	21
Mann-Kendall S	-66	-174	-73	-11	-58	0
p-Level	0.048	0.000	0.028	0.765	0.064	1.000
Trend		-				
MW-1013A						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-4	4	0	4	-6	0
p-Level	0.484	0.484	1.000	0.484	0.234	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	21	21	21	21	20	21
Mann-Kendall S	0	19	-27	44	-33	-13
p-Level	1.000	0.591	0.438	0.196	0.303	0.720
Trend						

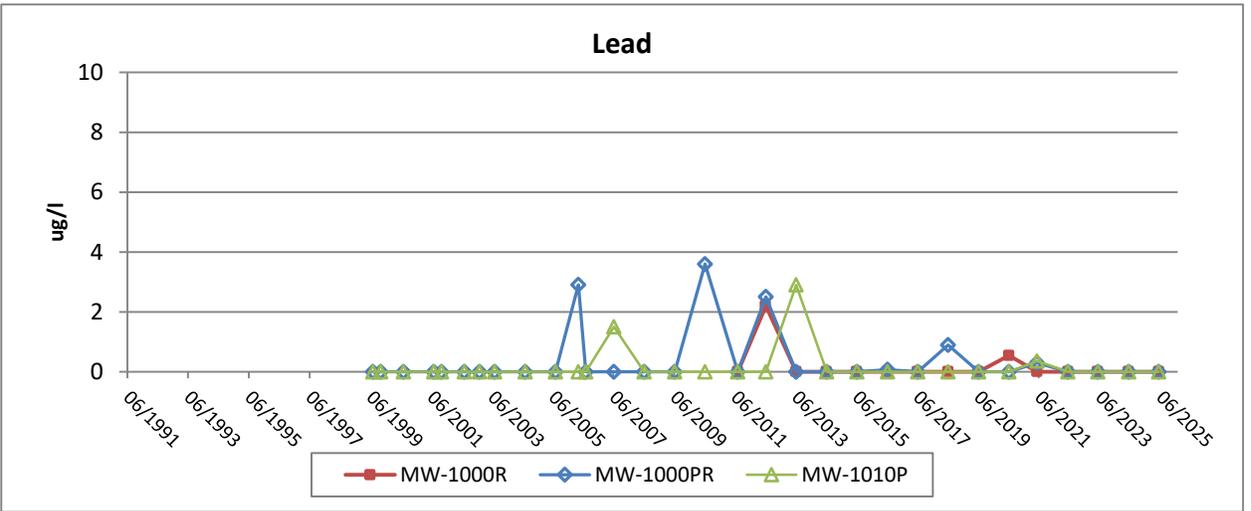
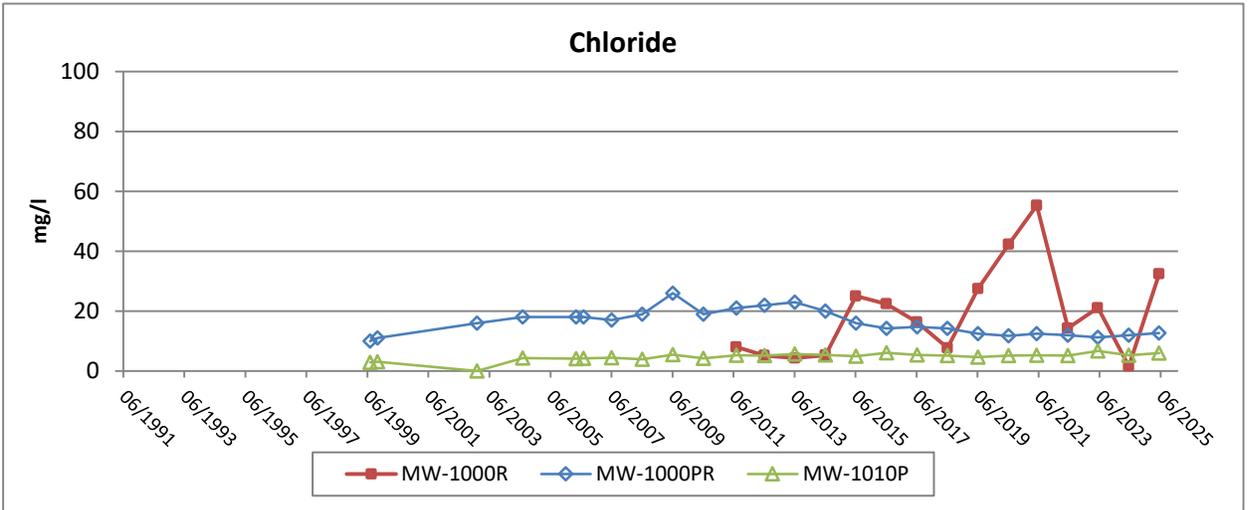
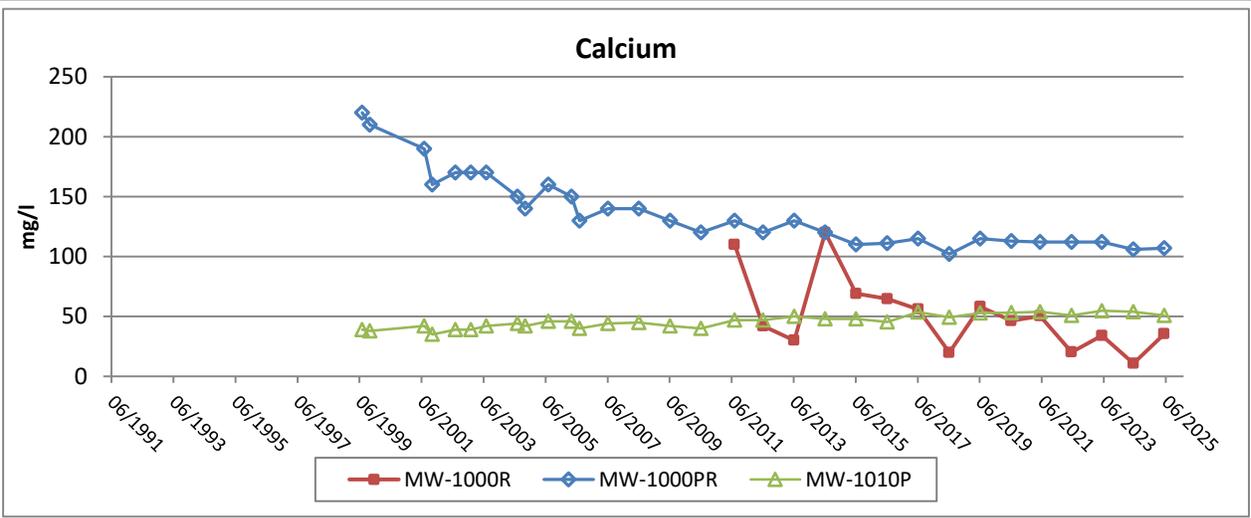
**Trend Analysis Results - Groundwater (Annual Parameters)
Year Ending 2025**

	Calcium	Chloride	Lead	Magnesium	Potassium	Zinc
MW-1013B						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	6	1	0	4	0	4
p-Level	0.234	1.000	1.000	0.484	1.000	0.484
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	34	28	33	34	26	41
Mann-Kendall S	-116	28	8	-19	-145	167
p-Level	0.089	0.596	0.914	0.792	0.002	0.059
Trend					-	
MW-1013C						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	0	-2	0	3	0	-2
p-Level	1.000	0.816	1.000	0.650	1.000	0.816
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	34	28	33	34	26	41
Mann-Kendall S	-105	-52	39	-321	-114	-470
p-Level	0.124	0.316	0.559	0.000	0.011	0.000
Trend				-		-
MW-1014						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	-6	-5	0	0	0	0
p-Level	0.234	0.359	1.000	1.000	1.000	1.000
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	21	21	21	21	20	21
Mann-Kendall S	78	73	-6	97	6	-75
p-Level	0.018	0.028	0.882	0.003	0.872	0.024
Trend				+		
MW-1014A						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	2	7	-4	6	-6	4
p-Level	0.816	0.159	0.484	0.234	0.234	0.484
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	31	25	30	31	23	38
Mann-Kendall S	17	62	11	54	-81	326
p-Level	0.788	0.156	0.860	0.371	0.034	0.000
Trend						+
MW-1014B						
Trend Results for Most Recent 5 Years						
Sample Size	4	5	5	5	5	5
Mann-Kendall S	-4	-6	0	0	0	-4
p-Level	0.334	0.234	1.000	1.000	1.000	0.484
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	33	27	33	34	26	41
Mann-Kendall S	-309	-35	30	-390	-168	-614
p-Level	0.000	0.482	0.656	0.000	0.000	0.000
Trend	-			-	-	-

**Trend Analysis Results - Groundwater (Annual Parameters)
Year Ending 2025**

	Calcium	Chloride	Lead	Magnesium	Potassium	Zinc
MW-1014C						
Trend Results for Most Recent 5 Years						
Sample Size	5	5	5	5	5	5
Mann-Kendall S	1	0	0	2	-4	-6
p-Level	1.000	1.000	1.000	0.816	0.484	0.234
Trend						
Trend Results for All Data Since Oct. 1997						
Sample Size	34	28	33	34	26	41
Mann-Kendall S	-314	224	-9	-419	-150	-782
p-Level	0.000	0.000	0.902	0.000	0.000	0.000
Trend	-	+		-	-	-

Notes: Overall increasing trend denoted by "+".
Overall decreasing trend denoted by "-".
Long term trend tests performed at a Type I (two-tailed) error rate of 0.01.
5-Year Trend tests performed at a Type I (two-tailed) error rate of 0.05.
N/A - No trend test performed due to insufficient data.



FLAMBEAU MINING COMPANY

Figure B-8a
Groundwater Trend Graphs - Annual Results
MW-1000R/MW-1000PR/MW-1010P

Scale: NA

Date: January 2026

Prepared By: SGL

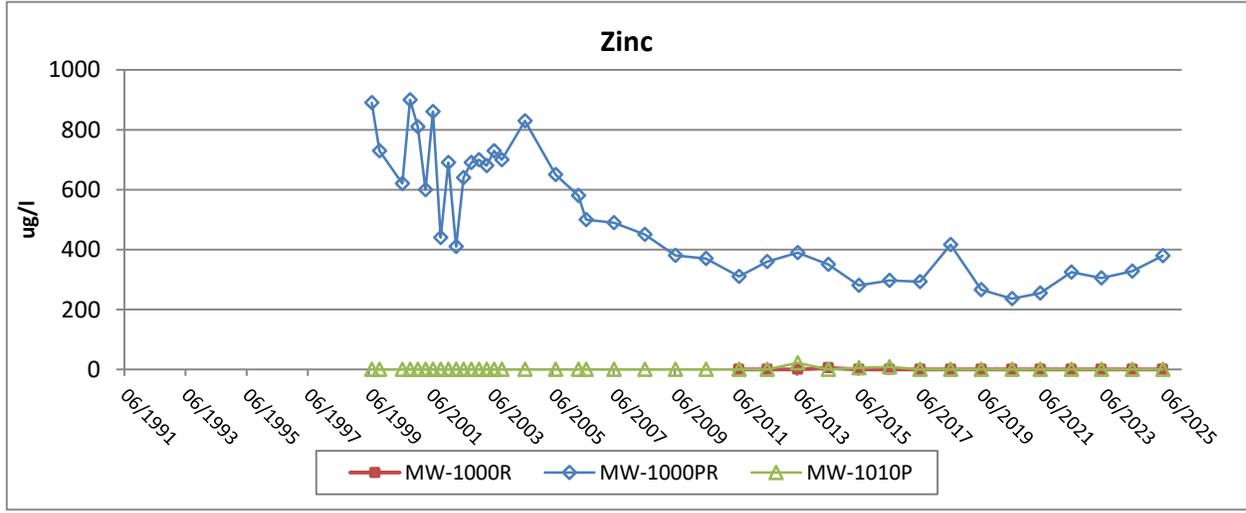
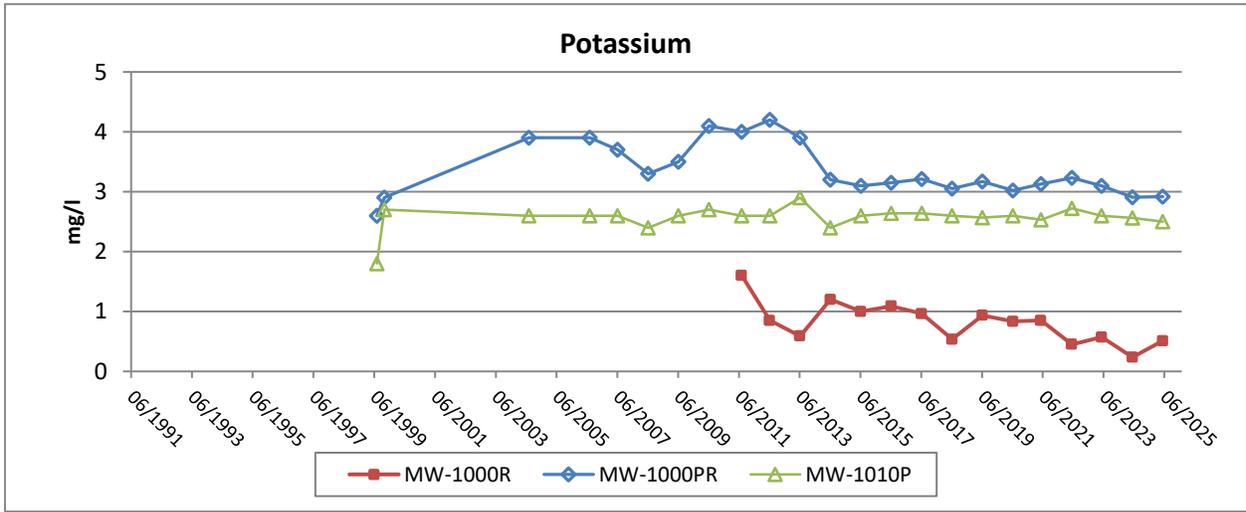
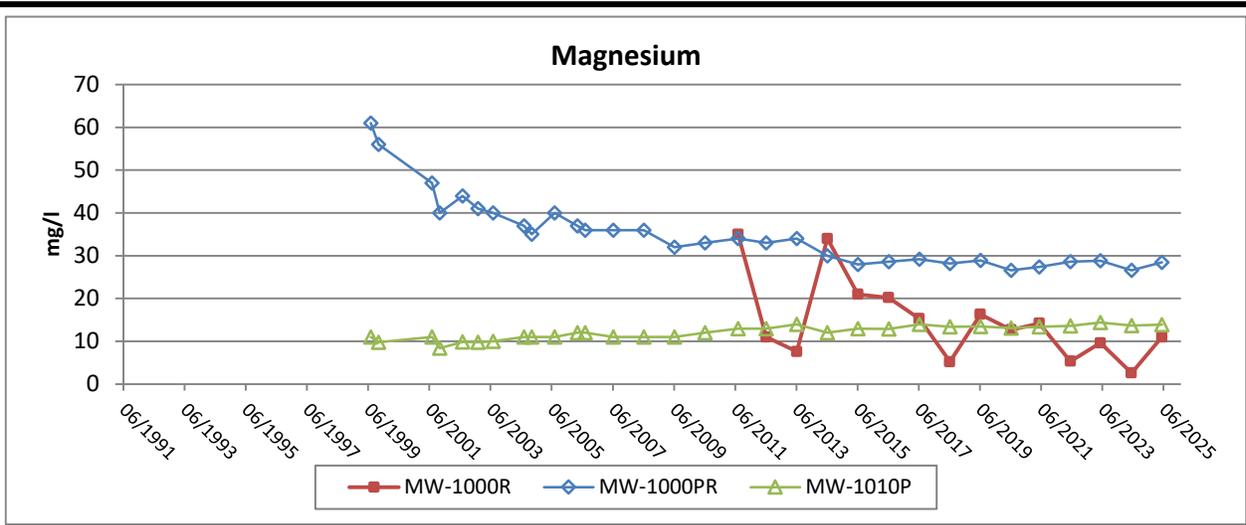
Checked By: NMG1

Project: 17F777.25

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2025 Annual Summary Memorandum

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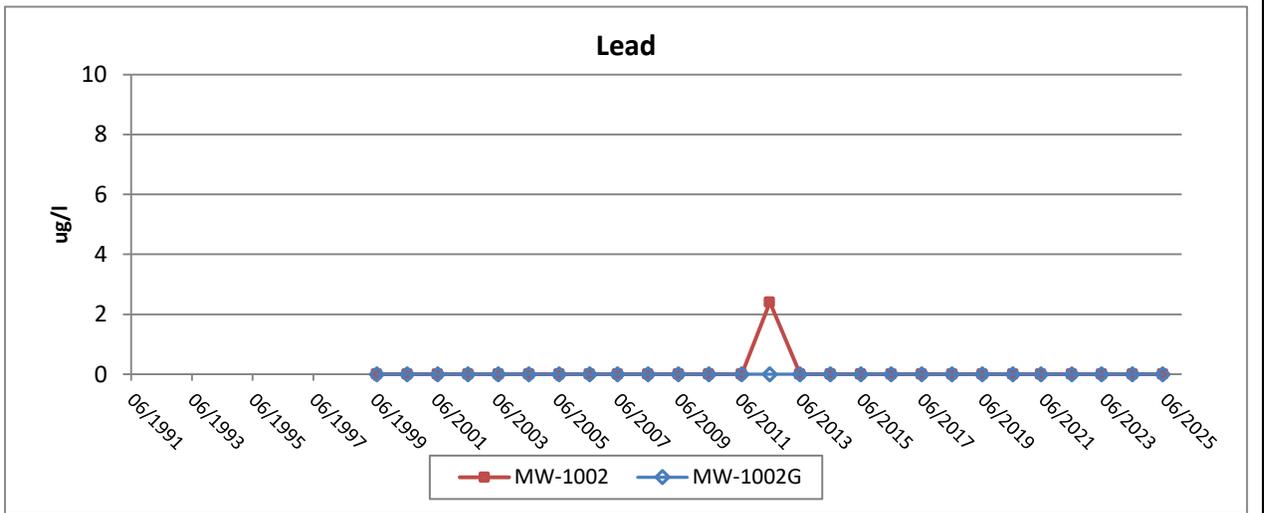
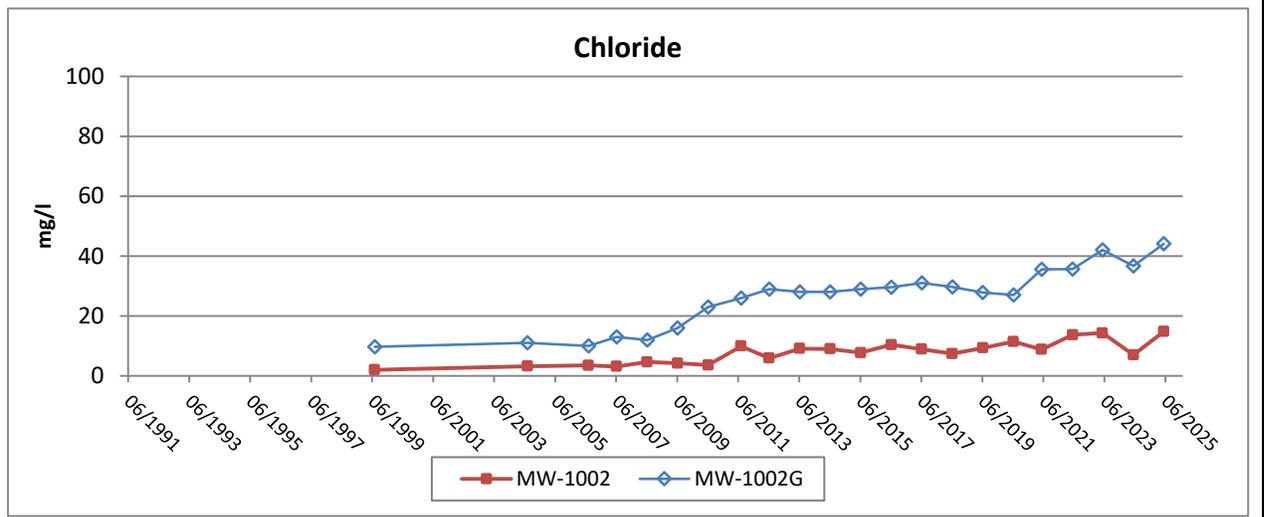
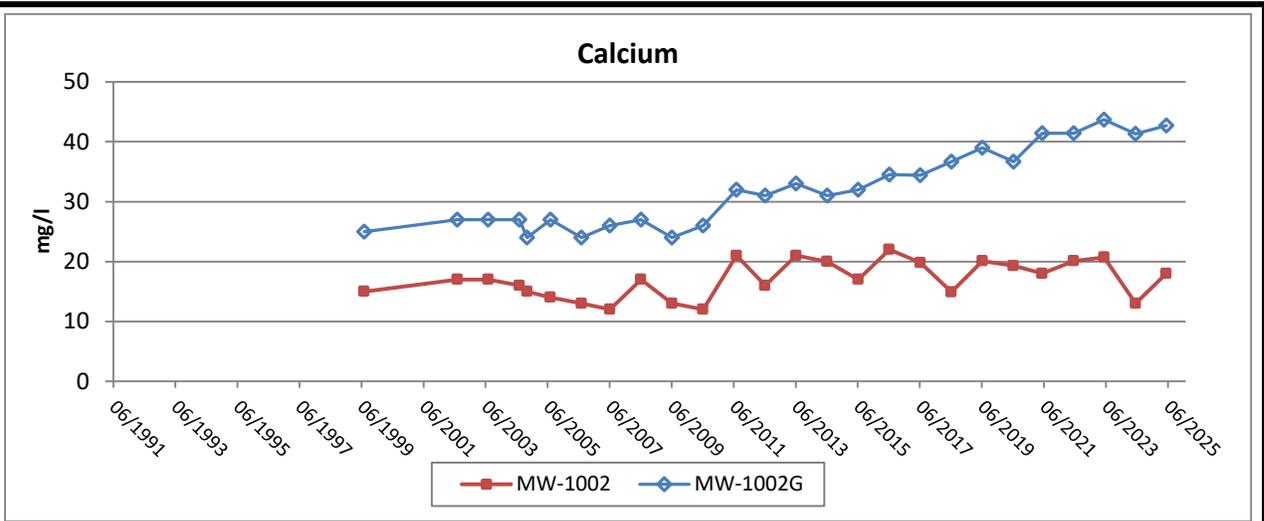




FLAMBEAU MINING COMPANY

Figure B-8b
Groundwater Trend Graphs - Annual Results
MW-1000R/MW-1000PR/MW-1010P

Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25

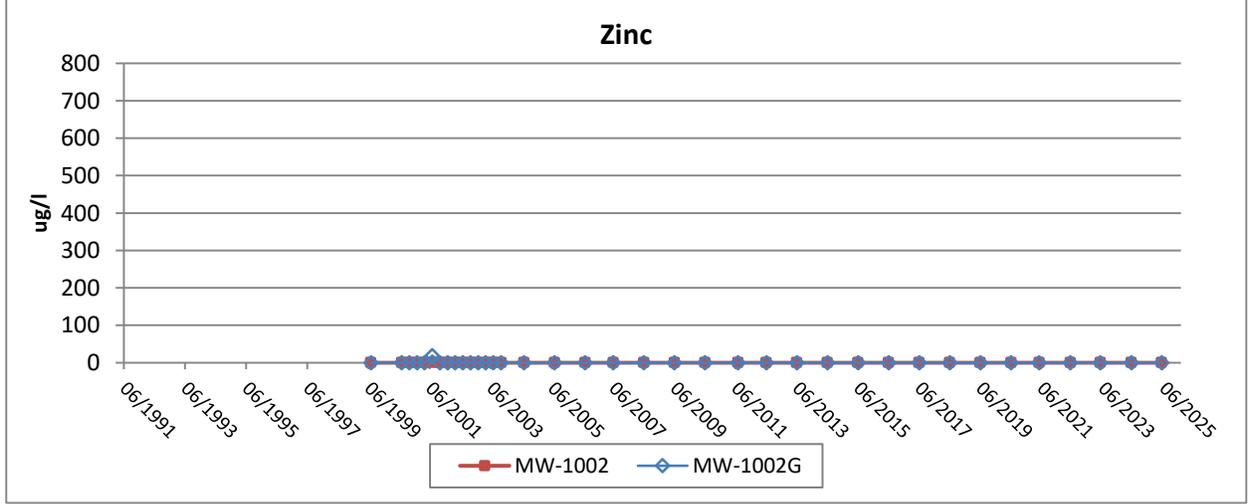
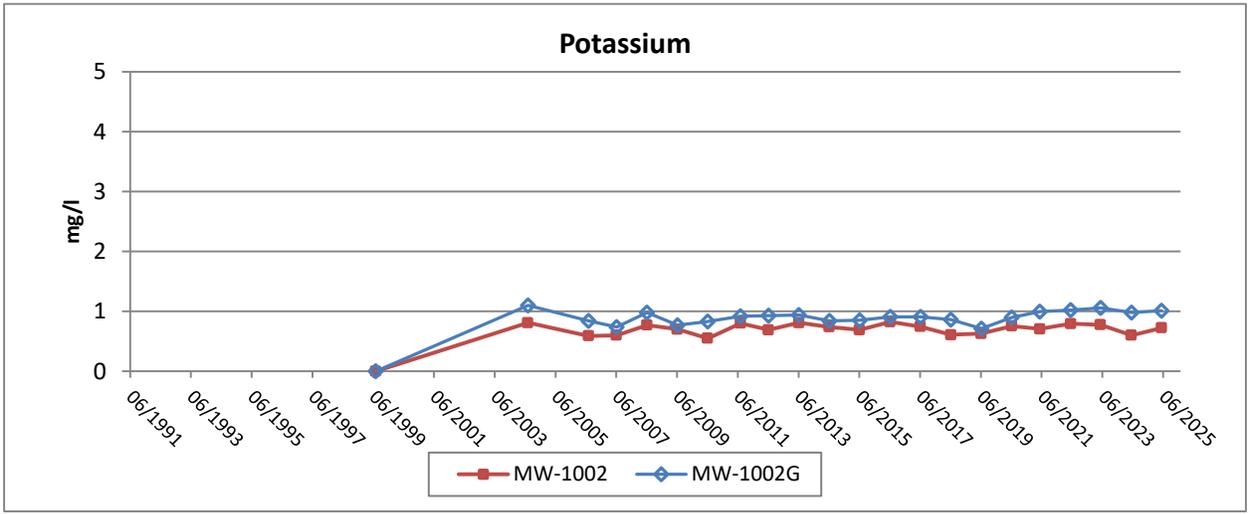
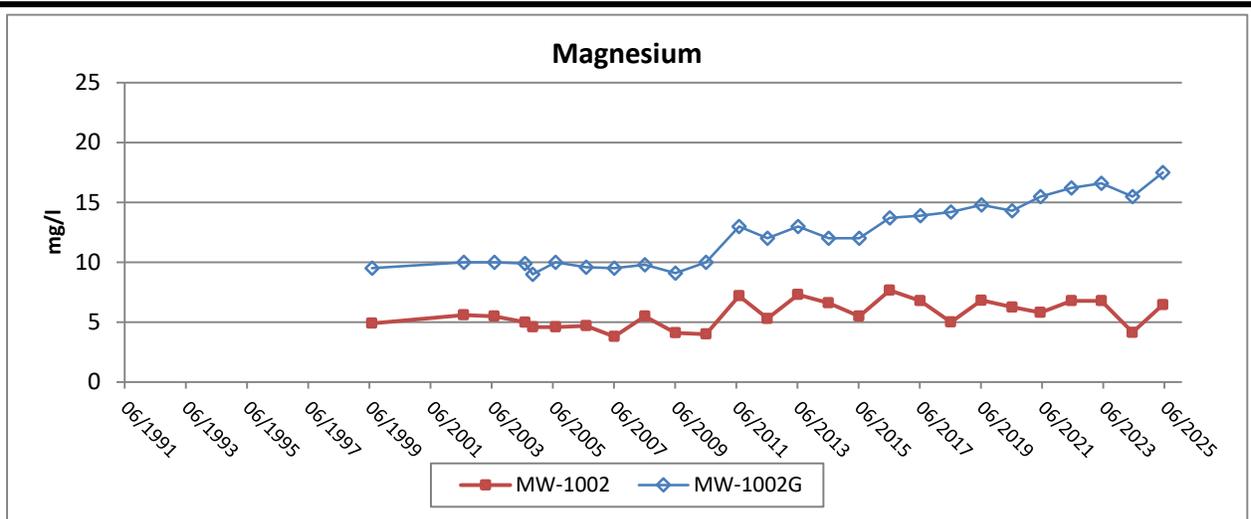




FLAMBEAU MINING COMPANY

Figure B-9a
Groundwater Trend Graphs - Annual Results
MW-1002/MW-1002G

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

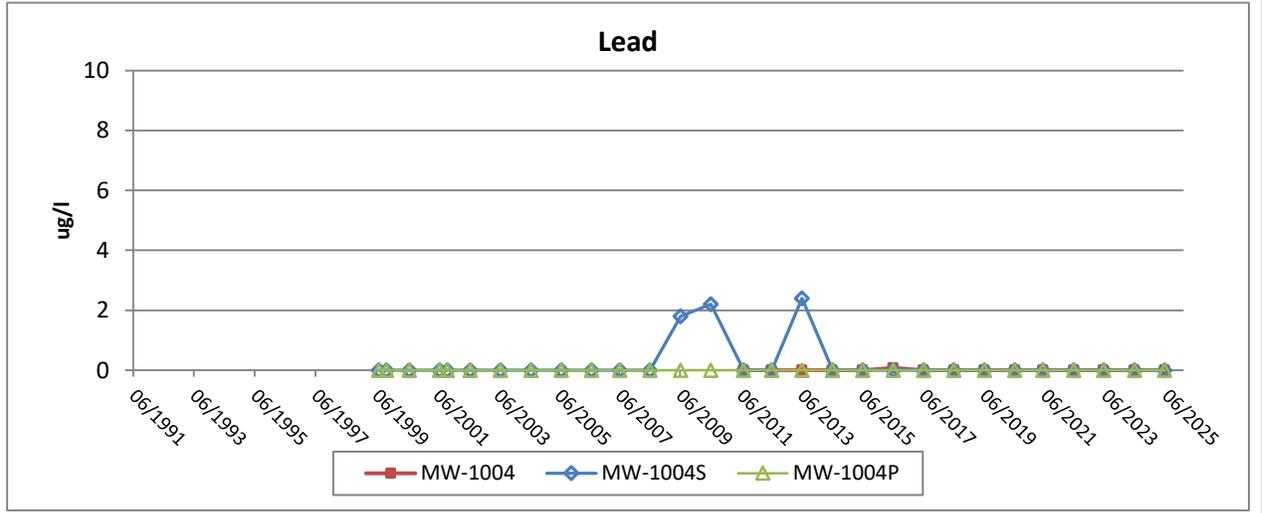
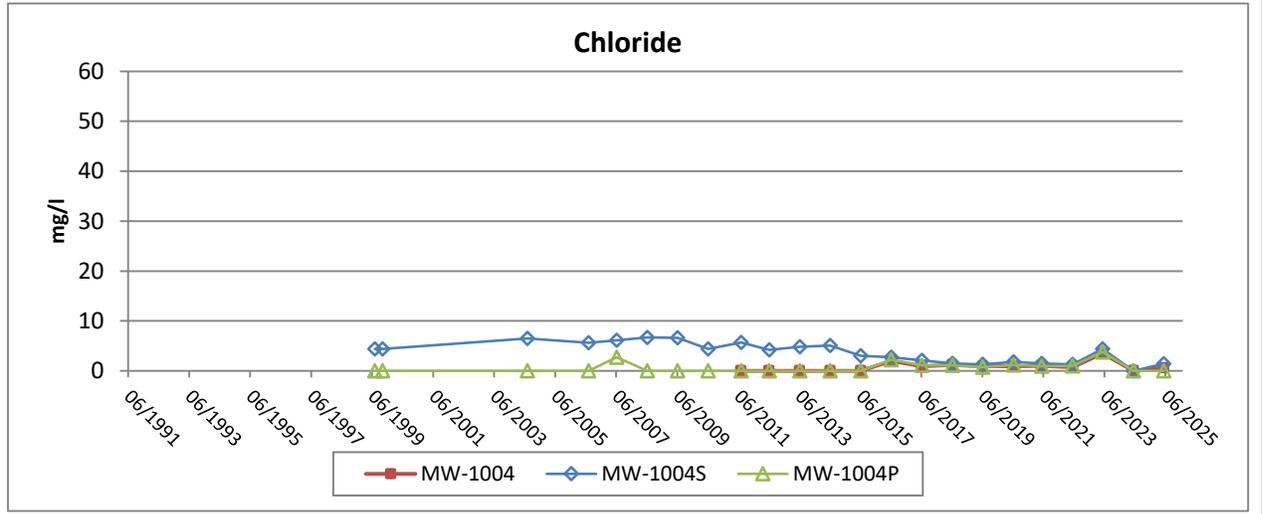
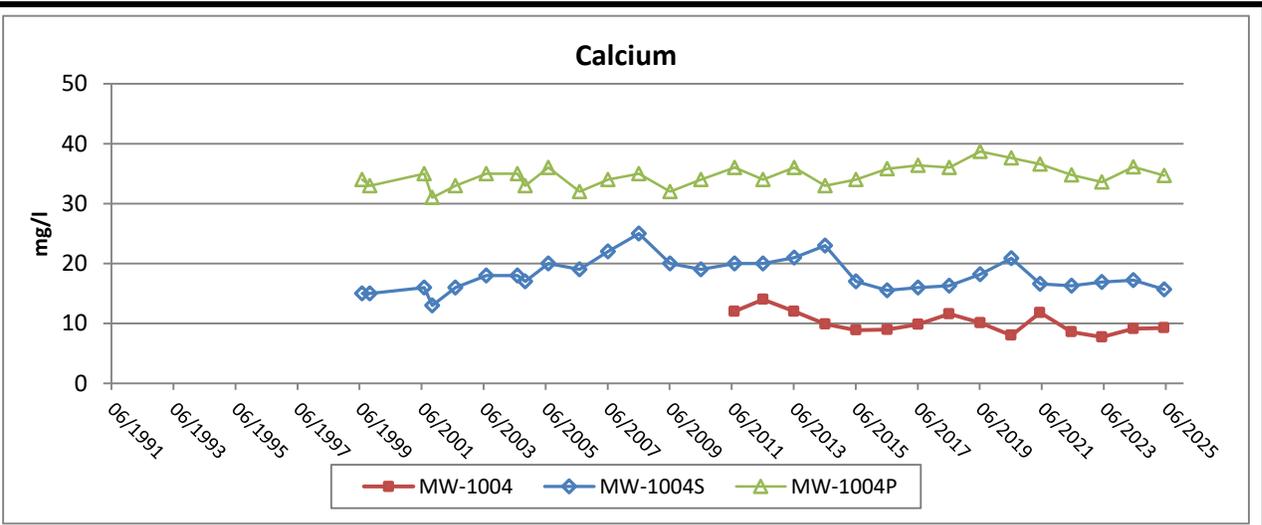




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Figure B-9b
Groundwater Trend Graphs - Annual Results
MW-1002/MW-1002G

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

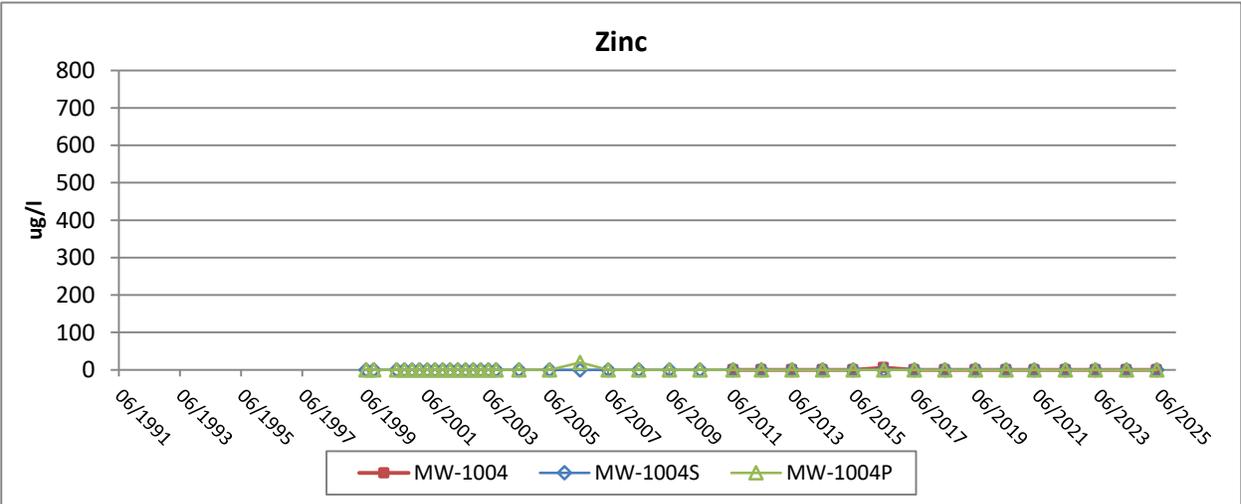
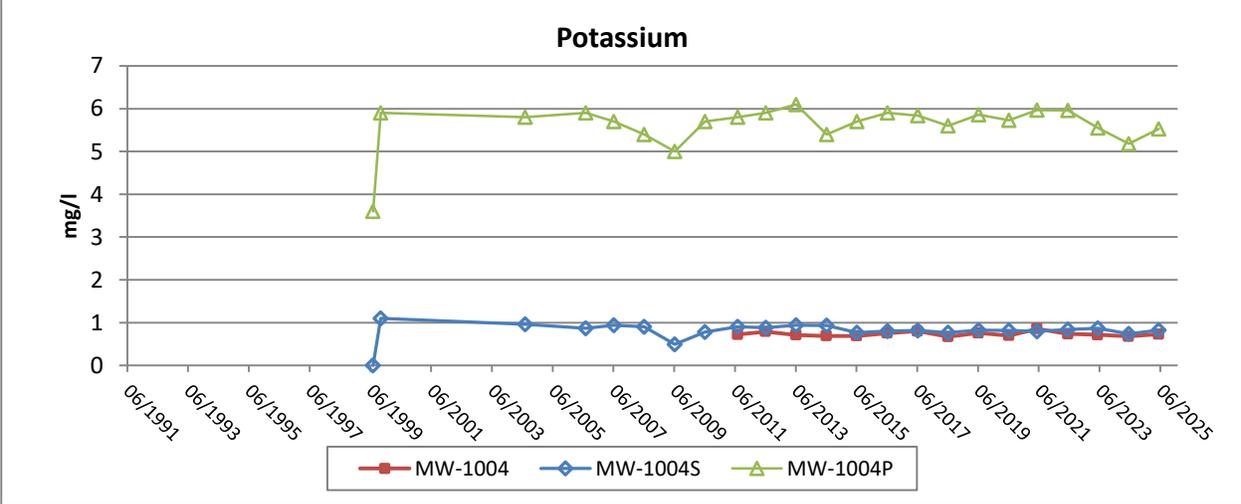
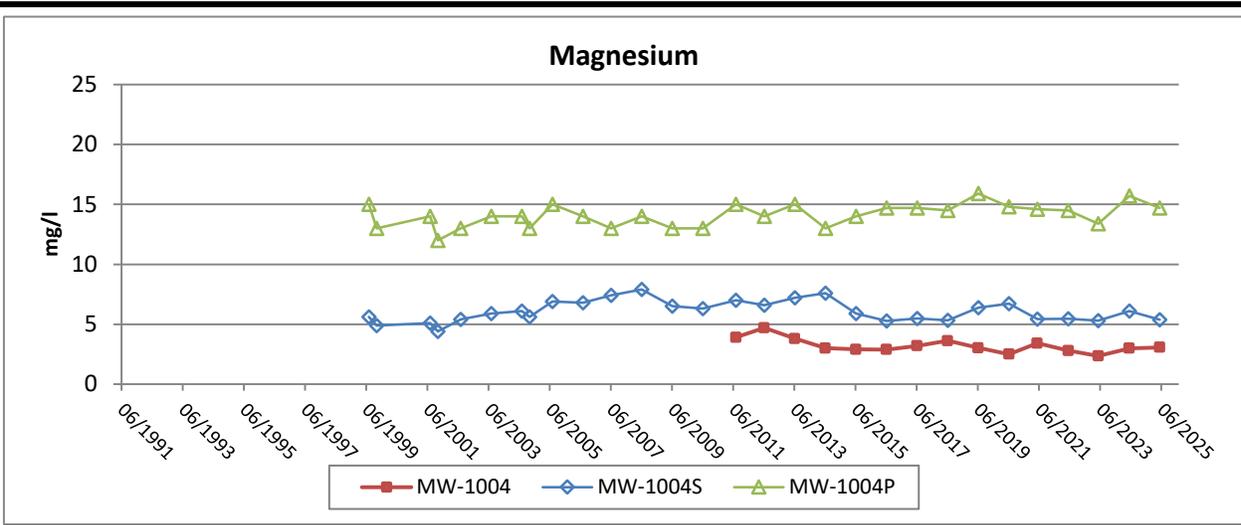




FLAMBEAU MINING COMPANY

Figure B-10a
Groundwater Trend Graphs - Annual Results
MW-1004/MW-1004S/MW-1004P

Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25

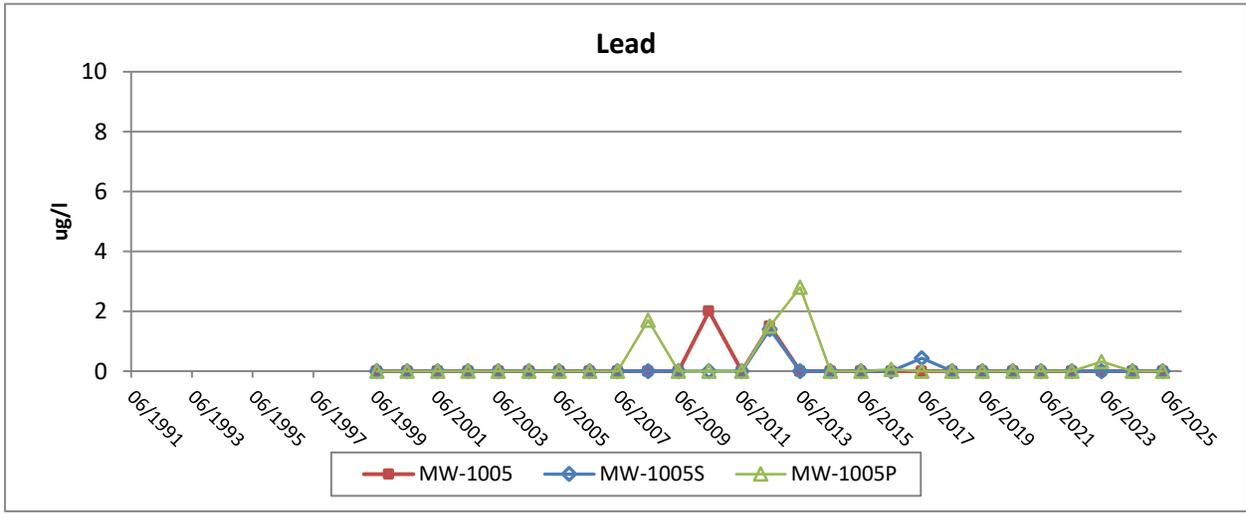
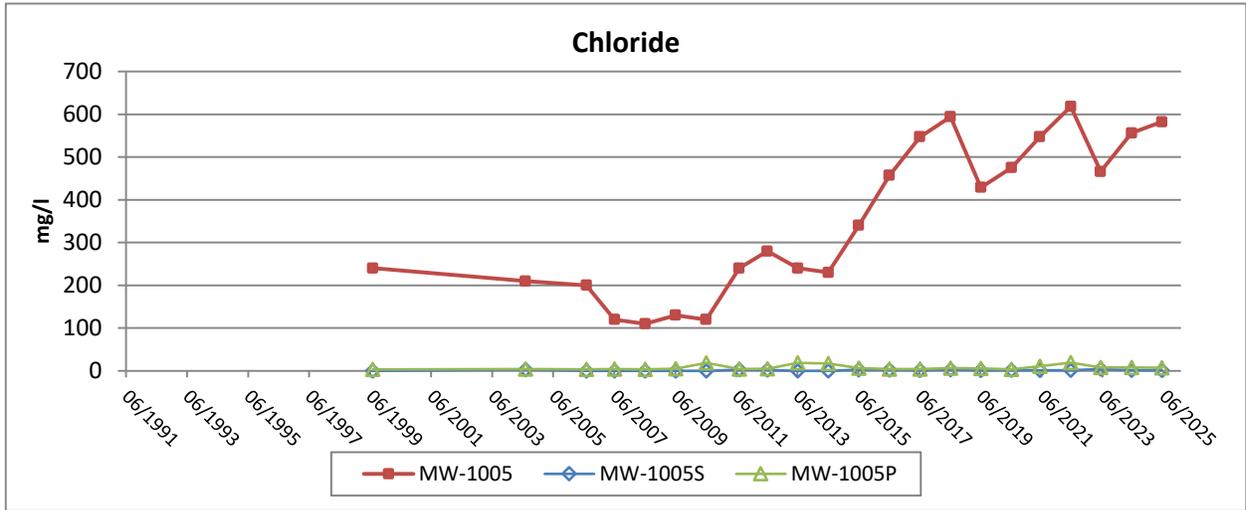
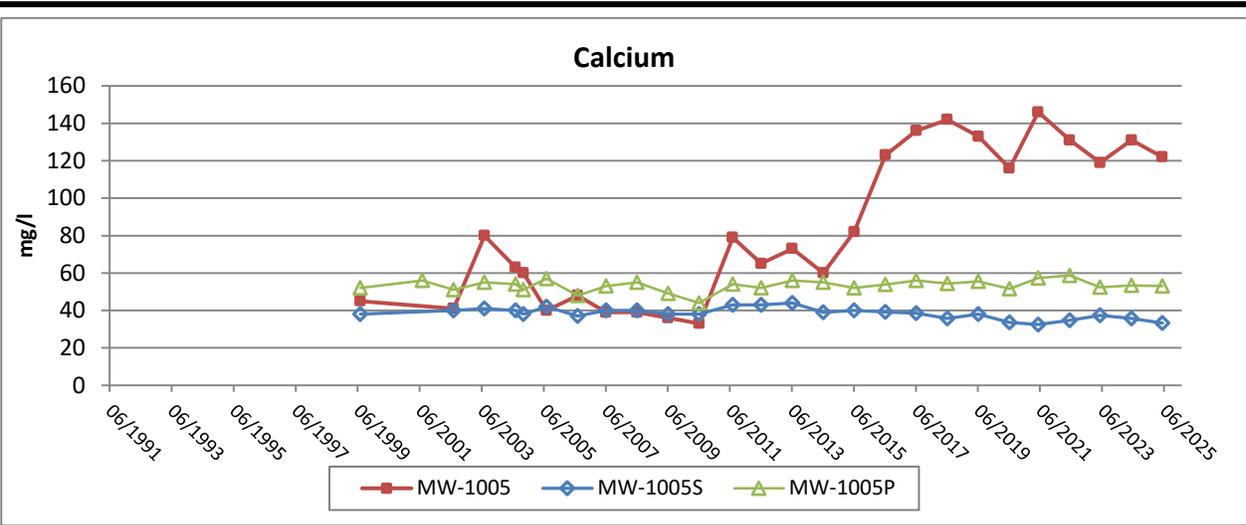




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Figure B-10b
Groundwater Trend Graphs - Annual Results
MW-1004/MW-1004S/MW-1004P

Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25



FLAMBEAU MINING COMPANY

Figure B-11a
Groundwater Trend Graphs - Annual Results
MW-1005/MW-1005S/MW-1005P

Scale: NA

Date: January 2026

Prepared By: SGL

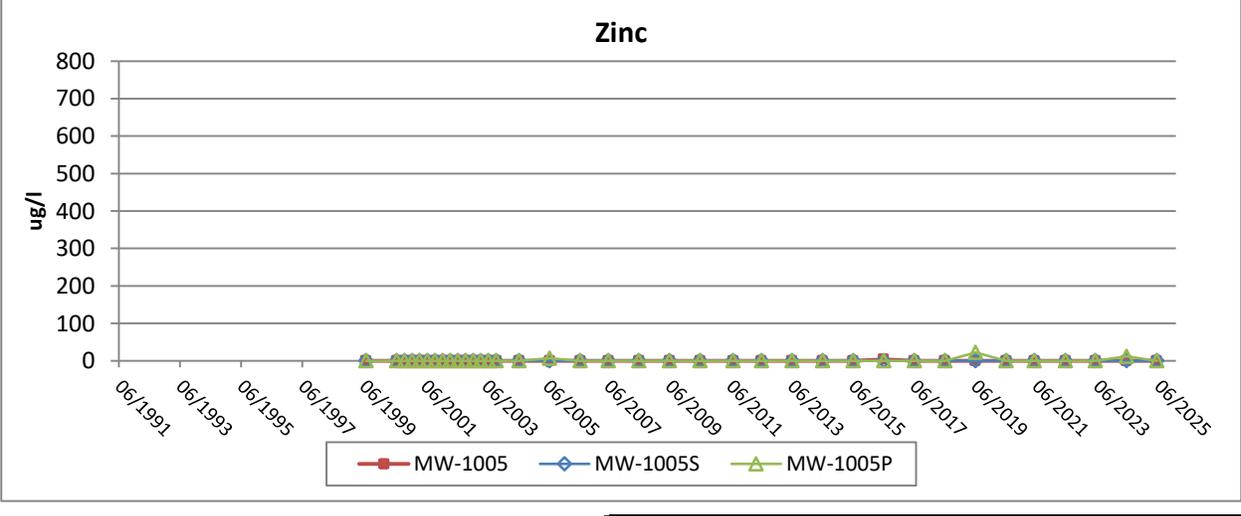
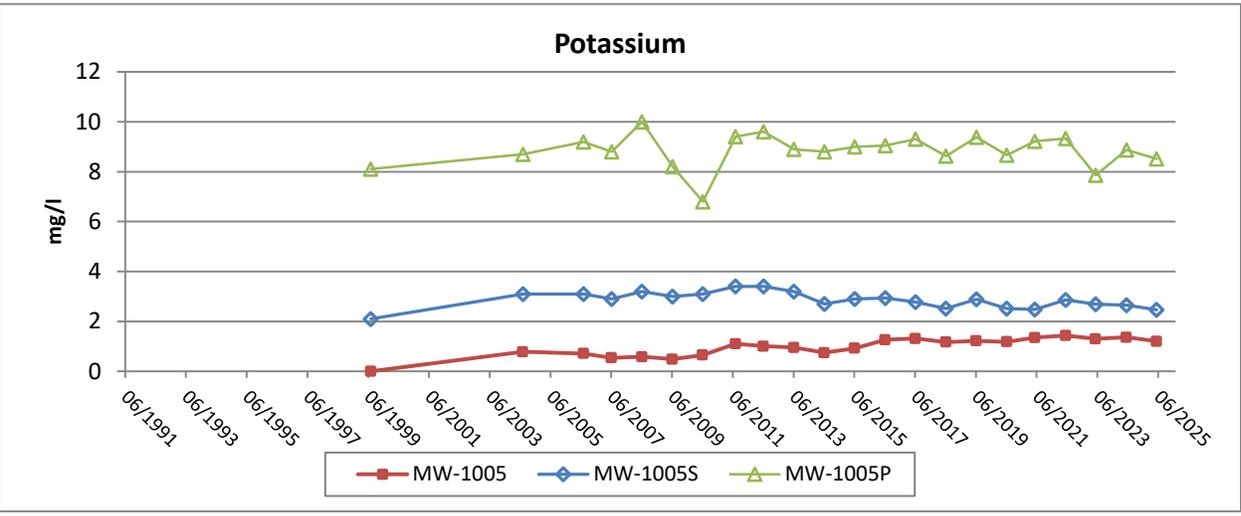
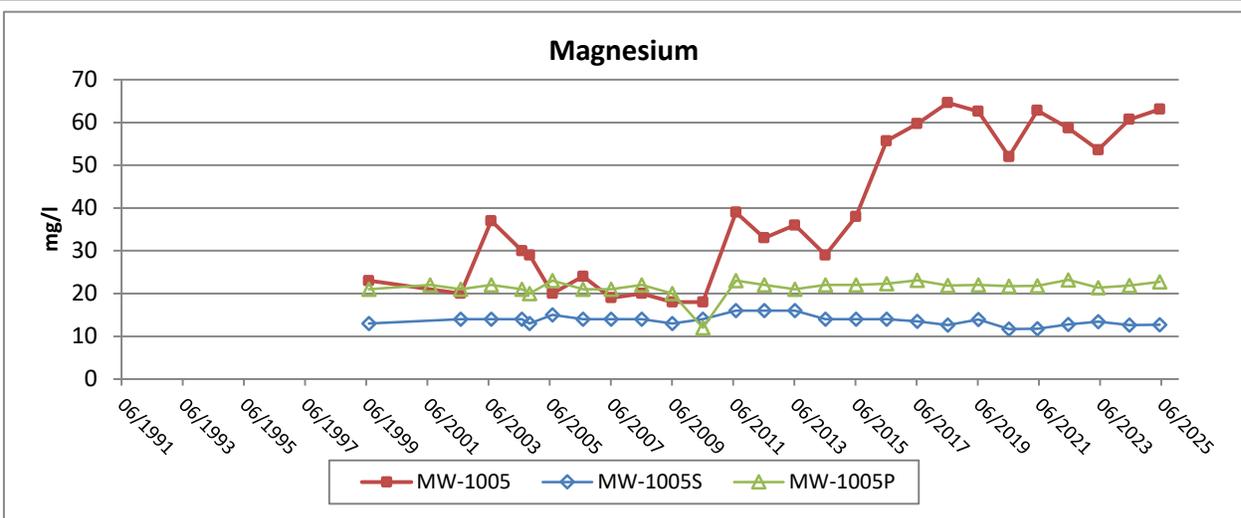
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Project: 17F777.25

Flambeau Mining Co.

2025 Annual Summary Memorandum

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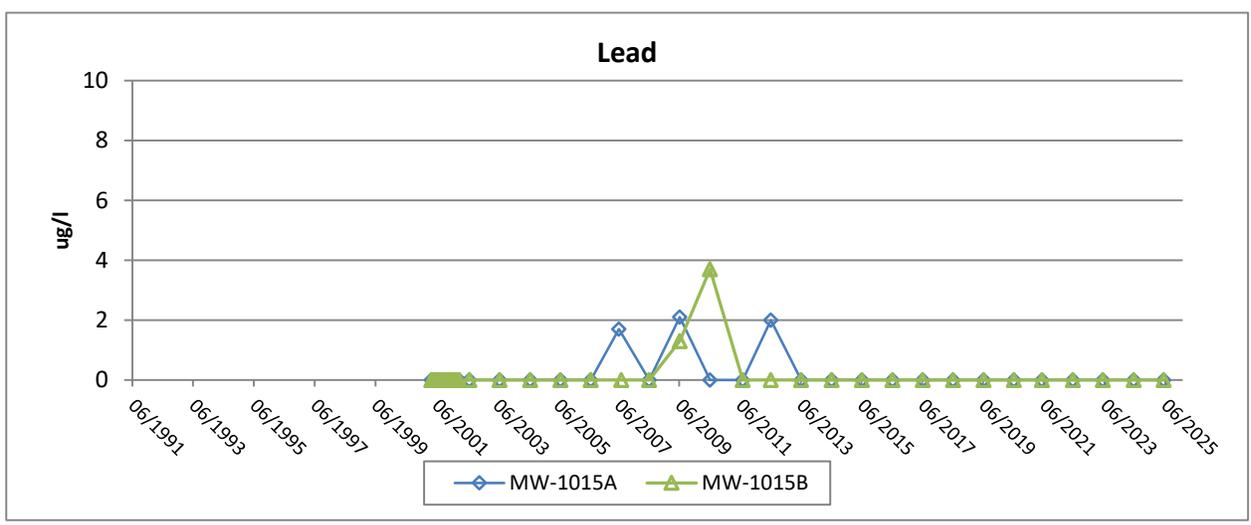
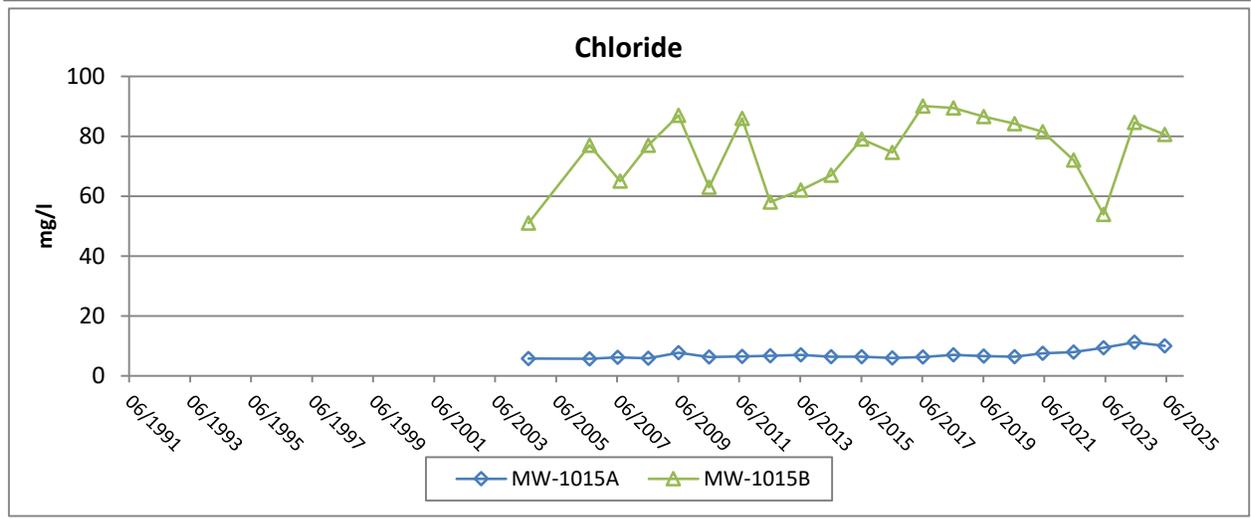
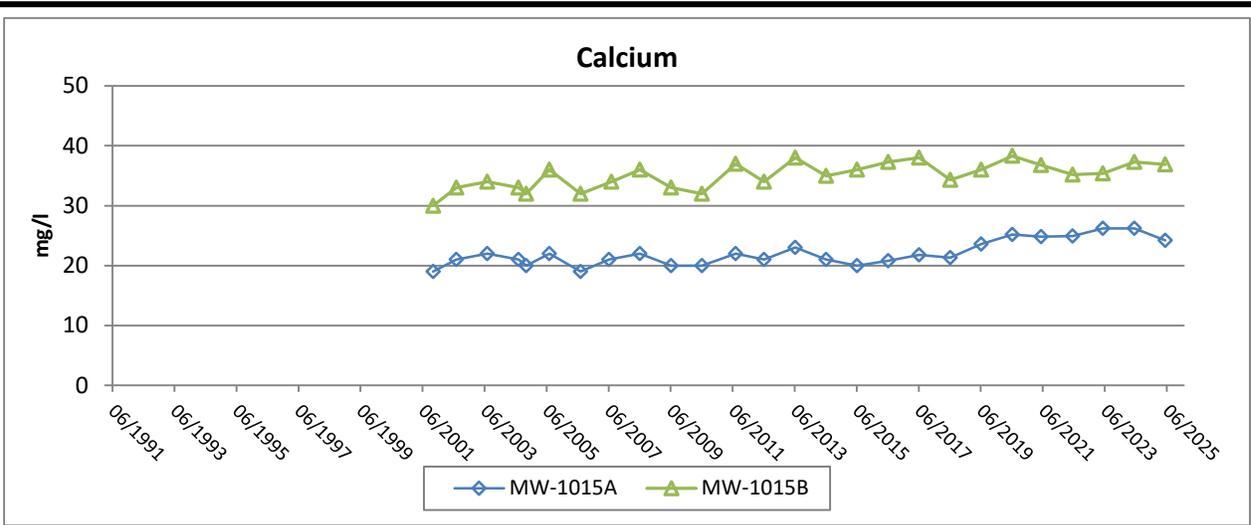




FLAMBEAU MINING COMPANY

Figure B-11b
Groundwater Trend Graphs - Annual Results
MW-1005/MW-1005S/MW-1005P

Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25

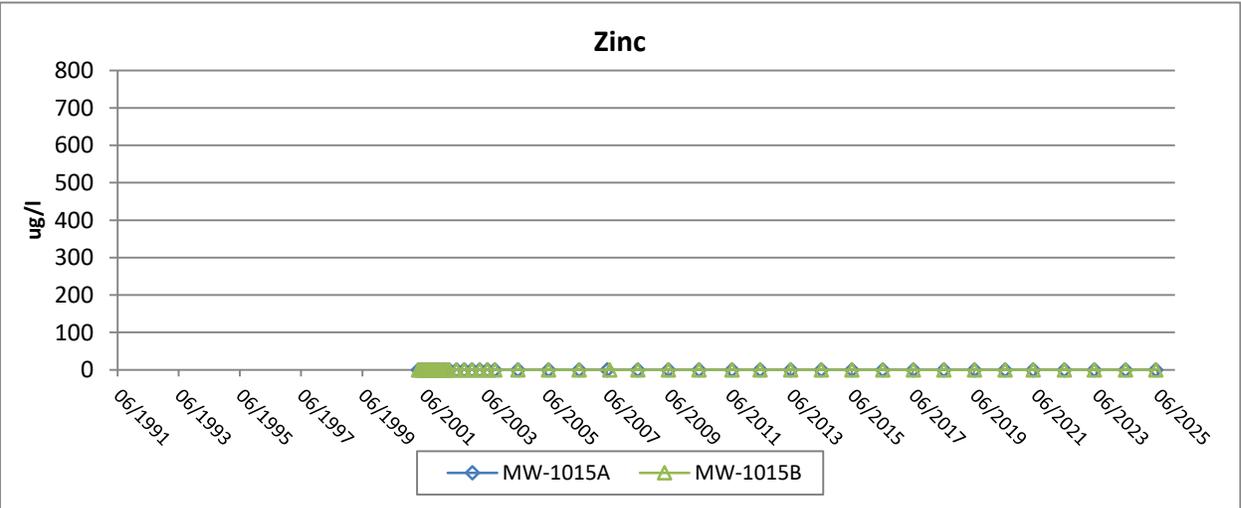
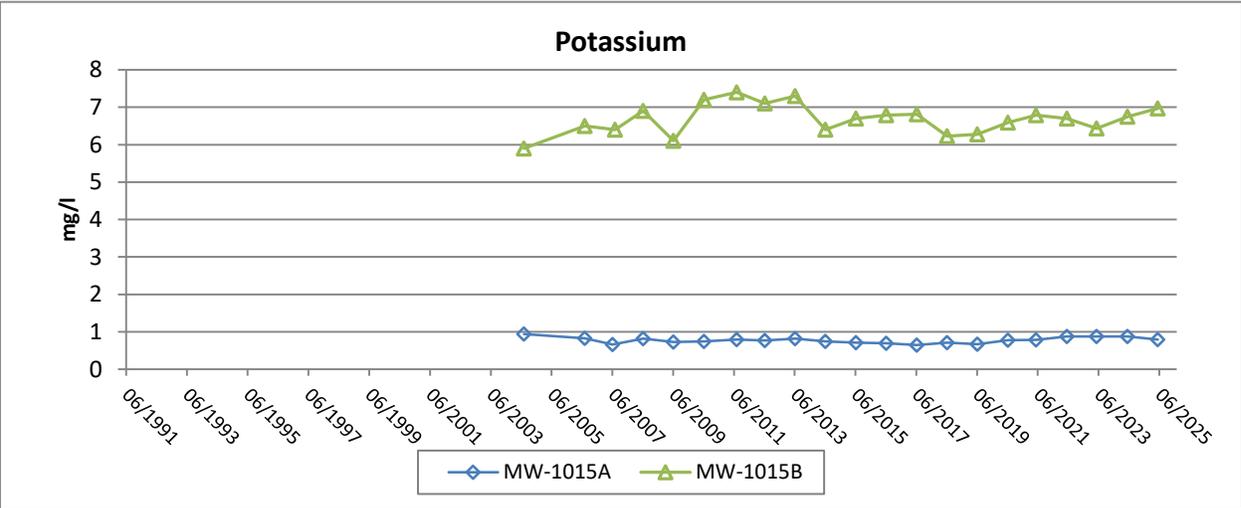
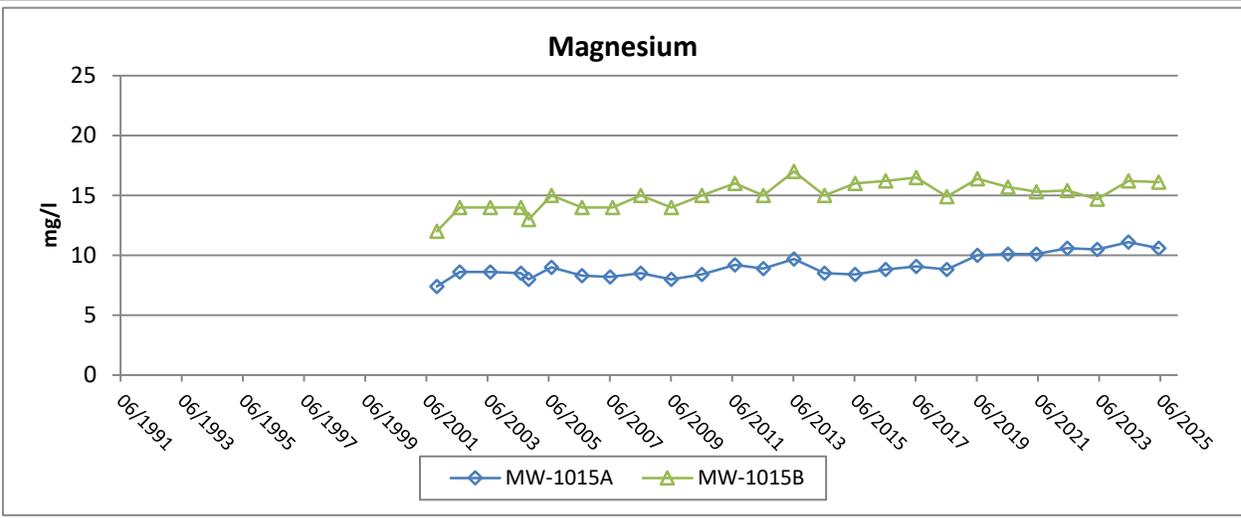




FLAMBEAU MINING COMPANY

Figure B-12a
Groundwater Trend Graphs - Annual Results
MW-1015A/MW-1015B

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

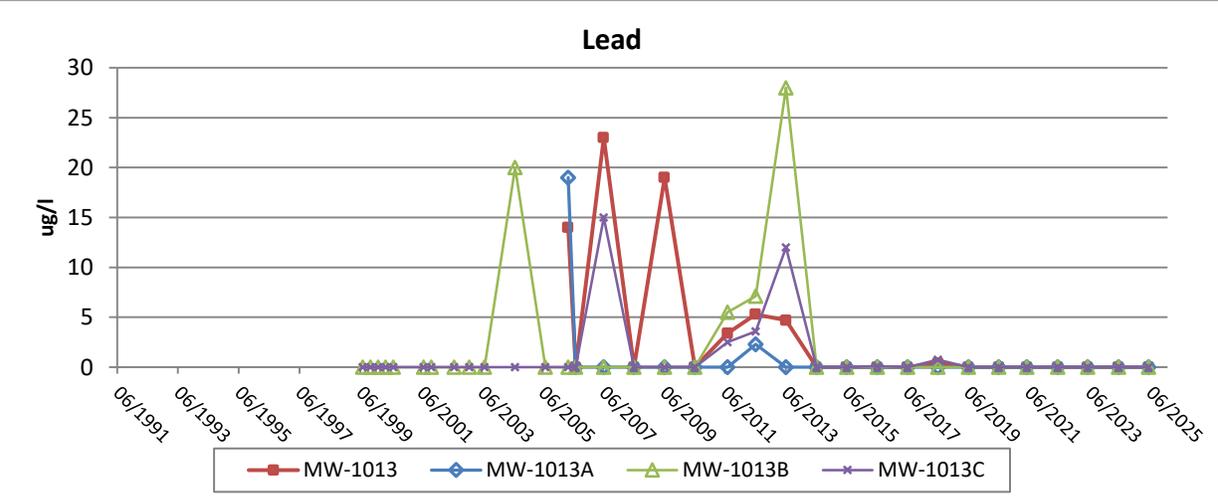
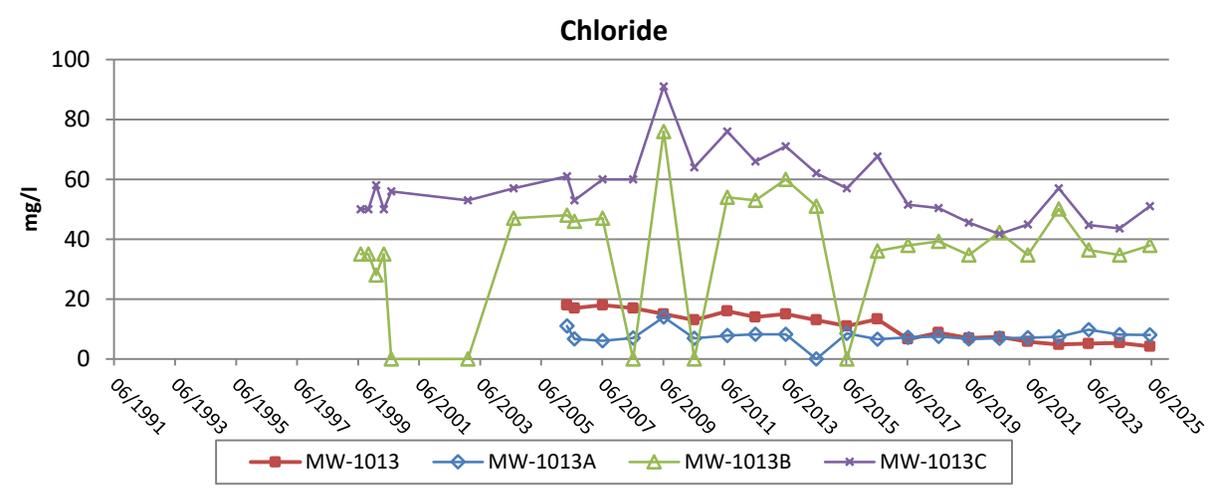
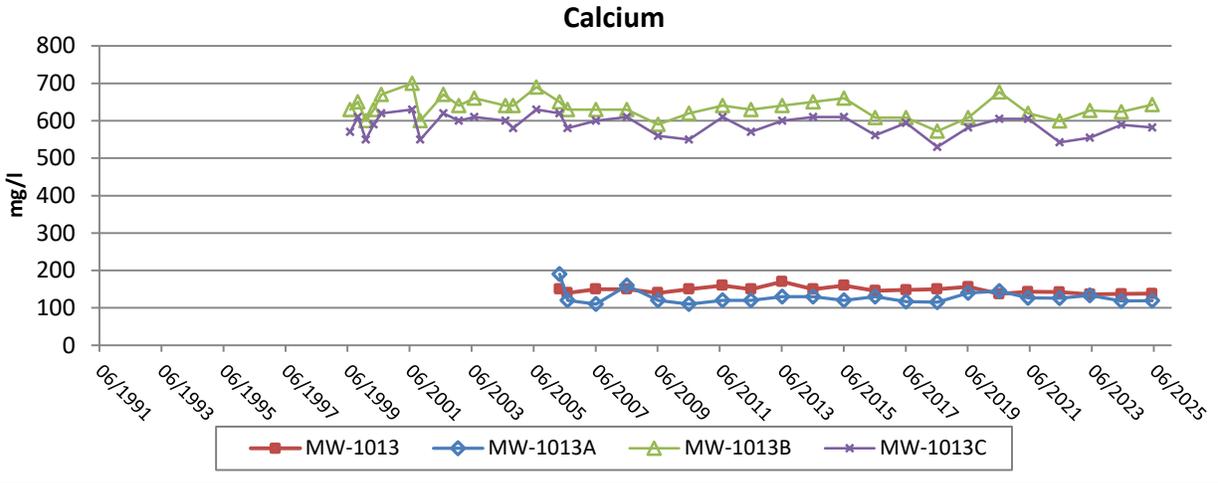




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Figure B-12b
Groundwater Trend Graphs - Annual Results
MW-1015A/MW-1015B

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



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Figure B-13a
Groundwater Trend Graphs - Annual Results (In-Pit Wells)
MW-1013/MW-1013A/MW-1013B/MW-1013C

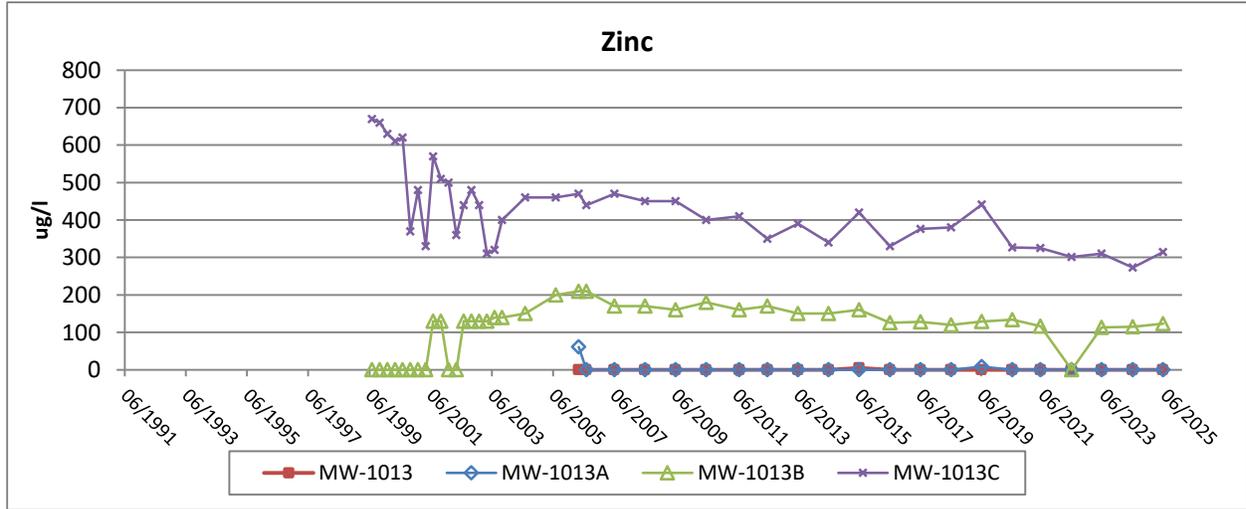
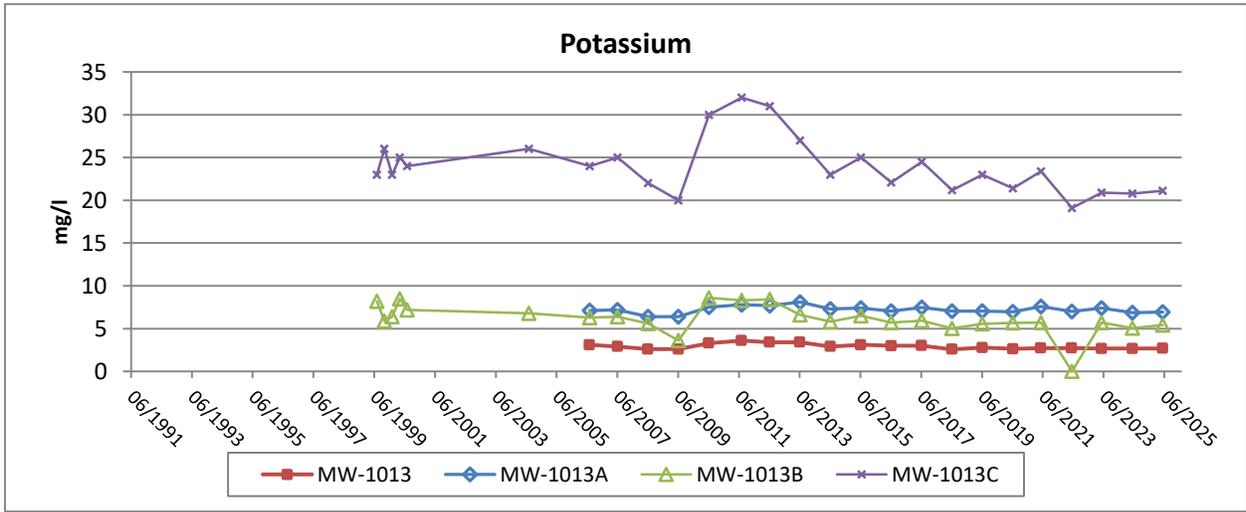
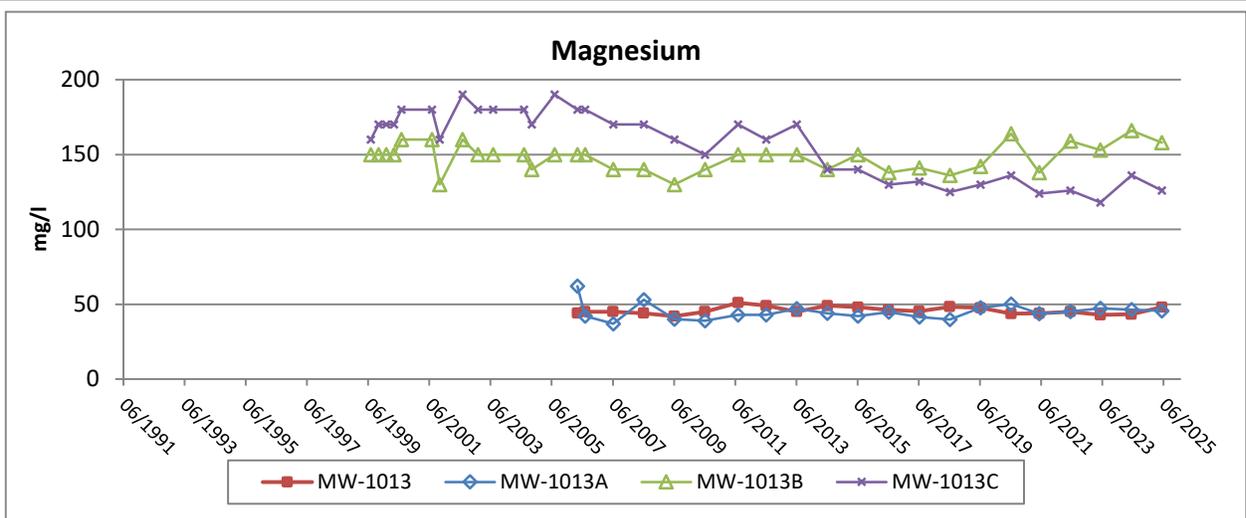
Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25



FLAMBEAU MINING COMPANY

Figure B-13b
Groundwater Trend Graphs - Annual Results (In-Pit Wells)
MW-1013/MW-1013A/MW-1013B/MW-1013C

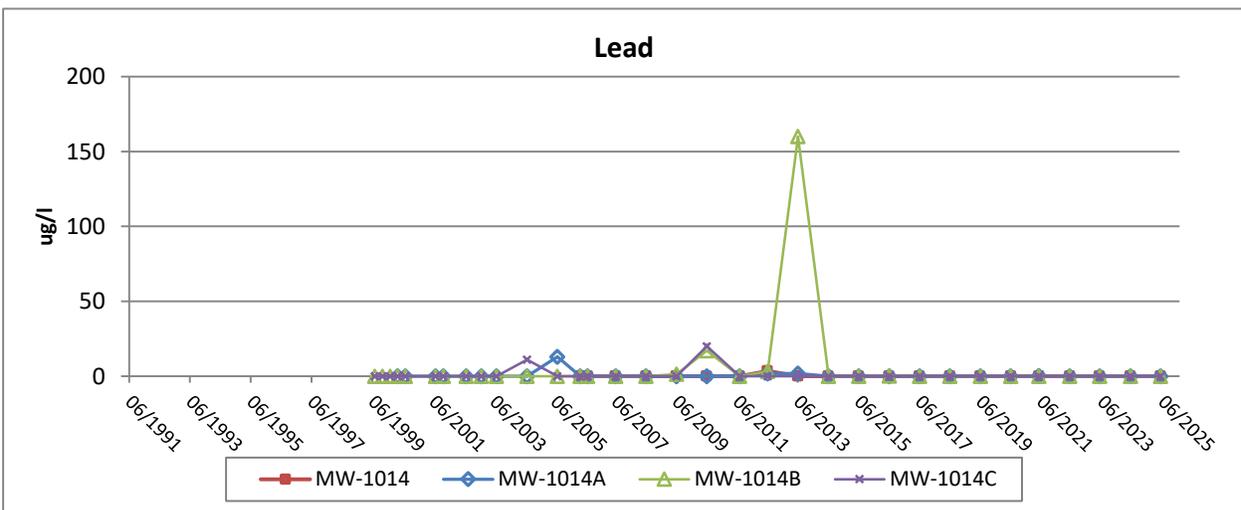
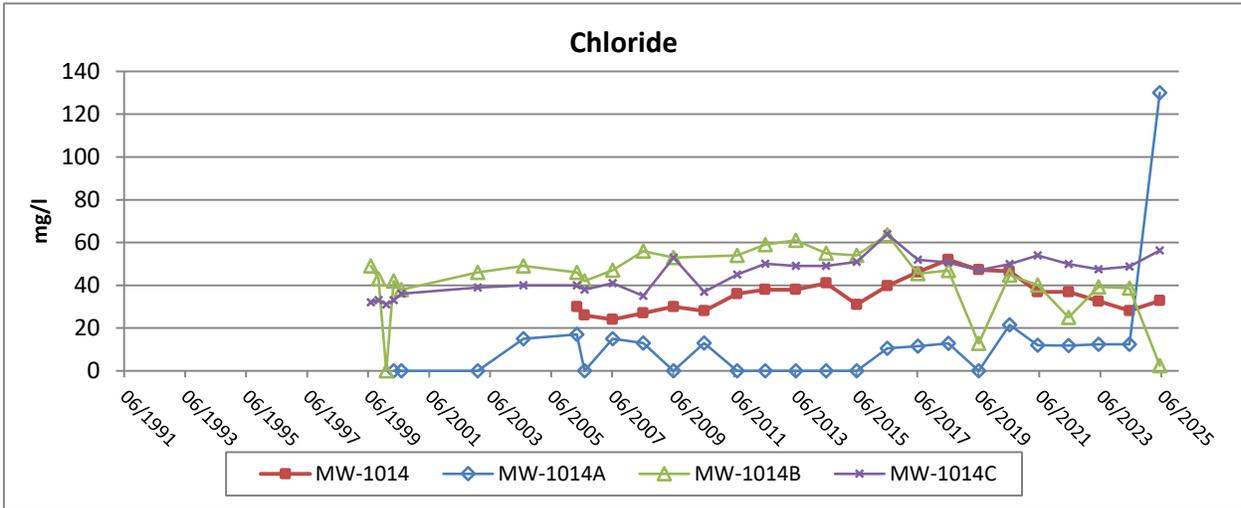
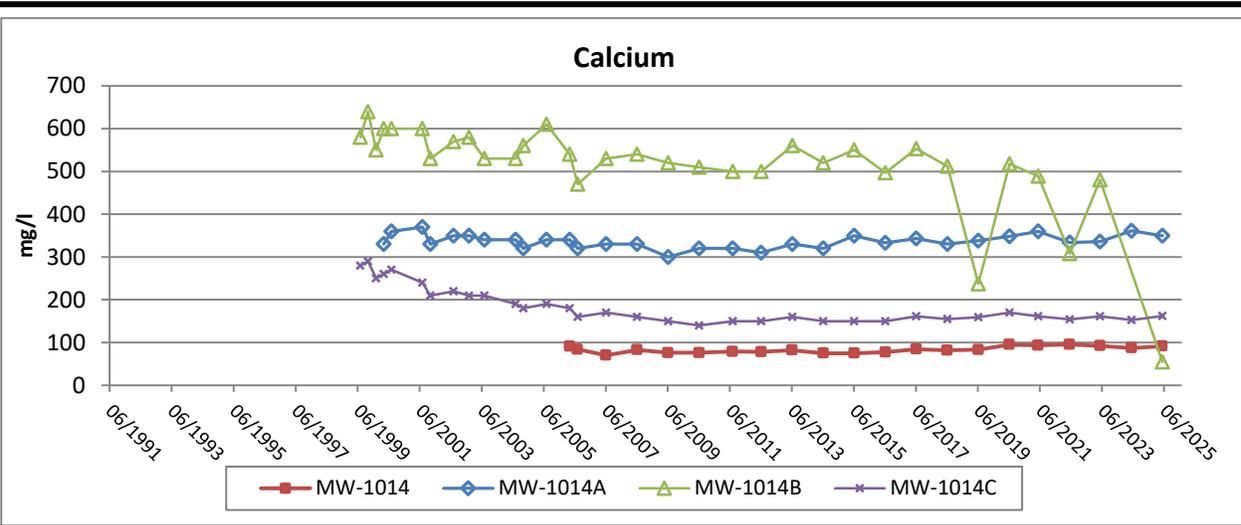
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Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

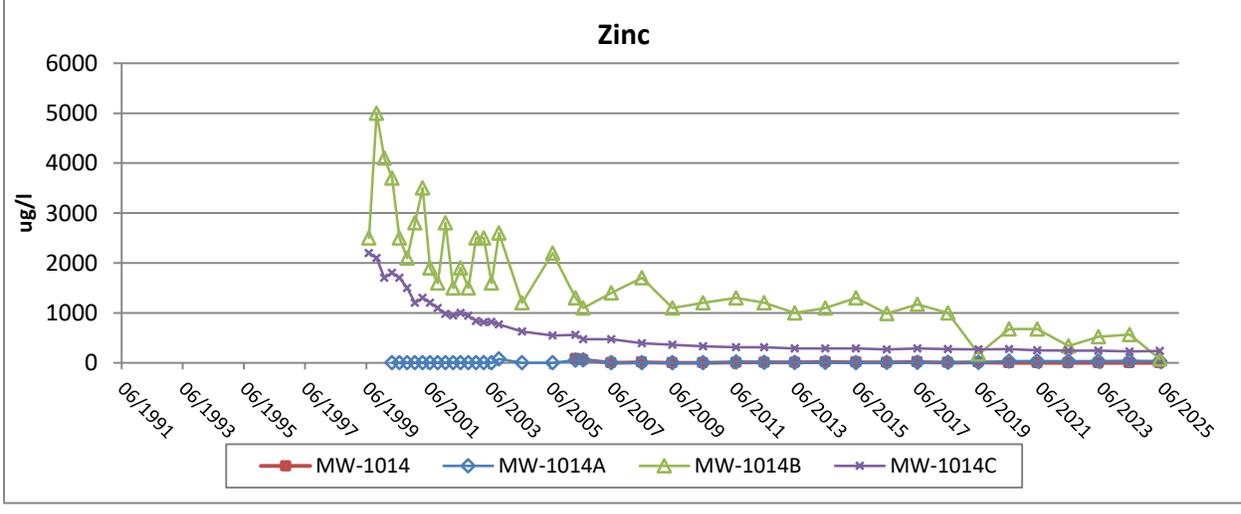
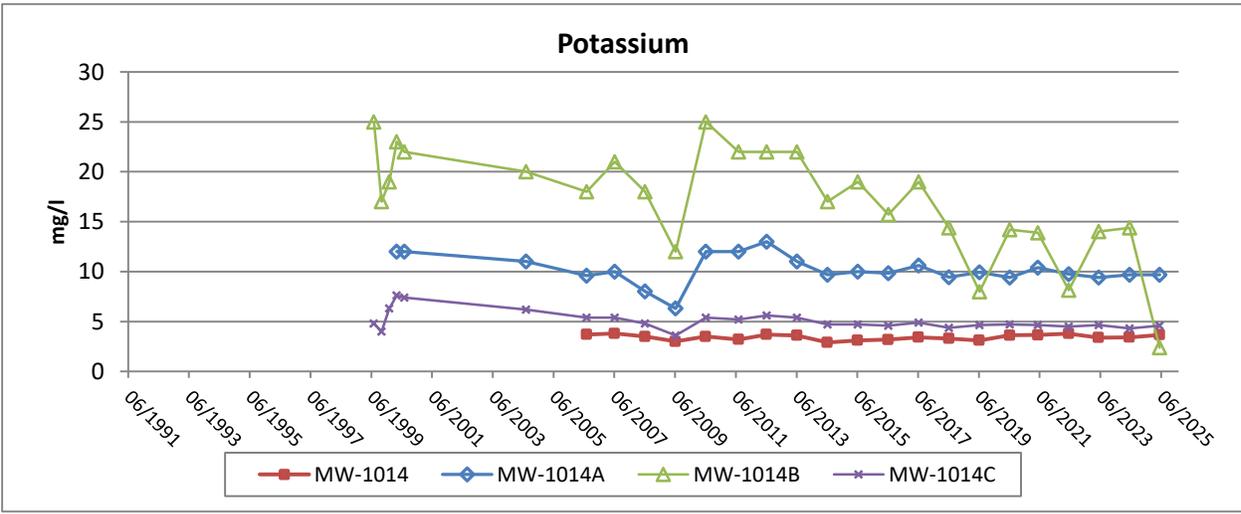
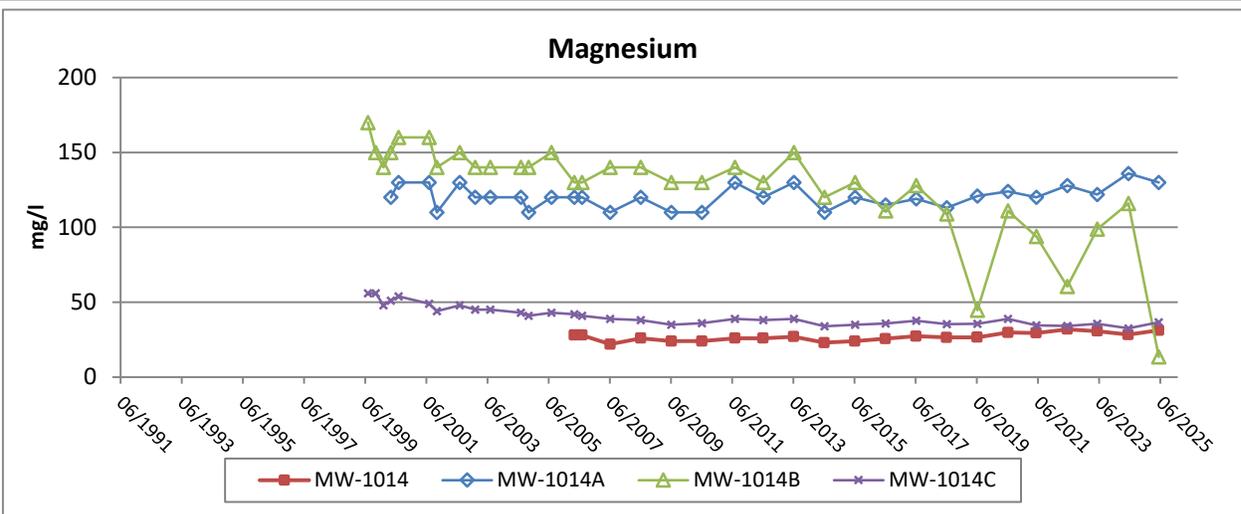




FLAMBEAU MINING COMPANY

Figure B-14a
Groundwater Trend Graphs - Annual Results (In-Pit Wells)
MW-1014/MW-1014A/MW-1014B/MW-1014C

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	





FLAMBEAU MINING COMPANY

Figure B-14b
Groundwater Trend Graphs - Annual Results (In-Pit Wells)
MW-1014/MW-1014A/MW-1014B/MW-1014C

Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25

2025 Groundwater Results - Annual Parameters

Sample Date	Location		Calcium mg/l	Chloride mg/l	Lead ug/l	Magnesium mg/l	Potassium mg/l	Zinc ug/l
2025-05	MW-1000PR		107	12.7	< 0.24	28.5	2.92	379
2025-05	MW-1000R		35.4	32.4	< 0.24	11	0.509	< 10.3
2025-05	MW-1002		18	14.8	< 0.24	6.47	0.724	< 10.3
2025-05	MW-1002G		42.7	44.1	< 0.24	17.5	1.01	< 10.3
2025-05	MW-1002G	Dup.	43.7	45.1	< 0.24	16.8	1.08	< 10.3
2025-05	MW-1004		9.24	0.60	< 0.24	3.06	0.73	< 10.3
2025-05	MW-1004P		34.7	< 0.59	< 0.24	14.7	5.53	< 10.3
2025-05	MW-1004S		15.7	1.4	< 0.24	5.39	0.823	< 10.3
2025-05	MW-1005		122	582	< 0.24	63.1	1.2	< 10.3
2025-05	MW-1005P		53.1	7.3	< 0.24	22.7	8.52	< 10.3
2025-05	MW-1005S		33.3	1.4	< 0.24	12.7	2.46	< 10.3
2025-05	MW-1010P		50.9	6.0	< 0.24	13.9	2.5	< 10.3
2025-05	MW-1013		138	4.2	< 0.24	48	2.69	< 10.3
2025-05	MW-1013A		119	8.0	< 0.24	45.6	6.94	< 10.3
2025-05	MW-1013B		643	37.9	< 0.24	158	5.41	123
2025-05	MW-1013C		582	51.0	< 0.24	126	21.1	314
2025-05	MW-1014		91.5	32.8	< 0.24	31.2	3.67	< 10.3
2025-05	MW-1014A		350	130	< 0.24	130	9.67	35.0
2025-05	MW-1014B		54.7	2.5	< 0.24	13.5	2.38	75.6
2025-05	MW-1014C		162	56.2	< 0.24	36.7	4.58	237
2025-05	MW-1014C	Dup.	161	55.6	< 0.24	34.5	4.68	219
2025-05	MW-1015A		24.2	10	< 0.24	10.6	0.797	< 10.3
2025-05	MW-1015B		36.9	80.6	< 0.24	16.1	6.97	< 10.3

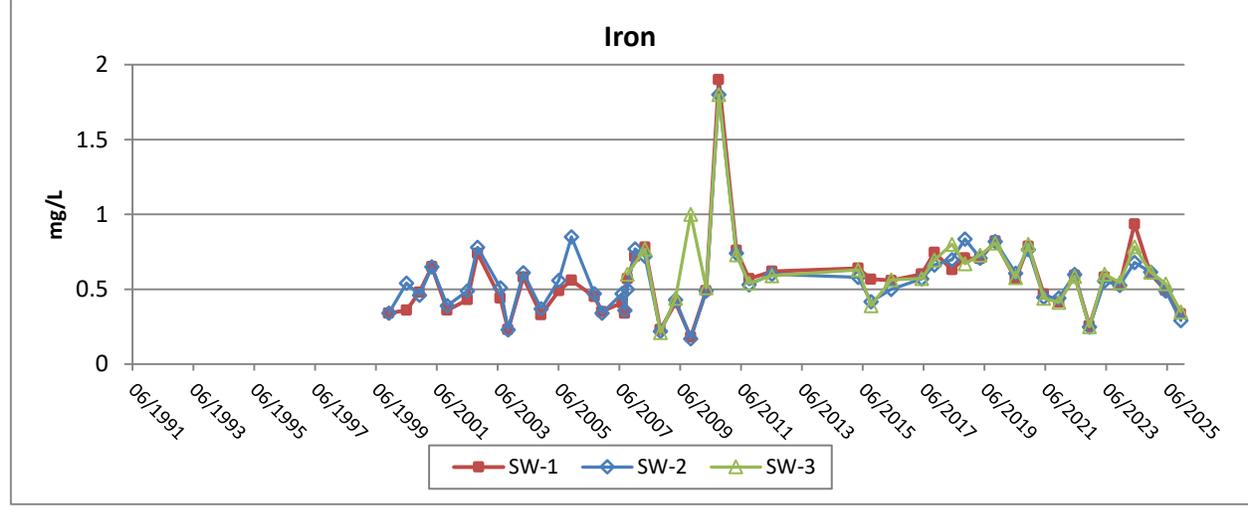
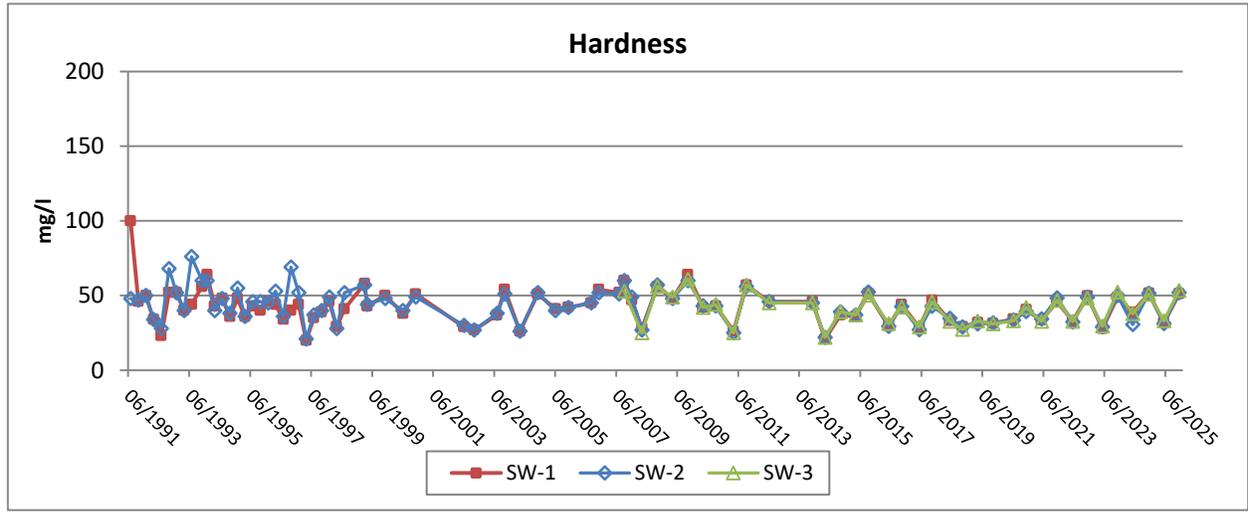
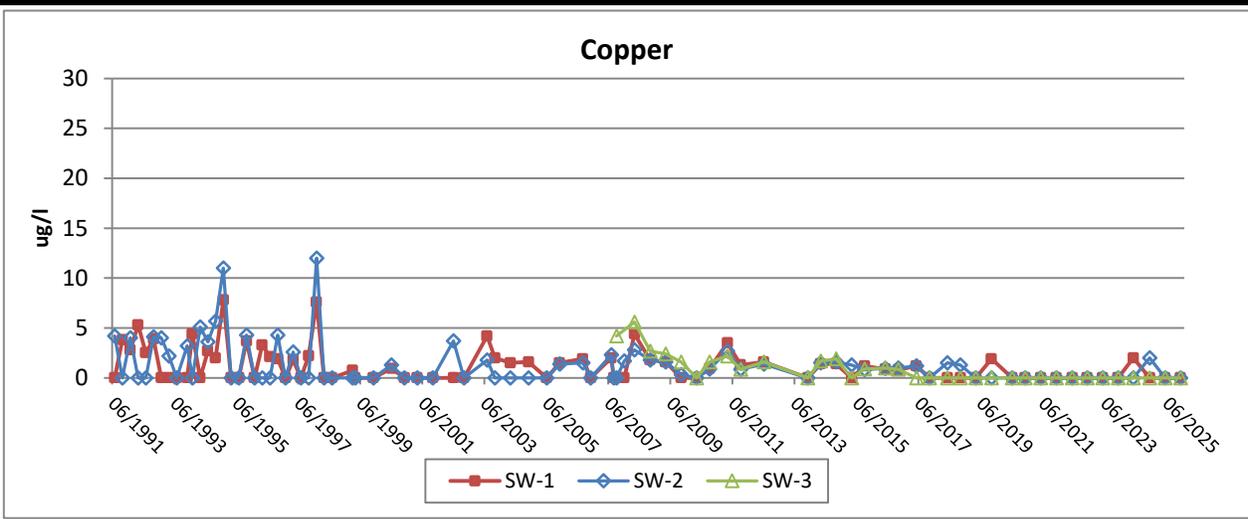
Attachment 3
Surface Water

Trend Analysis
Trend Graphs
2025 Data

**Trend Analysis Results - Surface Water
Year Ending 2025**

	Conductivity (Field) (umhos/cm)	pH(Field) (su)	Copper	Hardness	Iron	Manganese	Zinc	Dissolved Oxygen	Redox Potential	Total Suspended Solids
SW-1										
Trend Results for Most Recent 5 Years										
Sample Size	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	14	9	3	9	3	11	0	7	9	13
p-Level	0.254	0.484	0.862	0.484	0.862	0.380	1.000	0.600	0.484	0.292
Trend										
Trend Results for All Data Since Oct. 1997										
Sample Size	57	56	59	56	49	46	57	30	22	33
Mann-Kendall S	-337	-110	-262	-121	237	-11	-224	93	-19	-55
p-Level	0.021	0.441	0.060	0.396	0.042	0.925	0.052	0.102	0.616	0.406
Trend										
SW-2										
Trend Results for Most Recent 5 Years										
Sample Size	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	15	3	5	11	3	7	0	-5	7	-12
p-Level	0.216	0.862	0.728	0.380	0.862	0.600	1.000	0.728	0.600	0.336
Trend										
Trend Results for All Data Since Oct. 1997										
Sample Size	57	56	59	56	49	46	57	30	22	33
Mann-Kendall S	-378	36	-90	-185	122	-104	-152	55	-59	-128
p-Level	0.009	0.805	0.521	0.193	0.297	0.329	0.198	0.338	0.102	0.048
Trend	-									
SW-3										
Trend Results for Most Recent 5 Years										
Sample Size	10	10	10	10	10	10	10	10	10	10
Mann-Kendall S	13	7	0	16	5	5	0	3	7	-2
p-Level	0.292	0.600	1.000	0.186	0.728	0.728	1.000	0.862	0.600	0.931
Trend										
Trend Results for All Data Since Oct. 1997										
Sample Size	27	32	35	35	31	28	33	21	22	25
Mann-Kendall S	-5	30	-316	-29	-42	-58	-213	-1	-55	-27
p-Level	0.934	0.640	0.000	0.694	0.489	0.262	0.000	0.988	0.128	0.548
Trend			-				-			

Notes: Overall increasing trend denoted by "+".
Overall decreasing trend denoted by "-".
All trend tests performed at a Type I (two-tailed) error rate of 0.01.

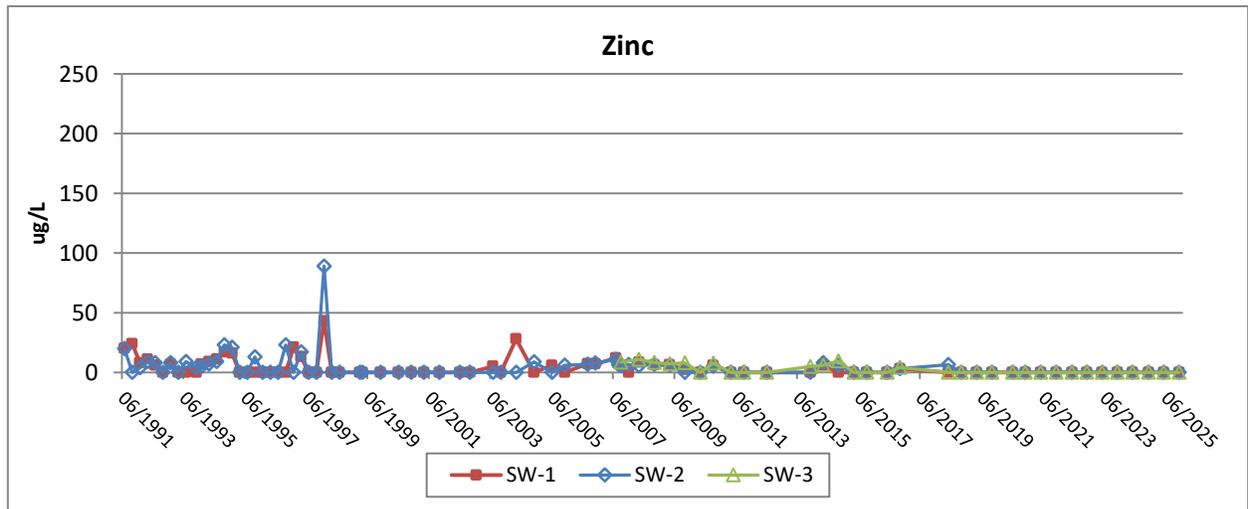
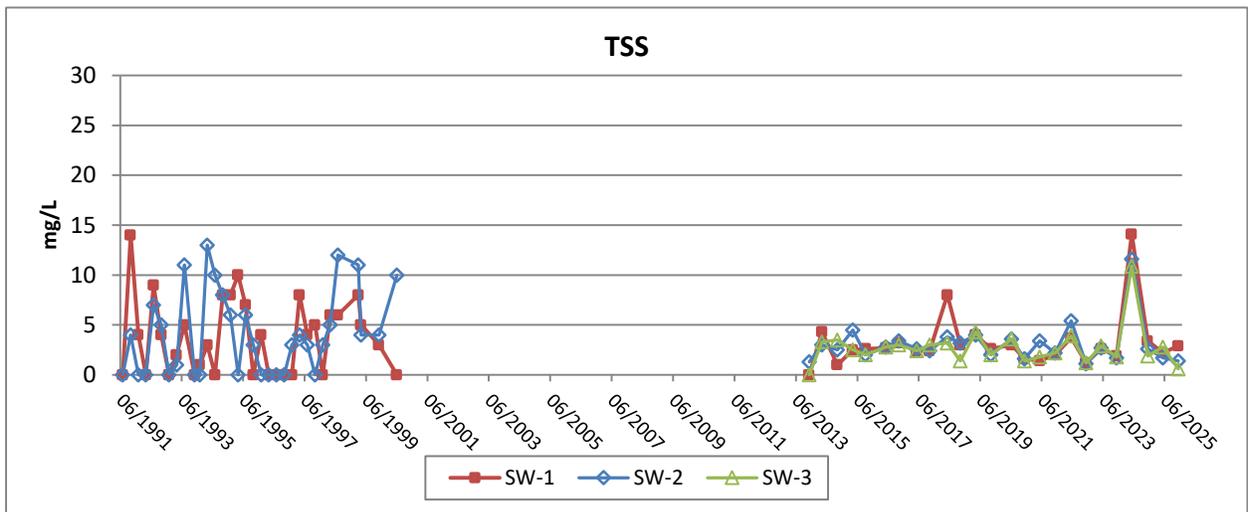
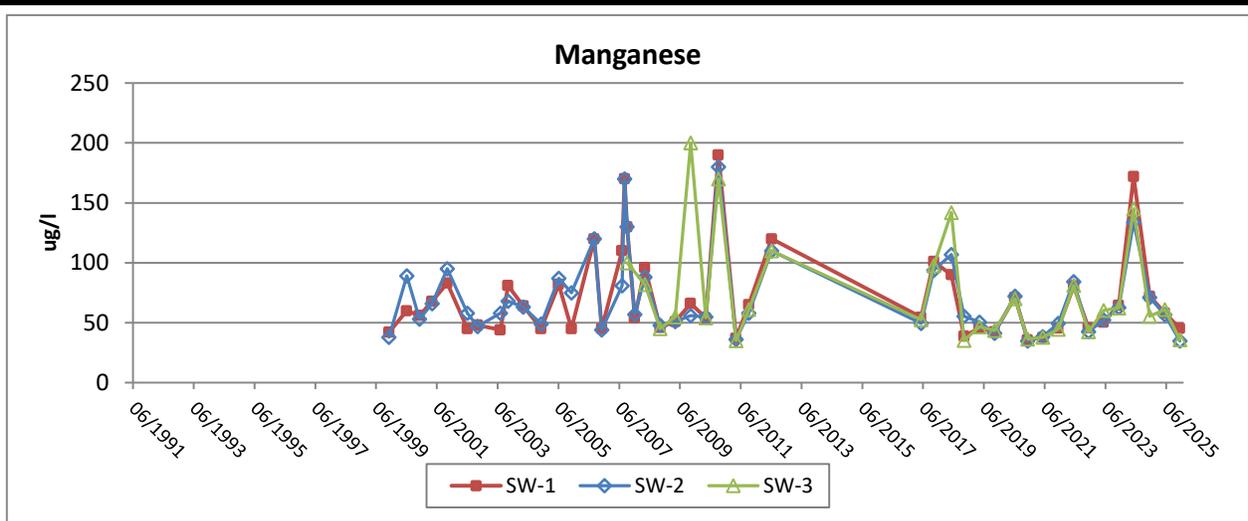




FLAMBEAU MINING COMPANY

Figure B-15a
Surface Water Trend Graphs
SW-1/SW-2/SW-3

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	



FLAMBEAU MINING COMPANY

Figure B-15b
Surface Water Trend Graphs
SW-1/SW-2/SW-3

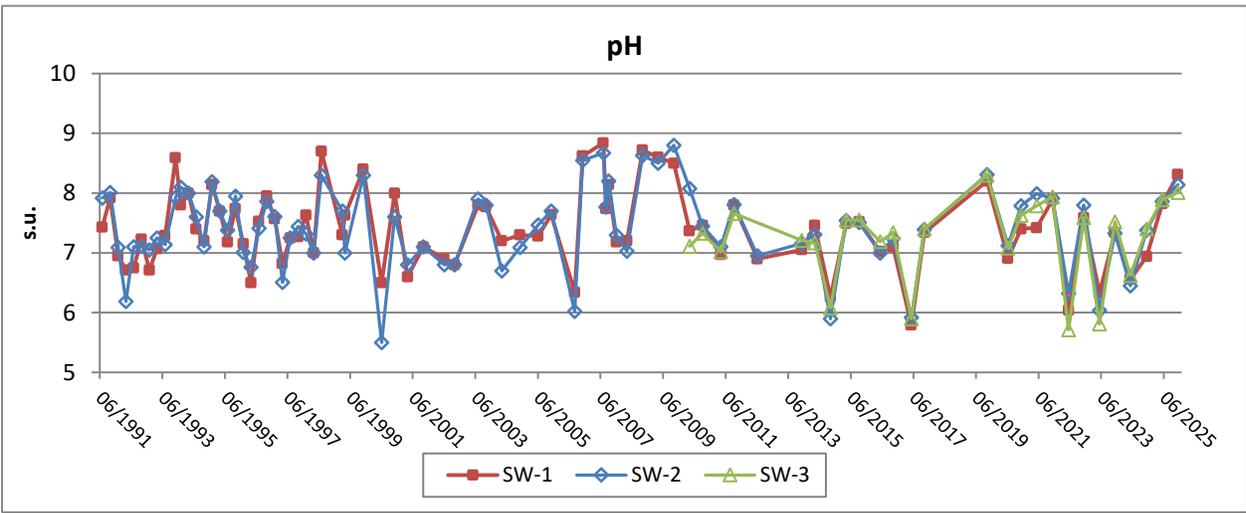
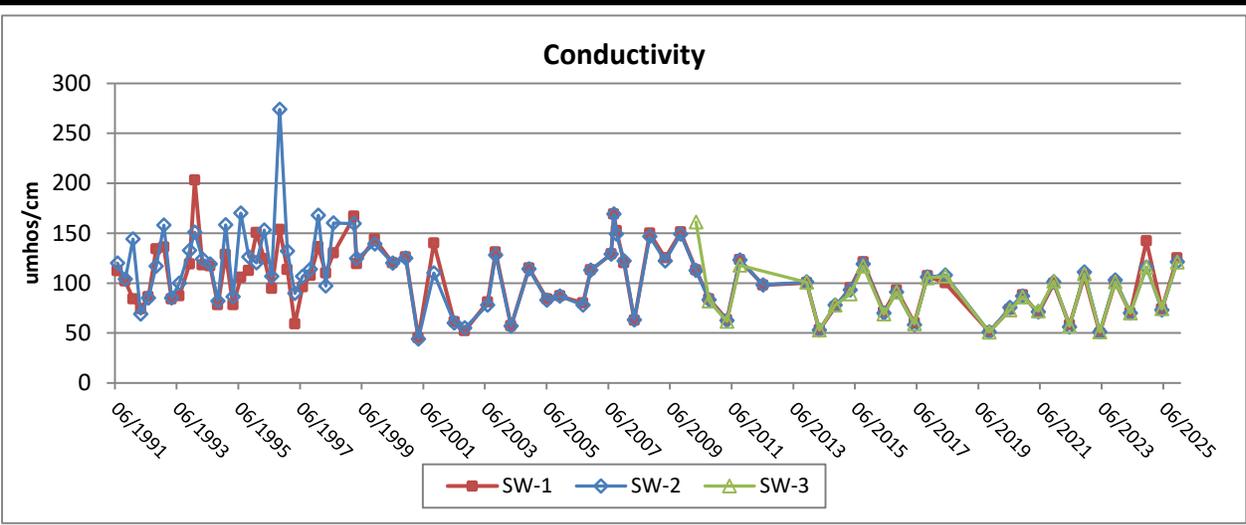
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Date: January 2026

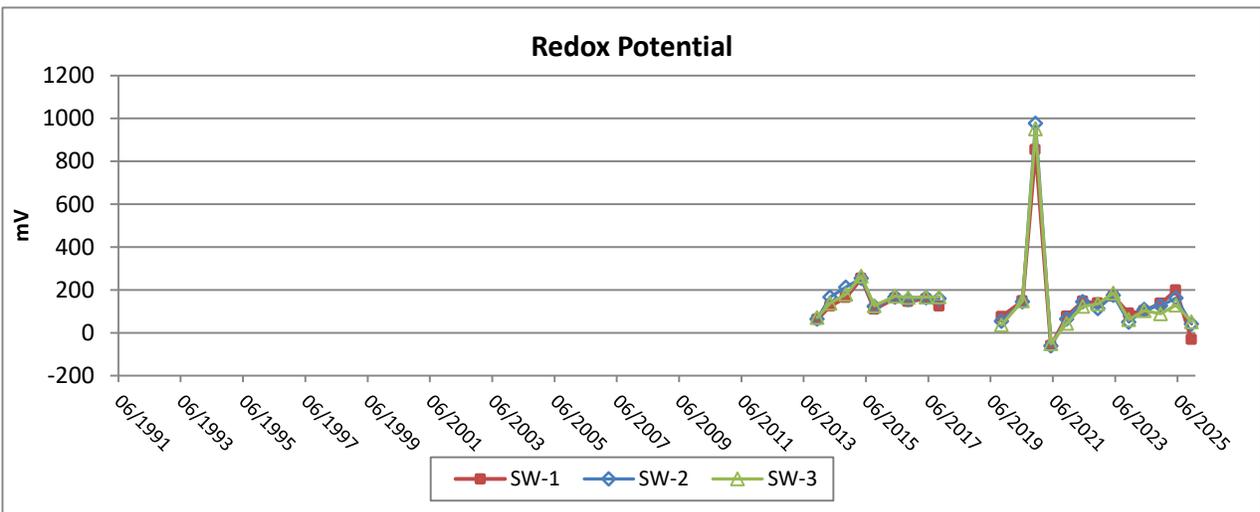
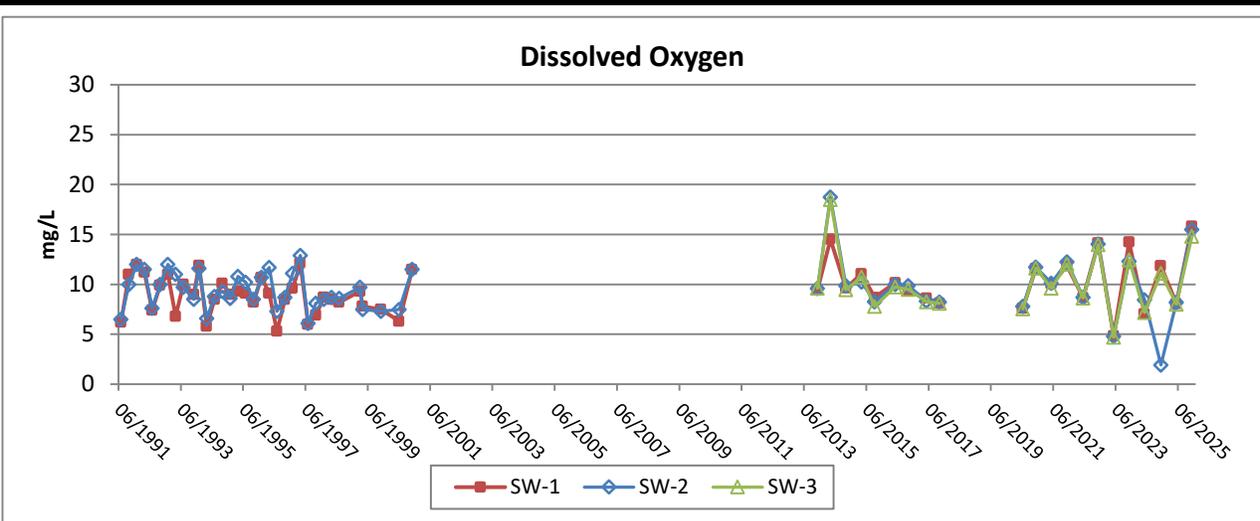
Prepared By: SGL

Checked By: NMG1

Project: 17F777.25



	
FLAMBEAU MINING COMPANY	
Figure B-15c Surface Water Trend Graphs SW-1/SW-2/SW-3	
Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

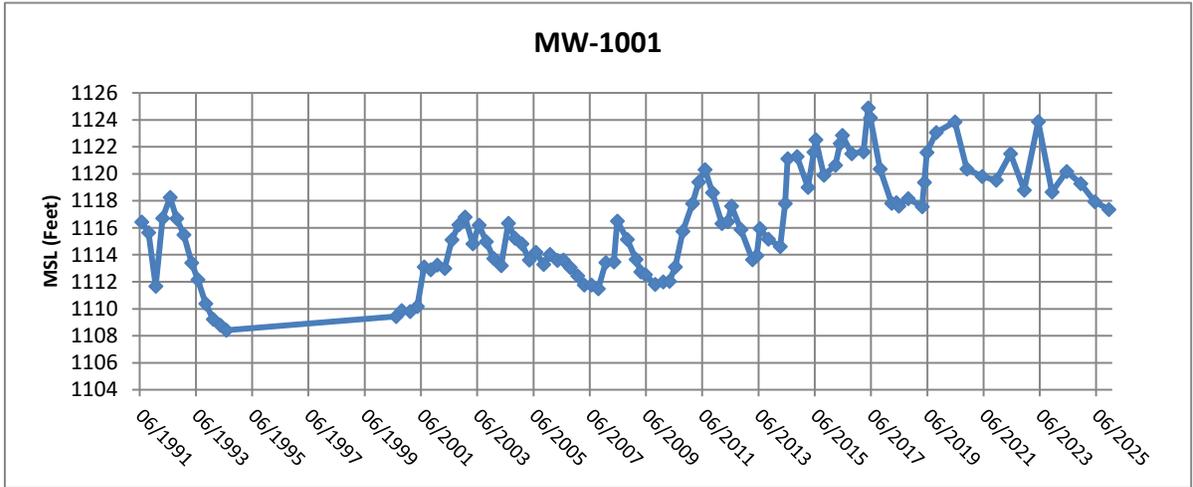
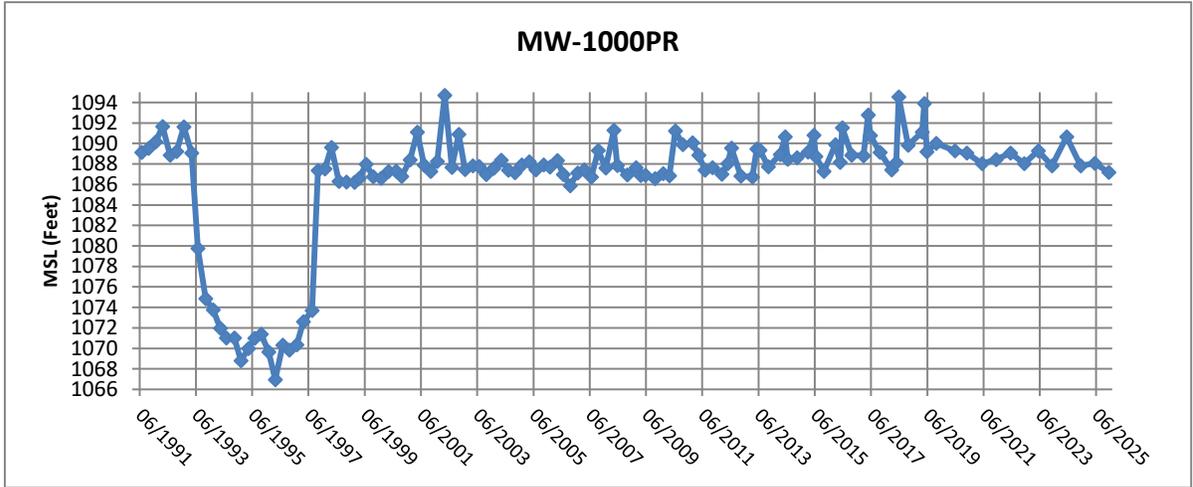
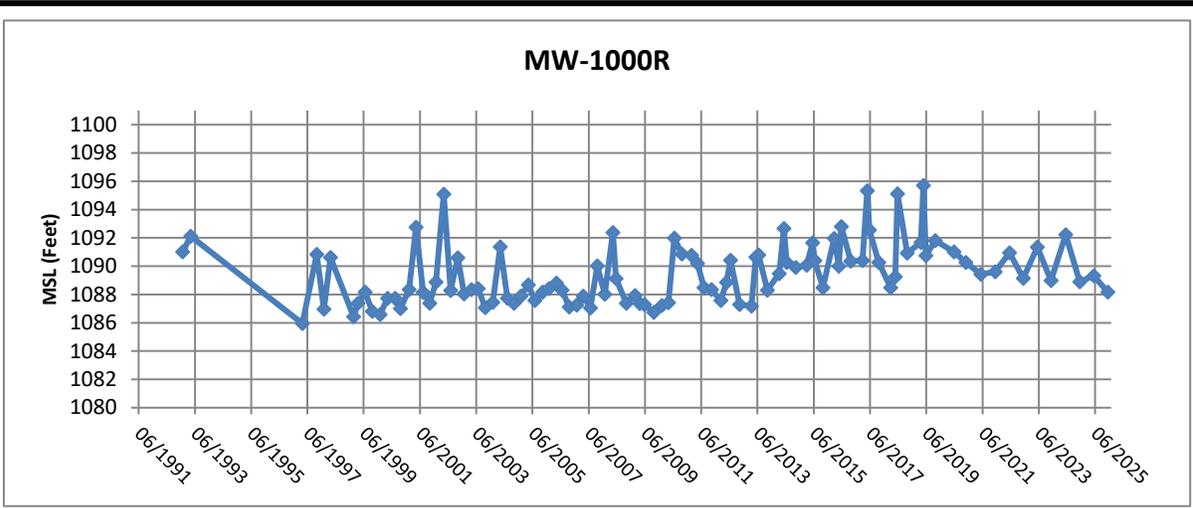


Foth	
FLAMBEAU MINING COMPANY	
Figure B-15d	
Surface Water Trend Graphs	
SW-1/SW-2/SW-3	
Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

2025 Surface Water Results

Sample Date (yyyy-mm)	Location		Conductivity (Field) umhos/cm	pH (Field) s.u.	Copper ug/l	Hardness mg/l	Iron mg/l	Manganese ug/l	Zinc ug/l	Dissolved Oxygen mg/l	Redox Potential mV	Total Suspended Solids mg/l
2025-05	SW-1		73.85	7.82	< 1.9	31.9	0.492	58.2	< 10.3	8.07	198.30	2.2
2025-05	SW-1	Dup.			< 1.9	31.9	0.498	59.4	< 10.3			1.9
2025-05	SW-2		73.09	7.86	< 1.9	31.3	0.489	56.7	< 10.3	8.20	162.60	1.7
2025-05	SW-3		74.11	7.89	< 1.9	33.2	0.536	61.1	< 10.3	8.01	129.80	2.8
2025-11	SW-1		125.20	8.31	< 1.9	51.1	0.335	45.2	< 10.3	15.82	-32.00	2.9
2025-11	SW-1	Dup.			< 1.9	49.6	0.324	43.7	< 10.3			0.71
2025-11	SW-2		121.30	8.14	< 1.9	51.9	0.292	34.8	< 10.3	15.50	41.30	1.4
2025-11	SW-3		120.96	8.01	< 1.9	53.3	0.349	35.8	< 10.3	14.80	51.60	0.60

Attachment 4
Hydrographs and Groundwater Elevation Data



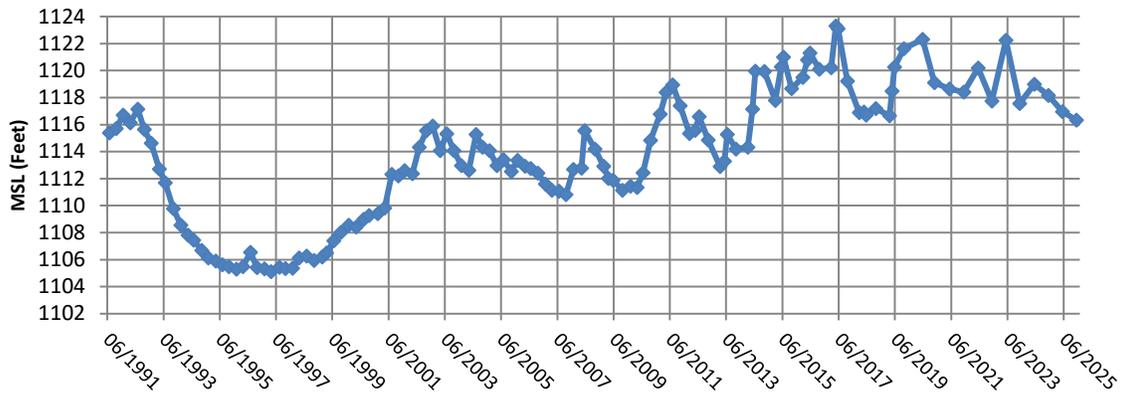


FLAMBEAU MINING COMPANY

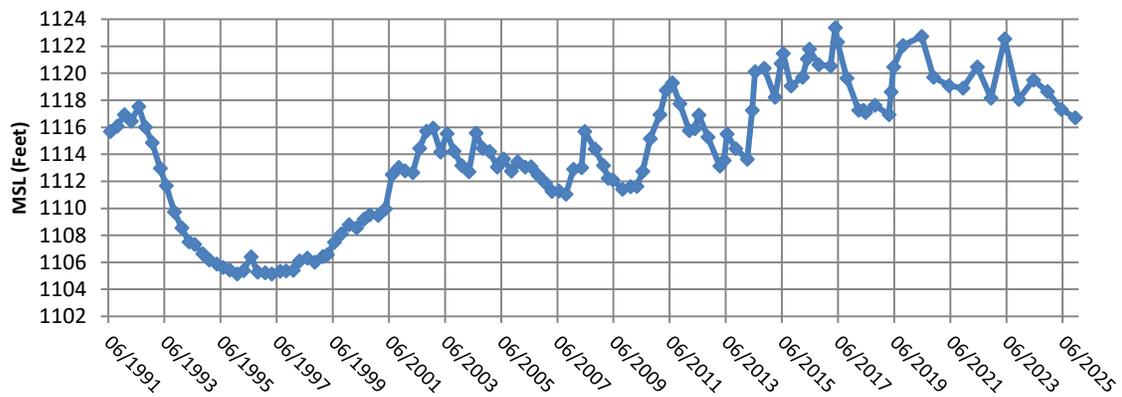
Figure B-16a
Hydrographs

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

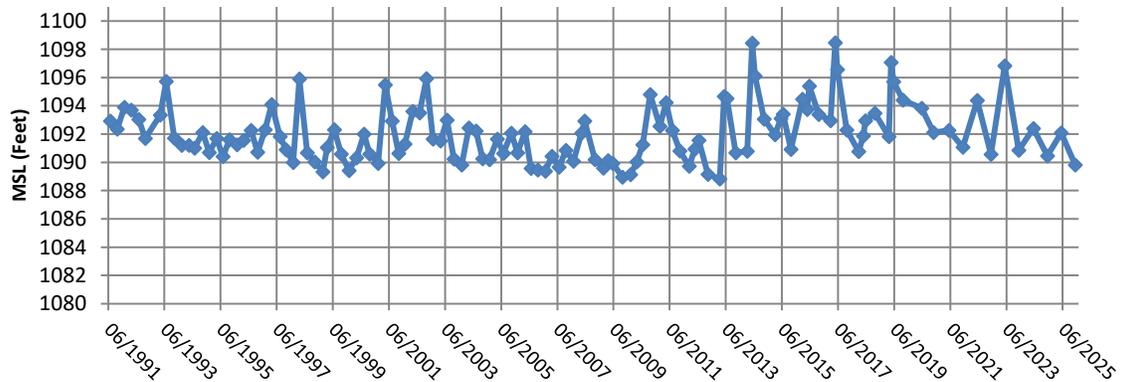
MW-1001G



MW-1001P



MW-1002



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Figure B-16b
Hydrographs

Scale: NA

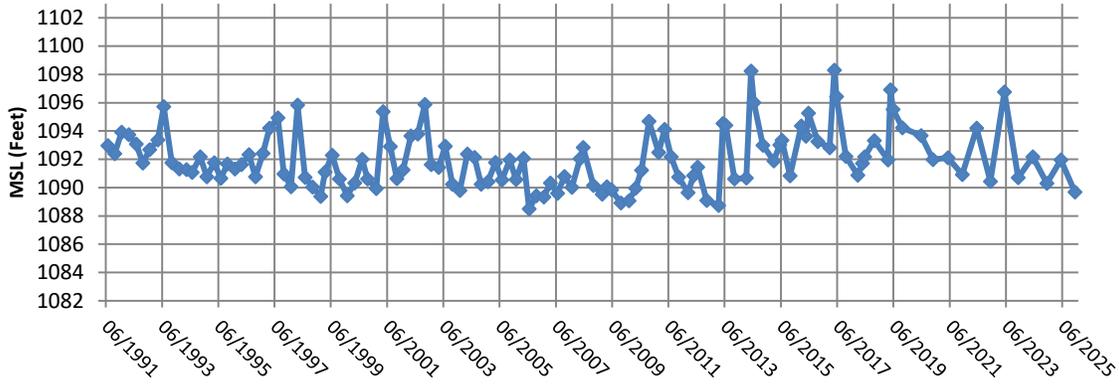
Date: January 2026

Prepared By: SGL

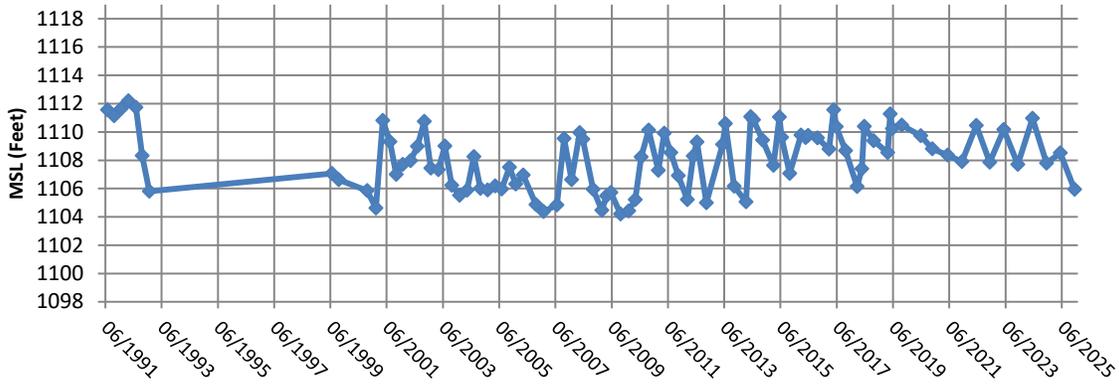
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Project: 17F777.25

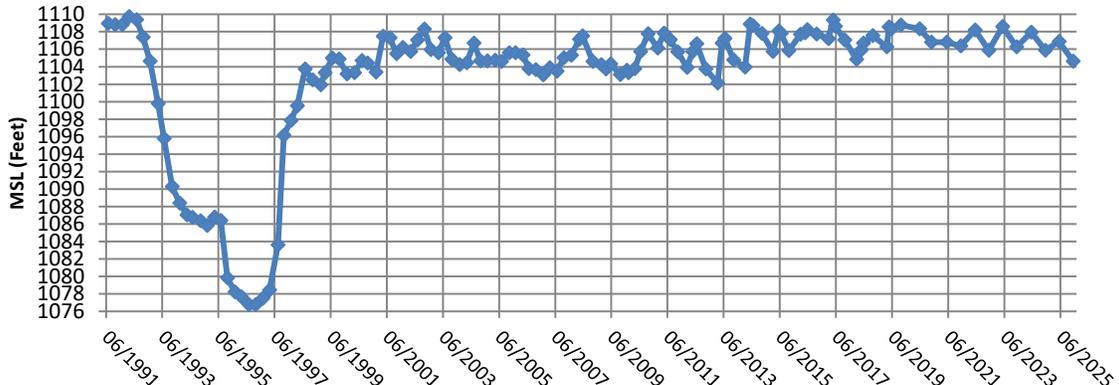
MW-1002G



MW-1004



MW-1004P



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Figure B-16c
Hydrographs

Scale: NA

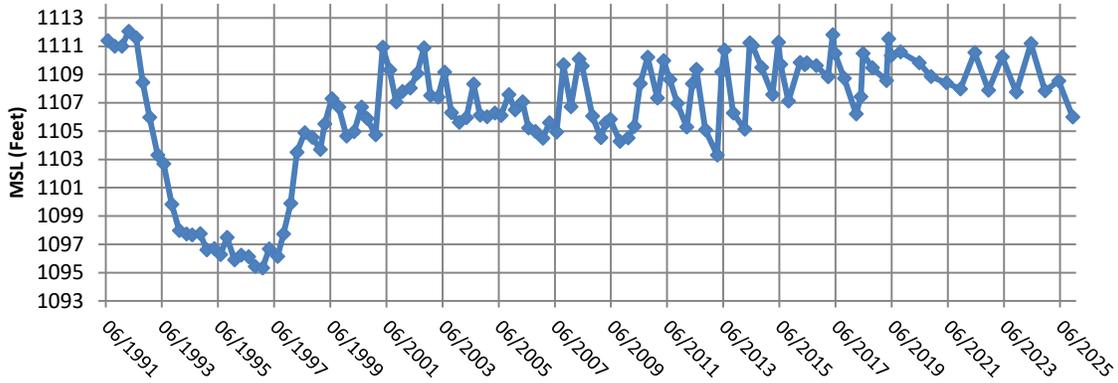
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Prepared By: SGL

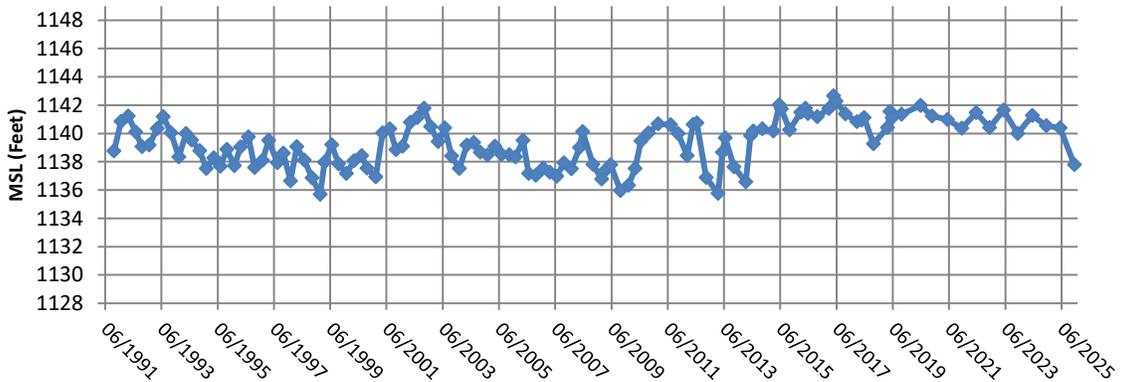
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Project: 17F777.25

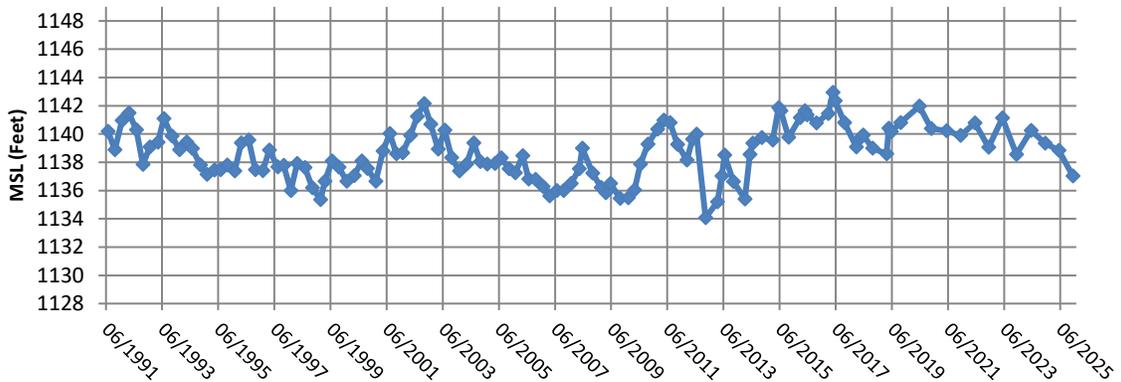
MW-1004S



MW-1005



MW-1005P



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Figure B-16d
Hydrographs

Scale: NA

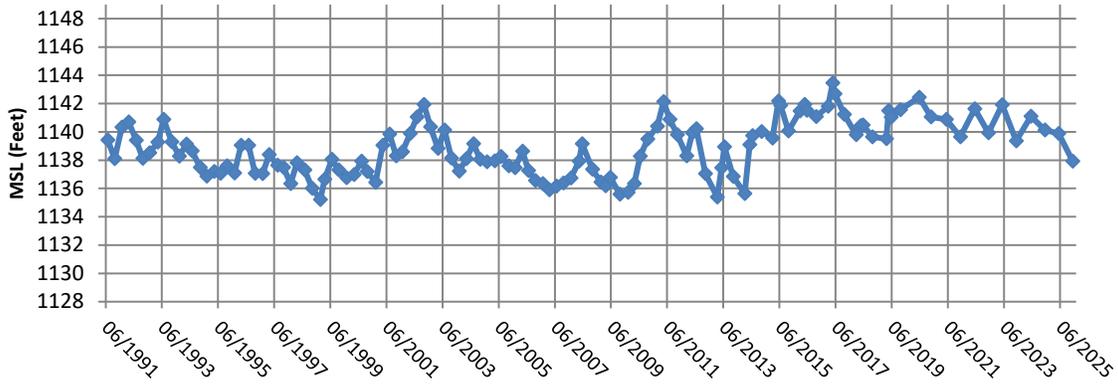
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Prepared By: SGL

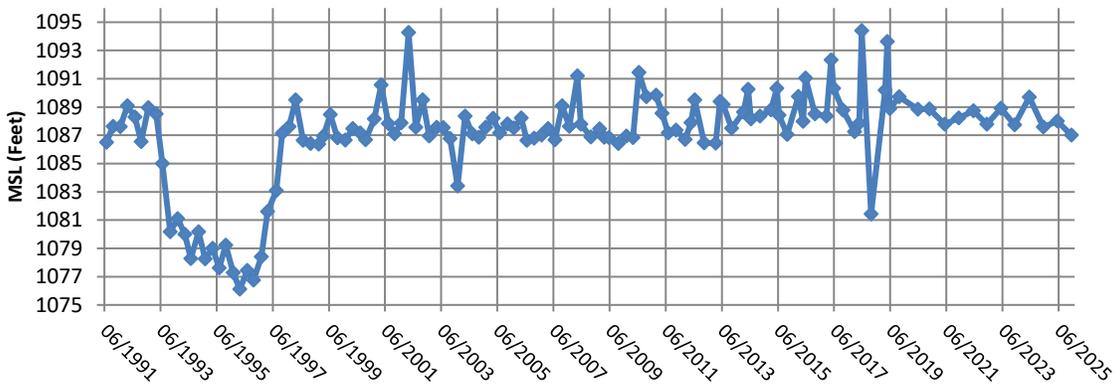
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Project: 17F777.25

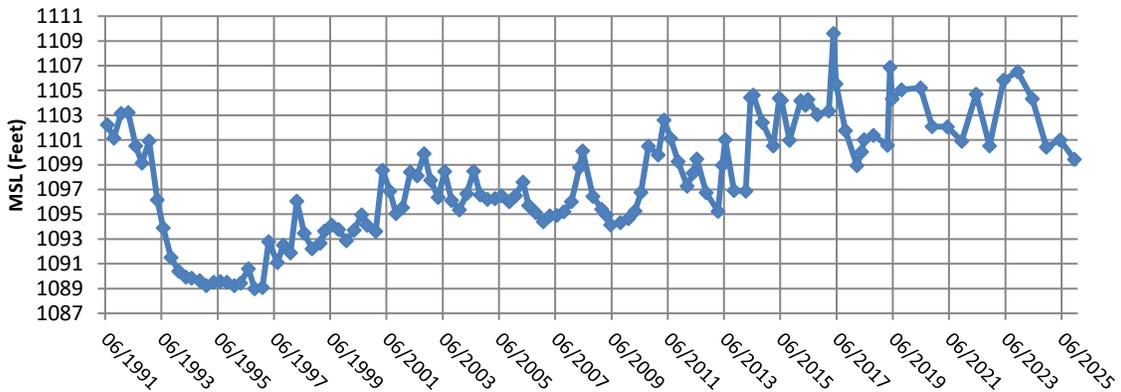
MW-1005S



MW-1010P



OW-39



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Figure B-16e
Hydrographs

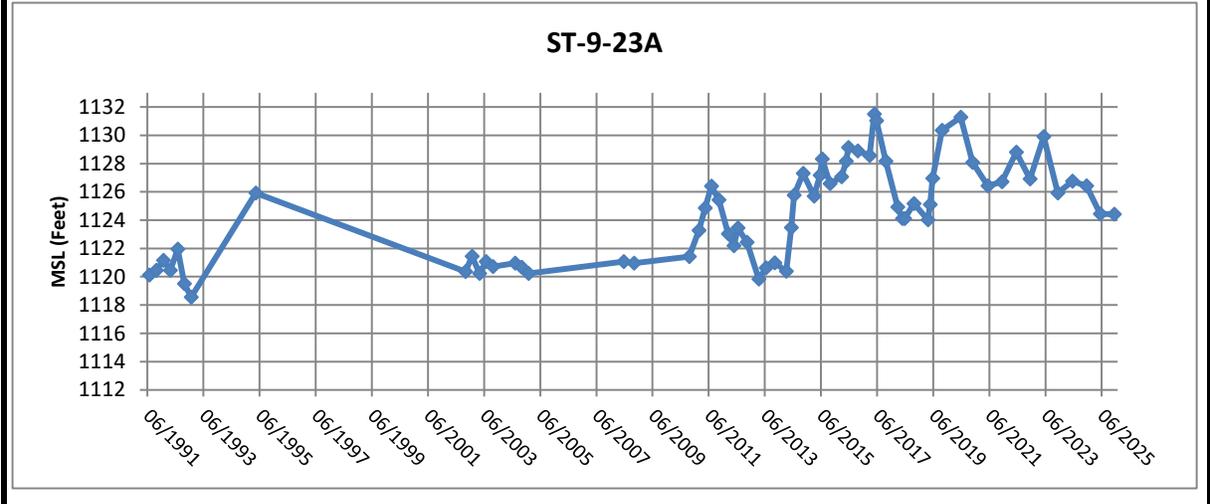
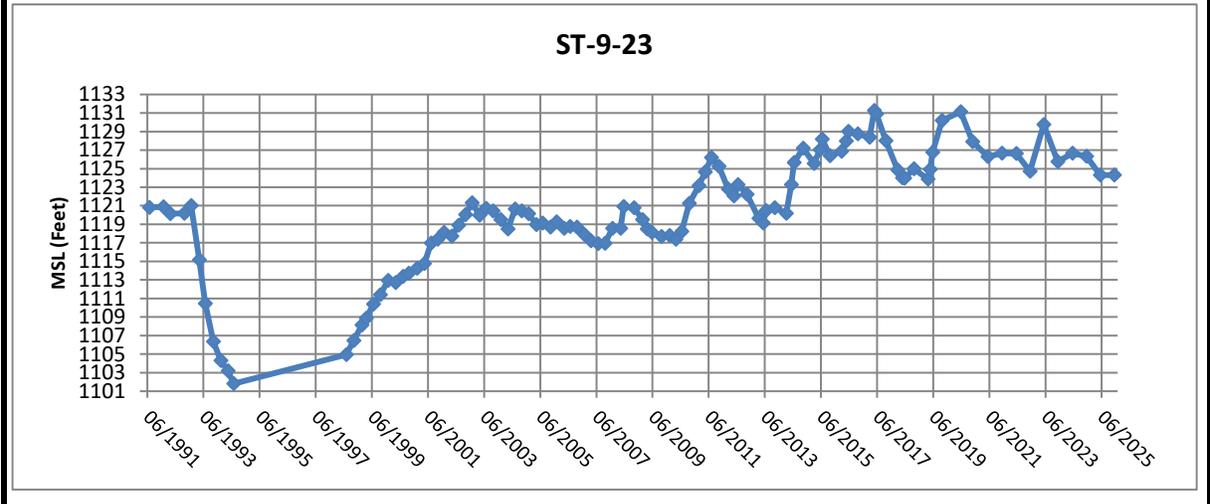
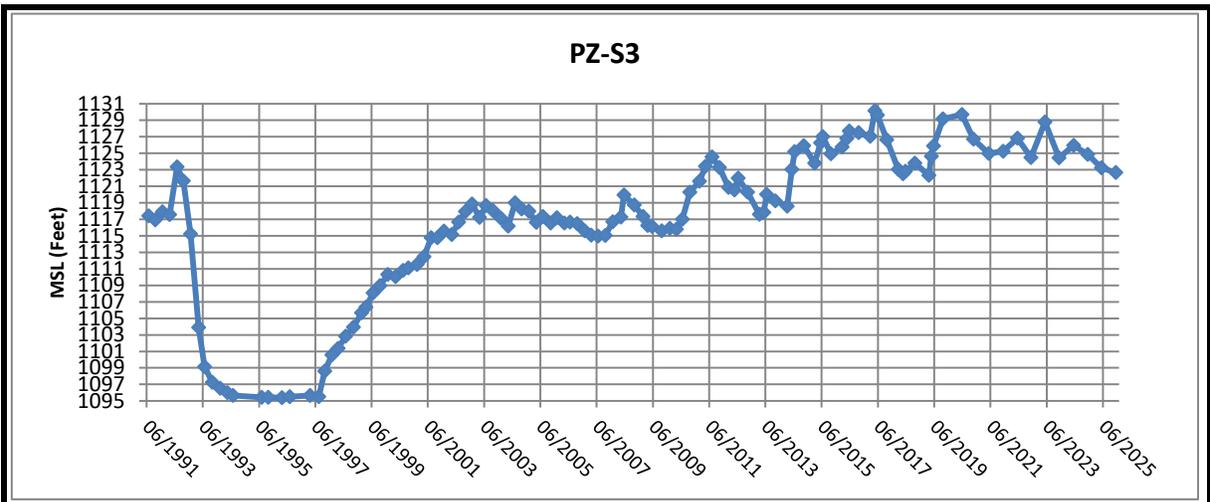
Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

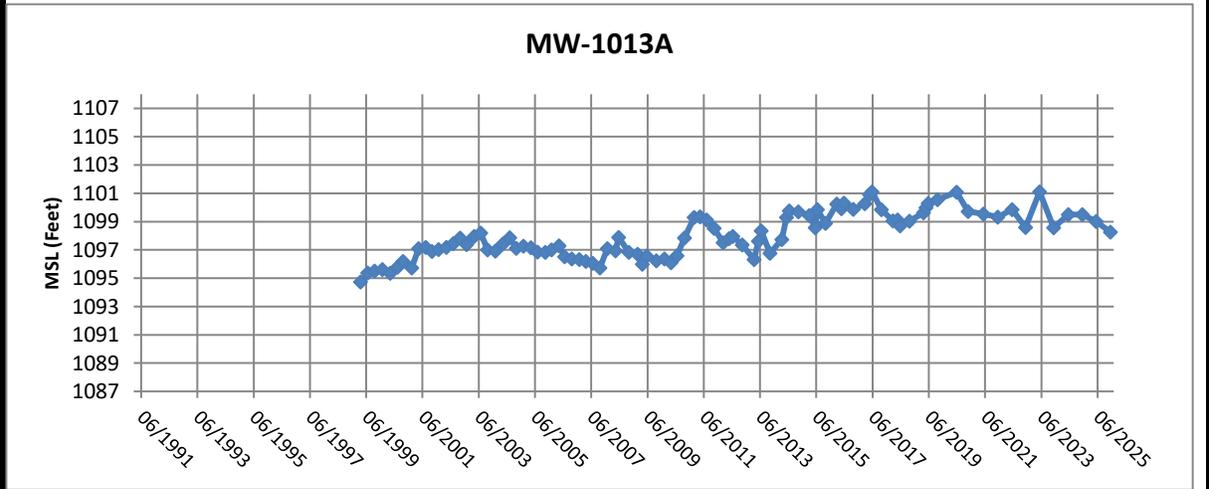
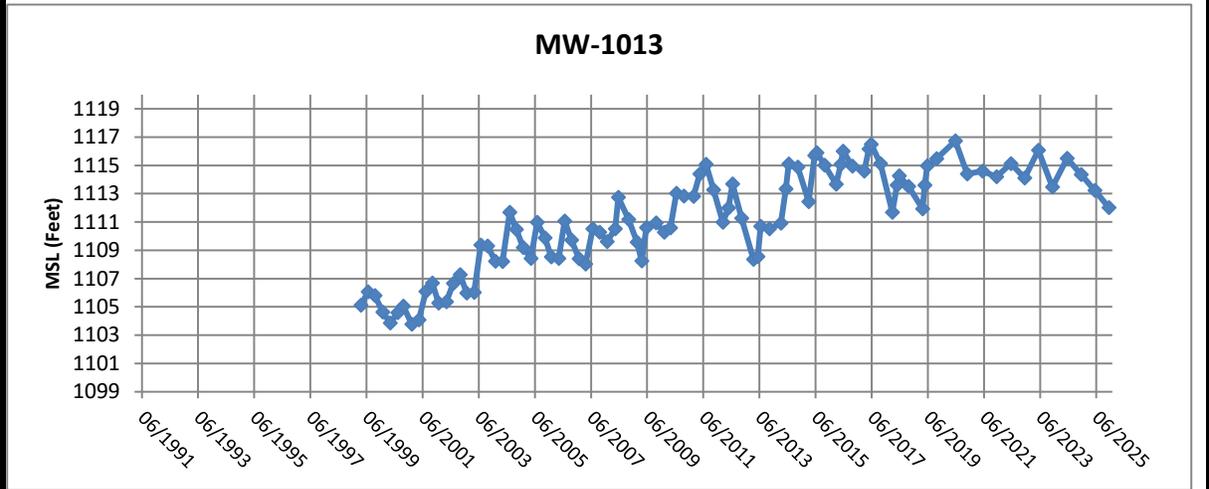
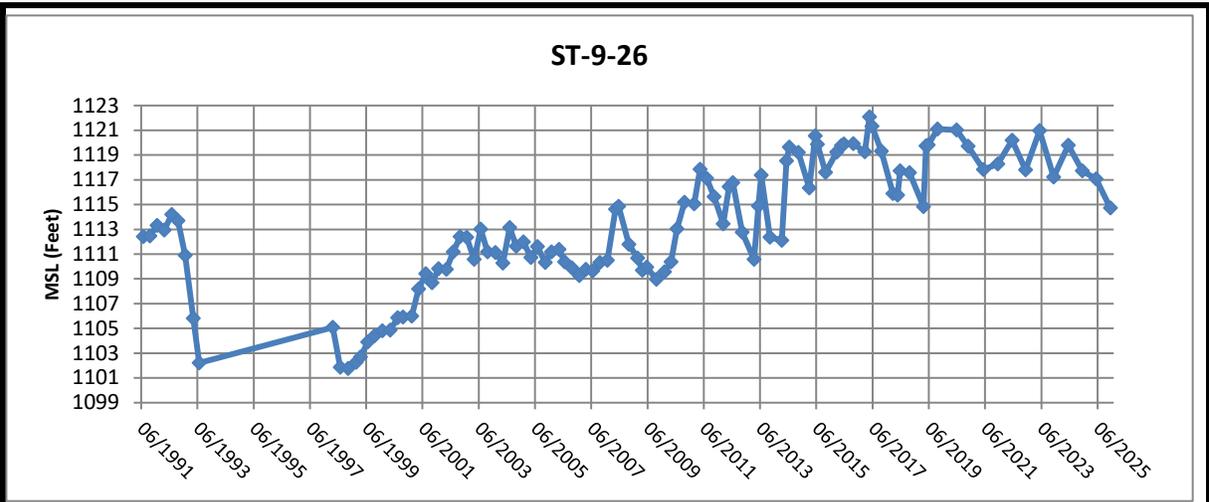
Project: 17F777.25



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Figure B-16f
Hydrographs

Scale: NA	Date: January 2026	
Prepared By: SGL	Checked By: NMG1	Project: 17F777.25

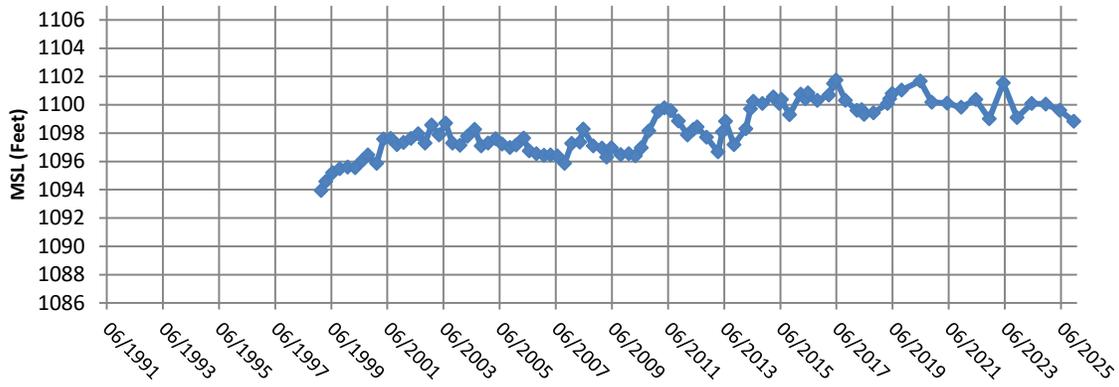


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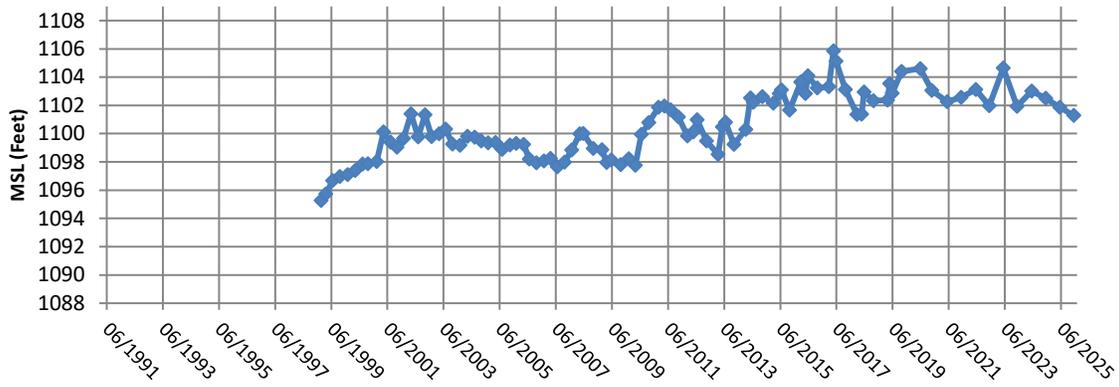
Figure B-16g
Hydrographs

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

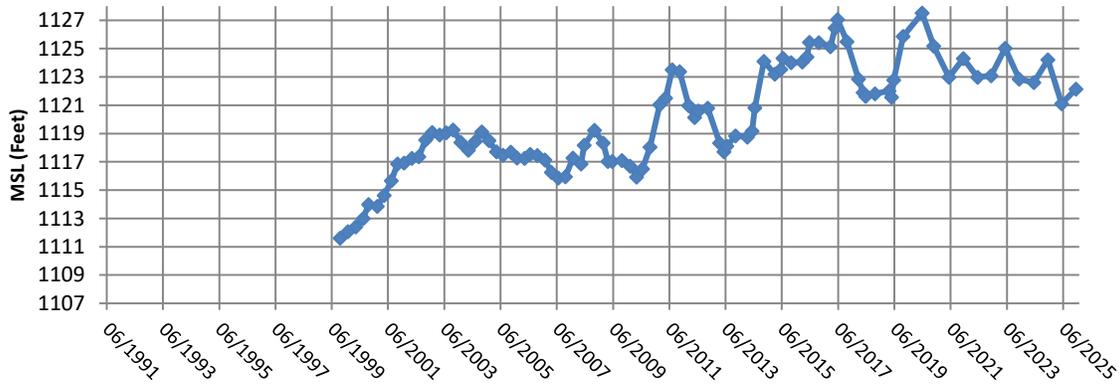
MW-1013B



MW-1013C



MW-1014



FLAMBEAU MINING COMPANY

Figure B-16h
Hydrographs

Scale: NA

Date: January 2026

Prepared By: SGL

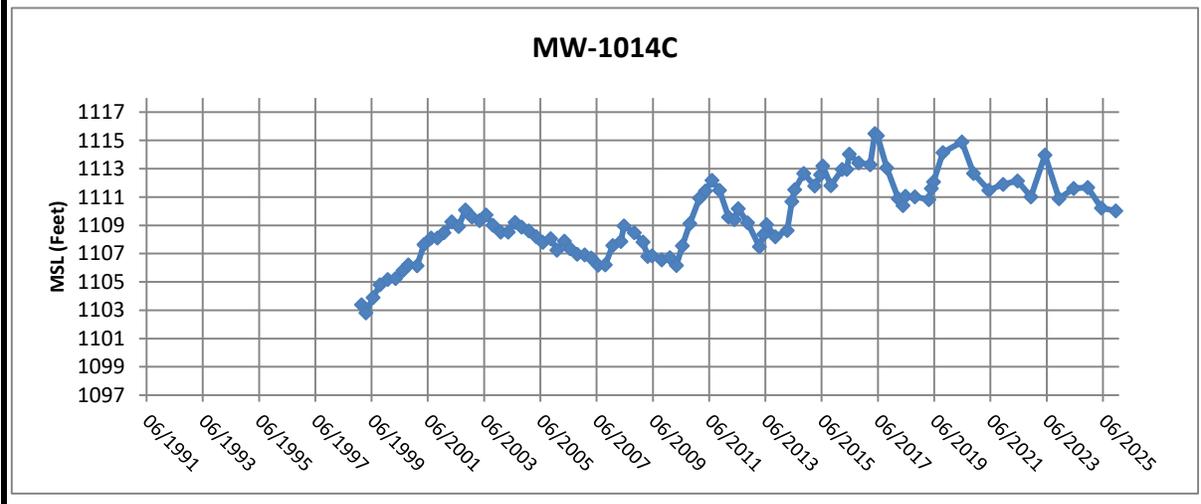
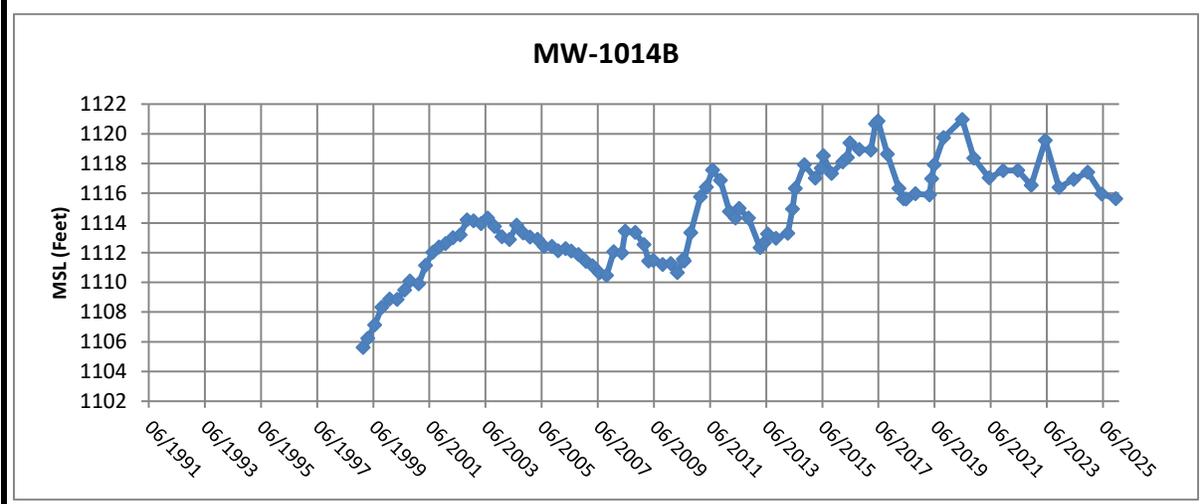
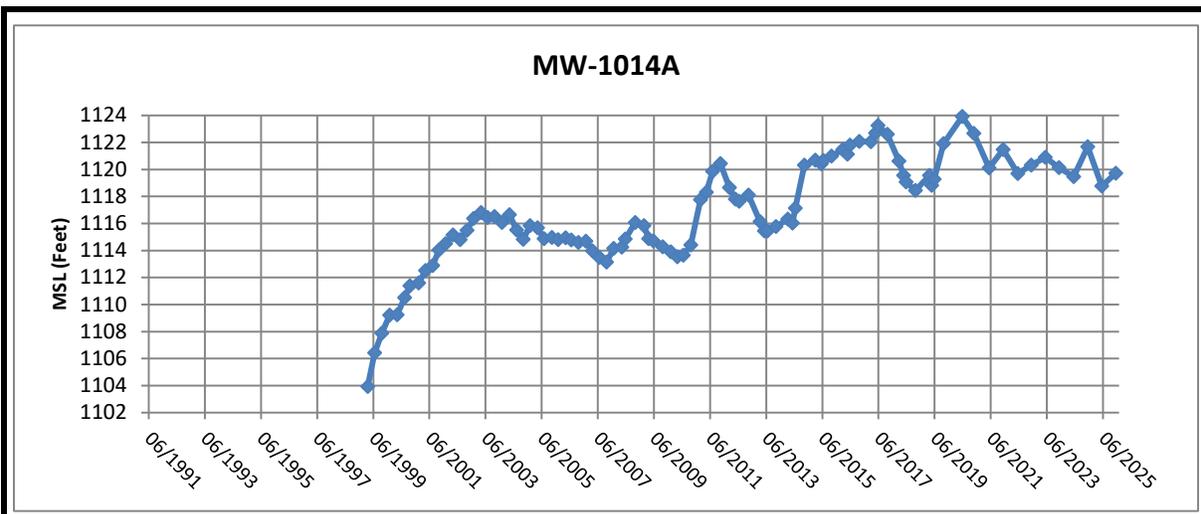
Checked By: NMG1

Project: 17F777.25

Flambeau Mining Co.

2025 Annual Summary Memorandum

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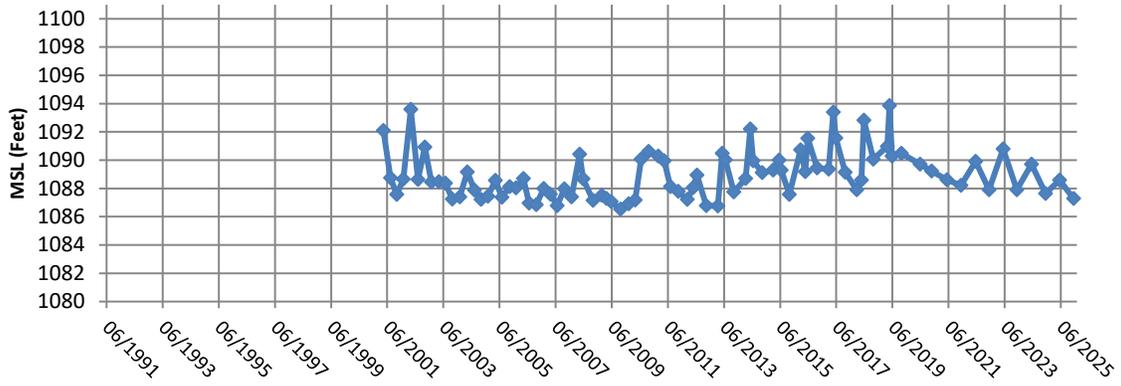


FLAMBEAU MINING COMPANY

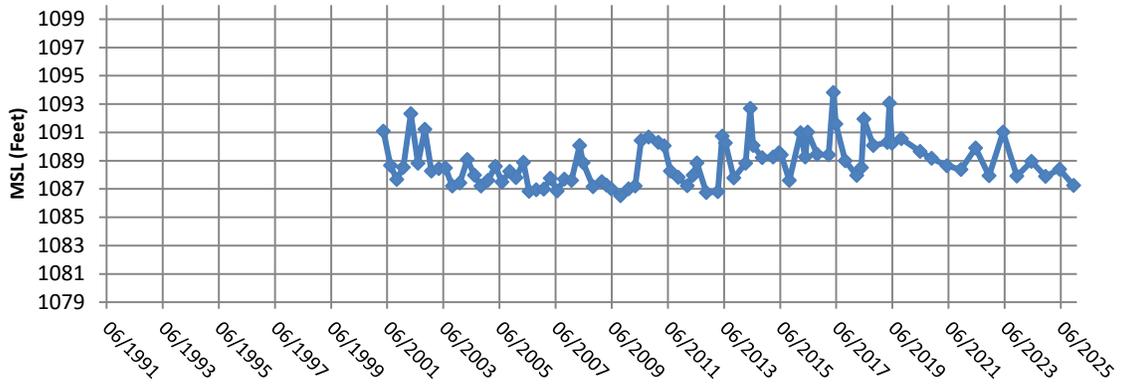
Figure B-16i
Hydrographs

Scale: NA	Date: January 2026
Prepared By: SGL	Checked By: NMG1
Project: 17F777.25	

MW-1015A



MW-1015B



FLAMBEAU MINING COMPANY

Figure B-16j
Hydrographs

Scale: NA

Date: January 2026

Prepared By: SGL

Checked By: NMG1

Project: 17F777.25

Flambeau Mining Co.

2025 Annual Summary Memorandum

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2025 Groundwater Elevation Results

Location	Sample Date	Elevation Ft. (MSL)	Sample Date	Elevation Ft. (MSL)
MW-1000PR	5/19/2025	1088.05	11/18/2025	1087.17
MW-1000R	5/19/2025	1089.33	11/18/2025	1088.17
MW-1001	5/19/2025	1117.94	11/18/2025	1117.35
MW-1001G	5/19/2025	1116.97	11/18/2025	1116.33
MW-1001P	5/19/2025	1117.32	11/18/2025	1116.70
MW-1002	5/19/2025	1092.10	11/18/2025	1089.81
MW-1002G	5/19/2025	1091.96	11/18/2025	1089.69
MW-1004	5/19/2025	1108.52	11/18/2025	1105.93
MW-1004P	5/19/2025	1106.86	11/18/2025	1104.61
MW-1004S	5/19/2025	1108.55	11/18/2025	1105.98
MW-1005	5/19/2025	1140.38	11/18/2025	1137.79
MW-1005P	5/19/2025	1138.84	11/18/2025	1137.02
MW-1005S	5/19/2025	1139.89	11/18/2025	1137.92
MW-1010P	5/19/2025	1087.99	11/18/2025	1087.01
MW-1013	5/19/2025	1113.24	11/18/2025	1112.02
MW-1013A	5/19/2025	1099.02	11/18/2025	1098.26
MW-1013B	5/19/2025	1099.60	11/18/2025	1098.83
MW-1013C	5/19/2025	1101.86	11/18/2025	1101.28
MW-1014	5/19/2025	1121.10	11/18/2025	1122.15
MW-1014A	5/19/2025	1118.78	11/18/2025	1119.71
MW-1014B	5/19/2025	1115.94	11/18/2025	1115.64
MW-1014C	5/19/2025	1110.23	11/18/2025	1110.03
MW-1015A	5/19/2025	1088.59	11/18/2025	1087.28
MW-1015B	5/19/2025	1088.39	11/18/2025	1087.24
OW-39	5/19/2025	1101.00	11/18/2025	1099.45
PZ-S3	5/19/2025	1123.24	11/18/2025	1122.65
ST-9-23	5/19/2025	1124.31	11/18/2025	1124.30
ST-9-23A	5/19/2025	1124.45	11/18/2025	1124.42
ST-9-26	5/19/2025	1117.08	11/18/2025	1114.73

Attachment B
2025 Concentration Reduction Factor Calculation

Flambeau River - Groundwater Pit Flux Calculation

BACKGROUND

This calculation uses Darcy's Law to determine groundwater flow rate (pore water flux) from the backfilled pit to the Flambeau River. The ratio of this flow to the background Flambeau River flow then provides a concentration reduction factor used to estimate effects of pit pore water concentrations on the river.

GOVERNING EQUATIONS

Darcy's Law: $Q_{pit} = K * I * A * \text{unit conversions}$

where:

Q_{pit} = Groundwater Flowrate (ft³/s)

K = Hydraulic Conductivity (ft/d)

I = Groundwater Gradient (ft/ft)

A = Cross-Sectional Flow Area (ft²)

Concentration Reduction Factor (CRF): $CRF = Q_{pit} / (Q_{pit} + Q_{river})$

where:

Q_{pit} = groundwater flowrate from pit (from Darcy's Law above)

Q_{river} = background flowrate of Flambeau River

Incremental Concentration Increase (ICI) to Flambeau River: $ICI = CRF * C$

where:

CRF = concentration reduction factor

C = groundwater concentration of given parameter (mg/L)

INPUT DEFINITIONS

Three different Darcy's Law calculations for groundwater flow rate were performed: 1) between pit (MW-1013) and Flambeau River, 2) immediately adjacent to pit (MW-1000PR) and Flambeau River, and 3) inside the pit (MW-1013 and MW-1014). Considering three different perspectives provides options to select the worst case, resulting in a conservative estimate.

Hydraulic Conductivity (K): Hydraulic conductivity of the Precambrian bedrock (K_{br}) between the pit and the Flambeau River was taken to be 0.061 ft/d (Engineering Technologies Associates, 1998). Hydraulic conductivity of the Type II pit backfill material (K_{pit}) was taken to be 0.028 ft/d (Engineering Technologies Associates, 1998).

Groundwater Gradient (I): In Scenario #1, I is taken as difference between water elevations at monitoring points divided by the separation distance. In-pit shallow groundwater elevation was assumed to be represented by monitoring well MW-1013, and elevations (in feet above mean sea level (amsl)) were averaged over the two measurements taken in 2025. This average elevation is called MW1013el. The Flambeau River elevation (FRel) was taken to be 1085.57 ft amsl from cross-section A-A' in the Environmental Impact Report in the Mine Permit Application (Foth & Van Dyke, 1989). The distance from monitoring well MW-1013 to the Flambeau River (Distance1013) is approximately 600 ft.

Scenario #2 used groundwater elevations outside the pit to compare to the Flambeau River. Groundwater elevations outside the pit were represented by monitoring well MW-1000PR, located approximately 125 ft from the Flambeau River (Distance1000PR). The 2025 average elevation (MW1000PRel) was used.

Scenario #3 used the in-pit difference between monitoring wells MW-1013 and MW-1014. MW-1014 is located in the northeast corner of the pit, approximately 1700 ft from MW-1013 (Distance1013_1014). The average groundwater elevation (MW1014el) in MW-1014 during 2025 was used.

Cross-Sectional Flow Area (A): The cross-sectional area of flow leaving the pit is defined as the width of the pit multiplied by the thickness of the aquifer. The pit width (Pwidth) is taken to be 650 ft (FMC, 2000). The bottom of the Precambrian bedrock is approximately at elevation 980 ft amsl and is considered to be the aquifer bottom (Engineering Technologies Associates, 1998). The aquifer thickness for the two scenarios involving flow through the Precambrian bedrock (Scenarios #1 & #2) is the difference of the top of the bedrock (BRtop) elevation (approximately 1080 ft msl) and the bedrock/aquifer bottom (BRbot) of 980 ft amsl, giving an aquifer thickness of 100 ft. The aquifer thickness for flow within the pit (Scenario #3) is the average water table elevation between MW1013 - MW1014 and the pit bottom (Pitbot), estimated at 940 ft amsl.

Flambeau River Flowrate (Qriver): Two different background flowrates for the Flambeau River were used in this calculation. The average flowrate (Qriver-avg) was obtained by averaging flowrates obtained from the USGS gauging station 05360500 near Bruce, WI. Flowrates were averaged using daily values for the 15-year period between 2003 - 2018. The low-flow (Qriver-low) was obtained by using the established 7-day period of lowest flow with a 10-yr recurrence interval. This value was obtained from Engineering Technologies Associates, 1998, and verified by a current search of United States Geological Survey (USGS) data, and equals 412 cubic feet per second (cfs).

Groundwater Concentration (C): Highest 2025 groundwater concentration (mg/L) of the MW-1000PR, MW-1013, or MW-1014 well nests. Parameters evaluated were copper (Ccu), iron (Cfe), manganese (Cmn), and sulfate (Cso4).

VARIABLE DEFINITIONS

$$K_{br} := 0.061 \frac{ft}{day} \quad K_{pit} := 0.028 \frac{ft}{day}$$

$$MW1013el := 1112.63 \text{ ft} \quad Distance1013 := 600 \text{ ft}$$

$$MW1000PRel := 1087.61 \text{ ft} \quad Distance1000PR := 125 \text{ ft}$$

$$MW1014el := 1121.63 \text{ ft} \quad Distance1013_1014 := 1700 \text{ ft}$$

$$Pwidth := 650 \text{ ft} \quad BRtop := 1080 \text{ ft} \quad BRbot := 980 \text{ ft} \quad Pitbot := 940 \text{ ft}$$

$$FRel := 1085.57 \text{ ft} \quad Qriveravg := 1681 \frac{\text{ft}^3}{\text{sec}} \quad Qriverlow := 412 \frac{\text{ft}^3}{\text{sec}}$$

$$Ccu := 0.207 \frac{\text{mg}}{\text{L}} \quad Cfe := 29.2 \frac{\text{mg}}{\text{L}} \quad Cmn := 29.2 \frac{\text{mg}}{\text{L}} \quad Cso4 := 1760 \frac{\text{mg}}{\text{L}}$$

CALCULATIONS

Scenario #1 - Flow Between Pit (MW-1013) and Flambeau River:

$$I1013 := \frac{(MW1013el - FRel)}{Distance1013} \quad I1013 = 0.0451 \frac{\text{ft}}{\text{ft}}$$

$$A1013 := Pwidth \cdot (BRtop - BRbot) \quad A1013 = 65000 \text{ ft}^2$$

$$Qpit1013 := Kbr \cdot I1013 \cdot A1013 \quad Qpit1013 = 0.00207 \frac{\text{ft}^3}{\text{sec}}$$

$$CRFavg1013 := \frac{Qpit1013}{(Qpit1013 + Qriveravg)} \quad CRFavg1013 = 1.23 \cdot 10^{-6}$$

$$CRFlow1013 := \frac{Qpit1013}{(Qpit1013 + Qriverlow)} \quad CRFlow1013 = 5.02 \cdot 10^{-6}$$

Scenario #2 - Flow Immediately Adjacent to Pit (MW-1000PR) and Flambeau River:

$$I1000PR := \frac{(MW1000PRel - FRel)}{Distance1000PR} \quad I1000PR = 0.0163 \frac{\text{ft}}{\text{ft}}$$

$$A1000PR := Pwidth \cdot (BRtop - BRbot) \quad A1000PR = 65000 \text{ ft}^2$$

$$Qpit1000PR := Kbr \cdot I1000PR \cdot A1000PR \quad Qpit1000PR = 0.00075 \frac{\text{ft}^3}{\text{sec}}$$

$$CRF_{avg1000PR} := \frac{Q_{pit1000PR}}{(Q_{pit1000PR} + Q_{riveravg})} \quad CRF_{avg1000PR} = 4.46 \cdot 10^{-7}$$

$$CRF_{low1000PR} := \frac{Q_{pit1000PR}}{(Q_{pit1000PR} + Q_{riverlow})} \quad CRF_{low1000PR} = 1.82 \cdot 10^{-6}$$

Scenario #3 - Flow In Pit Between MW-1013 - MW-1014 :

$$I_{1013_1014} := \frac{(MW_{1014el} - MW_{1013el})}{Distance_{1013_1014}} \quad I_{1013_1014} = 0.0053 \frac{ft}{ft}$$

$$A_{1013_1014} := Pwidth \cdot \left(\left(\frac{MW_{1014el} + MW_{1013el}}{2} \right) - Pitbot \right) \quad A_{1013_1014} = 115134.5 \text{ ft}^2$$

$$Q_{pit1013_1014} := K_{pit} \cdot I_{1013_1014} \cdot A_{1013_1014} \quad Q_{pit1013_1014} = 0.0002 \frac{ft^3}{sec}$$

$$CRF_{avg1013_1014} := \frac{Q_{pit1013_1014}}{(Q_{pit1013_1014} + Q_{riveravg})} \quad CRF_{avg1013_1014} = 1.18 \cdot 10^{-7}$$

$$CRF_{low1013_1014} := \frac{Q_{pit1013_1014}}{(Q_{pit1013_1014} + Q_{riverlow})} \quad CRF_{low1013_1014} = 4.79 \cdot 10^{-7}$$

Incremental Concentration Increase (ICI) to Flambeau River:

Note: The MW-1013 - Flambeau River CRF was used in the calculations since of the three options evaluated, it provides for the highest CRF (and concentrations) and is therefore conservative.

$$ICI_{avg_cu} := CRF_{avg1013} \cdot C_{cu} \quad ICI_{avg_cu} = (2.549 \cdot 10^{-7}) \frac{mg}{L}$$

$$ICI_{low_cu} := CRF_{low1013} \cdot C_{cu} \quad ICI_{low_cu} = (1.04 \cdot 10^{-6}) \frac{mg}{L}$$

$$ICI_{avg_fe} := CRF_{avg1013} \cdot C_{fe} \quad ICI_{avg_fe} = (3.595 \cdot 10^{-5}) \frac{mg}{L}$$

$$ICI_{low_fe} := CRF_{low1013} \cdot C_{fe} \quad ICI_{low_fe} = (1.467 \cdot 10^{-4}) \frac{mg}{L}$$

$$ICI_{avg_mn} := CRF_{avg1013} \cdot C_{mn} \quad ICI_{avg_mn} = (3.595 \cdot 10^{-5}) \frac{mg}{L}$$

$$ICI_{low_mn} := CRF_{low1013} \cdot C_{mn} \quad ICI_{low_mn} = (1.467 \cdot 10^{-4}) \frac{mg}{L}$$

$$ICI_{avg_so4} := CRF_{avg1013} \cdot C_{so4} \quad ICI_{avg_so4} = 0.002 \frac{mg}{L}$$

$$ICI_{low_so4} := CRFlow_{1013} \cdot C_{so4} \qquad ICI_{low_so4} = 0.009 \frac{mg}{L}$$

REFERENCES

Engineering Technologies Associates, Inc., 1998. *Addendum to Groundwater Flow Model*.

FMC, 2000. *Backfilled Pit Water Quality Assessment Memorandum*. Flambeau Mining Company, October 17, 2000.

FMC, 2018. *2017 Annual Report*. Flambeau Mining Company, January 2018.

Foth & Van Dyke and Associates, Inc., 1989. *Mining Permit Application for the Flambeau Project - Appendix L*. December, 1989.

Attachment C
2025 Stream C Data Evaluation Memorandum



Memorandum

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January 23, 2026

TO: Fraser Thomson – Flambeau Mining Company

CC: Leland Roberts – Flambeau Mining Company
Steve Donohue – Foth Infrastructure & Environment, LLC

FR: Mark Ciardelli – Foth Infrastructure & Environment, LLC
Nick Glander – Foth Infrastructure & Environment, LLC

RE: 2025 Stream C Data Evaluation
Reclaimed Flambeau Mine – Ladysmith, Wisconsin

1. Introduction

Foth Infrastructure & Environment, LLC (Foth) and GEI Consultants, Inc. (GEI) prepared a plan to evaluate Stream C, located on the Reclaimed Flambeau Mine site, in Ladysmith, Wisconsin (WI). Figure 1 provides the location of the Reclaimed Flambeau Mine. The *Stream C Evaluation Work Plan – Revision 2 (Work Plan)* (Foth and GEI, 2024) was submitted to the Wisconsin Department of Natural Resources (Department) on August 30, 2024.

As outlined in the *Work Plan*, the 2025 scope of work included the following:

- ◆ Flow monitoring
- ◆ Water chemistry

This memorandum presents the activities and results from the Stream C 2025 sampling year. The memorandum is organized into the following sections:

- ◆ Section 2 provides an overview of the data collection and results.
- ◆ Section 3 provides the data assessment.
- ◆ Section 4 provides the conclusions and recommendations.
- ◆ Section 5 list the references uses in development of this memorandum.

As stated in the Department’s letter, dated May 12, 2025, regarding the use of the Biotic Ligand Model (BLM), “the department has spoken with representatives from EPA who have confirmed that this method could be used to delist the stream, but would require the department to undertake rulemaking to promulgate this method because it is not currently approved under

Wisconsin Administrative Code” (DNR, 2025). Upon receipt of this notification, analytical testing for BLM parameters were removed from future sampling events.

1.1 Flow

Flow monitoring consisted of visual observations and flow rate determination. Visual observations were conducted at a regular frequency from March 2025 through June 2025. Due to the drought-like conditions at the site, inspections were scaled back to monthly due to the lack of surface water in Stream C. Inspections only occurred after large precipitation events or at least monthly for the remainder of the season.

When flow was present, the flow rate was manually monitored near the mouth of Stream C with a hand-held velocimeter unit (one velocity measurement collected at the deepest point within the stream) at sample point SW-STM. The location is shown on Figure 2.

Dedicated transducers were installed at the Highway (Hwy) 27 and Copper Park Lane culverts to allow for continuous monitoring (Figure 2). The pressure transducers were installed on the eastern side of the Hwy 27 culvert and the northern side of the Copper Park Lane culvert at the location of the existing staff gauge brackets.

1.2 Water Chemistry

When visible surface flow occurred within Stream C, water quality monitoring was completed at 10 locations. The monitoring locations are shown on Figure 2. Based on flow conditions in 2025, water quality samples were collected once on April 30, 2025 and once on June 18, 2025. One duplicate sample was collected during each sampling event.

Water quality sampling protocols consist of two subsections:

- ◆ Collecting a surface water sample
- ◆ Measuring the field parameters

Field and analytical laboratory analysis were utilized to assess the quality of surface water for the parameters as summarized in Tables 2 and 3 of the *Work Plan*. The four main Stream C locations (SW-C9, SW-C5, SW-C1, and SW-STM) were analyzed for parameters summarized in Table 2 only during the April 30, 2025 event. The remaining six locations were analyzed for parameters summarized in Table 3 of the *Work Plan*. During the June 18, 2025 sampling event, all locations were only analyzed for Table 3 parameters (removing the constituents required for the BLM).

Laboratory analytical activities were performed by Pace Analytical Services (Pace), located in Green Bay, Wisconsin. Pace is a Wisconsin Administrative Code (Wis. Admin. Code) NR 149-certified laboratory.

Where appropriate, elements of the 2020 *Quality Assurance Project Plan (QAPP)* (Foth, 2020) was utilized to manage quality through all phases of each sampling event including sample collection, sample custody and transportation, and data validation and management.

1.2.1 Acute Toxicity Criterion

Surface water quality data collected were used to derive the acute toxicity criterion (ATC), which is calculated based on water hardness, as prescribed in Wis. Admin. Code NR 105 Table 2. ATC

is defined within Wis. Admin. Code NR 105 as “the maximum daily concentration of a substance which ensures adequate protection of sensitive species of aquatic life from the acute toxicity of that substance and will adequately protect the designated fish and aquatic life use of the surface water if not exceeded more than once every 3 years.” ATC were assessed for both copper and zinc. For instances where measured hardness is below the copper and zinc ATC applicable range (Wis. Admin. Code NR 105 Table 2A), the lower bound of the range were utilized for hardness within the calculation.

2. Data Collection and Results

2.1 Sample Collection Summary

When visible surface flow occurred within Stream C, water quality monitoring was completed at 10 locations. The monitoring locations are shown on Figure 2. In 2025, water quality samples were collected on the following dates:

- ◆ April 30, 2025
- ◆ June 18, 2025

On April 30, 2025, a sampling event was completed following a 0.45 inch of rain starting on April 28, 2025 and a previous rain event on April 24, 2025 (1.40 inches). This provided enough precipitation volume to induce flow throughout Stream C. Field parameters and surface water samples were collected from the 10 sample locations.

On June 18, 2025, a sampling event was completed following 0.98 inches of rain starting on June 16, 2025, after a week of various precipitation events. This provided enough precipitation volume to induce flow throughout Stream C. Field parameters and surface water samples were collected from the 10 sample locations.

Field parameters were measured and recorded using a water quality meter. Water samples were collected using a peristaltic pump, and new tubing for each sample was used to minimize the potential for sediment disturbance and cross-contamination between samples following the guidance outlined in the *Work Plan*.

2.2 Flow Results

Flow observations were completed on a regular frequency from March 2025 through June 2025 and then decreased to a monthly frequency starting in July 2025 due to drought-like conditions at the site. Flow was monitored with a hand-held velocimeter unit during sampling events when flow was present. The March 2025 through November 2025 inspection forms are provided in Attachment 1.

The pressure transducers were installed on March 22, 2025, in the existing staff gauge brackets at the two culverts and were set to record water depth every 15 minutes. Pressure-to-flow conversion was accomplished with a combination of continuous depth monitoring and known flow hydraulics associated with the culvert characteristics using the standard operating procedure (SOP) established in the *Work Plan*. The 2025 Hwy 27 culvert flow graph is provided on Figure 3, and the Copper Park Lane culvert flow graph is provided on Figure 4.

Some points to note are as follows:

- ◆ The daily cycling observed in the Hwy 27 culvert is most likely explained by a temperature-related effect related to evapotranspiration.
- ◆ No daily cycling is observed at the Copper Park Lane culvert. This is likely because there is no standing water in or adjacent to this culvert; therefore, evapotranspiration effects are not as prominent.
- ◆ The storm events noted show a maximum flow of above 8 cubic feet per second (cfs) in the Hwy 27 culvert and are relatively short-lived.
- ◆ The Copper Park Lane culvert shows low flow during the runoff events, and events last for only a few hours at most. The maximum flow noted was about 2.25 cfs.
- ◆ The flow observed at Copper Park Lane during storm events compared to Hwy 27 suggests that flow dissipates (infiltrates, evaporates, gets lost to storage, etc.) between the two culverts.

2.3 Water Chemistry Results

The analytical laboratory water samples were collected first to assure the sample was clean and no residual contamination could occur from the field instrumentation. Field parameters were measured and recorded using a water quality meter. Water samples were collected using a peristaltic pump with new tubing at each sample to minimize the potential for sediment disturbance and cross-contamination between samples.

The water quality data (field parameters and analytical data) collected during the two 2025 sampling events are tabulated in Table 1. The field forms related to the April 2025 and June 2025 sampling events are provided in Attachment 2. The Pace analytical laboratory reports, dated May 15, 2025 and July 2, 2025, are provided in Attachment 3.

Surface water quality data collected (to date) was used to calculate the ATC which is provided in Table 2.

3. Data Assessment

3.1 ATC

Surface water quality data collected under Section 2.3 was used to calculate the ATC, which is a hardness-based water quality criterion as prescribed in Wis. Admin. Code NR 105 Table 2. ATC is defined within Wis. Admin. Code NR 105 as “the maximum daily concentration of a substance which ensures adequate protection of sensitive species of aquatic life from the acute toxicity of that substance and will adequately protect the designated fish and aquatic life use of the surface water if not exceeded more than once every 3 years.” ATC was assessed for both total copper and zinc concentrations from April 2023 through June 2025 and are summarized in Table 2. For instances where measured hardness is below the copper and zinc ATC applicable range (Wis. Admin. Code NR 105 Table 2A), the lower bound of the range was utilized for hardness within the calculation.

The total copper concentrations of all 10 monitoring locations exceeded the ATC on April 19, 2023 and May 8, 2024. In general, the majority of the sites exceeded the ATC in all timeframes

with sites SW-NB, SW-NBOUT, and SW-EB more consistently meeting the copper criterion. The zinc ATC was exceeded only eight times with one exceedance occurring on April 19, 2023 and April 29, 2023, at sites SW-C9 and -HWY27E, respectively, and three exceedances occurring on November 21, 2024, at the SW-C9, -HWY27E, and -HWY27W sites. In 2025, zinc ATC was exceeded during both events at SW-HWY27W, and at SW-C9 during the June 18, 2025 event.

4. Conclusions and Recommendations

Pursuant to the Department's May 12, 2025 letter discussing the delisting of Stream C, Flambeau has begun discussions with the Department regarding changing the listing of Stream C to a different category. Further, Flambeau intends to continue sampling in 2026 at SW-C9, SW-C5, SW-C1, and SW-STM for NR 105 ATC parameters and monitoring Stream C flow. Flambeau will no longer analyze samples for BLM parameters as it does not intend to pursue a rule change regarding the BLM or a site specific criterion.

5. References

- Foth Infrastructure & Environment, LLC, 2020. *Quality Assurance Project Plan: Long Term Care Monitoring for the Reclaimed Flambeau Mine*. August 10, 2020.
- Foth Infrastructure & Environment, LLC and GEI Consultants, Inc., 2024. *Stream C Evaluation Work Plan – Revision 2*. August 30, 2024.
- Mebane, C.A., 2023. Bioavailability and Toxicity Models of Copper to Freshwater Life: The State of Regulatory Science. *Environmental Toxicology and Chemistry*, 42(12):2529-2563.
- U.S. Environmental Protection Agency, 2007. Aquatic Life Ambient Freshwater Quality Criteria – Copper; EPA/822/R-07/001; 544 USEPA, Office of Water: Washington, D.C., 545 2007; p 204 pp. February 2007.
- Windward Environmental LLC, 2015. BLM User’s Guide and Reference Manual Research, Version 3.1.2.37. Seattle, Washington.
- Wisconsin Department of Natural Resources, 2004. *Aquatic Life Toxicity Testing Methods Manual*, 2nd Edition. November 2004.
- Wisconsin Department of Natural Resources, 2012. *Surface Water Quality Assessment of the Flambeau Mine Site*. April 2012.
- Wisconsin Department of Natural Resources, 2022a. Whole Effluent Toxicity (WET) Program Guidance Document, Edition No. 13. October 13, 2022.

Attachments:

Tables	Table 1 – 2025 Analytical Data Summary Table 2 – ATC Summary
Figures	Figure 1 – Site Location Map Figure 2 – Stream C Evaluation Locations Figure 3 – HWY 27 Culvert Flow Graph Figure 4 – Copper Park Lane Culvert Flow Graph
Attachment 1	Flow Inspection Forms
Attachment 2	Field Forms
Attachment 3	Pace Laboratory Analytical Reports

Tables

Table 1 – 2025 Analytical Data Summary

Table 2 – ATC Summary

Table 1
2025 Analytical Data Summary

Chemical Name	Total / Dissolved	Location	CP-04	SW-C1	SW-C1							
		Units	4/19/2023	4/29/2023	5/8/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	4/19/2023	4/29/2023
Alkalinity as CaCO ₃	Total	mg/L	60.0	39.5	154	141					10	17.3
Alkalinity as CaCO ₃	Dissolved	mg/L		34.5	148	143						15.6
Calcium	Total	ug/L	5370	12900	16800	13100					3160	6470
Calcium	Dissolved	ug/L		11900	19100	14800						6320
Chloride	Total	mg/L	52.3	167	127	66.0					15.0	27.0
Chloride	Dissolved	mg/L		165	128	69.9						27.2
Copper	Total	ug/L	19.0	12.7	28.4	28.0	33.7	6.1	30.5	7.2	6.3	7.3
Copper	Dissolved	ug/L		10.1	22.8	24.7	22.2	5.4	21.8	6.6		5.8
Dissolved Organic Carbon	Dissolved	mg/L		9.4	13.0	18.1	24.0	10.5	12.4	7.1		7.8
Dissolved Oxygen	Total	mg/L	7.56	1.64	1.78	2.28	1.63	0.9	1.33	1.24	11.01	9.71
Hardness	Total	mg/L	27.7	60.5	78.8	59.5	61.0	87.8	64.2	319	13.1	27.4
Hardness	Dissolved	mg/L		58.9	86.9	67.5	62.8	90.4	59.6	315		26.9
Iron	Total	ug/L	577	478	720	736					681	291
Iron	Dissolved	ug/L		< 58.0	95.7	190						130
Magnesium	Total	ug/L	3480	6860	8970	6500					1270	2720
Magnesium	Dissolved	ug/L		7060	9510	7400						2700
Manganese	Total	ug/L	21.2	103	33.0	95.3					13.8	17.8
Manganese	Dissolved	ug/L		89.9	22.2	18.1						14.5
pH	Total	s.u.	7.66	6.13	6.99	7.28	7.19	7.34	7	7.46	6.63	6.19
Potassium	Total	ug/L	1130	2300	1670	1400					994	1090
Potassium	Dissolved	ug/L		2240	1690	1500						1040
Redox Potential	Total	mV	42.9	54.3	168.7	178.7	163.6	165.6	137.7	90.0	37.6	74.3
Sodium	Total	ug/L	40900	101000	126000	78600					9650	16500
Sodium	Dissolved	ug/L		104000	129000	93500						17000
Specific Conductance	Total	umhos/cm	287	784	736	462	376	288	294	1804	74	130
Sulfate	Total	mg/L	5.0	8.2	4.5	2.8					2.6	3.7
Sulfate	Dissolved	mg/L		7.5	4.5	< 2.2						3.7
Sulfide	Total	mg/L	< 1.2	< 1.2	1.6	< 1.2					< 1.2	< 1.2
Sulfide	Dissolved	mg/L		< 1.2	< 1.2	1.2						< 1.2
Temperature	Total	deg c	1.17	7.83	15.8	13.02	19.76	18.47	3.11	7.46	2.01	6.57
Total Suspended Solids	Total	mg/L	2.9	5.2	3.0	4.6					3.8	0.93
Zinc	Total	ug/L	15.2	10.4	< 10.3	< 10.3	16.6	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3
Zinc	Dissolved	ug/L		< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3		< 10.3
Comment - Sample Color	Total	None	Stained light brown									
Comment - Sample Odor	Total	None	None	None	None	None	None	None	None	None	None	None
Comment - Sample Turbidity	Total	None	None	Slight	None	None						

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-C1	SW-C1	SW-C1	SW-C1	SW-C1	SW-C1	SW-C1	SW-C1	SW-C5	SW-C5
		Units	5/8/2024	5/8/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023	4/29/2023
Alkalinity as CaCO ₃	Total	mg/L	15.9	17.3	11.1	35.1	29.2	24.2	10.2		8.6	11.1
Alkalinity as CaCO ₃	Dissolved	mg/L	13.0	13.1	10.8	32.2	31.0	25.3	15.3			14.9
Calcium	Total	ug/L	5150	5230	4910	11700	8920	11800	5820		2900	4650
Calcium	Dissolved	ug/L	5350	5490	5270	12000	8880	12600	5840			4760
Chloride	Total	mg/L	8.1	7.9	5.4	29.3	23.0	35.5	18.9		12.5	20.8
Chloride	Dissolved	mg/L	7.6	7.9	5.4	28.4	22.3	37.4	21.1			24.2
Copper	Total	ug/L	16.8	17.1	13.6	11.8	12.9	14.7	10.6	12.3	7.6	6.7
Copper	Dissolved	ug/L	14.5	14.5	12.5	6.7	8.5	11.8	9.6	10.8		6.4
Dissolved Organic Carbon	Dissolved	mg/L	15.6	15.6	16.2	10.3	11.3	8.2	11.2	14.2		7.6
Dissolved Oxygen	Total	mg/L	6.76		3.93	2.68	1.25	1.33	2.07	1.43	10.78	8.07
Hardness	Total	mg/L	21.0	21.4	19.5	48.8	37.8	50.4	23.8	59.4	12.2	19.7
Hardness	Dissolved	mg/L	21.4	22.3	21.0	49.7	37.6	53.7	23.5	61.7		20.4
Iron	Total	ug/L	915	841	914	2320	1740	1280	243		972	265
Iron	Dissolved	ug/L	324	308	557	603	427	307	188			126
Magnesium	Total	ug/L	1980	2030	1770	4730	3760	5100	2250		1220	1970
Magnesium	Dissolved	ug/L	1960	2090	1900	4790	3750	5390	2170			2080
Manganese	Total	ug/L	18.8	20.5	27.3	562	116	64.4	16.1		33.9	7.5
Manganese	Dissolved	ug/L	9.3	9.2	21.2	557	102	52.2	14.7			5.0
pH	Total	s.u.	6.57		6.41	6.64	6.72	6.74	6.57	6.61	6.43	6.01
Potassium	Total	ug/L	792	804	418	556	1690	2150	1090		1030	976
Potassium	Dissolved	ug/L	741	784	414	534	1590	2260	1060			1020
Redox Potential	Total	mV	178.4		174.4	160.7	101.2	145	94.2	74.4	31.1	78.1
Sodium	Total	ug/L	6870	7080	3590	11200	12700	14900	11800		8650	13600
Sodium	Dissolved	ug/L	7320	7210	3970	11200	12800	17000	11100			14900
Specific Conductance	Total	umhos/cm	66		48	159	140	175	98	201.0	65	103
Sulfate	Total	mg/L	1.5	1.5	< 2.2	3.3	2.4	8.5	2.0		2.2	3.1
Sulfate	Dissolved	mg/L	1.4	1.5	< 2.2	3.5	2.3	8.8	2.1			3.2
Sulfide	Total	mg/L	1.2	< 1.2	1.8	< 1.2	< 1.2	< 1.2	< 1.2		< 1.2	< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2			< 1.2
Temperature	Total	deg c	15.88		13.29	17.33	18.04	4.15	6.87	15.34	2.16	6.85
Total Suspended Solids	Total	mg/L	4.0	4.1	1.7	6.9	5.3	1.8	< 0.48		10.5	0.51
Zinc	Total	ug/L	12.8	13.8	14.7	18.7	< 10.3	19.9	11.0	10.6	11.7	< 10.3
Zinc	Dissolved	ug/L	12.2	< 10.3	14.4	14.9	< 10.3	19.2	10.6	11.0		< 10.3
Comment - Sample Color	Total	None	Stained light brown	None	Stained light brown							
Comment - Sample Odor	Total	None	None	None	None	None	None	None	None	None	None	None
Comment - Sample Turbidity	Total	None	Slight	None	Slight	Slight	Slight	Slight	None	None	None	None

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-C5	SW-C5	SW-C5	SW-C5	SW-C5	SW-C5	SW-C5	SW-C5	SW-C5	SW-C9
		Units	4/29/2023	5/8/2024	5/23/2024	7/24/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023
Alkalinity as CaCO ₃	Total	mg/L	12.9	16.3	10	43.2	18.5	23.6	14.4	10.7		7.2
Alkalinity as CaCO ₃	Dissolved	mg/L	12.1	11.0	8.6	20.5	19.7	27.2	14.9	13.0		
Calcium	Total	ug/L	4760	4150	3980	5930	6470	7610	6930	4390		2220
Calcium	Dissolved	ug/L	4440	4700	4400	6040	6100	7410	7370	4040		
Chloride	Total	mg/L	21.2	6.5	3.6	12.0	11.9	19.0	24.4	14.3		49.2
Chloride	Dissolved	mg/L	23.8	6.4	3.9	11.4	11.5	19.4	25.3	15.8		
Copper	Total	ug/L	7.2	15.9	13.2	12.5	13.1	12.2	15.8	10.9	12.5	17.7
Copper	Dissolved	ug/L	6.1	13.9	11.8	5.0	5.2	8.5	12.9	9.5	9.8	
Dissolved Organic Carbon	Dissolved	mg/L	8.2	15.8	16.6	11.0	10.9	10.9	8.5	11.4	15.6	
Dissolved Oxygen	Total	mg/L		6.14	3.37	1.15		1.18	1.48	1.96	1.01	11.49
Hardness	Total	mg/L	19.9	17.3	15.7	24.2	26.0	31.5	30.7	17.3	31.3	8.4
Hardness	Dissolved	mg/L	19.3	18.8	17.3	24.8	24.7	31.2	32.5	16.5	31.3	
Iron	Total	ug/L	268	866	865	1700	1760	1530	1300	239		689
Iron	Dissolved	ug/L	153	350	528	661	690	536	329	181		
Magnesium	Total	ug/L	1940	1680	1410	2280	2400	3030	3260	1550		684
Magnesium	Dissolved	ug/L	2000	1720	1540	2350	2310	3070	3420	1560		
Manganese	Total	ug/L	7.2	14.3	22.0	571	598	91.6	30.3	6.3		31.6
Manganese	Dissolved	ug/L	4.9	7.2	16.3	586	583	84.0	16.0	4.9		
pH	Total	s.u.		6.54	6.17	6.31		6.36	6.27	6.00	6.19	6.76
Potassium	Total	ug/L	1000	721	349	377	384	1530	2120	1040		738
Potassium	Dissolved	ug/L	955	715	358	378	389	1530	2190	982		
Redox Potential	Total	mV		232.3	183.4	88		32.2	177.2	136.7	12.7	74.7
Sodium	Total	ug/L	13600	5900	2880	7010	7250	11100	12000	9730		29000
Sodium	Dissolved	ug/L	14000	6470	3130	7240	6980	11300	13500	9380		
Specific Conductance	Total	umhos/cm		56	39	84		119	126	77	117.0	52
Sulfate	Total	mg/L	3.2	1.4	< 2.2	2.1	2.1	1.8	7.8	1.8		6.4
Sulfate	Dissolved	mg/L	3.3	1.3	< 2.2	2.2	2.2	1.9	8.2	1.8		
Sulfide	Total	mg/L	< 1.2	1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2		< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2		
Temperature	Total	deg c		15.26	13.52	17.6		18.11	4.09	7.23	15.32	4.12
Total Suspended Solids	Total	mg/L	1.3	1.8	1.6	4.8	6.4	3.6	1.2	< 0.48		3.3
Zinc	Total	ug/L	16.3	13.9	13.9	19.3	21.3	11.9	23.4	12.0	12.1	20.7
Zinc	Dissolved	ug/L	< 10.3	24.4	13.7	20.8	19.6	< 10.3	22.8	10.9	11.4	
Comment - Sample Color	Total	None	Stained light brown	Stained light brown	Stained light brown	Stained light brown	None	Stained light brown				
Comment - Sample Odor	Total	None	None	None	None	None	None	None	None	None	None	None
Comment - Sample Turbidity	Total	None	None	None	None	None	None	None	None	None	Slight	None

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-C9	SW-C9	SW-C9	SW-C9	SW-C9	SW-C9	SW-C9	SW-C9	SW-C9	SW-EB
		Units	4/29/2023	5/8/2024	5/23/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023
Alkalinity as CaCO ₃	Total	mg/L	< 7.4	10.3	< 7.4	< 7.4	10.3	10.7	14.2	< 7.4		17.5
Alkalinity as CaCO ₃	Dissolved	mg/L	< 7.4	< 7.4	< 7.4	< 7.4	8.4	12.0	< 7.4	7.5		
Calcium	Total	ug/L	2520	3370	3100	3120	2930	2750	2340	2250		6300
Calcium	Dissolved	ug/L	2400	3460	2890	2950	2860	2630	2550	2280		
Chloride	Total	mg/L	11.0	3.7	< 3.0	3.2	7.9	5.2	9.9	5.1		36.1
Chloride	Dissolved	mg/L	10.6	3.2	< 3.0	< 3.0	7.5	5.1	10.1	5.0		
Copper	Total	ug/L	5.0	9.7	6.5	6.6	16.6	14.0	18.1	5.6	10.7	6.9
Copper	Dissolved	ug/L	3.8	8.2	4.6	5.2	11.7	11.4	15.2	5.0	8.0	
Dissolved Organic Carbon	Dissolved	mg/L	8.7	15.8	17.2	17.2	12.3	13.5	9.9	10.7	14.3	
Dissolved Oxygen	Total	mg/L	7.77	4.9	3.88		3.16	1.17	1.44	1.46	1.04	10.77
Hardness	Total	mg/L	10.3	13.4	12.0	12.0	11.4	10.8	9.9	9.0	15.9	25.8
Hardness	Dissolved	mg/L	9.8	13.5	11.5	11.5	11.1	10.1	9.9	9.0	14.2	
Iron	Total	ug/L	741	1300	1260	1290	3100	2610	2250	288		707
Iron	Dissolved	ug/L	290	587	459	442	960	1000	1200	238		
Magnesium	Total	ug/L	983	1220	1020	1030	990	954	976	814		2460
Magnesium	Dissolved	ug/L	919	1190	1040	1010	953	859	858	810		
Manganese	Total	ug/L	24.9	45.7	57.7	59.8	143	117	59.2	11.0		27.7
Manganese	Dissolved	ug/L	17.5	24.4	46.6	49.4	90.3	99.6	46.6	9.9		
pH	Total	s.u.	5.55	6.31	6.15		6.29	6.05	6.14	5.98	6.33	6.68
Potassium	Total	ug/L	770	938	797	807	668	1250	2020	668		1730
Potassium	Dissolved	ug/L	684	854	764	764	629	1160	1960	658		
Redox Potential	Total	mV	85.7	174	214.5		89.7	197.6	133.9	151.1	121.2	22.3
Sodium	Total	ug/L	7010	3910	1840	1890	7420	6410	7290	4030		19700
Sodium	Dissolved	ug/L	7140	4180	1950	2400	7700	6530	8100	4060		
Specific Conductance	Total	umhos/cm	54	36	26		170	41	64	40	84	164
Sulfate	Total	mg/L	1.3	0.74	< 2.2	< 2.2	1.7	1.4	4.0	1.0		4.1
Sulfate	Dissolved	mg/L	1.3	0.72	< 2.2	< 2.2	1.6	1.3	4.6	1.0		
Sulfide	Total	mg/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2		< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2		
Temperature	Total	deg c	6.77	11.94	13.69		18.97	18.13	4.54	7.55	17.01	2.45
Total Suspended Solids	Total	mg/L	6.4	6.6	3.4	2.9	9.2	5.2	4.3	0.92		4.3
Zinc	Total	ug/L	11.6	15.5	15.5	17.7	< 10.3	13.6	23.8	10.5	29.1	< 10.3
Zinc	Dissolved	ug/L	< 10.3	13.6	15.4	18.4	< 10.3	13.2	19.6	10.4	20.0	
Comment - Sample Color	Total	None	Stained light brown	Stained light brown	Stained light brown	None	Stained light brown					
Comment - Sample Odor	Total	None	None	None	None	None	Slight organic	None	None	None	None	None
Comment - Sample Turbidity	Total	None	None	Moderate	Moderate	None	Slight	Slight	Slight	None	None	Slight

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-EB	SW-EB	SW-EB	SW-EB	SW-EB	SW-EB	SW-EB	SW-EB	SW-EB	SW-HWY27E
		Units	4/29/2023	5/8/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023
Alkalinity as CaCO ₃	Total	mg/L	36.0	33.0	29.4							5.4
Alkalinity as CaCO ₃	Dissolved	mg/L	35.5	31.2	31.7							
Calcium	Total	ug/L	11200	8850	9220							2120
Calcium	Dissolved	ug/L	10800	10500	10000							
Chloride	Total	mg/L	61.1	25.2	12.3							5.9
Chloride	Dissolved	mg/L	68.0	12.7	11.6							
Copper	Total	ug/L	6.3	14.1	11.3	3.7	12.4	7.8	8.0	9.0	4.7	4.1
Copper	Dissolved	ug/L	4.9	11.8	9.2	3.0	7.5	6.3	5.3	7.9	3.5	
Dissolved Organic Carbon	Dissolved	mg/L	7.2	11.0	18.4	12.4	7.7	7.4	7.5	14.1	14.7	
Dissolved Oxygen	Total	mg/L	10.18	7.69	3.79	1.21	1.22	1.81		2.26	1.13	10.63
Hardness	Total	mg/L	47.6	36.5	39.8	54.5	49.8	60.7	61.6	41.7	71.9	8.5
Hardness	Dissolved	mg/L	46.9	43.5	42.0	56.2	50.3	58.2	56.7	40.0	71.5	
Iron	Total	ug/L	480	1170	1470							683
Iron	Dissolved	ug/L	93.6	547	708							
Magnesium	Total	ug/L	4740	3500	4060							780
Magnesium	Dissolved	ug/L	4810	4220	4140							
Manganese	Total	ug/L	24.1	29.3	99.5							15.1
Manganese	Dissolved	ug/L	17.8	8.3	92.6							
pH	Total	s.u.	6.75	7.15	7.02	6.48	6.81	6.91		6.79	6.54	6.13
Potassium	Total	ug/L	1560	1100	957							922
Potassium	Dissolved	ug/L	1470	1130	954							
Redox Potential	Total	mV	28.3	228.4	161.8	49.2	59.3	170.2		94.6	-4.5	68.2
Sodium	Total	ug/L	37000	14800	9440							4340
Sodium	Dissolved	ug/L	37600	7870	9950							
Specific Conductance	Total	umhos/cm	273	121	107	214	156	240		207	210.0	23
Sulfate	Total	mg/L	6.8	2.1	< 2.2							1.6
Sulfate	Dissolved	mg/L	6.9	4.5	< 2.2							
Sulfide	Total	mg/L	< 1.2	1.8	< 1.2							< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2							
Temperature	Total	deg c	7.50	14.86	13.62	21.16	19.51	3.29		7.71	17.35	4.09
Total Suspended Solids	Total	mg/L	2.8	3.4	4.1							2.4
Zinc	Total	ug/L	< 10.3	14.6	10.4	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3
Zinc	Dissolved	ug/L	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	
Comment - Sample Color	Total	None	Stained light brown	None	Stained light brown	Stained light brown	Stained light brown					
Comment - Sample Odor	Total	None	Slight Organic	None	Slight organic	Slight organic	None					
Comment - Sample Turbidity	Total	None	Slight	Slight	Slight	Slight	Slight	Slight	None	Slight	Slight	Slight

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-HWY27E	SW-HWY27W	SW-HWY27W							
		Units	4/29/2023	5/8/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023	4/29/2023
Alkalinity as CaCO ₃	Total	mg/L	< 7.4	10	< 7.4						5.5	< 7.4
Alkalinity as CaCO ₃	Dissolved	mg/L	< 7.4	< 7.4	< 7.4							< 7.4
Calcium	Total	ug/L	2220	2830	2750						6890	10200
Calcium	Dissolved	ug/L	1930	3090	2990							10200
Chloride	Total	mg/L	4.1	2.1	< 3.0						95.6	121
Chloride	Dissolved	mg/L	4.8	2.5	< 3.0							131
Copper	Total	ug/L	4.1	8.9	5.4	8.2	13.7	13.3	7.8	8.6	6.0	4.2
Copper	Dissolved	ug/L	3.6	7.5	5.0	6.8	9.5	9.8	4.1	6.6		3.6
Dissolved Organic Carbon	Dissolved	mg/L	8.3	15.5	17.7	9.1	10.1	6.9	10.2	9.9		10.8
Dissolved Oxygen	Total	mg/L	11.02	3.43	4.23	3.17	1.22	1.69	2.14	1.23	9.66	8.62
Hardness	Total	mg/L	9.1	11.6	10.9	8.9	8.1	44.9	9.1	12.4	26.2	40.5
Hardness	Dissolved	mg/L	7.9	12.2	11.5	8.5	6.5	41.4	8.6	12.5		40.4
Iron	Total	ug/L	584	1150	930						431	528
Iron	Dissolved	ug/L	214	450	611							284
Magnesium	Total	ug/L	856	1110	972						2180	3660
Magnesium	Dissolved	ug/L	756	1080	974							3640
Manganese	Total	ug/L	17.6	24.3	33.5						77.3	63.1
Manganese	Dissolved	ug/L	11.5	14.5	29.8							57.0
pH	Total	s.u.	5.73	6.38	6.12	6.17	6.03	6.28	5.88	5.72	5.92	6.55
Potassium	Total	ug/L	699	1010	697						1790	1760
Potassium	Dissolved	ug/L	635	996	679							1640
Redox Potential	Total	mV	83.1	177	210.6	21.4	176.6	151.4	87.9	108.9	71.8	64.4
Sodium	Total	ug/L	3680	2490	932						49100	59000
Sodium	Dissolved	ug/L	3080	2840	998							58400
Specific Conductance	Total	umhos/cm	30	25	21	31	25	39	343	192.0	324	387
Sulfate	Total	mg/L	1.2	0.84	< 2.2						5.0	3.2
Sulfate	Dissolved	mg/L	1.4	0.88	< 2.2							3.1
Sulfide	Total	mg/L	< 1.2	< 1.2	< 1.2						< 1.2	< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2							< 1.2
Temperature	Total	deg c	6.56	11.6	15.08	19.17	17.86	4.41	7.48	14.72	2.68	6.77
Total Suspended Solids	Total	mg/L	1.4	4.0	1.7						0.80	3.3
Zinc	Total	ug/L	25.5	12.0	12.9	12.4	13.9	99.3	< 10.3	12.2	24.8	30.3
Zinc	Dissolved	ug/L	< 10.3	< 10.3	13.3	11.0	< 10.3	92.8	< 10.3	11.7		30.2
Comment - Sample Color	Total	None	Stained light brown									
Comment - Sample Odor	Total	None	None	Slight organic	None	Slight Organic						
Comment - Sample Turbidity	Total	None	Slight	Moderate	Slight	Slight						

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-HWY27W	SW-HWY27W	SW-HWY27W	SW-HWY27W	SW-HWY27W	SW-HWY27W	SW-HWY27W	SW-HWY27W	SW-NB	SW-NB
		Units	5/8/2024	5/23/2024	7/24/2024	8/30/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023	4/19/2023
Alkalinity as CaCO ₃	Total	mg/L	10.4	10.1							6.7	6.8
Alkalinity as CaCO ₃	Dissolved	mg/L	8.1	9.2								
Calcium	Total	ug/L	5690	5490							7000	6790
Calcium	Dissolved	ug/L	5700	5990								
Chloride	Total	mg/L	51.7	24.2							74.9	67.5
Chloride	Dissolved	mg/L	51.8	23.2								
Copper	Total	ug/L	16.5	9.8	14.7	20.4	19.8	9.5	13.7	12.1	15.3	7.8
Copper	Dissolved	ug/L	14.0	8.0	7.1	11.5	11.5	6.6	11.6	9.3		
Dissolved Organic Carbon	Dissolved	mg/L	28.1	31.1	13.3	15.5	15.4	7.8	19.7	31.7		
Dissolved Oxygen	Total	mg/L	3.58	2.24	3.36	1.12		1.82	1.79	0.91	10.79	
Hardness	Total	mg/L	21.4	20.2	28.2	27.6	27.8	10.3	16.8	25.4	27.5	26.9
Hardness	Dissolved	mg/L	21.3	22.2	27.1	27.2	27.3	8.5	15.3	26.1		
Iron	Total	ug/L	1930	2600							694	760
Iron	Dissolved	ug/L	1270	1780								
Magnesium	Total	ug/L	1740	1570							2430	2420
Magnesium	Dissolved	ug/L	1710	1760								
Manganese	Total	ug/L	23.4	34.6							36.4	38.6
Manganese	Dissolved	ug/L	19.6	34.1								
pH	Total	s.u.	6.29	6.28	5.78	5.74		5.71	6.09	5.77	6.63	
Potassium	Total	ug/L	1250	779							1690	1720
Potassium	Dissolved	ug/L	1250	834								
Redox Potential	Total	mV	174.4	152	176.1	107.5		174.1	130.6	143.0	63.8	
Sodium	Total	ug/L	36500	16000							35700	34200
Sodium	Dissolved	ug/L	35900	18000								
Specific Conductance	Total	umhos/cm	200	120	154	304		343	236	215.0	267	
Sulfate	Total	mg/L	0.94	< 2.2							4.1	3.8
Sulfate	Dissolved	mg/L	0.92	< 2.2								
Sulfide	Total	mg/L	< 1.2	< 1.2							< 1.2	< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2								
Temperature	Total	deg c	12.56	14.56	21.21	19.18		4.09	9.26	15.96	3.17	
Total Suspended Solids	Total	mg/L	1.1	3.5							1.9	1.5
Zinc	Total	ug/L	30.4	22.4	33.6	24.3	27.1	19.2	31.3	38.4	23.4	25.9
Zinc	Dissolved	ug/L	27.7	23.4	27.0	25.9	20.7	16.4	26.8	37.0		
Comment - Sample Color	Total	None	Stained light brown	Stained light brown	Stained light brown	Stained light brown	None	Stained light brown				
Comment - Sample Odor	Total	None	Slight organic	Slight organic	Slight organic	Slight organic	None	Slight organic	Slight organic	Slight organic	Slight Organic	None
Comment - Sample Turbidity	Total	None	None	Slight	Slight	Slight	None	Slight	Slight	Slight	Slight	None

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-NB	SW-NBOUT	SW-NBOUT							
		Units	4/29/2023	5/8/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023	4/29/2023
Alkalinity as CaCO ₃	Total	mg/L	< 7.4	10.5	15.3						18.6	20.7
Alkalinity as CaCO ₃	Dissolved	mg/L	< 7.4	10.1	15.4							21.0
Calcium	Total	ug/L	8800	7340	7500						5540	9950
Calcium	Dissolved	ug/L	8250	7760	7400							8970
Chloride	Total	mg/L	75.4	38.4	19.1						5.8	48.6
Chloride	Dissolved	mg/L	86.0	38.4	17.7							53.9
Copper	Total	ug/L	5.6	18.0	16.8	4.6	7.5	5.6	9.8	6.4	6.1	3.7
Copper	Dissolved	ug/L	4.5	15.6	15.0	3.2	4.3	4.6	8.8	5.6		3.2
Dissolved Organic Carbon	Dissolved	mg/L	10.0	24.6	24.8	11.2	13.3	5.6	16.2	18.5		9.2
Dissolved Oxygen	Total	mg/L	7.77	5.94	3.21	4.76	0.95	1.83	2.45	1.22	11.00	8.30
Hardness	Total	mg/L	36.6	29.7	29.4	38.5	46.7	64.8	32.7	46.2	22.9	42.8
Hardness	Dissolved	mg/L	35.0	31.0	29.9	37.8	47.5	60.2	30.8	45.7		38.8
Iron	Total	ug/L	392	1680	2110						652	370
Iron	Dissolved	ug/L	169	774	1200							116
Magnesium	Total	ug/L	3550	2760	2600						2200	4360
Magnesium	Dissolved	ug/L	3490	2820	2760							3990
Manganese	Total	ug/L	29.3	40.8	73.1						10.8	32.1
Manganese	Dissolved	ug/L	26.0	30.9	65.9							13.1
pH	Total	s.u.	6.54	6.21	6.44	6.5	6.27	6.93	6.49	6.76	6.77	6.42
Potassium	Total	ug/L	1460	1010	650						1980	1370
Potassium	Dissolved	ug/L	1390	995	613							1240
Redox Potential	Total	mV	63.7	130.3	132.7	147.7	82.5	159.9	109.4	-36.0	46.1	68.5
Sodium	Total	ug/L	35500	23400	11500						3740	25300
Sodium	Dissolved	ug/L	36000	23600	12600							24400
Specific Conductance	Total	umhos/cm	264	159	104	237	273	307	158	262.0	58	199
Sulfate	Total	mg/L	2.4	1.1	< 2.2						2.8	3.1
Sulfate	Dissolved	mg/L	2.5	1.1	< 2.2							3.2
Sulfide	Total	mg/L	< 1.2	1.2	< 1.2						< 1.2	< 1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2							< 1.2
Temperature	Total	deg c	7.68	13.91	12.02	28.02	18.2	3.26	6.88	19.20	2.97	7.26
Total Suspended Solids	Total	mg/L	< 0.49	2.6	4.6						2.4	0.82
Zinc	Total	ug/L	18.2	30.5	24.7	< 10.3	< 10.3	32.3	21.9	20.6	< 10.3	< 10.3
Zinc	Dissolved	ug/L	19.0	24.3	24.8	< 10.3	< 10.3	33.8	21.9	19.0		< 10.3
Comment - Sample Color	Total	None	Stained light brown									
Comment - Sample Odor	Total	None	Slight Organic									
Comment - Sample Turbidity	Total	None	Slight	Slight	Slight	Slight	Slight	Slight	None	Slight	Slight	Slight

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-NBOUT									
		Units	5/8/2024	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025	4/19/2023	4/29/2023	5/8/2024
Alkalinity as CaCO ₃	Total	mg/L	40.2	45.2						10	16.8	15.4
Alkalinity as CaCO ₃	Dissolved	mg/L	35.6	43.7							18.9	13.1
Calcium	Total	ug/L	10600	12000						3410	7440	5430
Calcium	Dissolved	ug/L	11100	12600							7110	5670
Chloride	Total	mg/L	7.5	6.7						15.6	31.1	10.6
Chloride	Dissolved	mg/L	6.3	6.9							31.6	10.5
Copper	Total	ug/L	9.9	8.0	2.6	4.7	6.3	8.4	3.8	6.0	6.2	15.6
Copper	Dissolved	ug/L	8.1	7.2	< 1.9	3.4	5.1	7.4	3.4		4.9	12.8
Dissolved Organic Carbon	Dissolved	mg/L	15.4	16.5	9.9	12.7	7.2	14.7	16.3		8.7	16.0
Dissolved Oxygen	Total	mg/L	6.17	3.40	2.62	1.48	1.82	2.37	1.36	11.86	11.12	8.76
Hardness	Total	mg/L	45.5	51.5	54.4	61.6	60.4	39.9	65.0	13.8	31.5	22.1
Hardness	Dissolved	mg/L	48.3	54.1	54.5	60.9	58.4	38.3	66.1		30.3	22.5
Iron	Total	ug/L	755	988						718	371	1090
Iron	Dissolved	ug/L	179	456							130	319
Magnesium	Total	ug/L	4640	5220						1280	3150	2070
Magnesium	Dissolved	ug/L	5010	5500							3050	2030
Manganese	Total	ug/L	15.9	46.0						20.6	16.5	35.3
Manganese	Dissolved	ug/L	8.6	42.6							10.3	11.5
pH	Total	s.u.	6.75	6.86	6.58	6.81	6.96	6.68	6.88	6.53	7.64	7.16
Potassium	Total	ug/L	1060	518						1110	1180	1070
Potassium	Dissolved	ug/L	1050	505							1070	1030
Redox Potential	Total	mV	224.9	172	156.3	109.1	162	104.0	67.1	66.6	49.3	191.1
Sodium	Total	ug/L	5610	5030						9520	17900	8660
Sodium	Dissolved	ug/L	5390	5460							17700	9300
Specific Conductance	Total	umhos/cm	102	111	217	218	267	183	230.0	72	147	74
Sulfate	Total	mg/L	2.7	< 2.2						2.5	3.6	1.7
Sulfate	Dissolved	mg/L	2.7	< 2.2							3.8	1.7
Sulfide	Total	mg/L	1.8	< 1.2						< 1.2	< 1.2	1.2
Sulfide	Dissolved	mg/L	< 1.2	< 1.2							< 1.2	< 1.2
Temperature	Total	deg c	13.58	12.04	21.28	19.05	3.34	5.99	17.00	3.71	6.30	17.60
Total Suspended Solids	Total	mg/L	2.0	2.2						9.0	2.1	8.1
Zinc	Total	ug/L	< 10.3	< 10.3	< 10.3	< 10.3	12.4	10.6	< 10.3	< 10.3	< 10.3	13.3
Zinc	Dissolved	ug/L	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3		< 10.3	< 10.3
Comment - Sample Color	Total	None	Stained light brown									
Comment - Sample Odor	Total	None	Slight organic	None	None	None						
Comment - Sample Turbidity	Total	None	Slight	Slight	Slight	Slight	Slight	Slight	None	None	None	Slight

Table 1 (continued)

Chemical Name	Total / Dissolved	Location	SW-STM	SW-STM	SW-STM	SW-STM	SW-STM	SW-STM
		Units	5/23/2024	7/24/2024	8/30/2024	11/21/2024	4/30/2025	6/18/2025
Alkalinity as CaCO ₃	Total	mg/L	10.8	31.9	33.5	22.1	14.1	
Alkalinity as CaCO ₃	Dissolved	mg/L	10.3	30.1	34.4	22.2	15.9	
Calcium	Total	ug/L	4850	12800	12000	13800	6390	
Calcium	Dissolved	ug/L	5320	12900	11800	14500	6040	
Chloride	Total	mg/L	7.4	38.4	35.4	51.0	23.1	
Chloride	Dissolved	mg/L	7.1	37.1	34.3	53.4	25.4	
Copper	Total	ug/L	13.0	7.6	8.6	8.8	9.6	8.3
Copper	Dissolved	ug/L	12.6	5.5	5.9	8.3	8.6	7.6
Dissolved Organic Carbon	Dissolved	mg/L	16.0	10.5	9.9	8.0	11.3	12.7
Dissolved Oxygen	Total	mg/L	2.99	4.39	1.39	1.11	1.61	2.25
Hardness	Total	mg/L	19.8	53.3	50.4	59.2	25.6	47.6
Hardness	Dissolved	mg/L	21.6	53.6	49.4	62.6	24.4	48.3
Iron	Total	ug/L	1010	1010	1130	904	356	
Iron	Dissolved	ug/L	500	184	315	194	173	
Magnesium	Total	ug/L	1860	5220	4970	6020	2340	
Magnesium	Dissolved	ug/L	2020	5200	4820	6400	2270	
Manganese	Total	ug/L	24.0	99.7	52.9	15.0	26.3	
Manganese	Dissolved	ug/L	16.3	13.2	28.7	5.7	14.2	
pH	Total	s.u.	6.83	7.21	7.43	6.94	6.21	7.18
Potassium	Total	ug/L	823	1210	1770	2170	1340	
Potassium	Dissolved	ug/L	853	1250	1690	2260	1210	
Redox Potential	Total	mV	157.6	161.5	125.5	142.1	135.5	72.2
Sodium	Total	ug/L	4930	13700	16600	18800	13600	
Sodium	Dissolved	ug/L	5670	14000	16200	21200	12800	
Specific Conductance	Total	umhos/cm	52	185	174	221	72	195.0
Sulfate	Total	mg/L	< 2.2	7.9	3.0	8.7	2.2	
Sulfate	Dissolved	mg/L	< 2.2	4.1	2.9	8.9	2.3	
Sulfide	Total	mg/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Sulfide	Dissolved	mg/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	
Temperature	Total	deg c	12.80	18.23	18.09	3.71	6.41	15.89
Total Suspended Solids	Total	mg/L	4.6	7.1	4.1	0.72	2.6	
Zinc	Total	ug/L	12.7	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3
Zinc	Dissolved	ug/L	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3	< 10.3
Comment - Sample Color	Total	None	Stained light brown					
Comment - Sample Odor	Total	None	None	None	None	None	None	None
Comment - Sample Turbidity	Total	None	Slight	Slight	Slight	None	None	None

Notes:
 <=less than
 CaCO₃=calcium carbonate
 deg c = Degree Celcius
 mg/L = milligrams per liter
 mV = millivolts
 NA = Not Applicable
 NS = Not Sampled
 s.u. = Standard Unit
 ug/L = micrograms per liter
 umhos/cm = micromhos per centimeter

Table 2
ATC Summary - Copper and Zinc

Sampling Event	Hardness (mg/L)	Cu In H	Zn In H	Total Copper			Total Zinc		
				Cu (ATC) (µg/L)	Cu Sample results (µg/L)		Zn (ATC) (µg/L)	Zn Sample results (µg/L)	
Sampling Event 4/19/2023									
SW-HWY27E	8.5	2.56	2.48	2.26	4.1	J	18.9	10.3	<
SW-HWY27W	26.2	3.27	3.27	4.38	6.0	J	37.3	24.8	J
SW-NB	27.5	3.31	3.31	4.59	15.3		38.9	23.4	J
SW-NBOUT	22.9	3.13	3.13	3.86	6.1	J	33.2	10.3	<
SW-EB	25.8	3.25	3.25	4.32	6.9		36.8	10.3	<
CP-04	27.2	3.30	3.30	4.54	19.0		38.6	15.2	J
SW-C9	8.4	2.56	2.48	2.26	17.7		18.9	20.7	J
SW-C5	12.2	2.56	2.50	2.26	7.6		19.1	11.7	J
SW-C1	13.1	2.57	2.57	2.28	6.3	J	20.4	10.3	<
SW-STM	13.8	2.62	2.62	2.39	6.0	J	21.3	10.3	<
Sampling Event 4/29/2023									
SW-HWY27E	9.1	2.56	2.48	2.26	4.1	J	18.9	25.5	J
SW-HWY27W	40.5	3.70	3.70	6.61	4.2	J	54.6	30.3	J
SW-NB	36.6	3.60	3.60	6.01	5.6	J	50.0	18.2	J
SW-NBOUT	42.8	3.76	3.76	6.97	3.7	J	57.3	10.3	<
SW-EB	47.6	3.86	3.86	7.7	6.3	J	62.9	10.3	<
CP-04	60.5	4.10	4.10	9.66	12.7		77.6	10.4	J
SW-C9	10.3	2.56	2.48	2.26	5.0	J	18.9	11.6	J
SW-C5	19.7	2.98	2.98	3.35	6.7		29.1	10.3	<
SW-C1	27.4	3.31	3.31	4.57	7.3		38.8	10.3	<
SW-STM	31.5	3.45	3.45	5.22	6.2	J	43.8	10.3	<
Sampling Event 5/8/2024									
SW-HWY27E	11.6	2.56	2.48	2.26	8.9		18.9	12.0	J
SW-HWY27W	21.4	3.06	3.06	3.62	16.5		31.3	30.4	J
SW-NB	29.7	3.39	3.39	4.93	18.0		41.6	30.5	J
SW-NBOUT	45.5	3.82	3.82	7.38	9.9		60.5	10.3	<
SW-EB	36.5	3.60	3.60	5.99	14.1		49.9	14.6	J
CP-04	78.8	4.37	4.37	12.39	28.4		97.7	10.3	<
SW-C9	13.4	2.60	2.60	2.33	9.7		20.8	15.5	J
SW-C5	17.3	2.85	2.85	2.96	15.9		26.0	13.9	J
SW-C1	21.0	3.04	3.04	3.56	16.8		30.8	12.8	J
SW-STM	22.1	3.10	3.10	3.73	15.6		32.2	13.3	J
Sampling Event 5/23/2024									
SW-HWY27E	10.9	2.56	2.48	2.26	5.4	J	18.9	12.9	J
SW-HWY27W	20.2	3.01	3.01	3.43	9.8		29.7	22.4	J
SW-NB	29.4	3.38	3.38	4.89	16.8		41.3	24.7	J
SW-NBOUT	51.5	3.94	3.94	8.3	8.0		67.4	10.3	<
SW-EB	39.8	3.68	3.68	6.5	11.3		53.8	10.4	J
CP-04	59.5	4.09	4.09	9.51	28.0		76.5	10.3	<
SW-C9	12.0	2.56	2.48	2.26	6.5		18.9	15.5	J
SW-C5	15.7	2.75	2.75	2.7	13.2		23.8	13.9	J
SW-C1	19.5	2.97	2.97	3.32	13.6		28.8	14.7	J
SW-STM	19.8	2.99	2.99	3.37	13.0		29.2	12.7	J

Table 2 (continued)

Sampling Event	Hardness (mg/L)	Cu In H	Zn In H	Total Copper			Total Zinc		
				Cu (ATC) (µg/L)	Cu Sample results (µg/L)		Zn (ATC) (µg/L)	Zn Sample results (µg/L)	
Sampling Event 7/24/2024									
SW-HWY27E	8.9	2.56	2.48	2.26	8.2		18.9	12.4	J
SW-HWY27W	28.2	3.34	3.34	4.7	14.7		39.8	33.6	J
SW-NB	38.5	3.65	3.65	6.3	4.6	J	52.2	10.3	<
SW-NBOUT	54.4	4.00	4.00	8.74	2.6	J	70.7	10.3	<
SW-EB	54.5	4.00	4.00	8.75	3.7	J	70.8	10.3	<
CP-04	61.0	4.11	4.11	9.73	33.7		78.1	16.6	J
SW-C9	11.4	2.56	2.48	2.26	16.6		18.9	10.3	<
SW-C5	24.2	3.19	3.19	4.07	12.5		34.8	19.3	J
SW-C1	48.8	3.89	3.89	7.88	11.8		64.3	18.7	J
SW-STM	53.3	3.98	3.98	8.57	7.6		69.4	10.3	<
Sampling Event 8/30/2024									
SW-HWY27E	8.1	2.56	2.48	2.26	13.7		18.9	13.9	J
SW-HWY27W	27.6	3.32	3.32	4.6	20.4		39.1	24.3	J
SW-NB	46.7	3.84	3.84	7.56	7.5		61.9	10.3	<
SW-NBOUT	61.6	4.12	4.12	9.82	4.7	J	78.8	10.3	<
SW-EB	49.8	3.91	3.91	8.04	12.4		65.4	10.3	<
CP-04	87.8	4.48	4.48	13.72	6.1	J	107.4	10.3	<
SW-C9	10.8	2.56	2.48	2.26	14.0		18.9	13.6	J
SW-C5	31.5	3.45	3.45	5.22	12.2		43.8	11.9	J
SW-C1	37.8	3.63	3.63	6.2	12.9		51.4	10.3	<
SW-STM	50.4	3.92	3.92	8.13	8.6		66.1	10.3	<
Sampling Event 11/21/2024									
SW-HWY27E	44.9	3.80	3.80	7.29	13.3		59.8	99.3	
SW-HWY27W	10.3	2.56	2.48	2.26	9.5		18.9	19.2	J
SW-NB	64.8	4.17	4.17	10.3	5.6	J	82.4	32.3	J
SW-NBOUT	60.4	4.10	4.10	9.64	6.3	J	77.5	12.4	J
SW-EB	60.7	4.11	4.11	9.69	7.8		77.8	10.3	<
CP-04	64.2	4.16	4.16	10.21	30.5		81.7	10.3	<
SW-C9	9.9	2.56	2.48	2.26	18.1		18.9	23.8	J
SW-C5	30.7	3.42	3.42	5.09	15.8		42.9	23.4	J
SW-C1	50.4	3.92	3.92	8.13	14.7		66.1	19.9	J
SW-STM	59.2	4.08	4.08	9.46	8.8		76.1	10.3	<
Sampling Event 4/30/2025									
SW-HWY27E	9.1	2.56	2.48	2.26	7.8		18.9	10.3	<
SW-HWY27W	16.8	2.82	2.82	2.88	13.7		25.3	31.3	J
SW-NB	32.7	3.49	3.49	5.4	9.8		45.3	21.9	J
SW-NBOUT	39.9	3.69	3.69	6.52	8.4		53.9	10.6	J
SW-EB	41.7	3.73	3.73	6.8	9.0		56.0	10.3	<
CP-04	319	5.77	5.77	46.36	7.2		332.0	10.3	<
SW-C9	9.0	2.56	2.48	2.26	5.6	J	18.9	10.5	J
SW-C5	17.3	2.85	2.85	2.96	10.9		26.0	12	J
SW-C1	23.8	3.17	3.17	4	10.6		34.3	11	J
SW-STM	25.6	3.24	3.24	4.29	9.6		36.6	10.3	<
Sampling Event 6/18/2025									
SW-HWY27E	12.4	2.56	2.52	2.26	8.6		19.4	12.2	J
SW-HWY27W	25.4	3.23	3.23	4.26	12.1		36.3	38.4	
SW-NB	46.2	3.83	3.83	7.49	6.4		61.3	20.6	J
SW-NBOUT	65	4.17	4.17	10.33	3.8	J	82.6	10.3	<

Table 2 (continued)

Sampling Event	Hardness (mg/L)	Cu In H	Zn In H	Total Copper			Total Zinc		
				Cu (ATC) (µg/L)	Cu Sample results (µg/L)	J	Zn (ATC) (µg/L)	Zn Sample results (µg/L)	J
SW-EB	71.9	4.28	4.28	11.37	4.7	J	90.2	10.3	<
CP-04	Not Sampled / No Surface Water Present								
SW-C9	15.9	2.77	2.77	2.74	10.7		24.1	29.1	J
SW-C5	31.3	3.44	3.44	5.19	12.5		43.6	12.1	J
SW-C1	59.4	4.08	4.08	9.49	12.3		76.3	10.6	J
SW-STM	47.6	3.86	3.86	7.7	8.3		62.9	10.3	<

Notes:

ATC = Acute Toxicity Criteria (Wisconsin Administrative Code NR 105)

Cu = Copper; Zn=Zinc; mg/L = milligrams per liter; µg/L = micrograms/liter

J = estimated concentration at or above the limit of detection and below the limit of quantitation.

< = less than limit of detection.

Red formatting indicates ATC standard exceedance.

4

Gray formatting indicates hardness value for sample was below the water quality parameter range given in NR 105.06 Table 2A. The end point of the range nearest to that value was used to determine the criteria in accordance with NR 105.05(3)(L).
Minimum H values: Cu=13; Zn=12.

2.26

Reference Formula:

Acute Toxicity Criteria (ATC) is calculated by the formula shown in WAC NR 105.05(3)(L):

NR 105.06 Table 2 Acute Toxicity Criteria for Substances With Toxicity Related to Water Quality (all in µg/L).

Total Recoverable Copper $V=0.9436$; $\ln ACI=-1.6036$. Total Recoverable Zinc $V=0.8745$; $\ln ACI=0.7634$

(ACI = Acute Criterion Intercept; V = constant defined in NR 105.06(8); table 2)

$$ATC = e^{(V \ln H + \ln ACI)}$$

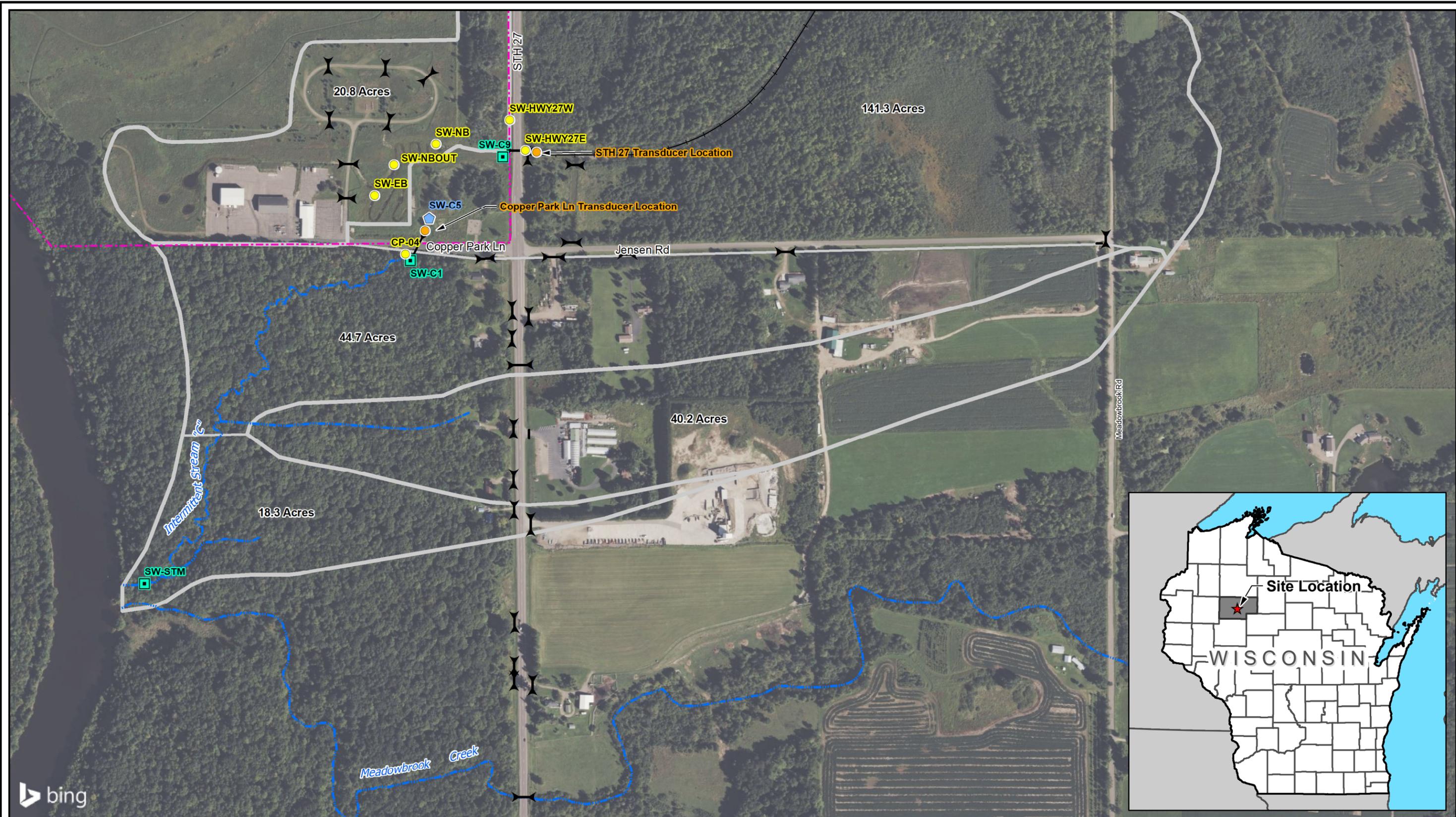
Figures

Figure 1 – Site Location Map

Figure 2 – Stream C Evaluation Locations

Figure 3 – HWY 27 Culvert Flow Graph

Figure 4 – Copper Park Lane Culvert Flow Graph



NOTES:
 1. Base imagery from esri.com, courtesy of the Microsoft Corporation and its data suppliers.
 2. Horizontal datum based on NAD 1983. Horizontal coordinates based on Wisconsin State Plane North (Feet).

LEGEND	
	Flow, Visual Observation, Water Quality, WET Test
	Visual Observation, Water Quality, WET Test
	Visual Observation, Water Quality
	Transducer Location
	Approximate Culvert Location
	Intermittent Stream
	Flambeau Project Area
	Intermittent Stream C Drainage Area

Flambeau Mining Company
 2025 Annual Summary Memorandum



Foth Infrastructure & Environment, LLC			
REVISED	DATE	BY	DESCRIPTION
PREPARED BY:	BJW1	DATE:	JAN.'26
CHECKED BY:	NMG1	DATE:	JAN.'26
APPROVED BY:	MCC2	DATE:	JAN.'26

FLAMBEAU MINING COMPANY	
FIGURE 2	
STREAM C EVALUATION LOCATIONS STREAM C DATA EVALUATION	
Scale:	Date: JANUARY 2026
Drafted by: DAT	Project No: 17F777.25

Hwy 27 Culvert Flow



NOTES:

* Sampling Events

Flambeau Mining Company

Figure 3

HWY 27 Culvert Flow Chart
 2025 Stream C Data Evaluation
 Ladysmith, Wisconsin

Date: January 2025

Revision Date:

Drawn By: NMG1

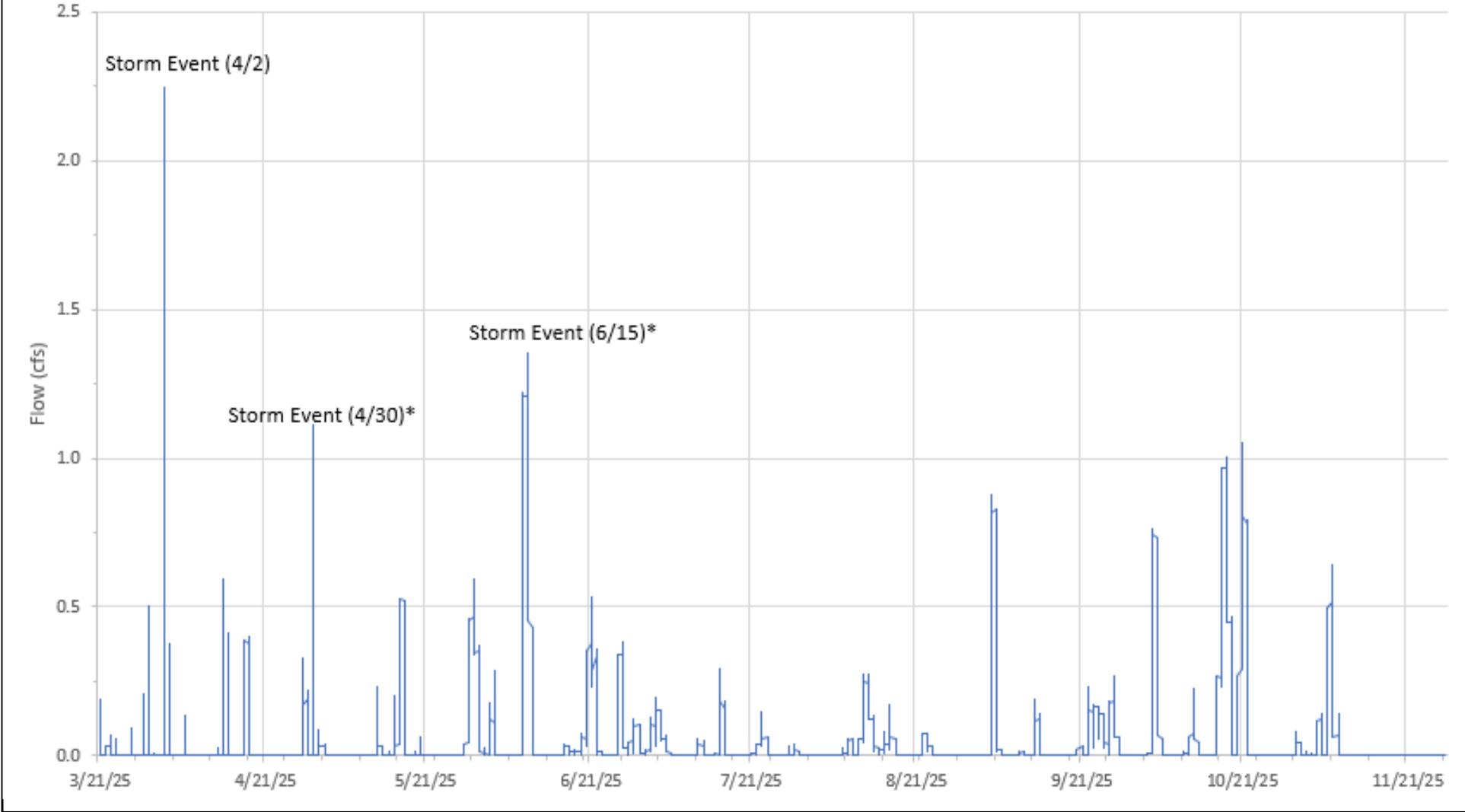
Checked By: MN

Project: 17F777.25

Flambeau Mining Company
 2025 Annual Summary Memorandum



CPL Culvert Flow



NOTES:
* Sampling Events

Flambeau Mining Company		
Figure 4		
Copper Park Lane Culvert Flow Chart		
2025 Stream C Data Evaluation		
Ladysmith, Wisconsin		
Date: January 2026	Revision Date:	
Drawn By: NMG1	Checked By: MN	Project: 17F777.25

Flambeau Mining Company
2025 Annual Summary Memorandum



Attachment 1

Flow Inspection Forms

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	3/31/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 38°F, Fair, 8-13mph northwest wind		

Inspection Notes

Stream C was inspected today with 0.85-inch of precipitation starting on 30-MAR-2025. Small amount of flow at the Copper Park Lane culvert. No continuous flow to the Flambeau River was noted.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	4/24/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 55°, Partly Cloudy, 4-9mph north wind		

Inspection Notes

Stream C was inspected today after 1.4-inches of precipitation starting on 21-APR-2025. Small amount of flow at the Copper Park Lane culvert. Minimum continuous flow to the Flambeau River was noted. Ponding was noted in various stretches of Stream C. Planning to allow stream to continue to flush with precipitation and snowmelt.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	4/28/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 52°, Cloudy, 10-15mph north wind		

Inspection Notes

Stream C was inspected today after approximately 0.45-inches of precipitation on 28-APR-2025. Continuous flow to the Flambeau River was noted. Plan to sample the site on 30-APR-2025.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	5/16/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 68°, Cloudy & Windy, 20-25mph southwest wind		

Inspection Notes

Stream C was inspected today after approximately 0.63-inches of precipitation on 15-MAY-2025. No continuous flow to the Flambeau River was noted.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/8/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 68°, Mostly Cloudy, 6-11mph west wind		

Inspection Notes

Stream C was inspected today after approximately 0.83-inches of precipitation on 7-JUN-2025. No continuous flow to the Flambeau River was noted.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/13/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 53°, Cloudy, light rain, 9-14mph east wind		

Inspection Notes

Stream C was inspected today after approximately 0.66-inches of precipitation starting on 12-JUN-2025. No continuous flow to the Flambeau River was noted.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/15/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 65°, Cloudy, 4-9mph east wind		

Inspection Notes

Stream C was inspected today after approximately 0.95-inches of precipitation starting on 14-JUN-2025. No continuous flow to the Flambeau River was noted.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/17/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 77°F, Partly Cloudy, 3-8mph west wind		

Inspection Notes

Stream C was inspected today after approximately 0.98-inches of precipitation starting on 16-JUN-2025. Continuous flow to the Flambeau River was noted. Planned sampling event for 18-JUN-2025.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/22/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 85°F, Mostly Cloudy, 9-14mph southwest wind		

Inspection Notes

Stream C was inspected today after approximately 0.67-inches of precipitation starting on 21-JUN-2025. Continuous flow to the Flambeau River was noted. With sampling event on 18-JUN-2025, no sampling is anticipated within the next two weeks as stipulated in the Work Plan.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/26/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 64°F, Cloudy, 4-9mph east wind		

Inspection Notes

Stream C was inspected today after approximately 2.06-inches of precipitation starting on 25-JUN-2025. Continuous flow to the Flambeau River was noted. With sampling event on 18-JUN-2025, no sampling is anticipated within the next two weeks as stipulated in the Work Plan.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	6/27/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 65°F, Cloudy, 10-15mph Northwest wind		

Inspection Notes

Stream C was inspected today after approximately 1.64-inches of precipitation starting on 26-JUN-2025. Continuous flow to the Flambeau River was noted. With sampling event on 18-JUN-2025, no sampling is anticipated within the next two weeks as stipulated in the Work Plan.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	7/24/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 82°F, Partly Cloudy, 2-7mph Northwest wind		

Inspection Notes

Stream C was inspected today after approximately 0.67-inches of precipitation starting on 23-JUL-2025. No continuous flow to the Flambeau River was noted.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	8/16/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 73°F, Cloudy, light rain, 5-10mph east wind		

Inspection Notes

Stream C was inspected today after approximately 1.2-inches of precipitation starting on 15-AUG-2025. No continuous flow to the Flambeau River was noted. Conditions have been extremely dry.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	9/22/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 71°F, Fair, 0-5mph east wind		

Inspection Notes

Stream C was checked today. Site conditions continue to be extremely dry with no continuous flow to the Flambeau River.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	10/14/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 53°F, Mostly Cloudy, 3-8mph northeast wind		

Inspection Notes

Stream C was checked today. Site conditions continue to be extremely dry with no continuous flow to the Flambeau River.

END OF NOTES

Stream C - Flow Monitoring Inspection Report



Client:	Flambeau Mining Company	Scope ID	17F777.25
Project:	Stream C – Flow Monitoring	Inspected by:	Jim Engelhardt / Merjent
Date:	11/14/2025	Prepared by:	Nick Glander / Foth
Weather:	High of 46°F, Fair, 0-5mph northeast wind		

Inspection Notes

Stream C was checked today. Site conditions continue to be extremely dry with no continuous flow to the Flambeau River.

END OF NOTES

Attachment 2

Field Forms



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID: 17F777.25
 Date: 04/30/25
 Date: 05/14/25

TECHNICIAN(S) NAME (INITIALS), COMPANY

Jin Engelhardt / Merjent

SUMMARY OF SAMPLING ACTIVITIES

Sample Date(s): 4/30/2025

Activities:

Collected field parameter measurements, and water quality samples for laboratory analysis by Pace Analytical.
 Collected field quality control samples for laboratory analysis by Pace Analytical

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

Stream C Samples: Total Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness
 Dissolved Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness
 Total Alkalinity (EPA310.2), Cl, Sulfate
 Dissolved Alkalinity (EPA310.2), Cl, Sulfate
 DOC
 TSS
 Total Sulfide
 Dissolved Sulfide

Velocity Measurements (collected at US end of culverts and at SW-STM near confluence of Flambeau River):

Location:	Velocity (ft/sec)	Depth (ft)
HWY 27 Culvert	0	No Measureable Flow
Copper Park Lane Culvert	0.7	NA
SW-STM Confluence	0.3	NA

FIELD REPORT ATTACHMENTS

- Summary of Field Parameters
- Summary of Field Quality Control Samples
- Field Forms

COMMENTS

The data collected during this event was conducted under the *Stream C Evaluation Work Plan - Revision 2*, dated August 30, 2024.



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMG1 / Foth

Scope ID.: 17F777.25
 Date: 04/30/25
 Date: 05/14/25

SUMMARY OF FIELD PARAMETERS

Location	Sample Date	Sample Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	ORP (mV)	DO (mg/l)	Odor (visual)	Turbidity (visual)	Color (visual)
SW-C9	4/30/2025	11:15	5.98	0.040	7.55	151.1	1.46	None	None	Stained lt. Brown
SW-C1	4/30/2025	9:00	6.57	0.098	6.87	94.2	2.07	None	None	Stained lt. Brown
SW-STM	4/30/2025	8:00	6.21	0.072	6.41	135.5	1.61	None	None	Stained lt. Brown
SW-C5	4/30/2024	9:30	6.00	0.077	7.23	136.7	1.96	None	None	Stained lt. Brown
SW-EB	4/30/2025	10:45	6.79	0.207	7.71	94.6	2.26	Slt. Organic	Slight	Stained lt. Brown
SW-NB	4/30/2025	10:30	6.49	0.158	6.88	109.4	2.45	Slt. Organic	None	Stained lt. Brown
SW-NBOUT	4/30/2025	10:00	6.68	0.183	5.99	104.0	2.37	Slt. Organic	None	Stained lt. Brown
SW-HWY27W	4/30/2025	11:30	6.09	0.236	9.26	130.6	1.79	Slt. Organic	Slight	Stained lt. Brown
SW-HWY27E	4/30/2025	12:00	5.88	0.343	7.48	87.9	2.14	Slt. Organic	Moderate	Stained lt. Brown
CP-04	4/30/2025	8:45	7.46	1.804	7.46	90.0	1.24	None	Slight	Stained lt. Brown

Note:
 ORP = Oxidation Reduction Potential
 μmhos/cm = micromhos/centimeter
 SU = Standard Unit
 mV = Millivolts
 °C = Degrees Celsius
 NA = not applicable



Client: Flambeau Mining Co
Project: Flambeau Stream C - Spring Event
Prepared by: Jim Engelhardt/Merjent
Checked by: NMGI / Foth

Scope ID: 17F777.25
Date: 04/30/25
Date: 05/14/25

SUMMARY OF FIELD QUALITY CONTROL SAMPLES

Sample ID	Sample Date	Description
SW-C9-DUP_20250430	4/30/2025	Duplicate Taken at SW-C9 sampling location



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID: 17F777.25
 Date: 04/30/25
 Date: 05/14/25

FIELD NOTES

Site ID: SW-C9
 Date: 4/30/2025
 Technician(s) Initials: Jim Engelhardt / Merjent

Equipment: GPS, Multi-parameter probe, Camera, Peristaltic pump, Disposable Filters, Battery

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
11:15:00 AM	5.98	0.040	7.55	151.10	1.46	None	None	Stained lt. Brown



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID.: 17F777.25
 Date: 04/30/25
 Date: 05/14/25

FIELD NOTES

Site ID: SW-C1
 Date: 4/30/2025
 Technician(s) Initials: Jim Engelhardt / Merjent

Equipment: GPS, Multi-parameter probe, Camera, Peristaltic pump, Disposable Filters, Battery

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H2SO4	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
9:00:00 AM	6.57	0.098	6.87	94.20	2.07	None	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-STM **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2025 **Disposable Filters, Battery**
Technician(s) Initials: Jim Engelhardt / Merjent

Weather, Stream Conditions and Comments:
 Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
8:00:00 AM	6.21	0.072	6.41	135.50	1.61	None	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-C5 **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2024 **Disposable Filters, Battery**
Technician(s) Initials: Jim Engelhardt / Merjent

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
9:30:00 AM	6.00	0.077	7.23	136.70	1.96	None	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-EB **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H2SO4	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
10:45:00 AM	6.79	0.207	7.71	94.60	2.26	Slt. Organic	Slight	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-NBOUT **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent

Weather, Stream Conditions and Comments:
 Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
10:30:00 AM	6.49	0.158	6.88	109.40	2.45	Slt. Organic	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-NB **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
10:00:00 AM	6.68	0.183	5.99	104.00	2.37	Slt. Organic	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-HWY27W **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2025 **Disposable Filters, Battery**
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H2SO4	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
11:30:00 AM	6.09	0.236	9.26	130.60	1.79	Slt. Organic	Slight	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 04/30/25
 Checked by: NMGI / Foth Date: 05/14/25

FIELD NOTES

Site ID: SW-HWY27E **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 4/30/2025 **Disposable Filters, Battery**
Technician(s) Initials: Jim Engelhardt / Merjent

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
1	5.88	0.343	7.48	87.90	2.14	Slt. Organic	Moderate	Stained lt. Brown

Note:



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMG1 / Foth

Scope ID.: 17F777.25
 Date: 04/30/25
 Date: 05/14/25

FIELD NOTES

Site ID: CP-04
 Date: 4/30/2025
 Technician(s) Initials: Jim Engelhardt / Merjent

Equipment: GPS, Multi-parameter probe, Camera, Peristaltic pump, Disposable Filters, Battery

Weather, Stream Conditions and Comments:

Temp: High of 67 degrees Fahrenheit, Fair, 8-13 mph South Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness)
1	N	Plastic 250 mL	None	Total Alkalinity, Chloride, Sulfate
1	Y	Plastic 250 mL	None	Dissolved Alkalinity, Chloride, Sulfate
1	N	Plastic 250 mL	None	TSS
1	Y	Amber 125 mL	H ₂ SO ₄	DOC
1	N	Plastic 500 mL	Zinc Acetate & NaOH	Total Sulfide
1	Y	Plastic 500 mL	Zinc Acetate & NaOH	Dissolved Sulfide

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
8:45:00 AM	7.46	1.804	7.46	90.00	1.24	None	Slight	Stained lt. Brown

Note:



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID: 17F777.25
 Date: 06/18/25
 Date: 06/19/25

TECHNICIAN(S) NAME (INITIALS), COMPANY

Jin Engelhardt / Merjent

SUMMARY OF SAMPLING ACTIVITIES

Sample Date(s): 6/18/2025

Activities:

Collected field parameter measurements, and water quality samples for laboratory analysis by Pace Analytical.
 Collected field quality control samples for laboratory analysis by Pace Analytical

Weather, Stream Conditions and Comments:

Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

Stream C Samples: Total Cu, Zn, Hardness
 Dissolved Cu, Zn, Hardness
 DOC

Velocity Measurements (collected at US end of culverts and at SW-STM near confluence of Flambeau River):

Location:	Velocity (ft/sec)	Depth (ft)
HWY 27 Culvert	No measureable Flow	NA
Copper Park Lane Culvert	No measureable Flow	NA
SW-STM Confluence	No measureable Flow	NA

FIELD REPORT ATTACHMENTS

Summary of Field Parameters
 Summary of Field Quality Control Samples
 Field Forms

COMMENTS

The data collected during this event was conducted under the *Stream C Evaluation Work Plan - Revision 2*, dated August 30, 2024.



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMG1 / Foth

Scope ID.: 17F777.25
 Date: 06/18/25
 Date: 06/19/25

SUMMARY OF FIELD PARAMETERS

Location	Sample Date	Sample Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	ORP (mV)	DO (mg/l)	Odor (visual)	Turbidity (visual)	Color (visual)
SW-C9	6/18/2025	8:00	6.33	84.0	17.01	121.2	1.04	None	None	Stained lt. Brown
SW-C1	6/18/2025	9:30	6.61	201.0	15.34	74.4	1.43	None	None	Stained lt. Brown
SW-STM	6/18/2025	12:00	7.18	195.0	15.89	72.2	2.25	None	None	Stained lt. Brown
SW-C5	6/18/2025	8:45	6.19	117.0	15.32	12.7	1.01	None	Slight	Stained lt. Brown
SW-EB	6/18/2025	10:00	6.54	210.0	17.35	-4.5	1.13	Slt. Organic	Slight	Stained lt. Brown
SW-NB	6/18/2025	11:00	6.76	262.0	19.20	-36.0	1.22	Slt. Organic	Slight	Stained lt. Brown
SW-NBOUT	6/18/2025	10:15	6.88	230.0	17.00	67.1	1.36	Slt. Organic	None	Stained lt. Brown
SW-HWY27W	6/18/2025	8:30	5.77	215.0	15.96	143.0	0.91	Slt. Organic	Slight	Stained lt. Brown
SW-HWY27E	6/18/2025	8:15	5.72	192.0	14.72	108.9	1.23	Slt. Organic	Moderate	Stained lt. Brown
CP-04	6/18/2025	NS	NOT SAMPLED/NO SURFACE WATER							

Note:
 ORP = Oxidation Reduction Potential
 µmhos/cm = micromhos/centimeter
 SU = Standard Unit
 mV = Millivolts
 °C = Degrees Celsius
 NA = not applicable



Client: Flambeau Mining Co
Project: Flambeau Stream C - Spring Event
Prepared by: Jim Engelhardt/Merjent
Checked by: NMGI / Foth

Scope ID: 17F777.25
Date: 06/18/25
Date: 06/19/25

SUMMARY OF FIELD QUALITY CONTROL SAMPLES

Sample ID	Sample Date	Description
SW-C1-DUP_20250618	6/18/2025	Duplicate Taken at SW-C1 sampling location



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID: 17F777.25
 Date: 06/18/25
 Date: 06/19/25

FIELD NOTES

Site ID: SW-C9
 Date: 6/18/2025
 Technician(s) Initials: Jim Engelhardt / Merjent

Equipment: GPS, Multi-parameter probe, Camera, Peristaltic pump, Disposable Filters, Battery

Weather, Stream Conditions and Comments:

Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
8:00:00 AM	6.33	84.000	17.01	121.20	1.04	None	None	Stained lt. Brown



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID.: 17F777.25
 Date: 06/18/25
 Date: 06/19/25

FIELD NOTES

Site ID: SW-C1
 Date: 6/18/2025
 Technician(s) Initials: Jim Engelhardt / Merjent

Equipment: GPS, Multi-parameter probe, Camera, Peristaltic pump, Disposable Filters, Battery

Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
9:30:00 AM	6.61	201.000	15.34	74.40	1.43	None	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 06/18/25
 Checked by: NMGI / Foth Date: 06/19/25

FIELD NOTES

Site ID: SW-STM **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 6/18/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
12:00:00 PM	7.18	195.000	15.89	72.20	2.25	None	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 06/18/25
 Checked by: NMGI / Foth Date: 06/19/25

FIELD NOTES

Site ID: SW-C5 **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 6/18/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
8:45:00 AM	6.19	117.000	15.32	12.70	1.01	None	Slight	Stained lt. Brown

Note:



Client:	<u>Flambeau Mining Co</u>	Scope ID: <u>17F777.25</u>
Project:	<u>Flambeau Stream C - Spring Event</u>	
Prepared by:	<u>Jim Engelhardt/Merjent</u>	Date: <u>06/18/25</u>
Checked by:	<u>NMGI / Foth</u>	Date: <u>06/19/25</u>

FIELD NOTES

Site ID: SW-EB **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 6/18/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
10:00:00 AM	6.54	210.000	17.35	-4.50	1.13	Slt. Organic	Slight	Stained lt. Brown

Note:



Client: Flambeau Mining Co
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent
 Checked by: NMGI / Foth

Scope ID: 17F777.25
 Date: 06/18/25
 Date: 06/19/25

FIELD NOTES

Site ID: SW-NBOUT
 Date: 6/18/2025
 Technician(s) Initials: Jim Engelhardt / Merjent

Equipment: GPS, Multi-parameter probe, Camera, Peristaltic pump, Disposable Filters, Battery

Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
11:00:00 AM	6.76	262.000	19.20	-36.00	1.22	Slt. Organic	Slight	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 06/18/25
 Checked by: NMGI / Foth Date: 06/19/25

FIELD NOTES

Site ID: SW-NB **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 6/18/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
10:15:00 AM	6.88	230.000	17.00	67.10	1.36	Slt. Organic	None	Stained lt. Brown

Note:



Client: Flambeau Mining Co Scope ID: 17F777.25
 Project: Flambeau Stream C - Spring Event
 Prepared by: Jim Engelhardt/Merjent Date: 06/18/25
 Checked by: NMGI / Foth Date: 06/19/25

FIELD NOTES

Site ID: SW-HWY27E **Equipment:** GPS, Multi-parameter probe, Camera, Peristaltic pump,
Date: 6/18/2025 Disposable Filters, Battery
Technician(s) Initials: Jim Engelhardt / Merjent
Weather, Stream Conditions and Comments:
 Temp: 77 degrees Fahrenheit, Fair, 3-8 mph Norhtwest Wind.

LABORATORY ANALYTICAL PARAMETERS

#Collected	Filtered (Y/N)	Bottle	Preservative	Parameter
1	N	Plastic 250 mL	HNO ₃	TOTAL (Cu, Zn, Hardness)
1	Y	Plastic 250 mL	HNO ₃	Dissolved (Cu, Zn, Hardness)
1	Y	Amber 125 mL	H2SO4	DOC

FIELD PARAMETERS

Time	pH (SU)	Specific Conductance (mS/cm)	Temperature (°C)	Redox Potential (mV)	Dissolved Oxygen (mg/l)	Odor	Turbidity	Color
0	5.72	192.000	14.72	108.90	1.23	Slt. Organic	Moderate	Stained lt. Brown

Note:

Attachment 3
Pace Laboratory Analytical Reports



May 15, 2025

Nick Glander
Foth Infrastructure & Environment, LLC
2121 Innovation Court
Suite 300
De Pere, WI 54115

RE: Project: 17f777.25 FLAMBEAU
Pace Project No.: 40294442

Dear Nick Glander:

Enclosed are the analytical results for sample(s) received by the laboratory on April 30, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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

Sincerely,

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: MARK CIARDELLI, Foth Infrastructure & Environment, LLC
Krystal Clark, Foth Infrastructure & Environment
SHARON KOZICKI, Foth Infrastructure & Environment, LLC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40294442001	SW-C9_20250430	Water	04/30/25 11:15	04/30/25 17:50
40294442002	SW-C1_20250430	Water	04/30/25 09:00	04/30/25 17:50
40294442003	SW-STM_20250430	Water	04/30/25 08:00	04/30/25 17:50
40294442004	SW-C5_20250430	Water	04/30/25 09:30	04/30/25 17:50
40294442005	SW-EB_20250430	Water	04/30/25 10:45	04/30/25 17:50
40294442006	SW-NBOUT_20250430	Water	04/30/25 10:30	04/30/25 17:50
40294442007	SW-NB_20250430	Water	04/30/25 10:00	04/30/25 17:50
40294442008	SW-HWY27W_20250430	Water	04/30/25 11:30	04/30/25 17:50
40294442009	SW-HWY27E_20250430	Water	04/30/25 12:00	04/30/25 17:50
40294442010	CP-04_20250430	Water	04/30/25 08:45	04/30/25 17:50
40294442011	SW-C9_20250430_DUP	Water	04/30/25 11:15	04/30/25 17:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40294442001	SW-C9_20250430	EPA 6020B	KXS	9
		EPA 6020B	KXS	9
		SM 2540D	LMB	1
		SM 4500-S F (2000)	LMB	1
		SM 4500-S F (2000)	LMB	1
		EPA 300.0	AJS1	2
		EPA 300.0	AJS1	2
		EPA 310.2	MT	1
		EPA 310.2	MT	1
		SM 5310C	TJJ	1
40294442002	SW-C1_20250430	EPA 6020B	KXS	9
		EPA 6020B	KXS	9
		SM 2540D	LMB	1
		SM 4500-S F (2000)	LMB	1
		SM 4500-S F (2000)	LMB	1
		EPA 300.0	AJS1	2
		EPA 300.0	AJS1	2
		EPA 310.2	MT	1
		EPA 310.2	MT	1
		SM 5310C	TJJ	1
40294442003	SW-STM_20250430	EPA 6020B	KXS	9
		EPA 6020B	KXS	9
		SM 2540D	LMB	1
		SM 4500-S F (2000)	LMB	1
		SM 4500-S F (2000)	LMB	1
		EPA 300.0	AJS1	2
		EPA 300.0	AJS1	2
		EPA 310.2	MT	1
		EPA 310.2	MT	1
		SM 5310C	TJJ	1
40294442004	SW-C5_20250430	EPA 6020B	KXS	9
		EPA 6020B	KXS	9
		SM 2540D	LMB	1
		SM 4500-S F (2000)	LMB	1
		SM 4500-S F (2000)	LMB	1
		EPA 300.0	AJS1	2
		EPA 300.0	AJS1	2

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 310.2	MT	1
		EPA 310.2	MT	1
		SM 5310C	TJJ	1
40294442005	SW-EB_20250430	EPA 6020B	KXS	3
		EPA 6020B	KXS	3
		SM 5310C	TJJ	1
40294442006	SW-NBOUT_20250430	EPA 6020B	KXS	3
		EPA 6020B	KXS	3
		SM 5310C	TJJ	1
40294442007	SW-NB_20250430	EPA 6020B	KXS	3
		EPA 6020B	KXS	3
		SM 5310C	TJJ	1
40294442008	SW-HWY27W_20250430	EPA 6020B	KXS	3
		EPA 6020B	KXS	3
		SM 5310C	TJJ	1
40294442009	SW-HWY27E_20250430	EPA 6020B	KXS	3
		EPA 6020B	KXS	3
		SM 5310C	TJJ	1
40294442010	CP-04_20250430	EPA 6020B	KXS	3
		EPA 6020B	KXS	3
		SM 5310C	TJJ	1
40294442011	SW-C9_20250430_DUP	EPA 6020B	KXS	9
		EPA 6020B	KXS	9
		SM 2540D	LMB	1
		SM 4500-S F (2000)	LMB	1
		SM 4500-S F (2000)	LMB	1
		EPA 300.0	TXW	2
		EPA 300.0	AJS1	2
		EPA 310.2	MT	1
		EPA 310.2	MT	1
		SM 5310C	TJJ	1

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: EPA 6020B

Description: 6020B MET ICPMS

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

11 samples were analyzed for EPA 6020B by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU
Pace Project No.: 40294442

Method: EPA 6020B
Description: 6020B MET ICPMS, Dissolved
Client: Foth Infrastructure & Environment
Date: May 15, 2025

General Information:

11 samples were analyzed for EPA 6020B by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: SM 2540D

Description: 2540D Total Suspended Solids

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

5 samples were analyzed for SM 2540D by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 503574

PP: The mass of dried residue obtained did not meet the test method requirements based on volume used.

- SW-C1_20250430 (Lab ID: 40294442002)
 - Total Suspended Solids
- SW-C5_20250430 (Lab ID: 40294442004)
 - Total Suspended Solids
- SW-C9_20250430 (Lab ID: 40294442001)
 - Total Suspended Solids
- SW-C9_20250430_DUP (Lab ID: 40294442011)
 - Total Suspended Solids

T3: Insufficient sample received from client to perform the analysis per EPA method requirements.

- SW-C1_20250430 (Lab ID: 40294442002)
 - Total Suspended Solids
- SW-C5_20250430 (Lab ID: 40294442004)
 - Total Suspended Solids
- SW-C9_20250430 (Lab ID: 40294442001)
 - Total Suspended Solids
- SW-C9_20250430_DUP (Lab ID: 40294442011)
 - Total Suspended Solids

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: SM 4500-S F (2000)

Description: 4500S2F Sulfide, Iodometric

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

5 samples were analyzed for SM 4500-S F (2000) by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: SM 4500-S F (2000)

Description: 4500S2F Sulfide,Diss Iodometric

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

5 samples were analyzed for SM 4500-S F (2000) by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: EPA 300.0

Description: 300.0 IC Anions

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

5 samples were analyzed for EPA 300.0 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: EPA 300.0

Description: 300.0 IC Anions, Dissolved

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

5 samples were analyzed for EPA 300.0 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: EPA 310.2

Description: 310.2 Alkalinity

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

5 samples were analyzed for EPA 310.2 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU
Pace Project No.: 40294442

Method: EPA 310.2
Description: 310.2 Alkalinity, Dissolved
Client: Foth Infrastructure & Environment
Date: May 15, 2025

General Information:

5 samples were analyzed for EPA 310.2 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 503511

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40294275007,40294442001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 2874990)
 - Alkalinity, Total as CaCO₃, Dissolved

QC Batch: 503512

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40294442002,40294561003

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 2874994)
 - Alkalinity, Total as CaCO₃, Dissolved
- MS (Lab ID: 2875901)
 - Alkalinity, Total as CaCO₃, Dissolved
- MSD (Lab ID: 2874995)
 - Alkalinity, Total as CaCO₃, Dissolved

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Method: SM 5310C

Description: 5310C Dissolved Organic Carbon

Client: Foth Infrastructure & Environment

Date: May 15, 2025

General Information:

11 samples were analyzed for SM 5310C by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C9_20250430 Lab ID: 40294442001 Collected: 04/30/25 11:15 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium	2250	ug/L	254	76.2	1	05/05/25 06:43	05/07/25 22:53	7440-70-2	
Copper	5.6J	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 22:53	7440-50-8	
Iron	288	ug/L	250	58.0	1	05/05/25 06:43	05/07/25 22:53	7439-89-6	
Magnesium	814	ug/L	250	31.2	1	05/05/25 06:43	05/07/25 22:53	7439-95-4	
Manganese	11.0	ug/L	4.0	1.2	1	05/05/25 06:43	05/07/25 22:53	7439-96-5	
Potassium	668J	ug/L	789	237	1	05/05/25 06:43	05/07/25 22:53	7440-09-7	
Sodium	4030	ug/L	250	42.0	1	05/05/25 06:43	05/07/25 22:53	7440-23-5	
Total Hardness by 2340B	9.0	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 22:53		
Zinc	10.5J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 22:53	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	2280	ug/L	254	76.2	1	05/05/25 06:12	05/08/25 06:29	7440-70-2	D9
Copper, Dissolved	5.0J	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:29	7440-50-8	
Iron, Dissolved	238J	ug/L	250	58.0	1	05/05/25 06:12	05/08/25 06:29	7439-89-6	
Magnesium, Dissolved	810	ug/L	250	31.2	1	05/05/25 06:12	05/08/25 06:29	7439-95-4	
Manganese, Dissolved	9.9	ug/L	4.0	1.2	1	05/05/25 06:12	05/08/25 06:29	7439-96-5	
Potassium, Dissolved	658J	ug/L	789	237	1	05/05/25 06:12	05/08/25 06:29	7440-09-7	
Sodium, Dissolved	4060	ug/L	250	42.0	1	05/05/25 06:12	05/08/25 06:29	7440-23-5	D9
Total Hardness by 2340B, Dissolved	9.0	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:29		
Zinc, Dissolved	10.4J	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:29	7440-66-6	
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Pace Analytical Services - Green Bay									
Total Suspended Solids	0.92J	mg/L	1.0	0.48	1		05/02/25 14:20		PP,T3
4500S2F Sulfide, Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide	<1.2	mg/L	4.0	1.2	1		05/05/25 12:11		
4500S2F Sulfide, Diss Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide, Dissolved	<1.2	mg/L	4.0	1.2	1		05/05/25 12:26		
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride	5.1	mg/L	2.0	0.59	1		05/13/25 01:43	16887-00-6	
Sulfate	1.0J	mg/L	2.0	0.44	1		05/13/25 01:43	14808-79-8	
300.0 IC Anions, Dissolved									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride, Dissolved	5.0	mg/L	2.0	0.59	1		05/14/25 11:01	16887-00-6	
Sulfate, Dissolved	1.0J	mg/L	2.0	0.44	1		05/14/25 11:01	14808-79-8	

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C9_20250430 Lab ID: 40294442001 Collected: 04/30/25 11:15 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
310.2 Alkalinity									
Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay									
Alkalinity, Total as CaCO3	<7.4	mg/L	25.0	7.4	1		05/02/25 14:03		
310.2 Alkalinity, Dissolved									
Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay									
Alkalinity, Total as CaCO3, Dissolved	7.5J	mg/L	25.0	7.4	1		05/05/25 13:22		M0
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	10.7	mg/L	0.50	0.19	1		05/07/25 15:44		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C1_20250430 Lab ID: 40294442002 Collected: 04/30/25 09:00 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium	5820	ug/L	254	76.2	1	05/05/25 06:43	05/07/25 22:57	7440-70-2	
Copper	10.6	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 22:57	7440-50-8	
Iron	243J	ug/L	250	58.0	1	05/05/25 06:43	05/07/25 22:57	7439-89-6	
Magnesium	2250	ug/L	250	31.2	1	05/05/25 06:43	05/07/25 22:57	7439-95-4	
Manganese	16.1	ug/L	4.0	1.2	1	05/05/25 06:43	05/07/25 22:57	7439-96-5	
Potassium	1090	ug/L	789	237	1	05/05/25 06:43	05/07/25 22:57	7440-09-7	
Sodium	11800	ug/L	250	42.0	1	05/05/25 06:43	05/07/25 22:57	7440-23-5	
Total Hardness by 2340B	23.8	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 22:57		
Zinc	11.0J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 22:57	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	5840	ug/L	254	76.2	1	05/05/25 06:12	05/08/25 06:33	7440-70-2	D9
Copper, Dissolved	9.6	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:33	7440-50-8	
Iron, Dissolved	188J	ug/L	250	58.0	1	05/05/25 06:12	05/08/25 06:33	7439-89-6	
Magnesium, Dissolved	2170	ug/L	250	31.2	1	05/05/25 06:12	05/08/25 06:33	7439-95-4	
Manganese, Dissolved	14.7	ug/L	4.0	1.2	1	05/05/25 06:12	05/08/25 06:33	7439-96-5	
Potassium, Dissolved	1060	ug/L	789	237	1	05/05/25 06:12	05/08/25 06:33	7440-09-7	
Sodium, Dissolved	11100	ug/L	250	42.0	1	05/05/25 06:12	05/08/25 06:33	7440-23-5	
Total Hardness by 2340B, Dissolved	23.5	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:33		
Zinc, Dissolved	10.6J	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:33	7440-66-6	
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Pace Analytical Services - Green Bay									
Total Suspended Solids	<0.48	mg/L	1.0	0.48	1		05/02/25 14:20		PP,T3
4500S2F Sulfide, Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide	<1.2	mg/L	4.0	1.2	1		05/05/25 12:13		
4500S2F Sulfide, Diss Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide, Dissolved	<1.2	mg/L	4.0	1.2	1		05/05/25 12:29		
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride	18.9	mg/L	2.0	0.59	1		05/13/25 10:53	16887-00-6	
Sulfate	2.0	mg/L	2.0	0.44	1		05/13/25 10:53	14808-79-8	
300.0 IC Anions, Dissolved									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride, Dissolved	21.1	mg/L	2.0	0.59	1		05/14/25 11:33	16887-00-6	
Sulfate, Dissolved	2.1	mg/L	2.0	0.44	1		05/14/25 11:33	14808-79-8	

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C1_20250430 Lab ID: 40294442002 Collected: 04/30/25 09:00 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
310.2 Alkalinity	Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO3	10.2J	mg/L	25.0	7.4	1		05/02/25 14:04		
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO3, Dissolved	15.3J	mg/L	25.0	7.4	1		05/05/25 13:30		M0
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Dissolved Organic Carbon	11.2	mg/L	0.50	0.19	1		05/07/25 16:38		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-STM_20250430 Lab ID: 40294442003 Collected: 04/30/25 08:00 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium	6390	ug/L	254	76.2	1	05/05/25 06:43	05/07/25 23:02	7440-70-2	
Copper	9.6	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:02	7440-50-8	
Iron	356	ug/L	250	58.0	1	05/05/25 06:43	05/07/25 23:02	7439-89-6	
Magnesium	2340	ug/L	250	31.2	1	05/05/25 06:43	05/07/25 23:02	7439-95-4	
Manganese	26.3	ug/L	4.0	1.2	1	05/05/25 06:43	05/07/25 23:02	7439-96-5	
Potassium	1340	ug/L	789	237	1	05/05/25 06:43	05/07/25 23:02	7440-09-7	
Sodium	13600	ug/L	250	42.0	1	05/05/25 06:43	05/07/25 23:02	7440-23-5	
Total Hardness by 2340B	25.6	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:02		
Zinc	<10.3	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:02	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	6040	ug/L	254	76.2	1	05/05/25 06:12	05/08/25 06:38	7440-70-2	
Copper, Dissolved	8.6	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:38	7440-50-8	
Iron, Dissolved	173J	ug/L	250	58.0	1	05/05/25 06:12	05/08/25 06:38	7439-89-6	
Magnesium, Dissolved	2270	ug/L	250	31.2	1	05/05/25 06:12	05/08/25 06:38	7439-95-4	
Manganese, Dissolved	14.2	ug/L	4.0	1.2	1	05/05/25 06:12	05/08/25 06:38	7439-96-5	
Potassium, Dissolved	1210	ug/L	789	237	1	05/05/25 06:12	05/08/25 06:38	7440-09-7	
Sodium, Dissolved	12800	ug/L	250	42.0	1	05/05/25 06:12	05/08/25 06:38	7440-23-5	
Total Hardness by 2340B, Dissolved	24.4	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:38		
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:38	7440-66-6	
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Pace Analytical Services - Green Bay									
Total Suspended Solids	2.6	mg/L	1.0	0.48	1		05/02/25 14:20		
4500S2F Sulfide, Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide	<1.2	mg/L	4.0	1.2	1		05/05/25 12:19		
4500S2F Sulfide, Diss Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide, Dissolved	<1.2	mg/L	4.0	1.2	1		05/05/25 12:33		
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride	23.1	mg/L	2.0	0.59	1		05/13/25 11:05	16887-00-6	
Sulfate	2.2	mg/L	2.0	0.44	1		05/13/25 11:05	14808-79-8	
300.0 IC Anions, Dissolved									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride, Dissolved	25.4	mg/L	2.0	0.59	1		05/14/25 11:44	16887-00-6	
Sulfate, Dissolved	2.3	mg/L	2.0	0.44	1		05/14/25 11:44	14808-79-8	

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-STM_20250430 Lab ID: 40294442003 Collected: 04/30/25 08:00 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
310.2 Alkalinity	Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO3	14.1J	mg/L	25.0	7.4	1		05/02/25 14:05		
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO3, Dissolved	15.9J	mg/L	25.0	7.4	1		05/05/25 13:33		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Dissolved Organic Carbon	11.3	mg/L	0.50	0.19	1		05/07/25 17:31		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C5_20250430 **Lab ID:** 40294442004 Collected: 04/30/25 09:30 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium	4390	ug/L	254	76.2	1	05/05/25 06:43	05/07/25 23:07	7440-70-2	
Copper	10.9	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:07	7440-50-8	
Iron	239J	ug/L	250	58.0	1	05/05/25 06:43	05/07/25 23:07	7439-89-6	
Magnesium	1550	ug/L	250	31.2	1	05/05/25 06:43	05/07/25 23:07	7439-95-4	
Manganese	6.3	ug/L	4.0	1.2	1	05/05/25 06:43	05/07/25 23:07	7439-96-5	
Potassium	1040	ug/L	789	237	1	05/05/25 06:43	05/07/25 23:07	7440-09-7	
Sodium	9730	ug/L	250	42.0	1	05/05/25 06:43	05/07/25 23:07	7440-23-5	
Total Hardness by 2340B	17.3	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:07		
Zinc	12.0J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:07	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	4040	ug/L	254	76.2	1	05/05/25 06:12	05/08/25 06:43	7440-70-2	
Copper, Dissolved	9.5	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:43	7440-50-8	
Iron, Dissolved	181J	ug/L	250	58.0	1	05/05/25 06:12	05/08/25 06:43	7439-89-6	
Magnesium, Dissolved	1560	ug/L	250	31.2	1	05/05/25 06:12	05/08/25 06:43	7439-95-4	D9
Manganese, Dissolved	4.9	ug/L	4.0	1.2	1	05/05/25 06:12	05/08/25 06:43	7439-96-5	
Potassium, Dissolved	982	ug/L	789	237	1	05/05/25 06:12	05/08/25 06:43	7440-09-7	
Sodium, Dissolved	9380	ug/L	250	42.0	1	05/05/25 06:12	05/08/25 06:43	7440-23-5	
Total Hardness by 2340B, Dissolved	16.5	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:43		
Zinc, Dissolved	10.9J	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:43	7440-66-6	
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Pace Analytical Services - Green Bay									
Total Suspended Solids	<0.48	mg/L	1.0	0.48	1		05/02/25 14:20		PP,T3
4500S2F Sulfide, Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide	<1.2	mg/L	4.0	1.2	1		05/05/25 12:20		
4500S2F Sulfide,Diss Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide, Dissolved	<1.2	mg/L	4.0	1.2	1		05/05/25 12:34		
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride	14.3	mg/L	2.0	0.59	1		05/13/25 11:18	16887-00-6	
Sulfate	1.8J	mg/L	2.0	0.44	1		05/13/25 11:18	14808-79-8	
300.0 IC Anions, Dissolved									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride, Dissolved	15.8	mg/L	2.0	0.59	1		05/14/25 11:55	16887-00-6	
Sulfate, Dissolved	1.8J	mg/L	2.0	0.44	1		05/14/25 11:55	14808-79-8	

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C5_20250430 Lab ID: 40294442004 Collected: 04/30/25 09:30 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
310.2 Alkalinity	Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO3	10.7J	mg/L	25.0	7.4	1		05/02/25 14:06		
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2 Pace Analytical Services - Green Bay								
Alkalinity, Total as CaCO3, Dissolved	13.0J	mg/L	25.0	7.4	1		05/05/25 13:34		
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C Pace Analytical Services - Green Bay								
Dissolved Organic Carbon	11.4	mg/L	0.50	0.19	1		05/07/25 17:48		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-EB_20250430 Lab ID: 40294442005 Collected: 04/30/25 10:45 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	9.0	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:11	7440-50-8	
Total Hardness by 2340B	41.7	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:11		
Zinc	<10.3	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:11	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	7.9	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:47	7440-50-8	
Total Hardness by 2340B, Dissolved	40.0	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:47		
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:47	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	14.1	mg/L	0.50	0.19	1		05/07/25 18:05		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-NBOUT_20250430 Lab ID: 40294442006 Collected: 04/30/25 10:30 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	8.4	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:16	7440-50-8	
Total Hardness by 2340B	39.9	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:16		
Zinc	10.6J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:16	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	7.4	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:52	7440-50-8	
Total Hardness by 2340B, Dissolved	38.3	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:52		
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:52	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	14.7	mg/L	0.50	0.19	1		05/07/25 18:42		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-NB_20250430 Lab ID: 40294442007 Collected: 04/30/25 10:00 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	9.8	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:29	7440-50-8	
Total Hardness by 2340B	32.7	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:29		
Zinc	21.9J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:29	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	8.8	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 06:56	7440-50-8	
Total Hardness by 2340B, Dissolved	30.8	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 06:56		
Zinc, Dissolved	21.9J	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 06:56	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	16.2	mg/L	0.50	0.19	1		05/07/25 19:00		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-HWY27W_20250430 Lab ID: 40294442008 Collected: 04/30/25 11:30 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	13.7	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:34	7440-50-8	
Total Hardness by 2340B	16.8	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:34		
Zinc	31.3J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:34	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	11.6	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 07:01	7440-50-8	
Total Hardness by 2340B, Dissolved	15.3	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 07:01		
Zinc, Dissolved	26.8J	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 07:01	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	19.7	mg/L	0.50	0.19	1		05/07/25 19:17		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-HWY27E_20250430 Lab ID: 40294442009 Collected: 04/30/25 12:00 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	7.8	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:38	7440-50-8	
Total Hardness by 2340B	9.1	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:38		
Zinc	<10.3	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:38	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	4.1J	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 07:14	7440-50-8	
Total Hardness by 2340B, Dissolved	8.6	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 07:14		
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 07:14	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	10.2	mg/L	0.50	0.19	1		05/07/25 19:35		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: CP-04_20250430 Lab ID: 40294442010 Collected: 04/30/25 08:45 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	7.2	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:43	7440-50-8	
Total Hardness by 2340B	319	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:43		
Zinc	<10.3	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:43	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	6.6	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 07:19	7440-50-8	
Total Hardness by 2340B, Dissolved	315	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 07:19		
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 07:19	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	7.1	mg/L	0.50	0.19	1		05/07/25 19:53		

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C9_20250430_DUP Lab ID: 40294442011 Collected: 04/30/25 11:15 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium	2330	ug/L	254	76.2	1	05/05/25 06:43	05/07/25 23:47	7440-70-2	
Copper	5.2J	ug/L	6.4	1.9	1	05/05/25 06:43	05/07/25 23:47	7440-50-8	
Iron	279	ug/L	250	58.0	1	05/05/25 06:43	05/07/25 23:47	7439-89-6	
Magnesium	792	ug/L	250	31.2	1	05/05/25 06:43	05/07/25 23:47	7439-95-4	
Manganese	10.7	ug/L	4.0	1.2	1	05/05/25 06:43	05/07/25 23:47	7439-96-5	
Potassium	673J	ug/L	789	237	1	05/05/25 06:43	05/07/25 23:47	7440-09-7	
Sodium	4140	ug/L	250	42.0	1	05/05/25 06:43	05/07/25 23:47	7440-23-5	
Total Hardness by 2340B	9.1	mg/L	1.7	0.32	1	05/05/25 06:43	05/07/25 23:47		
Zinc	10.3J	ug/L	34.4	10.3	1	05/05/25 06:43	05/07/25 23:47	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Calcium, Dissolved	2240	ug/L	254	76.2	1	05/05/25 06:12	05/08/25 07:23	7440-70-2	
Copper, Dissolved	5.0J	ug/L	6.4	1.9	1	05/05/25 06:12	05/08/25 07:23	7440-50-8	
Iron, Dissolved	231J	ug/L	250	58.0	1	05/05/25 06:12	05/08/25 07:23	7439-89-6	
Magnesium, Dissolved	784	ug/L	250	31.2	1	05/05/25 06:12	05/08/25 07:23	7439-95-4	
Manganese, Dissolved	9.8	ug/L	4.0	1.2	1	05/05/25 06:12	05/08/25 07:23	7439-96-5	
Potassium, Dissolved	636J	ug/L	789	237	1	05/05/25 06:12	05/08/25 07:23	7440-09-7	
Sodium, Dissolved	3870	ug/L	250	42.0	1	05/05/25 06:12	05/08/25 07:23	7440-23-5	
Total Hardness by 2340B, Dissolved	8.8	mg/L	1.7	0.32	1	05/05/25 06:12	05/08/25 07:23		
Zinc, Dissolved	10.4J	ug/L	34.4	10.3	1	05/05/25 06:12	05/08/25 07:23	7440-66-6	
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Pace Analytical Services - Green Bay									
Total Suspended Solids	<0.48	mg/L	1.0	0.48	1		05/02/25 14:20		PP,T3
4500S2F Sulfide, Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide	<1.2	mg/L	4.0	1.2	1		05/05/25 12:22		
4500S2F Sulfide, Diss Iodometric									
Analytical Method: SM 4500-S F (2000)									
Pace Analytical Services - Green Bay									
Sulfide, Dissolved	<1.2	mg/L	4.0	1.2	1		05/05/25 12:35		
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride	5.3	mg/L	2.0	0.59	1		05/12/25 13:25	16887-00-6	
Sulfate	1.0J	mg/L	2.0	0.44	1		05/12/25 13:25	14808-79-8	
300.0 IC Anions, Dissolved									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Chloride, Dissolved	5.0	mg/L	2.0	0.59	1		05/14/25 17:26	16887-00-6	
Sulfate, Dissolved	1.0J	mg/L	2.0	0.44	1		05/14/25 17:26	14808-79-8	

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ANALYTICAL RESULTS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Sample: SW-C9_20250430_DUP Lab ID: 40294442011 Collected: 04/30/25 11:15 Received: 04/30/25 17:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
310.2 Alkalinity									
Analytical Method: EPA 310.2									
Pace Analytical Services - Green Bay									
Alkalinity, Total as CaCO3	<7.4	mg/L	25.0	7.4	1		05/02/25 14:10		
310.2 Alkalinity, Dissolved									
Analytical Method: EPA 310.2									
Pace Analytical Services - Green Bay									
Alkalinity, Total as CaCO3, Dissolved	<7.4	mg/L	25.0	7.4	1		05/05/25 13:35		
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	11.3	mg/L	0.50	0.19	1		05/07/25 20:12		

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	503621	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020B MET
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40294442001, 40294442002, 40294442003, 40294442004, 40294442005, 40294442006, 40294442007, 40294442008, 40294442009, 40294442010, 40294442011		

METHOD BLANK:	2875893	Matrix:	Water
Associated Lab Samples:	40294442001, 40294442002, 40294442003, 40294442004, 40294442005, 40294442006, 40294442007, 40294442008, 40294442009, 40294442010, 40294442011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	ug/L	<76.2	254	05/07/25 21:41	
Copper	ug/L	<1.9	6.4	05/07/25 21:41	
Iron	ug/L	<58.0	250	05/07/25 21:41	
Magnesium	ug/L	<31.2	250	05/07/25 21:41	
Manganese	ug/L	<1.2	4.0	05/07/25 21:41	
Potassium	ug/L	<237	789	05/07/25 21:41	
Sodium	ug/L	<42.0	250	05/07/25 21:41	
Total Hardness by 2340B	mg/L	<0.32	1.7	05/07/25 21:41	
Zinc	ug/L	<10.3	34.4	05/07/25 21:41	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	ug/L	10000	10100	101	80-120	
Copper	ug/L	250	257	103	80-120	
Iron	ug/L	10000	10300	103	80-120	
Magnesium	ug/L	10000	10800	108	80-120	
Manganese	ug/L	250	260	104	80-120	
Potassium	ug/L	10000	10300	103	80-120	
Sodium	ug/L	10000	10600	106	80-120	
Total Hardness by 2340B	mg/L		69.9			
Zinc	ug/L	250	270	108	80-120	

Parameter	Units	2875895		2875896		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40294551001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	ug/L	680 mg/L	10000	10000	724000	692000	441	125	75-125	4	20 P6
Copper	ug/L	0.43 mg/L	250	250	700	690	106	102	75-125	1	20
Iron	ug/L	3.6 mg/L	10000	10000	13900	13500	103	99	75-125	3	20
Magnesium	ug/L	168 mg/L	10000	10000	186000	179000	177	110	75-125	4	20 P6
Manganese	ug/L	3.8 mg/L	250	250	4160	4050	156	111	75-125	3	20 P6
Potassium	ug/L	29.6 mg/L	10000	10000	41900	40800	123	112	75-125	3	20
Sodium	ug/L	280 mg/L	10000	10000	300000	291000	199	102	75-125	3	20 P6
Total Hardness by 2340B	mg/L	2390			2570	2470				4	20
Zinc	ug/L	0.49 mg/L	250	250	768	743	113	103	75-125	3	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	503603	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020B MET Dissolved
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40294442001, 40294442002, 40294442003, 40294442004, 40294442005, 40294442006, 40294442007, 40294442008, 40294442009, 40294442010, 40294442011		

METHOD BLANK:	2875557	Matrix:	Water
Associated Lab Samples:	40294442001, 40294442002, 40294442003, 40294442004, 40294442005, 40294442006, 40294442007, 40294442008, 40294442009, 40294442010, 40294442011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	<76.2	254	05/08/25 05:26	
Copper, Dissolved	ug/L	<1.9	6.4	05/08/25 05:26	
Iron, Dissolved	ug/L	<58.0	250	05/08/25 05:26	
Magnesium, Dissolved	ug/L	<31.2	250	05/08/25 05:26	
Manganese, Dissolved	ug/L	<1.2	4.0	05/08/25 05:26	
Potassium, Dissolved	ug/L	<237	789	05/08/25 05:26	
Sodium, Dissolved	ug/L	<42.0	250	05/08/25 05:26	
Total Hardness by 2340B, Dissolved	mg/L	<0.32	1.7	05/08/25 05:26	
Zinc, Dissolved	ug/L	<10.3	34.4	05/08/25 05:26	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	10000	10300	103	80-120	
Copper, Dissolved	ug/L	250	247	99	80-120	
Iron, Dissolved	ug/L	10000	9980	100	80-120	
Magnesium, Dissolved	ug/L	10000	10100	101	80-120	
Manganese, Dissolved	ug/L	250	252	101	80-120	
Potassium, Dissolved	ug/L	10000	9960	100	80-120	
Sodium, Dissolved	ug/L	10000	9670	97	80-120	
Total Hardness by 2340B, Dissolved	mg/L		67.3			
Zinc, Dissolved	ug/L	250	255	102	80-120	

Parameter	Units	2875559		2875560		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40294432018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium, Dissolved	ug/L	85800	10000	10000	93200	96800	74	111	75-125	4	20 P6
Copper, Dissolved	ug/L	2.8J	250	250	235	237	93	94	75-125	1	20
Iron, Dissolved	ug/L	<58.0	10000	10000	9700	9780	97	98	75-125	1	20
Magnesium, Dissolved	ug/L	38600	10000	10000	46100	48100	75	95	75-125	4	20
Manganese, Dissolved	ug/L	2.9J	250	250	247	247	98	98	75-125	0	20
Potassium, Dissolved	ug/L	2130	10000	10000	11600	11800	95	97	75-125	2	20
Sodium, Dissolved	ug/L	5780	10000	10000	14800	15300	90	95	75-125	4	20

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2875559		2875560		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40294432018 Result	MS Spike Conc.	MSD Spike Conc.									
Total Hardness by 2340B, Dissolved	mg/L	373				422	440					4	20
Zinc, Dissolved	ug/L	15.3J	250	250		264	267	99	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	503574	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

METHOD BLANK: 2875323 Matrix: Water

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<0.48	1.0	05/02/25 14:20	

LABORATORY CONTROL SAMPLE: 2875324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	114	114	80-120	

SAMPLE DUPLICATE: 2875325

Parameter	Units	40294474001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	41.6	45.6	9	10	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	503675	Analysis Method:	SM 4500-S F (2000)
QC Batch Method:	SM 4500-S F (2000)	Analysis Description:	4500S2F Sulfide, Dissolved Iodometric
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

METHOD BLANK: 2876052 Matrix: Water
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<1.2	4.0	05/05/25 12:23	

LABORATORY CONTROL SAMPLE: 2876053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	46.8	42.4	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2876054 2876055

Parameter	Units	40294442002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	<1.2	46.8	46.8	44.8	45.2	95	96	80-120	1	10	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	503673	Analysis Method:	SM 4500-S F (2000)
QC Batch Method:	SM 4500-S F (2000)	Analysis Description:	4500S2F Sulfide, Iodometric
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

METHOD BLANK: 2876047 Matrix: Water
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<1.2	4.0	05/05/25 11:58	

LABORATORY CONTROL SAMPLE: 2876048

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	46.8	44.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2876049 2876050

Parameter	Units	2876049		2876050		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	<1.2	46.8	45.2	44.4	96	94	80-120	2	10	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	504679	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions,Dissolved
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

METHOD BLANK: 2880944 Matrix: Water
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.59	2.0	05/14/25 10:39	
Sulfate	mg/L	<0.44	2.0	05/14/25 10:39	

LABORATORY CONTROL SAMPLE: 2880945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.4	102	90-110	
Sulfate	mg/L	20	20.9	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2880946 2880947

Parameter	Units	40294442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.0	20	20	25.9	26.3	104	106	90-110	2	15	
Sulfate	mg/L	1.0J	20	20	21.7	22.3	104	106	90-110	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2880948 2880949

Parameter	Units	40294672003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.4	40	40	59.8	59.6	103	103	90-110	0	15	
Sulfate	mg/L	12.6	40	40	55.8	55.9	108	108	90-110	0	15	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch: 504240

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442011

METHOD BLANK: 2878774

Matrix: Water

Associated Lab Samples: 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.59	2.0	05/09/25 07:36	
Sulfate	mg/L	<0.44	2.0	05/09/25 07:36	

LABORATORY CONTROL SAMPLE: 2878775

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.1	106	90-110	
Sulfate	mg/L	20	21.6	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2878776 2878777

Parameter	Units	40294227005		2878776		2878777		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Chloride	mg/L	55.4	100	100	160	158	105	103	90-110	1	15
Sulfate	mg/L	327	400	400	760	753	108	106	90-110	1	15

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2878778 2878779

Parameter	Units	40294228001		2878778		2878779		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Chloride	mg/L	397	400	400	789	787	98	98	90-110	0	15
Sulfate	mg/L	119	400	400	554	550	109	108	90-110	1	15

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	504241	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004

METHOD BLANK: 2878780 Matrix: Water
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.59	2.0	05/12/25 20:39	
Sulfate	mg/L	<0.44	2.0	05/12/25 20:39	

LABORATORY CONTROL SAMPLE: 2878781

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.9	104	90-110	
Sulfate	mg/L	20	21.4	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2878782 2878783

Parameter	Units	40294301002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12700	10000	10000	22900	23000	102	103	90-110	0	15	
Sulfate	mg/L	1440	10000	10000	11700	11600	103	102	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2878784 2878785

Parameter	Units	40294399001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	156	400	400	582	579	107	106	90-110	1	15	
Sulfate	mg/L	497	400	400	933	912	109	104	90-110	2	15	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch:	503500	Analysis Method:	EPA 310.2
QC Batch Method:	EPA 310.2	Analysis Description:	310.2 Alkalinity
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

METHOD BLANK: 2874919 Matrix: Water
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.4	25.0	05/02/25 13:48	

LABORATORY CONTROL SAMPLE: 2874920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	92.7	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2874921 2874922

Parameter	Units	40294271001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	449	200	200	641	649	96	100	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2874923 2874924

Parameter	Units	40294442011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	<7.4	100	100	105	103	103	100	90-110	2	20	

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch: 503511	Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2	Analysis Description: 310.2 Alkalinity, Dissolved
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40294442001

METHOD BLANK: 2874986 Matrix: Water

Associated Lab Samples: 40294442001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	<7.4	25.0	05/05/25 12:46	

LABORATORY CONTROL SAMPLE: 2874987

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	100	109	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2874988 2874989

Parameter	Units	40294275007		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	255	100	100	360	355	104	99	90-110	1	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2874990 2874991

Parameter	Units	40294442001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	7.5J	100	100	120	117	113	110	90-110	2	20 M0		

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch: 503512 Analysis Method: EPA 310.2
 QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity, Dissolved
 Laboratory: Pace Analytical Services - Green Bay
 Associated Lab Samples: 40294442002, 40294442003, 40294442004, 40294442011

METHOD BLANK: 2874992 Matrix: Water
 Associated Lab Samples: 40294442002, 40294442003, 40294442004, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	<7.4	25.0	05/05/25 13:28	

LABORATORY CONTROL SAMPLE: 2874993

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	100	105	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2874994 2874995

Parameter	Units	40294442002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	15.3J	100	100	131	128	115	113	90-110	2	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2875901 2875902

Parameter	Units	40294561003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Alkalinity, Total as CaCO ₃ , Dissolved	mg/L	430	200	200	656	650	113	110	90-110	1	20	M0

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QUALITY CONTROL DATA

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

QC Batch: 503947 Analysis Method: SM 5310C
 QC Batch Method: SM 5310C Analysis Description: 5310C Dissolved Organic Carbon
 Laboratory: Pace Analytical Services - Green Bay
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442005, 40294442006, 40294442007, 40294442008, 40294442009, 40294442010, 40294442011

METHOD BLANK: 2877112 Matrix: Water
 Associated Lab Samples: 40294442001, 40294442002, 40294442003, 40294442004, 40294442005, 40294442006, 40294442007, 40294442008, 40294442009, 40294442010, 40294442011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	<0.19	0.50	05/07/25 14:54	

LABORATORY CONTROL SAMPLE: 2877113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	12.5	11.8	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2877114 2877115

Parameter	Units	2877114		2877115		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40294442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Dissolved Organic Carbon	mg/L	10.7	6	6	17.1	17.1	105	107	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2877116 2877117

Parameter	Units	2877116		2877117		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40294442002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Dissolved Organic Carbon	mg/L	11.2	6	6	17.1	17.1	98	98	80-120	0	20		

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QUALIFIERS

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D9 Dissolved result is greater than the total. Data is within laboratory control limits.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

PP The mass of dried residue obtained did not meet the test method requirements based on volume used.

T3 Insufficient sample received from client to perform the analysis per EPA method requirements.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 17f777.25 FLAMBEAU

Pace Project No.: 40294442

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40294442001	SW-C9_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442002	SW-C1_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442003	SW-STM_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442004	SW-C5_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442005	SW-EB_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442006	SW-NBOUT_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442007	SW-NB_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442008	SW-HWY27W_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442009	SW-HWY27E_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442010	CP-04_20250430	EPA 3010A	503621	EPA 6020B	503773
40294442011	SW-C9_20250430_DUP	EPA 3010A	503621	EPA 6020B	503773
40294442001	SW-C9_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442002	SW-C1_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442003	SW-STM_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442004	SW-C5_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442005	SW-EB_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442006	SW-NBOUT_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442007	SW-NB_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442008	SW-HWY27W_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442009	SW-HWY27E_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442010	CP-04_20250430	EPA 3010A	503603	EPA 6020B	503761
40294442011	SW-C9_20250430_DUP	EPA 3010A	503603	EPA 6020B	503761
40294442001	SW-C9_20250430	SM 2540D	503574		
40294442002	SW-C1_20250430	SM 2540D	503574		
40294442003	SW-STM_20250430	SM 2540D	503574		
40294442004	SW-C5_20250430	SM 2540D	503574		
40294442011	SW-C9_20250430_DUP	SM 2540D	503574		
40294442001	SW-C9_20250430	SM 4500-S F (2000)	503673		
40294442002	SW-C1_20250430	SM 4500-S F (2000)	503673		
40294442003	SW-STM_20250430	SM 4500-S F (2000)	503673		
40294442004	SW-C5_20250430	SM 4500-S F (2000)	503673		
40294442011	SW-C9_20250430_DUP	SM 4500-S F (2000)	503673		
40294442001	SW-C9_20250430	SM 4500-S F (2000)	503675		
40294442002	SW-C1_20250430	SM 4500-S F (2000)	503675		
40294442003	SW-STM_20250430	SM 4500-S F (2000)	503675		
40294442004	SW-C5_20250430	SM 4500-S F (2000)	503675		
40294442011	SW-C9_20250430_DUP	SM 4500-S F (2000)	503675		
40294442001	SW-C9_20250430	EPA 300.0	504241		
40294442002	SW-C1_20250430	EPA 300.0	504241		
40294442003	SW-STM_20250430	EPA 300.0	504241		
40294442004	SW-C5_20250430	EPA 300.0	504241		
40294442011	SW-C9_20250430_DUP	EPA 300.0	504240		
40294442001	SW-C9_20250430	EPA 300.0	504679		
40294442002	SW-C1_20250430	EPA 300.0	504679		
40294442003	SW-STM_20250430	EPA 300.0	504679		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 17f777.25 FLAMBEAU
 Pace Project No.: 40294442

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40294442004	SW-C5_20250430	EPA 300.0	504679		
40294442011	SW-C9_20250430_DUP	EPA 300.0	504679		
40294442001	SW-C9_20250430	EPA 310.2	503500		
40294442002	SW-C1_20250430	EPA 310.2	503500		
40294442003	SW-STM_20250430	EPA 310.2	503500		
40294442004	SW-C5_20250430	EPA 310.2	503500		
40294442011	SW-C9_20250430_DUP	EPA 310.2	503500		
40294442001	SW-C9_20250430	EPA 310.2	503511		
40294442002	SW-C1_20250430	EPA 310.2	503512		
40294442003	SW-STM_20250430	EPA 310.2	503512		
40294442004	SW-C5_20250430	EPA 310.2	503512		
40294442011	SW-C9_20250430_DUP	EPA 310.2	503512		
40294442001	SW-C9_20250430	SM 5310C	503947		
40294442002	SW-C1_20250430	SM 5310C	503947		
40294442003	SW-STM_20250430	SM 5310C	503947		
40294442004	SW-C5_20250430	SM 5310C	503947		
40294442005	SW-EB_20250430	SM 5310C	503947		
40294442006	SW-NBOUT_20250430	SM 5310C	503947		
40294442007	SW-NB_20250430	SM 5310C	503947		
40294442008	SW-HWY27W_20250430	SM 5310C	503947		
40294442009	SW-HWY27E_20250430	SM 5310C	503947		
40294442010	CP-04_20250430	SM 5310C	503947		
40294442011	SW-C9_20250430_DUP	SM 5310C	503947		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: of 1 of 1
Cooler # of

COC # **FMC-2025_0430**

40294442

Required Ship to Lab:		Required Project Information:			Required Invoice Information:																								
Lab Name: Pace Analytical Services	*Facility ID #: Flambeau Mine Co.	Send Invoice to: Invoices@riotinto.com; Leland.roberts@riotinto.com; jacob.wolff@riotinto.com	TAT: Standard 10 day	X	Rush	Mark One																							
Address: 1241 Bellevue Street - Suite 9, Green Bay, WI	*Task Code # FMC-2025_	Address: PO Box 952005 / 4700 Daybreak Parkway	If Rush, Date due																										
Lab PM: Tod Noltemeyer	City: Ladysmith State: WI	17F777.25	City/State: South Jordan, UT 84009	Ph #: 920-497-2500	QC level Required: Standard	X	Special	Mark one																					
Phone/Fax: (608) 232-3300	Project Contact: Mark Ciardelli	Send EDD to: Nick Glander	Lab Project ID (lab use)																										
Lab PM email: Tod.Noltemeyer@pacelabs.com	Phone/Fax: 920-496-6656	CC Hardcopy report to	Requested Analyses																										
Purchase Order No. 3106689112	Email: Mark.Ciardelli@foth.com	CC electronic copy report to: nick.glander@foth.com	<table border="1"> <tr> <th colspan="10">Filtered (Y/N)</th> </tr> <tr> <td>N</td><td>Y</td><td>N</td><td>Y</td><td>Y</td><td>N</td><td>N</td><td>Y</td><td>N</td><td>Y</td> </tr> </table>							Filtered (Y/N)										N	Y	N	Y	Y	N	N	Y	N	Y
Filtered (Y/N)																													
N	Y	N	Y	Y	N	N	Y	N	Y																				

ITEM #	*SAMPLE ID Samples IDs MUST BE UNIQUE	Valid Matrix Codes		*MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Preservatives										Total Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness	Dissolved Ca, Cu, Fe, Mg, Mn, K, Na, Zn, Hardness	Total Alkalinity, Cl, Sulfate	Dissolved Alkalinity, Cl, Sulfate	DOC	TSS	Total Sulfide	Dissolved Sulfide	Total Cu, Zn, Hardness	Dis. Cu, Zn, Hardness	Comments/ Lab Sample I.D.
		MATRIX	MATRIX						Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Zinc Acetate & NaOH													
1	SW-C9_20250430	WS	G		G	4-30-25	1115	9	4	1	2															001			
2	SW-C1_20250430	WS	G		G		0900	9	4	1	2															002			
3	SW-STM_20250430	WS	G		G		0800	9	4	1	2															003			
4	SW-C5_20250430	WS	G		G		0930	9	4	1	2															004			
5	SW-EB-20250430	WS	G		G		1045	2		1	1								X					X	X	005			
6	SW-NBOUT_20250430	WS	G		G		1030	2		1	1								X					X	X	006			
7	SW-NB_20250430	WS	G		G		1000	2		1	1								X					X	X	007			
8	SW-HWY27W_20250430	WS	G		G		1130	2		1	1								X					X	X	008			
9	SW-HWY27E_20250430	WS	G		G		1200	2		1	1								X					X	X	009			
10	CP-04_20250430	WS	G		G		0845	2		1	1								X					X	X	010			
11	SW-C9_20250430 - DUP	WS	G		G		1115	9		1	1								X	X	X	X	X	X	X	011			

Additional Comments/Special Instructions:	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions		
	<i>[Signature]</i> FOTH	4/30/25	1750	<i>[Signature]</i> Pace	4/30/25	1750	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
Include Equis EDD's *Required information for electronic data deliverable.	SHIPPING METHOD (mark as appropriate)		SAMPLER NAME AND SIGNATURE						
	UPS (COURIER) FEDEX	PRINT Name of SAMPLER:	<i>JAMES V. ENGELHARDT</i>						
	US MAIL	SIGNATURE of SAMPLER:	DATE Signed	Time:					
		<i>[Signature]</i>	4-30-25	1750					

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Both

Courier: CS Logistics Fed Ex Speedee UPS Purple Mountain
 Client Pace Other: _____

WO# : **40294442**



40294442

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used SR-142 Type of Ice: Wet Blue Dry None Meltwater Only

Cooler Temperature Uncorr: 3.5, 3.0 / Corr: 4.0, 3.5

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Person examining contents:	
Date: <u>3/1/25</u>	Initials: <u>ML</u>
Labeled By Initials: <u>ML</u>	

Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace	
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>	<u>006-1515 01-11-NO3 bottles has no dup in ID on label but on cap it does mtt 5/1/25</u>
Trip Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

Client Notification/ Resolution: _____ If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir



July 02, 2025

Nick Glander
Foth Infrastructure & Environment, LLC
2121 Innovation Court
Suite 300
De Pere, WI 54115

RE: Project: FMC-2025_0618
Pace Project No.: 40297106

Dear Nick Glander:

Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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

Sincerely,

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: MARK CIARDELLI, Foth Infrastructure & Environment, LLC
Krystal Clark, Foth Infrastructure & Environment
SHARON KOZICKI, Foth Infrastructure & Environment, LLC
Claudia Pineda, Rio Tinto
Leland Roberts, Rio Tinto



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: FMC-2025_0618

Pace Project No.: 40297106

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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SAMPLE SUMMARY

Project: FMC-2025_0618

Pace Project No.: 40297106

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40297106001	SW-C9_20250618	Water	06/18/25 08:00	06/19/25 13:40
40297106002	SW-C1_20250618	Water	06/18/25 09:30	06/19/25 13:40
40297106003	SW-STM_20250618	Water	06/18/25 12:00	06/19/25 13:40
40297106004	SW-C5_20250618	Water	06/18/25 08:45	06/19/25 13:40
40297106005	SW-EB_20250618	Water	06/18/25 10:00	06/19/25 13:40
40297106006	SW-NBOUT_20250618	Water	06/18/25 10:15	06/19/25 13:40
40297106007	SW-NB_20250618	Water	06/18/25 11:00	06/19/25 13:40
40297106008	SW-HWY27W_20250618	Water	06/18/25 08:30	06/19/25 13:40
40297106009	SW-HWY27E_20250618	Water	06/18/25 08:15	06/19/25 13:40
40297106010	SW-C1_20250618_DUP	Water	06/18/25 09:30	06/19/25 13:40

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SAMPLE ANALYTE COUNT

Project: FMC-2025_0618

Pace Project No.: 40297106

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40297106001	SW-C9_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106002	SW-C1_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106003	SW-STM_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106004	SW-C5_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106005	SW-EB_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106006	SW-NBOUT_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106007	SW-NB_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106008	SW-HWY27W_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106009	SW-HWY27E_20250618	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1
40297106010	SW-C1_20250618_DUP	EPA 6020B	TXW	3
		EPA 6020B	TXW	3
		SM 5310C	TJJ	1

PASI-G = Pace Analytical Services - Green Bay

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PROJECT NARRATIVE

Project: FMC-2025_0618
Pace Project No.: 40297106

Method: EPA 6020B
Description: 6020B MET ICPMS
Client: Foth Infrastructure & Environment
Date: July 02, 2025

General Information:

10 samples were analyzed for EPA 6020B by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: FMC-2025_0618

Pace Project No.: 40297106

Method: EPA 6020B

Description: 6020B MET ICPMS, Dissolved

Client: Foth Infrastructure & Environment

Date: July 02, 2025

General Information:

10 samples were analyzed for EPA 6020B by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: FMC-2025_0618

Pace Project No.: 40297106

Method: SM 5310C

Description: 5310C Dissolved Organic Carbon

Client: Foth Infrastructure & Environment

Date: July 02, 2025

General Information:

10 samples were analyzed for SM 5310C by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-C9_20250618 **Lab ID:** 40297106001 Collected: 06/18/25 08:00 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	10.7	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 15:35	7440-50-8	
Total Hardness by 2340B	15.9	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 15:35		
Zinc	29.1J	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 15:35	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	8.0	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 13:47	7440-50-8	
Total Hardness by 2340B, Dissolved	14.2	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 13:47		
Zinc, Dissolved	20.0J	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 13:47	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	14.3	mg/L	1.0	0.38	2		06/27/25 18:42		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-C1_20250618 **Lab ID:** 40297106002 Collected: 06/18/25 09:30 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	12.3	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:02	7440-50-8	
Total Hardness by 2340B	59.4	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:02		
Zinc	10.6J	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:02	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	10.8	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:14	7440-50-8	
Total Hardness by 2340B, Dissolved	61.7	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:14		D9
Zinc, Dissolved	11.0J	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:14	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	14.2	mg/L	0.50	0.19	1		06/27/25 19:34		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-STM_20250618 Lab ID: 40297106003 Collected: 06/18/25 12:00 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	8.3	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:11	7440-50-8	
Total Hardness by 2340B	47.6	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:11		
Zinc	<10.3	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:11	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	7.6	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:23	7440-50-8	
Total Hardness by 2340B, Dissolved	48.3	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:23		D9
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:23	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	12.7	mg/L	0.50	0.19	1		06/27/25 19:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-C5_20250618 Lab ID: 40297106004 Collected: 06/18/25 08:45 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	12.5	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:15	7440-50-8	
Total Hardness by 2340B	31.3	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:15		
Zinc	12.1J	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:15	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	9.8	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:28	7440-50-8	
Total Hardness by 2340B, Dissolved	31.3	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:28		
Zinc, Dissolved	11.4J	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:28	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	15.6	mg/L	0.50	0.19	1		06/27/25 20:06		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-EB_20250618 Lab ID: 40297106005 Collected: 06/18/25 10:00 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	4.7J	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:20	7440-50-8	
Total Hardness by 2340B	71.9	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:20		
Zinc	<10.3	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:20	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	3.5J	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:32	7440-50-8	
Total Hardness by 2340B, Dissolved	71.5	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:32		
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:32	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	14.7	mg/L	0.50	0.19	1		06/27/25 20:24		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-NBOUT_20250618 Lab ID: 40297106006 Collected: 06/18/25 10:15 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	3.8J	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:24	7440-50-8	
Total Hardness by 2340B	65.0	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:24		
Zinc	<10.3	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:24	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	3.4J	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:37	7440-50-8	
Total Hardness by 2340B, Dissolved	66.1	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:37		D9
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:37	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	16.3	mg/L	0.50	0.19	1		06/27/25 20:42		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: **SW-NB_20250618** Lab ID: **40297106007** Collected: 06/18/25 11:00 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	6.4	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:29	7440-50-8	
Total Hardness by 2340B	46.2	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:29		
Zinc	20.6J	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:29	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	5.6J	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:41	7440-50-8	
Total Hardness by 2340B, Dissolved	45.7	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:41		
Zinc, Dissolved	19.0J	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:41	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	18.5	mg/L	0.50	0.19	1		06/27/25 21:00		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-HWY27W_20250618 Lab ID: 40297106008 Collected: 06/18/25 08:30 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	12.1	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:33	7440-50-8	
Total Hardness by 2340B	25.4	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:33		
Zinc	38.4	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:33	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	9.3	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:46	7440-50-8	
Total Hardness by 2340B, Dissolved	26.1	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:46		D9
Zinc, Dissolved	37.0	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:46	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	31.7	mg/L	3.0	1.1	6		06/30/25 03:56		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-HWY27E_20250618 Lab ID: 40297106009 Collected: 06/18/25 08:15 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	8.6	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:38	7440-50-8	
Total Hardness by 2340B	12.4	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:38		
Zinc	12.2J	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:38	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	6.6	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:50	7440-50-8	
Total Hardness by 2340B, Dissolved	12.5	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:50		D9
Zinc, Dissolved	11.7J	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:50	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	9.9	mg/L	0.50	0.19	1		06/27/25 21:57		

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ANALYTICAL RESULTS

Project: FMC-2025_0618

Pace Project No.: 40297106

Sample: SW-C1_20250618_DUP Lab ID: 40297106010 Collected: 06/18/25 09:30 Received: 06/19/25 13:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper	11.6	ug/L	6.4	1.9	1	06/23/25 05:00	06/25/25 16:42	7440-50-8	
Total Hardness by 2340B	54.9	mg/L	1.7	0.32	1	06/23/25 05:00	06/25/25 16:42		
Zinc	10.5J	ug/L	34.4	10.3	1	06/23/25 05:00	06/25/25 16:42	7440-66-6	
6020B MET ICPMS, Dissolved									
Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Pace Analytical Services - Green Bay									
Copper, Dissolved	9.8	ug/L	6.4	1.9	1	06/23/25 04:59	06/25/25 14:55	7440-50-8	
Total Hardness by 2340B, Dissolved	58.5	mg/L	1.7	0.32	1	06/23/25 04:59	06/25/25 14:55		D9
Zinc, Dissolved	<10.3	ug/L	34.4	10.3	1	06/23/25 04:59	06/25/25 14:55	7440-66-6	
5310C Dissolved Organic Carbon									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Dissolved Organic Carbon	14.4	mg/L	0.50	0.19	1		06/27/25 22:15		

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QUALITY CONTROL DATA

Project: FMC-2025_0618

Pace Project No.: 40297106

QC Batch:	508164	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020B MET
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

METHOD BLANK:	2901411	Matrix:	Water
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<1.9	6.4	06/25/25 15:08	
Total Hardness by 2340B	mg/L	<0.32	1.7	06/25/25 15:08	
Zinc	ug/L	<10.3	34.4	06/25/25 15:08	

LABORATORY CONTROL SAMPLE:	2901412					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	250	236	95	80-120	
Total Hardness by 2340B	mg/L		64.4			
Zinc	ug/L	250	238	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	2901439			2901440								
Parameter	Units	40297106001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	10.7	250	250	259	244	99	93	75-125	6	20	
Total Hardness by 2340B	mg/L	15.9			83.6	79.0				6	20	
Zinc	ug/L	29.1J	250	250	276	257	99	91	75-125	7	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: FMC-2025_0618

Pace Project No.: 40297106

QC Batch:	508165	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3010A	Analysis Description:	6020B MET Dissolved
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

METHOD BLANK: 2901417 Matrix: Water
 Associated Lab Samples: 40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper, Dissolved	ug/L	<1.9	6.4	06/25/25 13:20	
Total Hardness by 2340B, Dissolved	mg/L	<0.32	1.7	06/25/25 13:20	
Zinc, Dissolved	ug/L	<10.3	34.4	06/25/25 13:20	

LABORATORY CONTROL SAMPLE: 2901418

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper, Dissolved	ug/L	250	242	97	80-120	
Total Hardness by 2340B, Dissolved	mg/L		66.1			
Zinc, Dissolved	ug/L	250	241	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2901419 2901420

Parameter	Units	40297106001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper, Dissolved	ug/L	8.0	250	250	244	247	94	96	75-125	1	20	
Total Hardness by 2340B, Dissolved	mg/L	14.2			79.4	80.1				1	20	
Zinc, Dissolved	ug/L	20.0J	250	250	256	262	94	97	75-125	2	20	

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QUALITY CONTROL DATA

Project: FMC-2025_0618

Pace Project No.: 40297106

QC Batch:	508715	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Dissolved Organic Carbon
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

METHOD BLANK:	2904675	Matrix:	Water
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	<0.19	0.50	06/27/25 14:24	

METHOD BLANK:	2904681	Matrix:	Water
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	<0.19	0.50	06/27/25 14:53	

METHOD BLANK:	2904712	Matrix:	Water
Associated Lab Samples:	40297106001, 40297106002, 40297106003, 40297106004, 40297106005, 40297106006, 40297106007, 40297106008, 40297106009, 40297106010		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	<0.19	0.50	06/27/25 17:24	

LABORATORY CONTROL SAMPLE:	2904676					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	12.5	11.9	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	2904677			2904678								
Parameter	Units	92802874001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	0.55	6	6	6.2	6.3	94	96	80-120	2	20	

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QUALITY CONTROL DATA

Project: FMC-2025_0618

Pace Project No.: 40297106

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2904679												2904680	
Parameter	Units	40297106001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual	
			Spike Conc.	Spike Conc.							RPD		
Dissolved Organic Carbon	mg/L	14.3	12	12	26.9	26.8	105	104	80-120	0	20		

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QUALIFIERS

Project: FMC-2025_0618

Pace Project No.: 40297106

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D9 Dissolved result is greater than the total. Data is within laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC-2025_0618

Pace Project No.: 40297106

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40297106001	SW-C9_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106002	SW-C1_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106003	SW-STM_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106004	SW-C5_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106005	SW-EB_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106006	SW-NBOUT_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106007	SW-NB_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106008	SW-HWY27W_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106009	SW-HWY27E_20250618	EPA 3010A	508164	EPA 6020B	508281
40297106010	SW-C1_20250618_DUP	EPA 3010A	508164	EPA 6020B	508281
40297106001	SW-C9_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106002	SW-C1_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106003	SW-STM_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106004	SW-C5_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106005	SW-EB_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106006	SW-NBOUT_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106007	SW-NB_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106008	SW-HWY27W_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106009	SW-HWY27E_20250618	EPA 3010A	508165	EPA 6020B	508284
40297106010	SW-C1_20250618_DUP	EPA 3010A	508165	EPA 6020B	508284
40297106001	SW-C9_20250618	SM 5310C	508715		
40297106002	SW-C1_20250618	SM 5310C	508715		
40297106003	SW-STM_20250618	SM 5310C	508715		
40297106004	SW-C5_20250618	SM 5310C	508715		
40297106005	SW-EB_20250618	SM 5310C	508715		
40297106006	SW-NBOUT_20250618	SM 5310C	508715		
40297106007	SW-NB_20250618	SM 5310C	508715		
40297106008	SW-HWY27W_20250618	SM 5310C	508715		
40297106009	SW-HWY27E_20250618	SM 5310C	508715		
40297106010	SW-C1_20250618_DUP	SM 5310C	508715		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Foth

Courier: CS Logistics Fed Ex Speedee UPS Purple Mountain
 Client Pace Other: _____

WO#: 40297106



Tracking #: _____
 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no
 Custody Seal on Samples Present: yes no Seals intact: yes no
 Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used SR-142 Type of Ice: Wet Blue Dry None Meltwater Only

Cooler Temperature Uncorr: 0.0 / Corr: 0.5

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
 Date: 6/19/08 / Initials: EL
 Labeled By Initials: ED

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No		Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.
Sufficient Volume:			8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		9.
Correct Type: <u>Pace Green Bay, Pace IR, Non-Pace</u>			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SW</u>			
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: _____
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

If checked, see attached form for additional comments

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir