# Memorandum

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August 30, 2023

TO: Molly Long, Wisconsin Department of Natural Resources (WDNR)

CC: Leland Roberts, Rio Tinto; Laura Vedral, Rio Tinto; Steve Donohue, Foth Infrastructure & Environment, LLC (Foth); Bill Adams, Red Cap Consulting; Bob Gensemer, GEI Consultants, Inc. (GEI); Jennifer Lynch, GEI; Ashley Romero, GEI

FR: Nick Glander, Mark Ciardelli, and Sharon Kozicki, Foth

RE: Stream C Spring 2023 Sampling Results Summary
Reclaimed Flambeau Mine, Ladysmith, Wisconsin

## 1. Introduction

Foth and GEI prepared a plan to evaluate Stream C, located on the Reclaimed Flambeau Mine site in Ladysmith, WI. The *Stream C Evaluation Work Plan – Revision 1*, (*Work Plan*) (Foth and GEI, 2023) was submitted to the Department on July 14, 2023.

This memorandum presents the activities and results from the spring 2023 Stream C sampling.

## 2. Scope of Work

As outlined in the *Work Plan* (Foth and GEI, 2023), the spring scope of work included the following:

- Water chemistry
- Flow monitoring

### 2.1 Water Chemistry

Water quality monitoring was completed at ten locations during qualifying flow events. The trigger for a qualifying storm event was defined as at least 0.5 inches of rainfall at the Site with visible surface water flow at the *Work Plan* locations. The monitoring locations are shown on Figure 2, and the analytical results are summarized in Table 1. One duplicate sample was collected during each sampling event.

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 to minimize the potential for sediment disturbance and cross-contamination between samples following the guidance outlined in the *Work Plan* (Foth and GEI, 2023).

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

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

## 2.2 Flow

Flow monitoring consisted of visual observations and flow rate determination. Visual observations were documented using a combination of field notes, pictures, and videos.

When there was flow, flow rate was manually monitored near the mouth of Stream C with a hand-held velocimeter unit, which records velocity and depth at multiple locations at a stream cross-section and automatically calculates flow rate. The location of flow monitoring near the mouth of Stream C, at SW-STM, was established during the first event based on field observations, and the same location was used during subsequent flow monitoring. Its location is shown on Figure 2.

Flow rates were monitored with a hand-held velocimeter unit at the Hwy 27 and Copper Park Lane culverts until dedicated pressure transducers were installed to continuously monitor the pressure/flow. The pressure transducers were installed on May 17, 2023, in the existing staff gauge brackets at the two culverts and 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 results are presented in the next section.

# 3. Spring 2023 Stream C Activities

## 3.1 Initial Spring Event

On April 19, 2023, with several inches of snow still present, a qualifying event occurred that totaled 0.53 inches of rain. The sampling event began around 11:00 a.m. Field parameters and surface water samples were collected from the ten sample locations throughout the day. The field forms are provided in Attachment 1. The photographic log is provided in Attachment 2.

Flow was noted at the beginning of the sampling event. Velocity measurements were taken at the upstream end of the two culverts and at sample location SW-STM near the confluence of the Flambeau River. This data is provided on the cover page of the field forms.

The surface water samples were collected and submitted to Pace for laboratory analysis. During processing of the samples at the laboratory, Pace contacted Foth to confirm the sample collection procedure as the chain-of-custody indicated dissolved constituents were not field-filtered. Upon discussions with the field sampler and a review of the sampling procedure, it was determined that the chain-of-custody was accurate; therefore, Foth removed the dissolved set from the analysis. As the samples had not been field-filtered and had already been preserved, they could not be lab-filtered. Foth decided to analyze the total constituents to gather as much usable data as possible for the study. The analytical summary is provided in Table 1.

The team concluded that the sampling event should be redone as soon as possible to collect a complete analytical suite of constituents, as stated in the *Work Plan*.

## 3.2 Initial Spring Sampling Event – Revisit

On April 29, 2023, another qualifying rain event triggered the re-visit sampling event with precipitation recorded at 0.5 inches of rain. The rain occurred overnight, and the sampling began the following morning. Field parameters and surface water samples were collected from the ten sample locations. The field forms from the April 29 sampling event are provided as Attachment 3. The photographic log from the April 29 event is provided as Attachment 4. The analytical summary is provided in Table 1.

The collected samples were delivered to Pace Laboratory for analysis. The analytical reports for both events are provided as Attachment 5.

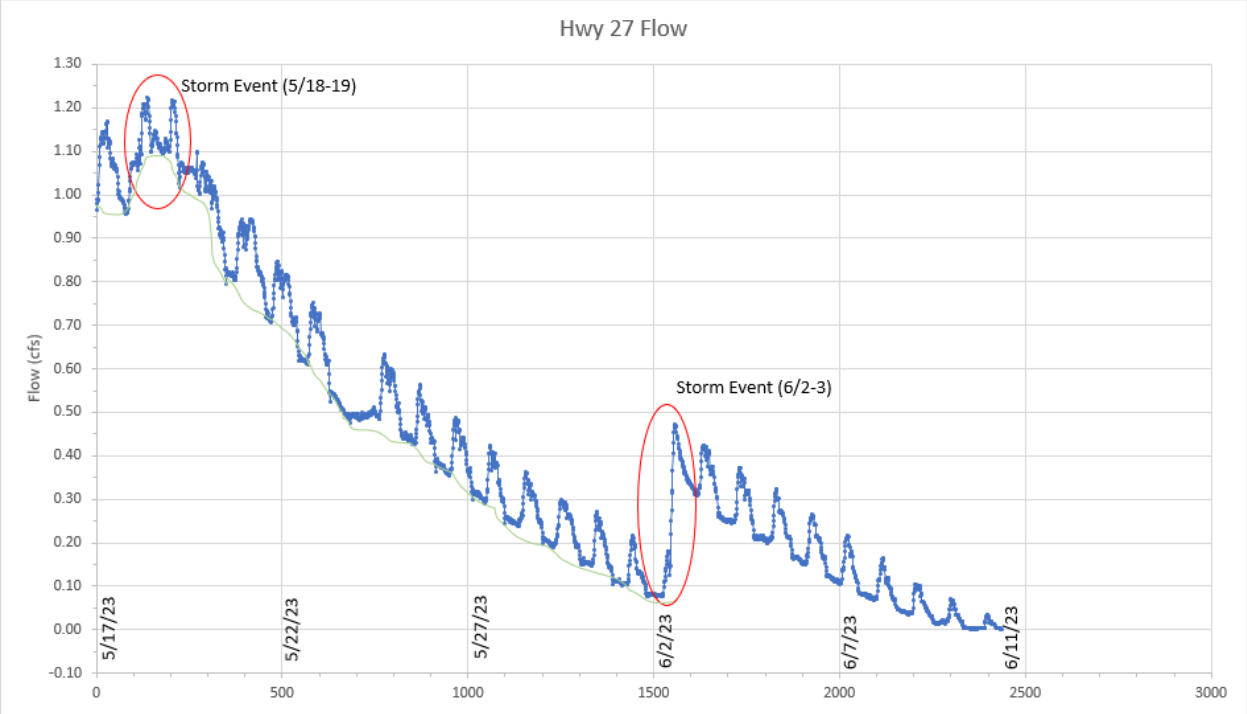
## 3.3 Flow Inspections

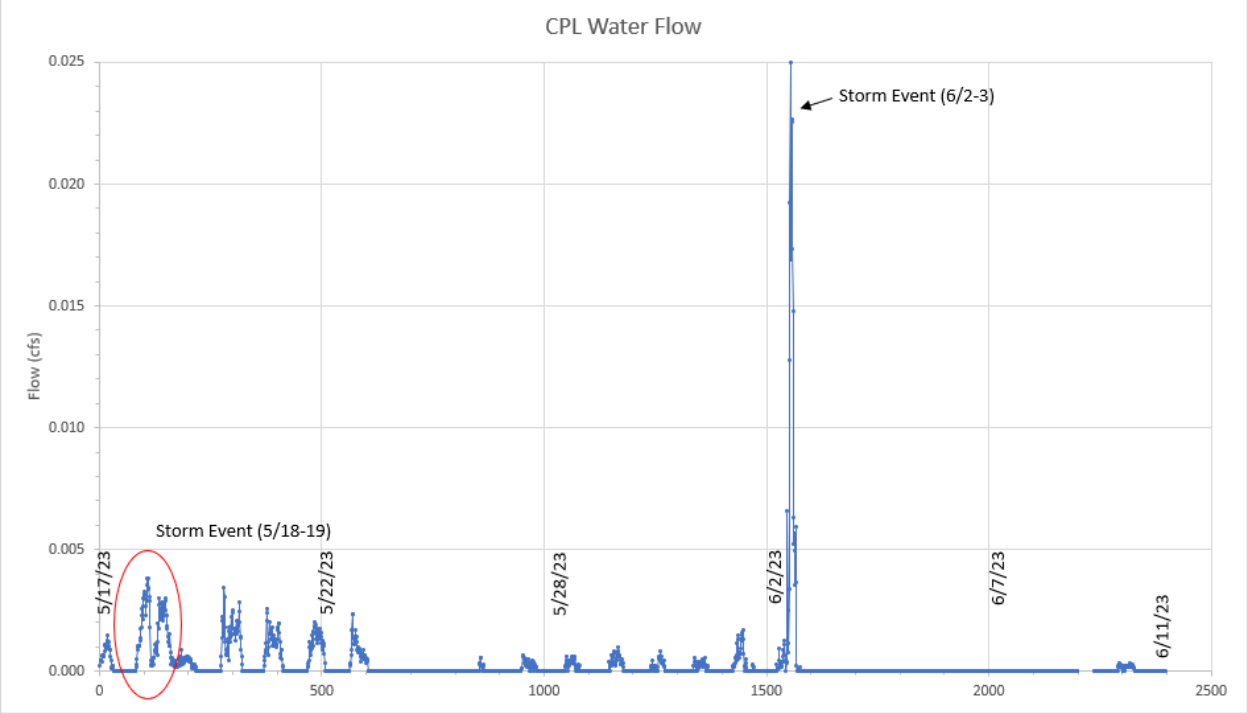
Flow observations are completed on a bi-monthly schedule. The field forms for these events are provided in Attachment 6. Flow was manually monitored during both spring sampling events at the upstream or inlet side of the culvert. The flow results are provided on the respective sampling event field form.

Transducers were installed at the upstream or inlet side of the culverts at both Hwy 27 and Copper Park Lane culverts. The transducers started collecting data on May 16, 2023. The flow charts through July 12, 2023, are provided below.

Some points to note are as follows:

- Due to dry weather conditions, flow was noted to have stopped at Hwy 27 on June 11, 2023.
- The light green line loosely sketched in the Hwy 27 plot attempts to correct for the ponded/stagnant water observed in the Hwy 27 culvert. With this correction, the actual background flow is in the 0.10 to 0.15 cubic feet per second (cfs) range.
- 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 two storm events noted show a maximum flow of about 0.15 to 0.35 cfs in the Hwy 27 culvert (after correcting for the ponded water discussed above) and are relatively short-lived (6 to 8 hours).
- The Copper Park Lane culvert shows low flow during the runoff events, and events last for only a few hours at most; zero flow is observed during non-event periods.
- 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.




## 4. Future Sampling Events

Due to the lack of qualifying rain events, the second spring event has been canceled. The next Stream C sampling event will commence in the fall of 2023. In the meantime, flow analysis has continued with periodic inspections and data downloads from the dedicated transducers.

# 5. References

Foth Infrastructure & Environment, LLC (Foth), 2020. *Quality Assurance Project Plan: Long-Term Care Monitoring for the Reclaimed Flambeau Mine*. August 2020.

Foth and GEI Consultants, Inc., (GEI) 2023. *Steam C Evaluation Work Plan – Revision 1*. 21 July 2023.

Attachments

| | |
|---|---|
| Figure 1 | Site Location Map |
| Figure 2 | Stream C Evaluation Locations |
| Table 1 | Spring 2023 Analytical Results Summary |
| Attachment 1 | Field Forms – April 19, 2023 |
| Attachment 2 | Photographic Log – April 19, 2023 |
| Attachment 3 | Field Forms – April 29, 2023 |
| Attachment 4 | Photographic Log – April 29, 2023 |
| Attachment 5 | Pace Laboratory Analytical Reports |
| Attachment 6 | Flow Inspection Forms |

# Figures


**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**

- Surface Water Sampling Locations
- Groundwater Wells - MONITORED FOR WATER LEVELS ONLY
- Groundwater Wells
- Flambeau River Surface Water Monitoring Location
- Approximate Culvert Location
- Approximate Rail Spur
- Intermittent Stream
- Flambeau Project Area
- Intermittent Stream C Drainage Area

N

Foth

**Foth Infrastructure & Environment, LLC**

| REVISED | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | |
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| | | | |
|---|---|---|---|
| PREPARED BY: | MCC2 | DATE: | MAR.'23 |
| CHECKED BY: | SVF | DATE: | MAR.'23 |
| APPROVED BY: | SVF | DATE: | MAR.'23 |

FLAMBEAU MINING COMPANY

**FIGURE 1**

SITE LAYOUT MAP
STREAM C EVALUATION WORK PLAN

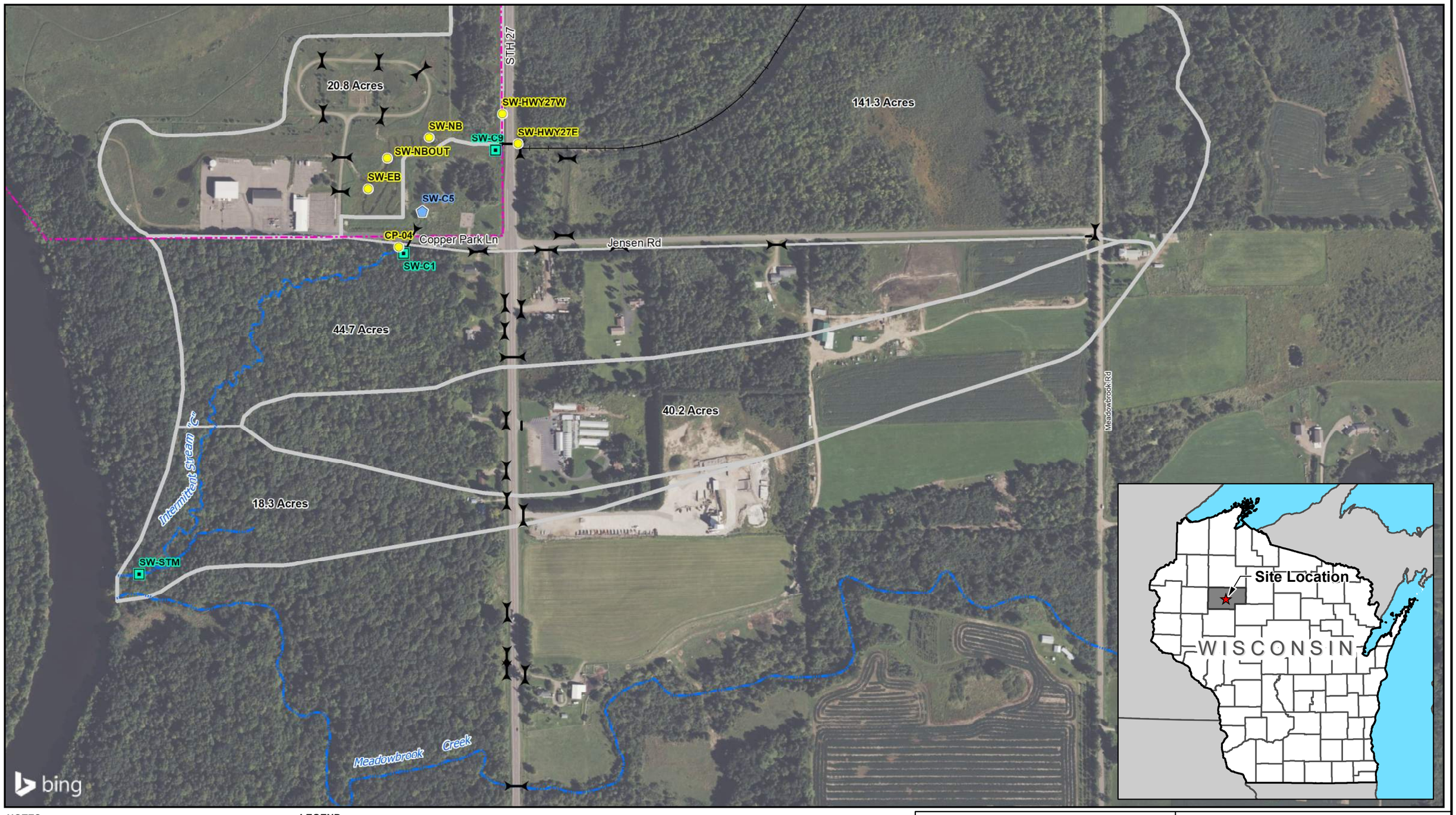
Scale: 0 350 700 Feet

Drafted by: DAT

Date: MARCH 2023

Project No: 17F777.23

Path: Q:\Flambeau Mining Company\17F777\GIS\mxd\Stream C Evaluation Work Plan\Figure 1 - Site Location Map.mxd Date: 3/1/2023




**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**

**Surface Water Sampling Type**

- Flow, Visual Oberservation, Water Quality, WET Test
- Visual Oberservation, Water Quality, WET Test
- Visual Oberservation, Water Quality
- Approximate Culvert Location
- Intermittent Stream
- Flambeau Project Area
- Intermittent Stream C Drainage Area

N

**Foth Infrastructure & Environment, LLC**

| REVISED | DATE | BY | DESCRIPTION |
|---|---|---|---|
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| | | | |
|---|---|---|---|
| PREPARED BY: | MCC2 | DATE: | MAR.'23 |
| CHECKED BY: | SVF | DATE: | MAR.'23 |
| APPROVED BY: | SVF | DATE: | MAR.'23 |

FLAMBEAU MINING COMPANY

**FIGURE 2**

STREAM C EVALUATION LOCATIONS
STREAM C EVALUATION WORK PLAN

Scale: 0 200 400 Feet

Date: MARCH 2023

Drafted by: DAT

Project No: 17F777.23

Path: Q:\Flambeau Mining Company\17F777\GIS\mxd\Stream C Evaluation Work Plan\Figure 2 - Stream C Evaluation Locations.mxd Date: 8/21/2023

# Table

**Table 1**
**Spring 2023 Analytical Results Summary**
**Reclaimed Flambeau Mine - Ladysmith, WI**

| | Location | CP-04 | CP-04 | SW-C1 | SW-C1 | SW-C5 | SW-C5 | SW-C5 (Field Dup) |
|---|---|---|---|---|---|---|---|---|
| **Chemical Name** | **Unit** | **4/19/2023** | **4/29/2023** | **4/19/2023** | **4/29/2023** | **4/19/2023** | **4/29/2023** | **4/29/2023** |
| Temperature | deg c | 1.17 | 7.83 | 2.01 | 6.57 | 2.16 | 6.85 | NA |
| Specific Conductance | umhos/cm | 287 | 784 | 74 | 130 | 65 | 103 | NA |
| pH | s.u. | 7.66 | 6.13 | 6.63 | 6.19 | 6.43 | 6.01 | NA |
| Redox Potential | mV | 42.9 | 54.3 | 37.6 | 74.3 | 31.1 | 78.1 | NA |
| Dissolved Oxygen | mg/L | 7.56 | 1.64 | 11.01 | 9.71 | 10.78 | 8.07 | NA |
| Color | Visual | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown |
| Odor | Smell | None | None | None | None | None | None | None |
| Turbidity | Visual | None | Slight | None | None | None | None | None |
| Dissolved Organic Carbon | mg/L | NS | 9.4 | NS | 7.8 | NS | 7.6 | 8.2 |
| Total Suspended Solids | mg/L | 2.9 | 5.2 | 3.8 | 0.93 | 10.5 | 0.51 | 1.3 |
| Dissolved Alkalinity as CaCO3 | mg/L | NS | 34.5 | NS | 15.6 | NS | 14.9 | 12.1 |
| Total Alkalinity as CaCO3 | mg/L | 60.0 | 39.5 | 10 | 17.3 | 8.6 | 11.1 | 12.9 |
| Dissolved Calcium | ug/L | NS | 11900 | NS | 6320 | NS | 4760 | 4440 |
| Total Calcium | ug/L | 5370 | 12900 | 3160 | 6470 | 2900 | 4650 | 4760 |
| Dissolved Chloride | mg/L | NS | 165 | NS | 27.2 | NS | 24.2 | 23.8 |
| Total Chloride | mg/L | 52.3 | 167 | 15.0 | 27.0 | 12.5 | 20.8 | 21.2 |
| Dissolved Copper | ug/L | NS | 10.1 | NS | 5.8 | NS | 6.4 | 6.1 |
| Total Copper | ug/L | 19.0 | 12.7 | 6.3 | 7.3 | 7.6 | 6.7 | 7.2 |
| Dissolved Hardness | mg/L | NS | 58.9 | NS | 26.9 | NS | 20.4 | 19.3 |
| Total Hardness | mg/L | 27.7 | 60.5 | 13.1 | 27.4 | 12.2 | 19.7 | 19.9 |
| Dissolved Iron | ug/L | NS | < 58.0 | NS | 130 | NS | 126 | 153 |
| Total Iron | ug/L | 577 | 478 | 681 | 291 | 972 | 265 | 268 |
| Dissolved Magnesium | ug/L | NS | 7060 | NS | 2700 | NS | 2080 | 2000 |
| Total Magnesium | ug/L | 3480 | 6860 | 1270 | 2720 | 1220 | 1970 | 1940 |
| Dissolved Manganese | ug/L | NS | 89.9 | NS | 14.5 | NS | 5.0 | 4.9 |
| Total Manganese | ug/L | 21.2 | 103 | 13.8 | 17.8 | 33.9 | 7.5 | 7.2 |
| Dissolved Potassium | ug/L | NS | 2240 | NS | 1040 | NS | 1020 | 955 |
| Total Potassium | ug/L | 1130 | 2300 | 994 | 1090 | 1030 | 976 | 1000 |
| Dissolved Sodium | ug/L | NS | 104000 | NS | 17000 | NS | 14900 | 14000 |
| Total Sodium | ug/L | 40900 | 101000 | 9650 | 16500 | 8650 | 13600 | 13600 |
| Dissolved Sulfate | mg/L | NS | 7.5 | NS | 3.7 | NS | 3.2 | 3.3 |
| Total Sulfate | mg/L | 5.0 | 8.2 | 2.6 | 3.7 | 2.2 | 3.1 | 3.2 |
| Dissolved Sulfide | mg/L | NS | < 1.2 | NS | < 1.2 | NS | < 1.2 | < 1.2 |
| Dissolved Zinc | ug/L | NS | < 10.3 | NS | < 10.3 | NS | < 10.3 | < 10.3 |
| Total Zinc | ug/L | 15.2 | 10.4 | < 10.3 | < 10.3 | 11.7 | < 10.3 | 16.3 |

**Table 1 (continued)**

| | Location | SW-C9 | SW-C9 | SW-EB | SW-EB | SW-HWY27E | SW-HWY27E | SW-HWY27W |
|---|---|---|---|---|---|---|---|---|
| **Chemical Name** | **Unit** | **4/19/2023** | **4/29/2023** | **4/19/2023** | **4/29/2023** | **4/19/2023** | **4/29/2023** | **4/19/2023** |
| Temperature | deg c | 4.12 | 6.77 | 2.45 | 7.50 | 4.09 | 6.56 | 2.68 |
| Specific Conductance | umhos/cm | 52 | 54 | 164 | 273 | 23 | 30 | 324 |
| pH | s.u. | 6.76 | 5.55 | 6.68 | 6.75 | 6.13 | 5.73 | 5.92 |
| Redox Potential | mV | 74.7 | 85.7 | 22.3 | 28.3 | 68.2 | 83.1 | 71.8 |
| Dissolved Oxygen | mg/L | 11.49 | 7.77 | 10.77 | 10.18 | 10.63 | 11.02 | 9.66 |
| Color | Visual | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown |
| Odor | Smell | None | None | None | Slight Organic | None | None | None |
| Turbidity | Visual | None | None | Slight | Slight | Slight | Slight | Slight |
| Dissolved Organic Carbon | mg/L | NS | 8.7 | NS | 7.2 | NS | 8.3 | NS |
| Total Suspended Solids | mg/L | 3.3 | 6.4 | 4.3 | 2.8 | 2.4 | 1.4 | 0.80 |
| Dissolved Alkalinity as CaCO3 | mg/L | NS | < 7.4 | NS | 35.5 | NS | < 7.4 | NS |
| Total Alkalinity as CaCO3 | mg/L | 7.2 | < 7.4 | 17.5 | 36.0 | 5.4 | < 7.4 | 5.5 |
| Dissolved Calcium | ug/L | NS | 2400 | NS | 10800 | NS | 1930 | NS |
| Total Calcium | ug/L | 2220 | 2520 | 6300 | 11200 | 2120 | 2220 | 6890 |
| Dissolved Chloride | mg/L | NS | 10.6 | NS | 68.0 | NS | 4.8 | NS |
| Total Chloride | mg/L | 49.2 | 11.0 | 36.1 | 61.1 | 5.9 | 4.1 | 95.6 |
| Dissolved Copper | ug/L | NS | 3.8 | NS | 4.9 | NS | 3.6 | NS |
| Total Copper | ug/L | 17.7 | 5.0 | 6.9 | 6.3 | 4.1 | 4.1 | 6.0 |
| Dissolved Hardness | mg/L | NS | 9.8 | NS | 46.9 | NS | 7.9 | NS |
| Total Hardness | mg/L | 8.4 | 10.3 | 25.8 | 47.6 | 8.5 | 9.1 | 26.2 |
| Dissolved Iron | ug/L | NS | 290 | NS | 93.6 | NS | 214 | NS |
| Total Iron | ug/L | 689 | 741 | 707 | 480 | 683 | 584 | 431 |
| Dissolved Magnesium | ug/L | NS | 919 | NS | 4810 | NS | 756 | NS |
| Total Magnesium | ug/L | 684 | 983 | 2460 | 4740 | 780 | 856 | 2180 |
| Dissolved Manganese | ug/L | NS | 17.5 | NS | 17.8 | NS | 11.5 | NS |
| Total Manganese | ug/L | 31.6 | 24.9 | 27.7 | 24.1 | 15.1 | 17.6 | 77.3 |
| Dissolved Potassium | ug/L | NS | 684 | NS | 1470 | NS | 635 | NS |
| Total Potassium | ug/L | 738 | 770 | 1730 | 1560 | 922 | 699 | 1790 |
| Dissolved Sodium | ug/L | NS | 7140 | NS | 37600 | NS | 3080 | NS |
| Total Sodium | ug/L | 29000 | 7010 | 19700 | 37000 | 4340 | 3680 | 49100 |
| Dissolved Sulfate | mg/L | NS | 1.3 | NS | 6.9 | NS | 1.4 | NS |
| Total Sulfate | mg/L | 6.4 | 1.3 | 4.1 | 6.8 | 1.6 | 1.2 | 5.0 |
| Dissolved Sulfide | mg/L | NS | < 1.2 | NS | < 1.2 | NS | < 1.2 | NS |
| Dissolved Zinc | ug/L | NS | < 10.3 | NS | < 10.3 | NS | < 10.3 | NS |
| Total Zinc | ug/L | 20.7 | 11.6 | < 10.3 | < 10.3 | < 10.3 | 25.5 | 24.8 |

**Table 1 (continued)**

| | Location | SW-HWY27W | SW-NB | SW-NB | SW-NB (Field Dup) | SW-NBOUT | SW-NBOUT | SW-STM | SW-STM |
|---|---|---|---|---|---|---|---|---|---|
| **Chemical Name** | **Unit** | **4/29/2023** | **4/19/2023** | **4/29/2023** | **4/19/2023** | **4/19/2023** | **4/29/2023** | **4/19/2023** | **4/29/2023** |
| Temperature | deg c | 6.77 | 3.17 | 7.68 | NA | 2.97 | 7.26 | 3.71 | 6.30 |
| Specific Conductance | umhos/cm | 387 | 267 | 264 | NA | 58 | 199 | 72 | 147 |
| pH | s.u. | 6.55 | 6.63 | 6.54 | NA | 6.77 | 6.42 | 6.53 | 7.64 |
| Redox Potential | mV | 64.4 | 63.8 | 63.7 | NA | 46.1 | 68.5 | 66.6 | 49.3 |
| Dissolved Oxygen | mg/L | 8.62 | 10.79 | 7.77 | NA | 11.00 | 8.30 | 11.86 | 11.12 |
| Color | Visual | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown | Stained Lt. Brown |
| Odor | Smell | Slight Organic | Slight Organic | Slight Organic | None | Slight Organic | Slight Organic | None | None |
| Turbidity | Visual | Slight | Slight | Slight | None | Slight | Slight | None | None |
| Dissolved Organic Carbon | mg/L | 10.8 | NS | 10.0 | NS | NS | 9.2 | NS | 8.7 |
| Total Suspended Solids | mg/L | 3.3 | 1.9 | < 0.49 | 1.5 | 2.4 | 0.82 | 9.0 | 2.1 |
| Dissolved Alkalinity as CaCO3 | mg/L | < 7.4 | NS | < 7.4 | NS | NS | 21.0 | NS | 18.9 |
| Total Alkalinity as CaCO3 | mg/L | < 7.4 | 6.7 | < 7.4 | 6.8 | 18.6 | 20.7 | 10 | 16.8 |
| Dissolved Calcium | ug/L | 10200 | NS | 8250 | NS | NS | 8970 | NS | 7110 |
| Total Calcium | ug/L | 10200 | 7000 | 8800 | 6790 | 5540 | 9950 | 3410 | 7440 |
| Dissolved Chloride | mg/L | 131 | NS | 86.0 | NS | NS | 53.9 | NS | 31.6 |
| Total Chloride | mg/L | 121 | 74.9 | 75.4 | 67.5 | 5.8 | 48.6 | 15.6 | 31.1 |
| Dissolved Copper | ug/L | 3.6 | NS | 4.5 | NS | NS | 3.2 | NS | 4.9 |
| Total Copper | ug/L | 4.2 | 15.3 | 5.6 | 7.8 | 6.1 | 3.7 | 6.0 | 6.2 |
| Dissolved Hardness | mg/L | 40.4 | NS | 35.0 | NS | NS | 38.8 | NS | 30.3 |
| Total Hardness | mg/L | 40.5 | 27.5 | 36.6 | 26.9 | 22.9 | 42.8 | 13.8 | 31.5 |
| Dissolved Iron | ug/L | 284 | NS | 169 | NS | NS | 116 | NS | 130 |
| Total Iron | ug/L | 528 | 694 | 392 | 760 | 652 | 370 | 718 | 371 |
| Dissolved Magnesium | ug/L | 3640 | NS | 3490 | NS | NS | 3990 | NS | 3050 |
| Total Magnesium | ug/L | 3660 | 2430 | 3550 | 2420 | 2200 | 4360 | 1280 | 3150 |
| Dissolved Manganese | ug/L | 57.0 | NS | 26.0 | NS | NS | 13.1 | NS | 10.3 |
| Total Manganese | ug/L | 63.1 | 36.4 | 29.3 | 38.6 | 10.8 | 32.1 | 20.6 | 16.5 |
| Dissolved Potassium | ug/L | 1640 | NS | 1390 | NS | NS | 1240 | NS | 1070 |
| Total Potassium | ug/L | 1760 | 1690 | 1460 | 1720 | 1980 | 1370 | 1110 | 1180 |
| Dissolved Sodium | ug/L | 58400 | NS | 36000 | NS | NS | 24400 | NS | 17700 |
| Total Sodium | ug/L | 59000 | 35700 | 35500 | 34200 | 3740 | 25300 | 9520 | 17900 |
| Dissolved Sulfate | mg/L | 3.1 | NS | 2.5 | NS | NS | 3.2 | NS | 3.8 |
| Total Sulfate | mg/L | 3.2 | 4.1 | 2.4 | 3.8 | 2.8 | 3.1 | 2.5 | 3.6 |
| Dissolved Sulfide | mg/L | < 1.2 | NS | < 1.2 | NS | NS | < 1.2 | NS | < 1.2 |
| Dissolved Zinc | ug/L | 30.2 | NS | 19.0 | NS | NS | < 10.3 | NS | < 10.3 |
| Total Zinc | ug/L | 30.3 | 23.4 | 18.2 | 25.9 | < 10.3 | < 10.3 | < 10.3 | < 10.3 |

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

Prepared by: MCC2
Checked by: NMG1

# Attachment 1

# Field Forms – April 19, 2023

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMGI | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## TECHNICIAN(S) NAME (INITIALS), COMPANY

Jin Engelhardt / Merjent

## SUMMARY OF SAMPLING ACTIVITIES

Sample Date(s): 4/19/2023

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: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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 (collecteed at US end of culverts and at SW-STM near confluence of Flambeau River):

| Location: | Velocity (ft/sec) | Depth (ft) |
|---|---|---|
| HWY 27 Culvert | 1.2 | 3.8 |
| Copper Park Lane Culvert | 3.8 | 0.44 |
| SW-STM Confluence | 2.8 | 1.92 |

## 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" dated March 10, 2023.

Client: Flambeau Mining Co Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 19-APR-2023
Prepared by: NMGI Date: 05/24/23
Checked by: BJW1 Date: 08/30/23

**SUMMARY OF FIELD PARAMETERS**

| Location | Sample Date | Sample Time | pH (SU) | Specific Conductance (mS/cm) | Temperature ($^0$C) | ORP (mV) | DO (mg/l) | Odor (visual) | Turbidity (visual) | Color (visual) |
|---|---|---|---|---|---|---|---|---|---|---|
| SW-C9 | 4/19/2023 | 1715 | 6.76 | 52.000 | 4.12 | 74.7 | 91.9% | None | None | Stained lt. Brown |
| SW-C1 | 4/19/2023 | 1230 | 6.63 | 74.000 | 2.01 | 37.6 | 83.1% | None | None | Stained lt. Brown |
| SW-STM | 4/19/2023 | 1630 | 6.53 | 72.000 | 3.71 | 66.6 | 93.8% | None | None | Stained lt. Brown |
| SW-C5 | 4/19/2023 | 1330 | 6.43 | 65.000 | 2.16 | 31.1 | 81.8% | None | None | Stained lt. Brown |
| SW-EB | 4/19/2023 | 1500 | 6.68 | 164.000 | 2.45 | 22.3 | 82.4% | None | Slight | Stained lt. Brown |
| SW-NBOUT | 4/19/2023 | 1545 | 6.77 | 58.000 | 2.97 | 46.1 | 85.4% | Slt. Organic | Slight | Stained lt. Brown |
| SW-NB | 4/19/2023 | 1630 | 6.63 | 267.000 | 3.17 | 63.8 | 84.3% | Slt. Organic | Slight | Stained lt. Brown |
| SW-HWY27W | 4/19/2023 | 1745 | 5.92 | 324.000 | 2.68 | 71.8 | 74.4% | None | Slight | Stained lt. Brown |
| SW-HWY27E | 4/19/2023 | 1800 | 6.13 | 23.000 | 4.09 | 68.2 | 84.9% | None | Slight | Stained lt. Brown |
| CP-04 | 4/19/2023 | 1130 | 7.66 | 287.000 | 1.17 | 42.9 | 55.9% | None | None | 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 | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMGl | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

**SUMMARY OF FIELD QUALITY CONTROL SAMPLES**

| Sample ID | Sample Date | Description |
|---|---|---|
| SW-NB-DUP_20230419 | 4/19/2023 | Duplicate Taken at SW-NB location |

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-C9
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1715 | 6.76 | 52.000 | 4.12 | 74.70 | 0.92 | None | None | Stained lt. Brown |

Client: Flambeau Mining Co  Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 19-APR-2023
Prepared by: NMGI  Date: 05/24/23
Checked by: BJW1  Date: 08/30/23

## FIELD NOTES

**Site ID:** SW-C1
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1230 | 6.63 | 74.000 | 2.01 | 37.60 | 0.83 | None | None | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-STM
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1630 | 6.53 | 72.000 | 3.71 | 66.60 | 0.94 | None | None | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-C5
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1330 | 6.43 | 65.000 | 2.16 | 31.10 | 0.82 | None | None | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-EB
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1500 | 6.68 | 164.000 | 2.45 | 22.30 | 0.82 | None | Slight | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-NBOUT
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1545 | 6.77 | 58.000 | 2.97 | 46.10 | 0.85 | Slt. Organic | Slight | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-NB
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1630 | 6.63 | 267.000 | 3.17 | 63.80 | 0.84 | Slt. Organic | Slight | Stained lt. Brown |

Note:

Foth

Client: Flambeau Mining Co  Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 19-APR-2023
Prepared by: NMG1  Date: 05/24/23
Checked by: BJW1  Date: 08/30/23

## FIELD NOTES

**Site ID:** SW-HWY27W
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1745 | 5.92 | 324.000 | 2.68 | 71.80 | 0.74 | None | Slight | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 19-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-HWY27E
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1800 | 6.13 | 23.000 | 4.09 | 68.20 | 0.85 | None | Slight | Stained lt. Brown |

Note:

Client: Flambeau Mining Co Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 19-APR-2023
Prepared by: NMG1 Date: 05/24/23
Checked by: BJW1 Date: 08/30/23

## FIELD NOTES

**Site ID:** CP-04
**Date:** 4/19/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 6 degrees Celcius, Overcast, light rain, 10-15mph East Wind. 0.53-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1130 | 7.66 | 287.000 | 1.17 | 42.90 | 0.56 | None | None | Stained lt. Brown |

Note:

# Attachment 2

# Photographic Log – April 19, 2023

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 1 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** West | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point CP-04 | |

| Photo No. 3 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** East | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-C1 | |

| Photo No. 2 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** South | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-NBOUT | |

| Photo No. 4 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** South | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-C5 | |

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 5 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-C9 | |

| Photo No. 7 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** South | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-HWY27E | |

| Photo No. 6 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sampling Point SW-EB | |

| Photo No. 8 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sampling Point SW-HWY27W | |

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 9 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** West | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-NB | |

| Photo No. 10 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** West | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-STM | |

# Attachment 3

# Field Forms – April 29, 2023

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMGI | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## TECHNICIAN(S) NAME (INITIALS), COMPANY

Jin Engelhardt / Merjent

## SUMMARY OF SAMPLING ACTIVITIES

Sample Date(s): 4/29/2023

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: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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 (collecteed at US end of culverts and at SW-STM near confluence of Flambeau River):

| Location: | Velocity (ft/sec) | Depth (ft) |
|---|---|---|
| HWY 27 Culvert | 0.1 | 1.26 |
| Copper Park Lane Culvert | 2.4 | 0.22 |
| SW-STM Confluence | 0.9 | 0.42 |

## 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" dated March 10, 2023.

Client: Flambeau Mining Co Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 29-APR-2023
Prepared by: NMGI Date: 05/24/23
Checked by: BJW1 Date: 08/30/23

**SUMMARY OF FIELD PARAMETERS**

| Location | Sample Date | Sample Time | pH (SU) | Specific Conductance (mS/cm) | Temperature ($^0$C) | ORP (mV) | DO (mg/l) | Odor (visual) | Turbidity (visual) | Color (visual) |
|---|---|---|---|---|---|---|---|---|---|---|
| SW-C9 | 4/29/2023 | 1230 | 5.55 | 0.054 | 6.77 | 85.7 | 7.77 | None | None | Stained lt. Brown |
| SW-C1 | 4/29/2023 | 1430 | 6.19 | 0.130 | 6.57 | 74.3 | 9.71 | None | None | Stained lt. Brown |
| SW-STM | 4/29/2023 | 1030 | 7.64 | 0.147 | 6.30 | 49.3 | 11.12 | None | None | Stained lt. Brown |
| SW-C5 | 4/29/2023 | 1530 | 6.01 | 0.103 | 6.85 | 78.1 | 8.07 | None | None | Stained lt. Brown |
| SW-EB | 4/29/2023 | 1630 | 6.75 | 0.273 | 7.50 | 28.3 | 10.18 | Slt. Organic | Slight | Stained lt. Brown |
| SW-NBOUT | 4/29/2023 | 1700 | 6.42 | 0.199 | 7.26 | 68.5 | 8.30 | Slt. Organic | Slight | Stained lt. Brown |
| SW-NBOUT | 4/29/2023 | 1815 | 6.54 | 0.264 | 7.68 | 63.7 | 7.77 | Slt. Organic | Slight | Stained lt. Brown |
| SW-HWY27W | 4/29/2023 | 1130 | 6.55 | 0.387 | 6.77 | 64.4 | 8.62 | Slt. Organic | Slight | Stained lt. Brown |
| SW-HWY27E | 4/29/2023 | 1200 | 5.73 | 0.030 | 6.56 | 83.1 | 11.02 | None | Slight | Stained lt. Brown |
| CP-04 | 4/29/2023 | 1330 | 6.13 | 0.784 | 7.83 | 54.3 | 1.64 | 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 | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMGl | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

**SUMMARY OF FIELD QUALITY CONTROL SAMPLES**

| Sample ID | Sample Date | Description |
|---|---|---|
| SW-C5-DUP_20230429 | 4/29/2023 | Duplicate Taken at SW-C5 location |

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-C9
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1230 | 5.55 | 0.054 | 6.77 | 85.70 | 7.77 | None | None | Stained lt. Brown |

Client: Flambeau Mining Co  Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 29-APR-2023
Prepared by: NMGI  Date: 05/24/23
Checked by: BJW1  Date: 08/30/23

## FIELD NOTES

**Site ID:** SW-C1
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1430 | 6.19 | 0.130 | 6.57 | 74.30 | 9.71 | None | None | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-STM
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1030 | 7.64 | 0.147 | 6.30 | 49.30 | 11.12 | None | None | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-C5
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1530 | 6.01 | 0.103 | 6.85 | 78.10 | 8.07 | None | None | Stained lt. Brown |

Note:

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-EB
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1630 | 6.75 | 0.273 | 7.50 | 28.30 | 10.18 | Slt. Organic | Slight | Stained lt. Brown |

Note:

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-NBOUT
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1700 | 6.42 | 0.199 | 7.26 | 68.50 | 8.30 | Slt. Organic | Slight | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-NB
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1815 | 6.54 | 0.264 | 7.68 | 63.70 | 7.77 | Slt. Organic | Slight | Stained lt. Brown |

Note:

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| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-HWY27W
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1130 | 6.55 | 0.387 | 6.77 | 64.40 | 8.62 | Slt. Organic | Slight | Stained lt. Brown |

Note:

Foth

| | | | |
|---|---|---|---|
| Client: | Flambeau Mining Co | Scope ID.: | 17F777.23 |
| Project: | Flambeau Stream C - Spring Event 29-APR-2023 | | |
| Prepared by: | NMG1 | Date: | 05/24/23 |
| Checked by: | BJW1 | Date: | 08/30/23 |

## FIELD NOTES

**Site ID:** SW-HWY27E
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1200 | 5.73 | 0.030 | 6.56 | 83.10 | 11.02 | None | Slight | Stained lt. Brown |

Note:

Client: Flambeau Mining Co Scope ID.: 17F777.23
Project: Flambeau Stream C - Spring Event 29-APR-2023
Prepared by: NMG1 Date: 05/24/23
Checked by: BJW1 Date: 08/30/23

## FIELD NOTES

**Site ID:** CP-04
**Date:** 4/29/2023
**Technician(s) Initials:** Jim Engelhardt / Merjent

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

**Weather, Stream Conditions and Comments:**

Temp: 5 degrees Celcius, Overcast, light rain, 10-15mph North Wind. 0.5-inches of rain occurred overnight according to Rusk Co. AP online

## 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) | Specifc Conductance (mS/cm) | Temperature ($^0$C) | Redox Potential (mV) | Dissolved Oxygen (mg/l) | Odor | Turbidity | Color |
|---|---|---|---|---|---|---|---|---|
| 1330 | 6.13 | 0.784 | 7.83 | 54.30 | 1.64 | None | Slight | Stained lt. Brown |

Note:

# Attachment 4

# Photographic Log – April 29, 2023

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 1 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** South to North | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** Copper Park Lane Culvert – US 2. | |

| Photo No. 2 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** North to South | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** Copper Park Lane Culvert – US 2. | |

| Photo No. 3 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** West to East | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** CP-04 looking east. | |

| Photo No. 4 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** East to West | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** CP-04 looking west. | |

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 5 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** SW to NE

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-C1 looking northeast.

| Photo No. 7 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** South to North

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-C5 looking north.

| Photo No. 6 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** NE to SW

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-C1 looking southwest.

| Photo No. 8 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** North to South

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-C5 looking south.

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 9 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** South to North

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-EB looking north.

| Photo No. 11 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** South to North

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-HWY27E looking north.

| Photo No. 10 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** North to South

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-EB looking south.

| Photo No. 12 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** NW to SE

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-HWY27E looking southeast.

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 13 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** South to North

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-HWY27W looking north.

Sw-

| Photo No. 14 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** North to South

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-HWY27W looking south.

| Photo No. 15 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** West to East

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-NB looking east.

| Photo No. 16 | Date: 4/29/23 |
|---|---|

**Direction Photo Taken:** East to West

**Photo Taken By:** Jim Engelhardt (Merjent)

**Description:** SW-NB looking west.

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 17 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** SE to NE | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** SW-NBOUT looking northeast. | |

| Photo No. 19 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** West to East | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** SW-STM looking east. | |

| Photo No. 18 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** North to South | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** SW-NBOUT looking south. | |

| Photo No. 20 | Date: 4/29/23 |
|---|---|
| **Direction Photo Taken:** East to West | |
| **Photo Taken By:** Jim Engelhardt (Merjent) | |
| **Description:** SW-STM looking west. | |

# Attachment 5

# Pace Laboratory Analytical Reports

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 05, 2023

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

RE: Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

Dear Nick Glander:

Enclosed are the analytical results for sample(s) received by the laboratory on April 21, 2023. 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
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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## CERTIFICATIONS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE SUMMARY

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **40261107001** | **SW-C9_20230419** | Water | 04/19/23 17:15 | 04/21/23 09:55 |
| **40261107002** | **SW-C1_20230419** | Water | 04/19/23 12:30 | 04/21/23 09:55 |
| **40261107003** | **SW-STM_20230419** | Water | 04/19/23 18:30 | 04/21/23 09:55 |
| **40261107004** | **SW-C5_20230419** | Water | 04/19/23 13:30 | 04/21/23 09:55 |
| **40261107005** | **SW-EB_20230419** | Water | 04/19/23 15:00 | 04/21/23 09:55 |
| **40261107006** | **SW-NBOUT_20230419** | Water | 04/19/23 15:45 | 04/21/23 09:55 |
| **40261107007** | **SW-NB_20230419** | Water | 04/19/23 16:30 | 04/21/23 09:55 |
| **40261107008** | **SW-NB-DUP_20230419** | Water | 04/19/23 16:35 | 04/21/23 09:55 |
| **40261107009** | **SW-HWY27W_20230419** | Water | 04/19/23 17:45 | 04/21/23 09:55 |
| **40261107010** | **SW-HWY27E_20230419** | Water | 04/19/23 18:00 | 04/21/23 09:55 |
| **40261107011** | **CP-04_20230419** | Water | 04/19/23 11:30 | 04/21/23 09:55 |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE ANALYTE COUNT

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **40261107001** | **SW-C9_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107002** | **SW-C1_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107003** | **SW-STM_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107004** | **SW-C5_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107005** | **SW-EB_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107006** | **SW-NBOUT_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107007** | **SW-NB_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107008** | **SW-NB-DUP_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |

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## SAMPLE ANALYTE COUNT

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107009** | **SW-HWY27W_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107010** | **SW-HWY27E_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |
| **40261107011** | **CP-04_20230419** | EPA 6020B | KXS | 9 |
| | | SM 2320B | TMK | 1 |
| | | SM 2540D | SRK | 1 |
| | | SM 4500-S F (2000) | HNT | 1 |
| | | EPA 300.0 | HMB | 2 |

PASI-G = Pace Analytical Services - Green Bay

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

# PROJECT NARRATIVE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Method:** **EPA 6020B**
**Description:** 6020B MET ICPMS
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 05, 2023

**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:**

**Pace Analytical Services, LLC**
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Green Bay, WI 54302
(920)469-2436

# PROJECT NARRATIVE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Method:** **SM 2320B**
**Description:** 2320B Alkalinity
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 05, 2023

**General Information:**
11 samples were analyzed for SM 2320B 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: 443764

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40261249001

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

- MSD (Lab ID: 2547941)
  - Alkalinity, Total as CaCO3

**Additional Comments:**

**Pace Analytical Services, LLC**
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Green Bay, WI 54302
(920)469-2436

# PROJECT NARRATIVE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Method:** **SM 2540D**
**Description:** 2540D Total Suspended Solids
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 05, 2023

**General Information:**
11 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:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Method:** **SM 4500-S F (2000)**
**Description:** 4500S2F Sulfide, Iodometric
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 05, 2023

**General Information:**
11 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.

QC Batch: 443089

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40261107001

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

- MS (Lab ID: 2544322)
  - Sulfide
- MSD (Lab ID: 2544323)
  - Sulfide

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

# PROJECT NARRATIVE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Method:** **EPA 300.0**
**Description:** 300.0 IC Anions
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 05, 2023

**General Information:**
11 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.

QC Batch: 443649

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40261074001,40261107001

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

- MS (Lab ID: 2547592)
  - Chloride
  - Sulfate
- MSD (Lab ID: 2547593)
  - Chloride
  - Sulfate

**Additional Comments:**

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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-C9_20230419** **Lab ID: 40261107001** Collected: 04/19/23 17:15 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **2220** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7440-70-2 | |
| Copper | **17.7** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7440-50-8 | |
| Iron | **689** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7439-89-6 | |
| Magnesium | **684** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7439-95-4 | |
| Manganese | **31.6** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7439-96-5 | |
| Potassium | **738J** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7440-09-7 | |
| Sodium | **29000** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7440-23-5 | |
| Total Hardness by 2340B | **8.4** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | | |
| Zinc | **20.7J** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 22:29 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **7.2J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 19:30 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **3.3** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 13:53 | | M0 |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **49.2** | mg/L | 10.0 | 2.2 | 5 | | 05/04/23 21:41 | 16887-00-6 | M0 |
| Sulfate | **6.4** | mg/L | 2.0 | 0.44 | 1 | | 05/02/23 22:51 | 14808-79-8 | M0 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-C1_20230419** **Lab ID: 40261107002** Collected: 04/19/23 12:30 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **3160** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7440-70-2 | |
| Copper | **6.3J** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7440-50-8 | |
| Iron | **681** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7439-89-6 | |
| Magnesium | **1270** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7439-95-4 | |
| Manganese | **13.8** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7439-96-5 | |
| Potassium | **994** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7440-09-7 | |
| Sodium | **9650** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7440-23-5 | |
| Total Hardness by 2340B | **13.1** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 23:21 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **10J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 19:49 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **3.8** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:00 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **15.0** | mg/L | 2.0 | 0.43 | 1 | | 05/02/23 23:34 | 16887-00-6 | |
| Sulfate | **2.6** | mg/L | 2.0 | 0.44 | 1 | | 05/02/23 23:34 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-STM_20230419** **Lab ID: 40261107003** Collected: 04/19/23 18:30 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **3410** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7440-70-2 | |
| Copper | **6.0J** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7440-50-8 | |
| Iron | **718** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7439-89-6 | |
| Magnesium | **1280** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7439-95-4 | |
| Manganese | **20.6** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7439-96-5 | |
| Potassium | **1110** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7440-09-7 | |
| Sodium | **9520** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7440-23-5 | |
| Total Hardness by 2340B | **13.8** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 23:35 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **10J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 19:55 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **9.0** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:01 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **15.6** | mg/L | 2.0 | 0.43 | 1 | | 05/02/23 23:49 | 16887-00-6 | |
| Sulfate | **2.5** | mg/L | 2.0 | 0.44 | 1 | | 05/02/23 23:49 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-C5_20230419** **Lab ID: 40261107004** Collected: 04/19/23 13:30 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **2900** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7440-70-2 | |
| Copper | **7.6** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7440-50-8 | |
| Iron | **972** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7439-89-6 | |
| Magnesium | **1220** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7439-95-4 | |
| Manganese | **33.9** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7439-96-5 | |
| Potassium | **1030** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7440-09-7 | |
| Sodium | **8650** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7440-23-5 | |
| Total Hardness by 2340B | **12.2** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | | |
| Zinc | **11.7J** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 23:43 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **8.6J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:01 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **10.5** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:02 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **12.5** | mg/L | 2.0 | 0.43 | 1 | | 05/03/23 00:03 | 16887-00-6 | |
| Sulfate | **2.2** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 00:03 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-EB_20230419** **Lab ID: 40261107005** Collected: 04/19/23 15:00 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **6300** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7440-70-2 | |
| Copper | **6.9** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7440-50-8 | |
| Iron | **707** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7439-89-6 | |
| Magnesium | **2460** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7439-95-4 | |
| Manganese | **27.7** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7439-96-5 | |
| Potassium | **1730** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7440-09-7 | |
| Sodium | **19700** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7440-23-5 | |
| Total Hardness by 2340B | **25.8** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 23:13 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **17.5** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:06 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **4.3** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:05 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **36.1** | mg/L | 2.0 | 0.43 | 1 | | 05/03/23 01:00 | 16887-00-6 | |
| Sulfate | **4.1** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 01:00 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-NBOUT_20230419** **Lab ID: 40261107006** Collected: 04/19/23 15:45 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **5540** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7440-70-2 | |
| Copper | **6.1J** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7440-50-8 | |
| Iron | **652** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7439-89-6 | |
| Magnesium | **2200** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7439-95-4 | |
| Manganese | **10.8** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7439-96-5 | |
| Potassium | **1980** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7440-09-7 | |
| Sodium | **3740** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7440-23-5 | |
| Total Hardness by 2340B | **22.9** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 23:50 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **18.6** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:13 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **2.4** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:06 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **5.8** | mg/L | 2.0 | 0.43 | 1 | | 05/03/23 01:15 | 16887-00-6 | |
| Sulfate | **2.8** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 01:15 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-NB_20230419** **Lab ID: 40261107007** Collected: 04/19/23 16:30 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **7000** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7440-70-2 | |
| Copper | **15.3** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7440-50-8 | |
| Iron | **694** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7439-89-6 | |
| Magnesium | **2430** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7439-95-4 | |
| Manganese | **36.4** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7439-96-5 | |
| Potassium | **1690** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7440-09-7 | |
| Sodium | **35700** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7440-23-5 | |
| Total Hardness by 2340B | **27.5** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | | |
| Zinc | **23.4J** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/27/23 23:57 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **6.7J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:30 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **1.9** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:07 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **74.9** | mg/L | 10.0 | 2.2 | 5 | | 05/04/23 22:24 | 16887-00-6 | |
| Sulfate | **4.1** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 01:29 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-NB-DUP_20230419** **Lab ID: 40261107008** Collected: 04/19/23 16:35 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **6790** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7440-70-2 | |
| Copper | **7.8** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7440-50-8 | |
| Iron | **760** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7439-89-6 | |
| Magnesium | **2420** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7439-95-4 | |
| Manganese | **38.6** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7439-96-5 | |
| Potassium | **1720** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7440-09-7 | |
| Sodium | **34200** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7440-23-5 | |
| Total Hardness by 2340B | **26.9** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | | |
| Zinc | **25.9J** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/28/23 00:05 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **6.8J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:35 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **1.5** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:40 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:09 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **67.5** | mg/L | 10.0 | 2.2 | 5 | | 05/04/23 23:22 | 16887-00-6 | |
| Sulfate | **3.8** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 01:44 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-HWY27W_20230419** **Lab ID: 40261107009** Collected: 04/19/23 17:45 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **6890** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7440-70-2 | |
| Copper | **6.0J** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7440-50-8 | |
| Iron | **431** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7439-89-6 | |
| Magnesium | **2180** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7439-95-4 | |
| Manganese | **77.3** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7439-96-5 | |
| Potassium | **1790** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7440-09-7 | |
| Sodium | **49100** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7440-23-5 | |
| Total Hardness by 2340B | **26.2** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | | |
| Zinc | **24.8J** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/28/23 00:12 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **5.5J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:41 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **0.80J** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:41 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:11 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **95.6** | mg/L | 10.0 | 2.2 | 5 | | 05/04/23 23:36 | 16887-00-6 | |
| Sulfate | **5.0** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 01:58 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: SW-HWY27E_20230419** **Lab ID: 40261107010** Collected: 04/19/23 18:00 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **2120** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7440-70-2 | |
| Copper | **4.1J** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7440-50-8 | |
| Iron | **683** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7439-89-6 | |
| Magnesium | **780** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7439-95-4 | |
| Manganese | **15.1** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7439-96-5 | |
| Potassium | **922** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7440-09-7 | |
| Sodium | **4340** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7440-23-5 | |
| Total Hardness by 2340B | **8.5** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/28/23 00:19 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **5.4J** | mg/L | 10.0 | 5.0 | 1 | | 04/30/23 20:47 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **2.4** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:41 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:12 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **5.9** | mg/L | 2.0 | 0.43 | 1 | | 05/03/23 02:12 | 16887-00-6 | |
| Sulfate | **1.6J** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 02:12 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**Sample: CP-04_20230419** **Lab ID: 40261107011** Collected: 04/19/23 11:30 Received: 04/21/23 09:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **5370** | ug/L | 254 | 76.2 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7440-70-2 | |
| Copper | **19.0** | ug/L | 6.4 | 1.9 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7440-50-8 | |
| Iron | **577** | ug/L | 250 | 58.0 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7439-89-6 | |
| Magnesium | **3480** | ug/L | 250 | 31.2 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7439-95-4 | |
| Manganese | **21.2** | ug/L | 4.0 | 1.2 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7439-96-5 | |
| Potassium | **1130** | ug/L | 789 | 237 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7440-09-7 | |
| Sodium | **40900** | ug/L | 250 | 42.0 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7440-23-5 | |
| Total Hardness by 2340B | **27.7** | mg/L | 1.7 | 0.32 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | | |
| Zinc | **15.2J** | ug/L | 34.4 | 10.3 | 1 | 04/24/23 06:42 | 04/28/23 00:41 | 7440-66-6 | |
| **2320B Alkalinity** | Analytical Method: SM 2320B<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **60.0** | mg/L | 10.0 | 5.0 | 1 | | 05/01/23 20:09 | | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **2.9** | mg/L | 1.0 | 0.48 | 1 | | 04/24/23 13:41 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 04/25/23 14:15 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **52.3** | mg/L | 2.0 | 0.43 | 1 | | 05/03/23 02:27 | 16887-00-6 | |
| Sulfate | **5.0** | mg/L | 2.0 | 0.44 | 1 | | 05/03/23 02:27 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

QC Batch: 443052
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

METHOD BLANK: 2544145 Matrix: Water
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Calcium | ug/L | <76.2 | 254 | 04/27/23 21:45 | |
| Copper | ug/L | <1.9 | 6.4 | 04/27/23 21:45 | |
| Iron | ug/L | <58.0 | 250 | 04/27/23 21:45 | |
| Magnesium | ug/L | <31.2 | 250 | 04/27/23 21:45 | |
| Manganese | ug/L | <1.2 | 4.0 | 04/27/23 21:45 | |
| Potassium | ug/L | <237 | 789 | 04/27/23 21:45 | |
| Sodium | ug/L | <42.0 | 250 | 04/27/23 21:45 | |
| Total Hardness by 2340B | mg/L | <0.32 | 1.7 | 04/27/23 21:45 | |
| Zinc | ug/L | <10.3 | 34.4 | 04/27/23 21:45 | |

LABORATORY CONTROL SAMPLE: 2544146

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Calcium | ug/L | 10000 | 10100 | 101 | 80-120 | |
| Copper | ug/L | 250 | 243 | 97 | 80-120 | |
| Iron | ug/L | 10000 | 9950 | 100 | 80-120 | |
| Magnesium | ug/L | 10000 | 10100 | 101 | 80-120 | |
| Manganese | ug/L | 250 | 241 | 96 | 80-120 | |
| Potassium | ug/L | 10000 | 9610 | 96 | 80-120 | |
| Sodium | ug/L | 10000 | 9510 | 95 | 80-120 | |
| Total Hardness by 2340B | mg/L | | 66.9 | | | |
| Zinc | ug/L | 250 | 252 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544147 2544148

| Parameter | Units | 40261107001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | ug/L | 2220 | 10000 | 10000 | 12500 | 12100 | 103 | 99 | 75-125 | 3 | 20 | |
| Copper | ug/L | 17.7 | 250 | 250 | 265 | 267 | 99 | 100 | 75-125 | 1 | 20 | |
| Iron | ug/L | 689 | 10000 | 10000 | 11100 | 10900 | 104 | 102 | 75-125 | 2 | 20 | |
| Magnesium | ug/L | 684 | 10000 | 10000 | 11200 | 11200 | 105 | 105 | 75-125 | 0 | 20 | |
| Manganese | ug/L | 31.6 | 250 | 250 | 284 | 282 | 101 | 100 | 75-125 | 0 | 20 | |
| Potassium | ug/L | 738J | 10000 | 10000 | 10700 | 10700 | 100 | 99 | 75-125 | 0 | 20 | |
| Sodium | ug/L | 29000 | 10000 | 10000 | 38900 | 39700 | 99 | 107 | 75-125 | 2 | 20 | |
| Total Hardness by 2340B | mg/L | 8.4 | | | 77.4 | 76.3 | | | | 1 | 20 | |
| Zinc | ug/L | 20.7J | 250 | 250 | 274 | 275 | 101 | 102 | 75-125 | 0 | 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.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

QC Batch: 443610 — Analysis Method: SM 2320B
QC Batch Method: SM 2320B — Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010

METHOD BLANK: 2547490 — Matrix: Water
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | <5.0 | 10.0 | 04/30/23 19:20 | |

LABORATORY CONTROL SAMPLE: 2547491

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 25 | 25.5 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2547492 2547493

| Parameter | Units | 40261107001 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 | 7.2J | 25 | 25 | 33.1 | 33.1 | 104 | 103 | 80-120 | 0 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

QC Batch: 443764
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261107011

METHOD BLANK: 2547938 Matrix: Water
Associated Lab Samples: 40261107011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | <5.0 | 10.0 | 05/01/23 19:58 | |

LABORATORY CONTROL SAMPLE: 2547939

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 200 | 206 | 103 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2547940 2547941

| Parameter | Units | 40261249001 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 | 312 | 200 | 200 | 476 | 460 | 82 | 74 | 80-120 | 3 | 20 | M0 |

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## REPORT OF LABORATORY ANALYSIS

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(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

QC Batch: 443098 | Analysis Method: SM 2540D
QC Batch Method: SM 2540D | Analysis Description: 2540D Total Suspended Solids
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

METHOD BLANK: 2544352 Matrix: Water
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | <0.48 | 1.0 | 04/24/23 13:40 | |

LABORATORY CONTROL SAMPLE: 2544353

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

SAMPLE DUPLICATE: 2544354

| Parameter | Units | 40261159001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | 54.0 | 58.0 | 7 | 10 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

QC Batch: 443089
QC Batch Method: SM 4500-S F (2000)
Analysis Method: SM 4500-S F (2000)
Analysis Description: 4500S2F Sulfide, Iodometric
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

METHOD BLANK: 2544320 Matrix: Water
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfide | mg/L | <1.2 | 4.0 | 04/25/23 13:46 | |

LABORATORY CONTROL SAMPLE: 2544321

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfide | mg/L | 46.8 | 44.4 | 95 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544322 2544323

| Parameter | Units | 40261107001 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 | 35.2 | 34.8 | 75 | 74 | 80-120 | 1 | 10 | M0 |

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## REPORT OF LABORATORY ANALYSIS

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(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

QC Batch: 443649
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

METHOD BLANK: 2547588 Matrix: Water
Associated Lab Samples: 40261107001, 40261107002, 40261107003, 40261107004, 40261107005, 40261107006, 40261107007, 40261107008, 40261107009, 40261107010, 40261107011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chloride | mg/L | <0.43 | 2.0 | 05/02/23 19:16 | |
| Sulfate | mg/L | <0.44 | 2.0 | 05/02/23 19:16 | |

LABORATORY CONTROL SAMPLE: 2547589

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chloride | mg/L | 20 | 20.2 | 101 | 90-110 | |
| Sulfate | mg/L | 20 | 19.9 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2547590 2547591

| Parameter | Units | 40261074001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 109 | 100 | 100 | 213 | 208 | 104 | 98 | 90-110 | 3 | 15 | |
| Sulfate | mg/L | 62.9 | 100 | 100 | 170 | 163 | 107 | 101 | 90-110 | 4 | 15 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2547592 2547593

| Parameter | Units | 40261107001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 49.2 | 100 | 100 | 160 | 160 | 111 | 111 | 90-110 | 0 | 15 | M0 |
| Sulfate | mg/L | 6.4 | 20 | 20 | 28.6 | 28.6 | 111 | 111 | 90-110 | 0 | 15 | M0 |

**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.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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Green Bay, WI 54302
(920)469-2436

# QUALIFIERS

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

**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 - Estimated concentration at or above the LOD and below the LOQ.

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.

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 - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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**

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

Pace Analytical Services, LLC
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(920)469-2436

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 40261107001 | SW-C9_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107002 | SW-C1_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107003 | SW-STM_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107004 | SW-C5_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107005 | SW-EB_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107006 | SW-NBOUT_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107007 | SW-NB_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107008 | SW-NB-DUP_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107009 | SW-HWY27W_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107010 | SW-HWY27E_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107011 | CP-04_20230419 | EPA 3010A | 443052 | EPA 6020B | 443126 |
| 40261107001 | SW-C9_20230419 | SM 2320B | 443610 | | |
| 40261107002 | SW-C1_20230419 | SM 2320B | 443610 | | |
| 40261107003 | SW-STM_20230419 | SM 2320B | 443610 | | |
| 40261107004 | SW-C5_20230419 | SM 2320B | 443610 | | |
| 40261107005 | SW-EB_20230419 | SM 2320B | 443610 | | |
| 40261107006 | SW-NBOUT_20230419 | SM 2320B | 443610 | | |
| 40261107007 | SW-NB_20230419 | SM 2320B | 443610 | | |
| 40261107008 | SW-NB-DUP_20230419 | SM 2320B | 443610 | | |
| 40261107009 | SW-HWY27W_20230419 | SM 2320B | 443610 | | |
| 40261107010 | SW-HWY27E_20230419 | SM 2320B | 443610 | | |
| 40261107011 | CP-04_20230419 | SM 2320B | 443764 | | |
| 40261107001 | SW-C9_20230419 | SM 2540D | 443098 | | |
| 40261107002 | SW-C1_20230419 | SM 2540D | 443098 | | |
| 40261107003 | SW-STM_20230419 | SM 2540D | 443098 | | |
| 40261107004 | SW-C5_20230419 | SM 2540D | 443098 | | |
| 40261107005 | SW-EB_20230419 | SM 2540D | 443098 | | |
| 40261107006 | SW-NBOUT_20230419 | SM 2540D | 443098 | | |
| 40261107007 | SW-NB_20230419 | SM 2540D | 443098 | | |
| 40261107008 | SW-NB-DUP_20230419 | SM 2540D | 443098 | | |
| 40261107009 | SW-HWY27W_20230419 | SM 2540D | 443098 | | |
| 40261107010 | SW-HWY27E_20230419 | SM 2540D | 443098 | | |
| 40261107011 | CP-04_20230419 | SM 2540D | 443098 | | |
| 40261107001 | SW-C9_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107002 | SW-C1_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107003 | SW-STM_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107004 | SW-C5_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107005 | SW-EB_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107006 | SW-NBOUT_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107007 | SW-NB_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107008 | SW-NB-DUP_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107009 | SW-HWY27W_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107010 | SW-HWY27E_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107011 | CP-04_20230419 | SM 4500-S F (2000) | 443089 | | |
| 40261107001 | SW-C9_20230419 | EPA 300.0 | 443649 | | |
| 40261107002 | SW-C1_20230419 | EPA 300.0 | 443649 | | |

**Pace Analytical Services, LLC**
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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC-2023-04 FLAMBEAU MINE CO.
Pace Project No.: 40261107

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40261107003** | **SW-STM_20230419** | EPA 300.0 | 443649 | | |
| **40261107004** | **SW-C5_20230419** | EPA 300.0 | 443649 | | |
| **40261107005** | **SW-EB_20230419** | EPA 300.0 | 443649 | | |
| **40261107006** | **SW-NBOUT_20230419** | EPA 300.0 | 443649 | | |
| **40261107007** | **SW-NB_20230419** | EPA 300.0 | 443649 | | |
| **40261107008** | **SW-NB-DUP_20230419** | EPA 300.0 | 443649 | | |
| **40261107009** | **SW-HWY27W_20230419** | EPA 300.0 | 443649 | | |
| **40261107010** | **SW-HWY27E_20230419** | EPA 300.0 | 443649 | | |
| **40261107011** | **CP-04_20230419** | EPA 300.0 | 443649 | | |

1 of 2

# CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

L0026110?

**ALL SHADED AREAS are for LAB USE ONLY**

| | |
|---|---|
| Company: FOTH | Billing Information: ACCOUNTING 2121 INNOVATION COURT DEPERE, WI. 54115 |
| Address: SAME AS BILLING → | |
| Report To: SHARON.KOSICKI@FOTH.COM | Email To: SHARON.KOSICKI@FOTH.COM |
| Copy To: | Site Collection Info/Address: |
| Customer Project Name/Number: | State: WI / County/City: RUSK / Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET |
| Phone: 920-497-2500 / Email: | Site/Facility ID #: FLAMBEAU MINE CO/FMC-2023-04 / Compliance Monitoring? [ ] Yes [ ] No |
| Collected By (print): JIM ENGELHARDT | Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code: |
| Collected By (signature): | Turnaround Date Required: / Immediately Packed on Ice: [X] Yes [ ] No |
| Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold: | Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [X] Yes [ ] No / Analysis: DOC |

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: I I U U U 2 4 5 4 5

Lab Project Manager:

** Preservative Types. (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses: Total Metals + Hardness; Dissolved Metals + Hardness; Total Alk/Cl/Sulfate; Dissolved Alk./Cl/Sulfate; Total Suspended Solids; Dissolved Organic Carbon; Total Sulfide; Dissolved Sulfide

Lab Profile/Line:

Lab Sample Receipt Checklist:

| | | | |
|---|---|---|---|
| Custody Seals Present/Intact | Y | N | NA |
| Custody Signatures Present | Y | N | NA |
| Collector Signature Present | Y | N | NA |
| Bottles Intact | Y | N | NA |
| Correct Bottles | Y | N | NA |
| Sufficient Volume | Y | N | NA |
| Samples Received on Ice | Y | N | NA |
| VOA - Headspace Acceptable | Y | N | NA |
| USDA Regulated Soils | Y | N | NA |
| Samples in Holding Time | Y | N | NA |
| Residual Chlorine Present | Y | N | NA |
| Cl Strips: | | | |
| Sample pH Acceptable | Y | N | NA |
| pH Strips: | | | |
| Sulfide Present | Y | N | NA |
| Lead Acetate Strips: | | | |

LAB USE ONLY:
Lab Sample # / Comments:

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | Lab Sample # |
|---|---|---|---|---|---|---|---|---|---|
| SW-C9 | OT | Grab | 4/19/23 | 5:15 | | | | 8 | 001 |
| SW-C1 | | | | 12:30 | | | | | 002 |
| SW-STM | | | | 6:30 | | | | | 003 |
| SW-C5 | | | | 1:30 | | | | | 004 |
| SW-EB | | | | 3:00 | | | | | 005 |
| SW-NBOUT | | | | 3:45 | | | | | 006 |
| SW-NB | | | | 4:30 | | | | | 007 |
| SW-NB DUP | | | | 4:35 | | | | | 008 |
| SW-HWY27W | | | | 5:45 | | | | | 009 |
| SW-HWY27E | | | | 6:00 | | | | | 010 |

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None (1)

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2830240

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:

| | | | | |
|---|---|---|---|---|
| Relinquished by/Company: (Signature) | Date/Time: 4-20-23 10:00AM | Received by/Company: (Signature) | Date/Time: | MTJL LAB USE ONLY |
| Relinquished by/Company: (Signature) UPS | Date/Time: 4/21/23 0955 | Received by/Company: (Signature) | Date/Time: 4/21/23 0955 | Table #: / Acctnum: (1) / Template: / Prelogin: / PM: / PB: |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: | |

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

# CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40261107

**ALL SHADED AREAS are for LAB USE ONLY**

| | |
|---|---|
| Company: FOTH | Billing Information: ACCOUNTING 2121 INNOVATION COURT, PO 5126 DEPERE, WI 54115 |
| Address: 2121 INNOVATION CRT., DEPERE, WI. | |
| Report To: SHARON.KOZICKI@FOTH.COM | Email To: SHARON.KOZICKI@FOTH.COM |
| Copy To: | Site Collection Info/Address: |
| Customer Project Name/Number: FLAMBEAU MINE CO/FMC-2023-04 | State: WI County/City: RUSK Time Zone Collected: ( ) PT ( ) MT (X) CT [ ] ET |
| Phone: 920-497-2500 Email: | Site/Facility ID #: FLAMBEAU MINE CO/FMC-2023-04 Compliance Monitoring? [ ] Yes ( ) No |
| Collected By (print): JM ENGELHARD | Purchase Order #: Quote #: DW PWS ID #: DW Location Code: |
| Collected By (signature): | Turnaround Date Required: — Immediately Packed on Ice: (X) Yes [ ] No |
| Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold: | Rush: ( ) Same Day ( ) Next Day ( ) 2 Day ( ) 3 Day [ ] 4 Day ( ) 5 Day (Expedite Charges Apply) Field Filtered (if applicable): (X) Yes [ ] No Analysis: DOC |

Container Preservative Type **: 1 1 U U U 2 A/S A/S

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | Total Metals + Hardness | Dissolved Metals + Hardness | Total Alkalinity, Cl + Sulfate | Dissolved Alkalinity, Cl + Sulfate | Total Suspended Solids | Dissolved Organic Carbon | Total Sulfide | Dissolved Sulfide | | | Lab Sample # / Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CP-04 | OT | GRAB | 4/19/23 | 11:50 | | | | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 01 |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |

Lab Profile/Line:

Lab Sample Receipt Checklist:

| | | | |
|---|---|---|---|
| Custody Seals Present/Intact | Y | N | NA |
| Custody Signatures Present | Y | N | NA |
| Collector Signature Present | Y | N | NA |
| Bottles Intact | Y | N | NA |
| Correct Bottles | Y | N | NA |
| Sufficient Volume | Y | N | NA |
| Samples Received on Ice | Y | N | NA |
| VOA Headspace Acceptable | Y | N | NA |
| USDA Regulated Soils | Y | N | NA |
| Samples in Holding Time | Y | N | NA |
| Residual Chlorine Present | Y | N | NA |
| Cl Strips: | | | |
| Sample pH Acceptable | Y | N | NA |
| pH Strips: | | | |
| Sulfide Present | Y | N | NA |
| Lead Acetate Strips: | | | |

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used: (1)

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2830239

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments:

| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |
|---|---|---|---|
| | 4/20/23 10:00AM | | |
| Relinquished by/Company: (Signature) UPS | Date/Time: 4/21/23 0905 | Received by/Company: (Signature) | Date/Time: 4/21/23 0905 |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |

MTJL LAB USE ONLY
Table #:
Acctnum: (1)
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

# Sample Preservation Receipt Form

Client Name: Fgh  Project # 40261107

All containers needing preservation have been checked and noted below. ☑Yes ☐No ☐N/A  Initial when completed: SB  Date/Time:

Lab Lot# of pH paper. CVB0720  Lab Std #ID of preservation (if pH adjusted)

| Pace Lab # | Glass | | | | | | | Plastic | | | | | | Vials | | | | | | Jars | | | | General | | | | VOA Vials (>6mm) * | H2SO4 pH ≤2 | NaOH+Zn Act pH ≥9 | NaOH pH ≥12 | HNO3 pH ≤2 | pH after adjusted | Volume (mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AG1U | BG1U | AG1H | AG4S | AG5U | AG2S | BG3U | BP1U | BP3U | BP3B | BP3N | BP3S | BP2Z | VG9C | DG9T | VG9U | VG9H | VG9M | VG9D | JGFU | JG9U | WGFU | WPFU | SP5T | ZPLC | GN 1 | GN 2 | | | | | | | |
| 001 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 002 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 003 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 004 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 005 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 006 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 007 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 008 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 009 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 010 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 011 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 016 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 017 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 018 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |

4/21/23 86

Exceptions to preservation check VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other DOC  Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A  *If yes look in headspace column

| | | | | | | |
|---|---|---|---|---|---|---|
| AG1U | 1 liter amber glass | BP1U | 1 liter plastic unpres | VG9C | 40 mL clear ascorbic w/ HCl | JGFU | 4 oz amber jar unpres |
| BG1U | 1 liter clear glass | BP3U | 250 mL plastic unpres | DG9T | 40 mL amber Na Thio | JG9U | 9 oz amber jar unpres |
| AG1H | 1 liter amber glass HCL | BP3B | 250 mL plastic NaOH | VG9U | 40 mL clear vial unpres | WGFU | 4 oz clear jar unpres |
| AG4S | 125 mL amber glass H2SO4 | BP3N | 250 mL plastic HNO3 | VG9H | 40 mL clear vial HCL | WPFU | 4 oz plastic jar unpres |
| AG5U | 100 mL amber glass unpres | BP3S | 250 mL plastic H2SO4 | VG9M | 40 mL clear vial MeOH | SP5T | 120 mL plastic Na Thiosulfate |
| AG2S | 500 mL amber glass H2SO4 | BP2Z | 500 mL plastic NaOH + Zn | VG9D | 40 mL clear vial DI | ZPLC | ziploc bag |
| BG3U | 250 mL clear glass unpres | | | | | GN 1 | |
| | | | | | | GN 2 | |

# Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40261107

40261107

**Client Name:** Foth

**Courier:** ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☑ UPS ☐ Waltco
☐ Client ☐ Pace Other:

**Tracking #:** 1Z023R310145589 7734①

**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 - 9 **Type of Ice:** Wet Blue Dry None ☐ Meltwater Only

**Cooler Temperature** Uncorr 0.5 /Corr: 1.5②

**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: 4/21/23 Initials: SG

**Labeled By Initials:** VN

| | | |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No | 5. |
| - DI VOA Samples frozen upon receipt | ☐Yes ☐No | Date/Time: |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No | 7. |
| Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A | | 8. |
| Correct Containers Used: | ☑Yes ☐No | 9. |
| Correct Type: Pace Green Bay, Pace IR, Non-Pace | | |
| Containers Intact: | ☑Yes ☐No | 10. |
| Filtered volume received for Dissolved tests | ☑Yes ☐No ☐N/A | 11. |
| Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WO | ☑Yes ☐No ☐N/A | 12. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 13. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑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:
① 1Z023R3101 4558 9705 ② 0.0/1.0
1Z023R3101 1256 2433 1.0/2.0

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

Page 2 of 2

1 of 2

# CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical*

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40261107

**ALL SHADED AREAS are for LAB USE ONLY**

| | |
|---|---|
| Company: FOTH | Billing Information: ACCOUNTING 2121 INNOVATION COURT DEPERE, WI. 54115 |
| Address: SAME AS BILLING → | |
| Report To: SHARON.KOSICKI@FOTH.COM | Email To: SHARON.KOSICKI@FOTH.COM |
| Copy To: | Site Collection Info/Address: |
| Customer Project Name/Number: | State: WI / County/City: RUSK / Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET |
| Phone: 920-497-2500 / Email: | Site/Facility ID #: FLAMBEAU MINE CO/FMC-2023-04 / Compliance Monitoring? [ ] Yes [ ] No |
| Collected By (print): JIM ENGELHARDT | Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code: |
| Collected By (signature): | Turnaround Date Required: / Immediately Packed on Ice: [X] Yes [ ] No |
| Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold: | Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [X] Yes [ ] No / Analysis: DOC |

Container Preservative Type **: I | I | U | U | U | 2 | 4 | 5 | A | 5

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Project Manager:

Lab Profile/Line:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | Analyses: Total Metals + Hardness | Dissolved Metals + Hardness | Total Alk/Cl/Sulfate | Dissolved Alk/Cl/Sulfate | Total Suspended Solids | Dissolved Organic Carbon | Total Sulfide | Dissolved Sulfide | Lab Profile/Line |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW-C9_20230419 | OT | Grab | 4/19/23 | ~~5:15~~ | 1715 | | | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 001 |
| SW-C1_20230419 | | | | ~~12:30~~ | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 002 |
| SW-STM_20230419 | | | | ~~6:30~~ | 1830 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 003 |
| SW-C5_20230419 | | | | ~~1:30~~ | 1330 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 004 |
| SW-EB_20230419 | | | | ~~3:00~~ | 1500 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 005 |
| SW-NBOUT_20230419 | | | | ~~2:45~~ | 1545 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 006 |
| SW-NB_20230419 | | | | ~~4:30~~ | 1630 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 007 |
| SW-NB-DUP_20230419 | | | | ~~4:35~~ | 1635 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 008 |
| SW-HWY27W_20230419 | | | | ~~5:45~~ | 1745 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 009 |
| SW-HWY27E_20230419 | | | | ~~6:00~~ | 1800 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 010 |

Lab Tracking #: 2830240

Customer Remarks / Special Conditions / Possible Hazards:
Revised 4/24/2023 @ 1200
By Nick Glander (Foth)

Type of Ice Used: Wet Blue Dry None (1)

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Receipt Checklist:

| | | | |
|---|---|---|---|
| Custody Seals Present/Intact | Y | N | NA |
| Custody Signatures Present | Y | N | NA |
| Collector Signature Present | Y | N | NA |
| Bottles Intact | Y | N | NA |
| Correct Bottles | Y | N | NA |
| Sufficient Volume | Y | N | NA |
| Samples Received on Ice | Y | N | NA |
| VOA - Headspace Acceptable | Y | N | NA |
| USDA Regulated Soils | Y | N | NA |
| Samples in Holding Time | Y | N | NA |
| Residual Chlorine Present | Y | N | NA |
| Cl Strips: | | | |
| Sample pH Acceptable | Y | N | NA |
| pH Strips: | | | |
| Sulfide Present | Y | N | NA |
| Lead Acetate Strips: | | | |

LAB USE ONLY:
Lab Sample # / Comments:

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO
Page: ____ of: ____

| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |
|---|---|---|---|
| [signature] / MCRIENT | 4-20-23 10:00AM | | |
| UPS | 4/21/23 0955 | [signature] | 4/21/23 0955 |
| | | | |

MTJL LAB USE ONLY
Table #:
Acctnum:
Template: (1)
Prelogin:
PM:
PB:

Page 35 of 38

2 of 2

# CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-In Number Here

40261107

**ALL SHADED AREAS are for LAB USE ONLY**

| | |
|---|---|
| Company: FOTH | Billing Information: ACCOUNTING 2121 INNOVATION COURT, PO 5126 DEPERE, WI 54115 |
| Address: 2121 INNOVATION CRT., DEPERE, WI. | |
| Report To: SHARON.KOZICKI@FOTH.COM | Email To: SHARON.KOZICKI@FOTH.COM |
| Copy To: | Site Collection Info/Address: |
| Customer Project Name/Number: FLAMBEAU MINE CO/FMC-2023-04 | State: WI County/City: RUSK Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET |
| Phone: 920-497-2500 Email: | Site/Facility ID #: FLAMBEAU MINE CO/FMC-2023-04 Compliance Monitoring? [ ] Yes [ ] No |
| Collected By (print): JIM ENGELHARD | Purchase Order #: Quote #: DW PWS ID #: DW Location Code: |
| Collected By (signature): | Turnaround Date Required: — Immediately Packed on Ice: [X] Yes [ ] No |
| Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold: | Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [X] Yes [ ] No Analysis: DOC |

Container Preservative Type **: 1 1 U 0 U 2 A/5 A/5

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | Total Metals + Hardness | Dissolved Metals + Hardness | Total Alkalinity, Cl + Sulfate | Dissolved Alkalinity, Cl + Sulfate | Total Suspended Solids | Dissolved Organic Carbon | Total Sulfide | Dissolved Sulfide | | | Lab Profile/Line: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CP-04_20230419 | OT | GRAB | 4/19/23 | 11:30 | | | | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | OU |
| | | | | | | | | | | | | | | | | | | | |
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Lab Sample Receipt Checklist:

| | | | |
|---|---|---|---|
| Custody Seals Present/Intact | Y | N | NA |
| Custody Signatures Present | Y | N | NA |
| Collector Signature Present | Y | N | NA |
| Bottles Intact | Y | N | NA |
| Correct Bottles | Y | N | NA |
| Sufficient Volume | Y | N | NA |
| Samples Received on Ice | Y | N | NA |
| VOA Headspace Acceptable | Y | N | NA |
| USDA Regulated Soils | Y | N | NA |
| Samples in Holding Time | Y | N | NA |
| Residual Chlorine Present | Y | N | NA |
| Cl Strips: | | | |
| Sample pH Acceptable | Y | N | NA |
| pH Strips: | | | |
| Sulfide Present | Y | N | NA |
| Lead Acetate Strips: | | | |

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Revised 4/24/2023 @ 1200
By Nick Glander (Foth)

Type of Ice Used: Wet Blue Dry None

Packing Material Used: 1

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2830239

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments:

| | | | | |
|---|---|---|---|---|
| Relinquished by/Company: (Signature) | Date/Time: 4/20/23 10:00AM | Received by/Company: (Signature) | Date/Time: | MTJL LAB USE ONLY |
| Relinquished by/Company: (Signature) UPS | Date/Time: 4/21/23 0905 | Received by/Company: (Signature) | Date/Time: 4/21/23 0905 | Table #: Acctnum: 1 Template: Prelogin: PM: PB: |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: | |

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

# Sample Preservation Receipt Form

Client Name: Fdx  Project # 480261107

All containers needing preservation have been checked and noted below. ☑Yes ☐No ☐N/A  Initial when completed: SG  Date/Time:

Lab Lot# of pH paper. CH20720  Lab Std #ID of preservation (if pH adjusted)

| Pace Lab # | Glass: AG1U | BG1U | AG1H | AG4S | AG5U | AG2S | BG3U | Plastic: BP1U | BP3U | BP3B | BP3N | BP3S | BP2Z | Vials: VG9C | DG9T | VG9U | VG9H | VG9M | VG9D | Jars: JGFU | JG9U | WGFU | WPFU | General: SP5T | ZPLC | GN 1 | GN 2 | VOA Vials (>6mm)* | H2SO4 pH ≤2 | NaOH+Zn Act pH ≥9 | NaOH pH ≥12 | HNO3 pH ≤2 | pH after adjusted | Volume (mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 002 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 003 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 004 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 005 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 006 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 007 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 008 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 009 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 010 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 011 | | | | | | | | | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 016 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 017 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 018 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |

4/21/23 SG

Exceptions to preservation check VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: DOC

Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A  *If yes look in headspace column

| | |
|---|---|
| AG1U | 1 liter amber glass |
| BG1U | 1 liter clear glass |
| AG1H | 1 liter amber glass HCL |
| AG4S | 125 mL amber glass H2SO4 |
| AG5U | 100 mL amber glass unpres |
| AG2S | 500 mL amber glass H2SO4 |
| BG3U | 250 mL clear glass unpres |

| | |
|---|---|
| BP1U | 1 liter plastic unpres |
| BP3U | 250 mL plastic unpres |
| BP3B | 250 mL plastic NaOH |
| BP3N | 250 mL plastic HNO3 |
| BP3S | 250 mL plastic H2SO4 |
| BP2Z | 500 mL plastic NaOH + Zn |

| | |
|---|---|
| VG9C | 40 mL clear ascorbic w/ HCl |
| DG9T | 40 mL amber Na Thio |
| VG9U | 40 mL clear vial unpres |
| VG9H | 40 mL clear vial HCL |
| VG9M | 40 mL clear vial MeOH |
| VG9D | 40 mL clear vial DI |

| | |
|---|---|
| JGFU | 4 oz amber jar unpres |
| JG9U | 9 oz amber jar unpres |
| WGFU | 4 oz clear jar unpres |
| WPFU | 4 oz plastic jar unpres |
| SP5T | 120 mL plastic Na Thiosulfate |
| ZPLC | ziploc bag |
| GN 1 | |
| GN 2 | |

# Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40261107

40261107

**Client Name:** Foth

**Courier:** ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☑ UPS ☐ Waltco
☐ Client ☐ Pace Other:

**Tracking #:** 1Z023R3101 4589 7734 ①

**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 - 9 **Type of Ice:** Wet Blue Dry None ☐ Meltwater Only

**Cooler Temperature** Uncorr: 0.5 /Corr: 1.5 ②

**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: 4/21/23 Initials: SG

**Labeled By Initials:** YN

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

① 1Z023R3101 4589 9205 ② 9.0/11.0
1Z023R3101 1256 2433 9.0/12.0

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

Page 2 of 2

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 19, 2023

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

RE: Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

Dear Nick Glander:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2023. 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
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**

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## CERTIFICATIONS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE SUMMARY

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **40261550001** | **SW-C9_20230429** | Water | 04/29/23 12:30 | 05/02/23 08:20 |
| **40261550002** | **SW-C1_20230429** | Water | 04/29/23 14:30 | 05/02/23 08:20 |
| **40261550003** | **SW-STM_20230429** | Water | 04/29/23 10:30 | 05/02/23 08:20 |
| **40261550004** | **SW-C5_20230429** | Water | 04/29/23 15:30 | 05/02/23 08:20 |
| **40261550005** | **SW-EB_20230429** | Water | 04/29/23 16:30 | 05/02/23 08:20 |
| **40261550006** | **SW-NBOUT_20230429** | Water | 04/29/23 17:00 | 05/02/23 08:20 |
| **40261550007** | **SW-NB_20230429** | Water | 04/29/23 18:15 | 05/02/23 08:20 |
| **40261550008** | **SW-HWY27W_20230429** | Water | 04/29/23 11:30 | 05/02/23 08:20 |
| **40261550009** | **SW-HWY27E_20230429** | Water | 04/29/23 12:00 | 05/02/23 08:20 |
| **40261550010** | **CP-04_20230429** | Water | 04/29/23 13:30 | 05/02/23 08:20 |
| **40261550011** | **SW-C5-DUP-20230429** | Water | 04/29/23 15:30 | 05/02/23 08:20 |

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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## SAMPLE ANALYTE COUNT

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **40261550001** | **SW-C9_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550002** | **SW-C1_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550003** | **SW-STM_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550004** | **SW-C5_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE ANALYTE COUNT

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550005** | **SW-EB_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550006** | **SW-NBOUT_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550007** | **SW-NB_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550008** | **SW-HWY27W_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE ANALYTE COUNT

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550009** | **SW-HWY27E_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550010** | **CP-04_20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |
| **40261550011** | **SW-C5-DUP-20230429** | EPA 6020B | KXS | 9 |
| | | EPA 6020B | KXS | 9 |
| | | SM 2540D | HNT | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | SM 4500-S F (2000) | EXM | 1 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 300.0 | HMB | 2 |
| | | EPA 310.2 | DAW | 1 |
| | | EPA 310.2 | DAW | 1 |
| | | SM 5310C | TJJ | 1 |

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE ANALYTE COUNT

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|

PASI-G = Pace Analytical Services - Green Bay

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **EPA 6020B**
**Description:** 6020B MET ICPMS
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**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:**

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **EPA 6020B**
**Description:** 6020B MET ICPMS, Dissolved
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**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:**

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **SM 2540D**
**Description:** 2540D Total Suspended Solids
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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: 443914

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

- SW-C1_20230429 (Lab ID: 40261550002)
  - Total Suspended Solids
- SW-C5-DUP-20230429 (Lab ID: 40261550011)
  - Total Suspended Solids
- SW-C5_20230429 (Lab ID: 40261550004)
  - Total Suspended Solids
- SW-HWY27E_20230429 (Lab ID: 40261550009)
  - Total Suspended Solids
- SW-NBOUT_20230429 (Lab ID: 40261550006)
  - Total Suspended Solids
- SW-NB_20230429 (Lab ID: 40261550007)
  - Total Suspended Solids
- SW-STM_20230429 (Lab ID: 40261550003)
  - Total Suspended Solids

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

- SW-C1_20230429 (Lab ID: 40261550002)
  - Total Suspended Solids
- SW-C5-DUP-20230429 (Lab ID: 40261550011)
  - Total Suspended Solids

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## PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **SM 2540D**
**Description:** 2540D Total Suspended Solids
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

Analyte Comments:

QC Batch: 443914

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

- SW-C5_20230429 (Lab ID: 40261550004)
  - Total Suspended Solids
- SW-HWY27E_20230429 (Lab ID: 40261550009)
  - Total Suspended Solids
- SW-NBOUT_20230429 (Lab ID: 40261550006)
  - Total Suspended Solids
- SW-NB_20230429 (Lab ID: 40261550007)
  - Total Suspended Solids
- SW-STM_20230429 (Lab ID: 40261550003)
  - Total Suspended Solids

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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **SM 4500-S F (2000)**
**Description:** 4500S2F Sulfide, Iodometric
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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:**

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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **SM 4500-S F (2000)**
**Description:** 4500S2F Sulfide,Diss Iodometrc
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **EPA 300.0**
**Description:** 300.0 IC Anions
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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:**

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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **EPA 300.0**
**Description:** 300.0 IC Anions, Dissolved
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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:**

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## PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **EPA 310.2**
**Description:** 310.2 Alkalinity
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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:**

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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **EPA 310.2**
**Description:** 310.2 Alkalinity, Dissolved
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**General Information:**
11 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: 444473

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40261504001,40261550006

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

- MSD (Lab ID: 2551372)
  - Alkalinity, Total as CaCO3, Dissolved

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Method:** **SM 5310C**
**Description:** 5310C Dissolved Organic Carbon
**Client:** FOTH INFRASTRUCTURE & ENVIRONMENT
**Date:** May 19, 2023

**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: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C9_20230429** **Lab ID: 40261550001** Collected: 04/29/23 12:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **2520** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 13:45 | 7440-70-2 | |
| Copper | **5.0J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7440-50-8 | |
| Iron | **741** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7439-89-6 | |
| Magnesium | **983** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7439-95-4 | |
| Manganese | **24.9** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7439-96-5 | |
| Potassium | **770J** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7440-09-7 | |
| Sodium | **7010** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7440-23-5 | |
| Total Hardness by 2340B | **10.3** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | | |
| Zinc | **11.6J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 03:07 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **2400** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 16:05 | 7440-70-2 | |
| Copper, Dissolved | **3.8J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7440-50-8 | |
| Iron, Dissolved | **290** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7439-89-6 | |
| Magnesium, Dissolved | **919** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7439-95-4 | |
| Manganese, Dissolved | **17.5** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7439-96-5 | |
| Potassium, Dissolved | **684J** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7440-09-7 | |
| Sodium, Dissolved | **7140** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **9.8** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 06:10 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **6.4** | mg/L | 1.0 | 0.48 | 1 | | 05/03/23 14:04 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:24 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:02 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **11.0** | mg/L | 2.0 | 0.43 | 1 | | 05/15/23 19:42 | 16887-00-6 | |
| Sulfate | **1.3J** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 19:42 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **10.6** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 04:58 | 16887-00-6 | |
| Sulfate, Dissolved | **1.3J** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 04:58 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C9_20230429** **Lab ID: 40261550001** Collected: 04/29/23 12:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 10:52 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 12:08 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **8.7** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 12:02 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C1_20230429** **Lab ID: 40261550002** Collected: 04/29/23 14:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **6470** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 14:14 | 7440-70-2 | |
| Copper | **7.3** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7440-50-8 | |
| Iron | **291** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7439-89-6 | |
| Magnesium | **2720** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7439-95-4 | |
| Manganese | **17.8** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7439-96-5 | |
| Potassium | **1090** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7440-09-7 | |
| Sodium | **16500** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7440-23-5 | |
| Total Hardness by 2340B | **27.4** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 03:36 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **6320** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 16:49 | 7440-70-2 | |
| Copper, Dissolved | **5.8J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7440-50-8 | |
| Iron, Dissolved | **130J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7439-89-6 | |
| Magnesium, Dissolved | **2700** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7439-95-4 | |
| Manganese, Dissolved | **14.5** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7439-96-5 | |
| Potassium, Dissolved | **1040** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7440-09-7 | |
| Sodium, Dissolved | **17000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **26.9** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 06:40 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **0.93J** | mg/L | 1.0 | 0.49 | 1 | | 05/03/23 14:04 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:34 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:08 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **27.0** | mg/L | 2.0 | 0.43 | 1 | | 05/15/23 21:11 | 16887-00-6 | |
| Sulfate | **3.7** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 21:11 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **27.2** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 05:13 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **3.7** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 05:13 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C1_20230429** **Lab ID: 40261550002** Collected: 04/29/23 14:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **17.3J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 10:53 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **15.6J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 12:09 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **7.8** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 12:19 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-STM_20230429** **Lab ID: 40261550003** Collected: 04/29/23 10:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **7440** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 14:29 | 7440-70-2 | |
| Copper | **6.2J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7440-50-8 | |
| Iron | **371** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7439-89-6 | |
| Magnesium | **3150** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7439-95-4 | |
| Manganese | **16.5** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7439-96-5 | |
| Potassium | **1180** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7440-09-7 | |
| Sodium | **17900** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7440-23-5 | |
| Total Hardness by 2340B | **31.5** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 03:51 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **7110** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 17:03 | 7440-70-2 | |
| Copper, Dissolved | **4.9J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7440-50-8 | |
| Iron, Dissolved | **130J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7439-89-6 | |
| Magnesium, Dissolved | **3050** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7439-95-4 | |
| Manganese, Dissolved | **10.3** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7439-96-5 | |
| Potassium, Dissolved | **1070** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7440-09-7 | |
| Sodium, Dissolved | **17700** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7440-23-5 | |
| Total Hardness by 2340B, Dissolved | **30.3** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 06:55 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **2.1** | mg/L | 1.1 | 0.50 | 1 | | 05/03/23 14:04 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:35 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:11 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **31.1** | mg/L | 2.0 | 0.43 | 1 | | 05/15/23 22:10 | 16887-00-6 | |
| Sulfate | **3.6** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 22:10 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **31.6** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 05:28 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **3.8** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 05:28 | 14808-79-8 | D9 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-STM_20230429** **Lab ID: 40261550003** Collected: 04/29/23 10:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **16.8J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 10:57 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **18.9J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 12:10 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **8.7** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 12:34 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C5_20230429** **Lab ID: 40261550004** Collected: 04/29/23 15:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **4650** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 14:36 | 7440-70-2 | |
| Copper | **6.7** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7440-50-8 | |
| Iron | **265** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7439-89-6 | |
| Magnesium | **1970** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7439-95-4 | |
| Manganese | **7.5** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7439-96-5 | |
| Potassium | **976** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7440-09-7 | |
| Sodium | **13600** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7440-23-5 | |
| Total Hardness by 2340B | **19.7** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 03:58 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **4760** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 17:11 | 7440-70-2 | D9 |
| Copper, Dissolved | **6.4** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7440-50-8 | |
| Iron, Dissolved | **126J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7439-89-6 | |
| Magnesium, Dissolved | **2080** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7439-95-4 | D9 |
| Manganese, Dissolved | **5.0** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7439-96-5 | |
| Potassium, Dissolved | **1020** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7440-09-7 | D9 |
| Sodium, Dissolved | **14900** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **20.4** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 07:31 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **0.51J** | mg/L | 1.0 | 0.48 | 1 | | 05/03/23 14:04 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:37 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:12 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **20.8** | mg/L | 2.0 | 0.43 | 1 | | 05/15/23 22:24 | 16887-00-6 | |
| Sulfate | **3.1** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 22:24 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **24.2** | mg/L | 2.0 | 0.43 | 1 | | 05/15/23 16:05 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **3.2** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 16:05 | 14808-79-8 | D9 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C5_20230429** **Lab ID: 40261550004** Collected: 04/29/23 15:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **11.1J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 10:58 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **14.9J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 12:11 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **7.6** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 12:49 | | |

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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-EB_20230429** **Lab ID: 40261550005** Collected: 04/29/23 16:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **11200** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:13 | 7440-70-2 | |
| Copper | **6.3J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7440-50-8 | |
| Iron | **480** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7439-89-6 | |
| Magnesium | **4740** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7439-95-4 | |
| Manganese | **24.1** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7439-96-5 | |
| Potassium | **1560** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7440-09-7 | |
| Sodium | **37000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7440-23-5 | |
| Total Hardness by 2340B | **47.6** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 04:05 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **10800** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 17:18 | 7440-70-2 | |
| Copper, Dissolved | **4.9J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7440-50-8 | |
| Iron, Dissolved | **93.6J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7439-89-6 | |
| Magnesium, Dissolved | **4810** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7439-95-4 | D9 |
| Manganese, Dissolved | **17.8** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7439-96-5 | |
| Potassium, Dissolved | **1470** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7440-09-7 | |
| Sodium, Dissolved | **37600** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **46.9** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 07:39 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **2.8** | mg/L | 1.0 | 0.49 | 1 | | 05/03/23 14:04 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:39 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:14 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **61.1** | mg/L | 10.0 | 2.2 | 5 | | 05/16/23 09:55 | 16887-00-6 | |
| Sulfate | **6.8** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 23:02 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **68.0** | mg/L | 10.0 | 2.2 | 5 | | 05/16/23 14:58 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **6.9** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 16:44 | 14808-79-8 | D9 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-EB_20230429** **Lab ID: 40261550005** Collected: 04/29/23 16:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **36.0** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 10:59 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **35.5** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 12:12 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **7.2** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 13:05 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-NBOUT_20230429** **Lab ID: 40261550006** Collected: 04/29/23 17:00 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **9950** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:20 | 7440-70-2 | |
| Copper | **3.7J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7440-50-8 | |
| Iron | **370** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7439-89-6 | |
| Magnesium | **4360** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7439-95-4 | |
| Manganese | **32.1** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7439-96-5 | |
| Potassium | **1370** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7440-09-7 | |
| Sodium | **25300** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7440-23-5 | |
| Total Hardness by 2340B | **42.8** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | | |
| Zinc | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 04:42 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **8970** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 17:25 | 7440-70-2 | |
| Copper, Dissolved | **3.2J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7440-50-8 | |
| Iron, Dissolved | **116J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7439-89-6 | |
| Magnesium, Dissolved | **3990** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7439-95-4 | |
| Manganese, Dissolved | **13.1** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7439-96-5 | |
| Potassium, Dissolved | **1240** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7440-09-7 | |
| Sodium, Dissolved | **24400** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7440-23-5 | |
| Total Hardness by 2340B, Dissolved | **38.8** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 07:46 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **0.82J** | mg/L | 1.0 | 0.49 | 1 | | 05/03/23 14:04 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:40 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:15 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **48.6** | mg/L | 2.0 | 0.43 | 1 | | 05/15/23 23:16 | 16887-00-6 | |
| Sulfate | **3.1** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 23:16 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **53.9** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 15:10 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **3.2** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 15:10 | 14808-79-8 | D9 |

## REPORT OF LABORATORY ANALYSIS

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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-NBOUT_20230429** **Lab ID: 40261550006** Collected: 04/29/23 17:00 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **20.7J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 11:00 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **21.0J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 13:11 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **9.2** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 13:52 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-NB_20230429** **Lab ID: 40261550007** Collected: 04/29/23 18:15 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **8800** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:28 | 7440-70-2 | |
| Copper | **5.6J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7440-50-8 | |
| Iron | **392** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7439-89-6 | |
| Magnesium | **3550** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7439-95-4 | |
| Manganese | **29.3** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7439-96-5 | |
| Potassium | **1460** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7440-09-7 | |
| Sodium | **35500** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7440-23-5 | |
| Total Hardness by 2340B | **36.6** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | | |
| Zinc | **18.2J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 04:50 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **8250** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 17:33 | 7440-70-2 | |
| Copper, Dissolved | **4.5J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7440-50-8 | |
| Iron, Dissolved | **169J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7439-89-6 | |
| Magnesium, Dissolved | **3490** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7439-95-4 | |
| Manganese, Dissolved | **26.0** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7439-96-5 | |
| Potassium, Dissolved | **1390** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7440-09-7 | |
| Sodium, Dissolved | **36000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **35.0** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | | |
| Zinc, Dissolved | **19.0J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 07:54 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **<0.49** | mg/L | 1.0 | 0.49 | 1 | | 05/03/23 14:04 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:42 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:16 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **75.4** | mg/L | 10.0 | 2.2 | 5 | | 05/16/23 13:18 | 16887-00-6 | |
| Sulfate | **2.4** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 23:31 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **86.0** | mg/L | 10.0 | 2.2 | 5 | | 05/17/23 17:13 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **2.5** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 15:23 | 14808-79-8 | D9 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-NB_20230429** **Lab ID: 40261550007** Collected: 04/29/23 18:15 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 11:01 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 13:16 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **10.0** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 15:04 | | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-HWY27W_20230429** **Lab ID: 40261550008** Collected: 04/29/23 11:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **10200** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:35 | 7440-70-2 | |
| Copper | **4.2J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7440-50-8 | |
| Iron | **528** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7439-89-6 | |
| Magnesium | **3660** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7439-95-4 | |
| Manganese | **63.1** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7439-96-5 | |
| Potassium | **1760** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7440-09-7 | |
| Sodium | **59000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7440-23-5 | |
| Total Hardness by 2340B | **40.5** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | | |
| Zinc | **30.3J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 04:57 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **10200** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 18:10 | 7440-70-2 | |
| Copper, Dissolved | **3.6J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7440-50-8 | |
| Iron, Dissolved | **284** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7439-89-6 | |
| Magnesium, Dissolved | **3640** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7439-95-4 | |
| Manganese, Dissolved | **57.0** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7439-96-5 | |
| Potassium, Dissolved | **1640** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7440-09-7 | |
| Sodium, Dissolved | **58400** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7440-23-5 | |
| Total Hardness by 2340B, Dissolved | **40.4** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | | |
| Zinc, Dissolved | **30.2J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 08:01 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **3.3** | mg/L | 1.0 | 0.48 | 1 | | 05/03/23 14:05 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:43 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:17 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **121** | mg/L | 10.0 | 2.2 | 5 | | 05/16/23 13:32 | 16887-00-6 | |
| Sulfate | **3.2** | mg/L | 2.0 | 0.44 | 1 | | 05/15/23 23:46 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **131** | mg/L | 10.0 | 2.2 | 5 | | 05/17/23 17:25 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **3.1** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 15:36 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-HWY27W_20230429** **Lab ID: 40261550008** Collected: 04/29/23 11:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 11:02 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 13:19 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **10.8** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 15:22 | | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-HWY27E_20230429** **Lab ID: 40261550009** Collected: 04/29/23 12:00 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **2220** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:42 | 7440-70-2 | |
| Copper | **4.1J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7440-50-8 | |
| Iron | **584** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7439-89-6 | |
| Magnesium | **856** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7439-95-4 | |
| Manganese | **17.6** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7439-96-5 | |
| Potassium | **699J** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7440-09-7 | |
| Sodium | **3680** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7440-23-5 | |
| Total Hardness by 2340B | **9.1** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | | |
| Zinc | **25.5J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 05:04 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **1930** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 18:17 | 7440-70-2 | |
| Copper, Dissolved | **3.6J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7440-50-8 | |
| Iron, Dissolved | **214J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7439-89-6 | |
| Magnesium, Dissolved | **756** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7439-95-4 | |
| Manganese, Dissolved | **11.5** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7439-96-5 | |
| Potassium, Dissolved | **635J** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7440-09-7 | |
| Sodium, Dissolved | **3080** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7440-23-5 | |
| Total Hardness by 2340B, Dissolved | **7.9** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 08:08 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **1.4** | mg/L | 1.0 | 0.49 | 1 | | 05/03/23 14:05 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:46 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:19 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **4.1** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 00:01 | 16887-00-6 | |
| Sulfate | **1.2J** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 00:01 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **4.8** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 15:49 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **1.4J** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 15:49 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-HWY27E_20230429** **Lab ID: 40261550009** Collected: 04/29/23 12:00 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 11:03 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **<7.4** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 13:20 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **8.3** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 15:39 | | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: CP-04_20230429** **Lab ID: 40261550010** Collected: 04/29/23 13:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **12900** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:50 | 7440-70-2 | |
| Copper | **12.7** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7440-50-8 | |
| Iron | **478** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7439-89-6 | |
| Magnesium | **6860** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7439-95-4 | |
| Manganese | **103** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7439-96-5 | |
| Potassium | **2300** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7440-09-7 | |
| Sodium | **101000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7440-23-5 | |
| Total Hardness by 2340B | **60.5** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | | |
| Zinc | **10.4J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 05:12 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **11900** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 18:24 | 7440-70-2 | |
| Copper, Dissolved | **10.1** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7440-50-8 | |
| Iron, Dissolved | **<58.0** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7439-89-6 | |
| Magnesium, Dissolved | **7060** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7439-95-4 | D9 |
| Manganese, Dissolved | **89.9** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7439-96-5 | |
| Potassium, Dissolved | **2240** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7440-09-7 | |
| Sodium, Dissolved | **104000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **58.9** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 09:15 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **5.2** | mg/L | 1.0 | 0.48 | 1 | | 05/03/23 14:05 | | |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:47 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:22 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **167** | mg/L | 20.0 | 4.3 | 10 | | 05/16/23 13:47 | 16887-00-6 | |
| Sulfate | **8.2** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 00:16 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **165** | mg/L | 20.0 | 4.3 | 10 | | 05/17/23 17:38 | 16887-00-6 | |
| Sulfate, Dissolved | **7.5** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 16:02 | 14808-79-8 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: CP-04_20230429** **Lab ID: 40261550010** Collected: 04/29/23 13:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **39.5** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 11:04 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **34.5** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 13:24 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **9.4** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 15:58 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C5-DUP-20230429** **Lab ID: 40261550011** Collected: 04/29/23 15:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium | **4760** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:07 | 05/16/23 15:57 | 7440-70-2 | |
| Copper | **7.2** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7440-50-8 | |
| Iron | **268** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7439-89-6 | |
| Magnesium | **1940** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7439-95-4 | |
| Manganese | **7.2** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7439-96-5 | |
| Potassium | **1000** | ug/L | 789 | 237 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7440-09-7 | |
| Sodium | **13600** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7440-23-5 | |
| Total Hardness by 2340B | **19.9** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | | |
| Zinc | **16.3J** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:07 | 05/16/23 05:19 | 7440-66-6 | |
| **6020B MET ICPMS, Dissolved** | Analytical Method: EPA 6020B Preparation Method: EPA 3010A<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Calcium, Dissolved | **4440** | ug/L | 254 | 76.2 | 1 | 05/03/23 06:33 | 05/16/23 18:32 | 7440-70-2 | |
| Copper, Dissolved | **6.1J** | ug/L | 6.4 | 1.9 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7440-50-8 | |
| Iron, Dissolved | **153J** | ug/L | 250 | 58.0 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7439-89-6 | |
| Magnesium, Dissolved | **2000** | ug/L | 250 | 31.2 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7439-95-4 | D9 |
| Manganese, Dissolved | **4.9** | ug/L | 4.0 | 1.2 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7439-96-5 | |
| Potassium, Dissolved | **955** | ug/L | 789 | 237 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7440-09-7 | |
| Sodium, Dissolved | **14000** | ug/L | 250 | 42.0 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7440-23-5 | D9 |
| Total Hardness by 2340B, Dissolved | **19.3** | mg/L | 1.7 | 0.32 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | | |
| Zinc, Dissolved | **<10.3** | ug/L | 34.4 | 10.3 | 1 | 05/03/23 06:33 | 05/16/23 09:22 | 7440-66-6 | |
| **2540D Total Suspended Solids** | Analytical Method: SM 2540D<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Total Suspended Solids | **1.3** | mg/L | 1.0 | 0.49 | 1 | | 05/03/23 14:05 | | PP,T3 |
| **4500S2F Sulfide, Iodometric** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 10:49 | | |
| **4500S2F Sulfide,Diss Iodometrc** | Analytical Method: SM 4500-S F (2000)<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Sulfide, Dissolved | **<1.2** | mg/L | 4.0 | 1.2 | 1 | | 05/04/23 14:24 | | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride | **21.2** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 01:15 | 16887-00-6 | |
| Sulfate | **3.2** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 01:15 | 14808-79-8 | |
| **300.0 IC Anions, Dissolved** | Analytical Method: EPA 300.0<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Chloride, Dissolved | **23.8** | mg/L | 2.0 | 0.43 | 1 | | 05/16/23 16:15 | 16887-00-6 | D9 |
| Sulfate, Dissolved | **3.3** | mg/L | 2.0 | 0.44 | 1 | | 05/16/23 16:15 | 14808-79-8 | D9 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(920)469-2436

## ANALYTICAL RESULTS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

**Sample: SW-C5-DUP-20230429** **Lab ID: 40261550011** Collected: 04/29/23 15:30 Received: 05/02/23 08:20 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **310.2 Alkalinity** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3 | **12.9J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 11:05 | | |
| **310.2 Alkalinity, Dissolved** | Analytical Method: EPA 310.2<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Alkalinity, Total as CaCO3, Dissolved | **12.1J** | mg/L | 25.0 | 7.4 | 1 | | 05/10/23 13:25 | | |
| **5310C Dissolved Organic Carbon** | Analytical Method: SM 5310C<br>Pace Analytical Services - Green Bay | | | | | | | | |
| Dissolved Organic Carbon | **8.2** | mg/L | 0.50 | 0.14 | 1 | | 05/04/23 16:16 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 443878
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2548484 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Calcium | ug/L | <76.2 | 254 | 05/16/23 13:30 | |
| Copper | ug/L | <1.9 | 6.4 | 05/16/23 02:08 | |
| Iron | ug/L | <58.0 | 250 | 05/16/23 02:08 | |
| Magnesium | ug/L | <31.2 | 250 | 05/16/23 02:08 | |
| Manganese | ug/L | <1.2 | 4.0 | 05/16/23 02:08 | |
| Potassium | ug/L | <237 | 789 | 05/16/23 02:08 | |
| Sodium | ug/L | 46.0J | 250 | 05/16/23 02:08 | |
| Total Hardness by 2340B | mg/L | <0.32 | 1.7 | 05/16/23 02:08 | |
| Zinc | ug/L | <10.3 | 34.4 | 05/16/23 02:08 | |

LABORATORY CONTROL SAMPLE: 2548485

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Calcium | ug/L | 10000 | 9920 | 99 | 80-120 | |
| Copper | ug/L | 250 | 228 | 91 | 80-120 | |
| Iron | ug/L | 10000 | 9950 | 100 | 80-120 | |
| Magnesium | ug/L | 10000 | 10500 | 105 | 80-120 | |
| Manganese | ug/L | 250 | 236 | 94 | 80-120 | |
| Potassium | ug/L | 10000 | 9940 | 99 | 80-120 | |
| Sodium | ug/L | 10000 | 9880 | 99 | 80-120 | |
| Total Hardness by 2340B | mg/L | | 67.9 | | | |
| Zinc | ug/L | 250 | 246 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2548486 2548487

| Parameter | Units | 40261550001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | ug/L | 2520 | 10000 | 10000 | 12600 | 13000 | 101 | 105 | 75-125 | 3 | 20 | |
| Copper | ug/L | 5.0J | 250 | 250 | 247 | 240 | 97 | 94 | 75-125 | 3 | 20 | |
| Iron | ug/L | 741 | 10000 | 10000 | 11000 | 10800 | 103 | 101 | 75-125 | 1 | 20 | |
| Magnesium | ug/L | 983 | 10000 | 10000 | 11800 | 11600 | 108 | 106 | 75-125 | 1 | 20 | |
| Manganese | ug/L | 24.9 | 250 | 250 | 267 | 261 | 97 | 94 | 75-125 | 2 | 20 | |
| Potassium | ug/L | 770J | 10000 | 10000 | 11100 | 10800 | 103 | 101 | 75-125 | 2 | 20 | |
| Sodium | ug/L | 7010 | 10000 | 10000 | 17200 | 16900 | 102 | 99 | 75-125 | 2 | 20 | |
| Total Hardness by 2340B | mg/L | 10.3 | | | 79.9 | 80.3 | | | | 1 | 20 | |
| Zinc | ug/L | 11.6J | 250 | 250 | 259 | 255 | 99 | 97 | 75-125 | 2 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 443881
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2548495 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Calcium, Dissolved | ug/L | <76.2 | 254 | 05/16/23 14:58 | |
| Copper, Dissolved | ug/L | <1.9 | 6.4 | 05/16/23 04:27 | |
| Iron, Dissolved | ug/L | <58.0 | 250 | 05/16/23 04:27 | |
| Magnesium, Dissolved | ug/L | <31.2 | 250 | 05/16/23 04:27 | |
| Manganese, Dissolved | ug/L | <1.2 | 4.0 | 05/16/23 04:27 | |
| Potassium, Dissolved | ug/L | <237 | 789 | 05/16/23 04:27 | |
| Sodium, Dissolved | ug/L | <42.0 | 250 | 05/16/23 04:27 | |
| Total Hardness by 2340B, Dissolved | mg/L | <0.32 | 1.7 | 05/16/23 04:27 | |
| Zinc, Dissolved | ug/L | <10.3 | 34.4 | 05/16/23 04:27 | |

LABORATORY CONTROL SAMPLE: 2548496

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Calcium, Dissolved | ug/L | 10000 | 10000 | 100 | 80-120 | |
| Copper, Dissolved | ug/L | 250 | 243 | 97 | 80-120 | |
| Iron, Dissolved | ug/L | 10000 | 10300 | 103 | 80-120 | |
| Magnesium, Dissolved | ug/L | 10000 | 10900 | 109 | 80-120 | |
| Manganese, Dissolved | ug/L | 250 | 244 | 98 | 80-120 | |
| Potassium, Dissolved | ug/L | 10000 | 10200 | 102 | 80-120 | |
| Sodium, Dissolved | ug/L | 10000 | 10600 | 106 | 80-120 | |
| Total Hardness by 2340B, Dissolved | mg/L | | 69.8 | | | |
| Zinc, Dissolved | ug/L | 250 | 254 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2548497 2548498

| Parameter | Units | 40261550001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | ug/L | 2400 | 10000 | 10000 | 12400 | 12100 | 100 | 97 | 75-125 | 2 | 20 | |
| Copper, Dissolved | ug/L | 3.8J | 250 | 250 | 246 | 243 | 97 | 96 | 75-125 | 1 | 20 | |
| Iron, Dissolved | ug/L | 290 | 10000 | 10000 | 10600 | 10300 | 103 | 100 | 75-125 | 2 | 20 | |
| Magnesium, Dissolved | ug/L | 919 | 10000 | 10000 | 12200 | 11800 | 112 | 108 | 75-125 | 3 | 20 | |
| Manganese, Dissolved | ug/L | 17.5 | 250 | 250 | 259 | 253 | 96 | 94 | 75-125 | 2 | 20 | |
| Potassium, Dissolved | ug/L | 684J | 10000 | 10000 | 10600 | 10500 | 99 | 98 | 75-125 | 1 | 20 | |
| Sodium, Dissolved | ug/L | 7140 | 10000 | 10000 | 17900 | 17400 | 108 | 103 | 75-125 | 3 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2548497 2548498

| Parameter | Units | 40261550001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Hardness by 2340B, Dissolved | mg/L | 9.8 | | | 80.9 | 78.6 | | | | 3 | 20 | |
| Zinc, Dissolved | ug/L | <10.3 | 250 | 250 | 260 | 256 | 100 | 98 | 75-125 | 2 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 443914 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2548627 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | <0.48 | 1.0 | 05/03/23 14:03 | |

LABORATORY CONTROL SAMPLE: 2548628

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | 100 | 108 | 108 | 80-120 | |

SAMPLE DUPLICATE: 2548629

| Parameter | Units | 35795979001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | 509 | 549 | 8 | 10 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444057
QC Batch Method: SM 4500-S F (2000)
Analysis Method: SM 4500-S F (2000)
Analysis Description: 4500S2F Sulfide, Dissolved Iodometric
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2549348 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfide | mg/L | <1.2 | 4.0 | 05/04/23 13:57 | |

LABORATORY CONTROL SAMPLE: 2549349

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfide | mg/L | 44.8 | 48.0 | 107 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2549350 2549351

| Parameter | Units | 40261550001 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 | 44.8 | 44.8 | 47.2 | 46.4 | 104 | 103 | 80-120 | 2 | 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.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444010
QC Batch Method: SM 4500-S F (2000)
Analysis Method: SM 4500-S F (2000)
Analysis Description: 4500S2F Sulfide, Iodometric
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2549096 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfide | mg/L | <1.2 | 4.0 | 05/04/23 10:17 | |

LABORATORY CONTROL SAMPLE: 2549097

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfide | mg/L | 45.2 | 47.6 | 105 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2549098 2549099

| Parameter | Units | 40261550001 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 | 45.2 | 45.2 | 47.6 | 47.2 | 105 | 104 | 80-120 | 1 | 10 | |

**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.**

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444564
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions,Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003

METHOD BLANK: 2552122 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chloride | mg/L | <0.43 | 2.0 | 05/16/23 01:30 | |
| Sulfate | mg/L | <0.44 | 2.0 | 05/16/23 01:30 | |

LABORATORY CONTROL SAMPLE: 2552123

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chloride | mg/L | 20 | 20.8 | 104 | 90-110 | |
| Sulfate | mg/L | 20 | 20.9 | 105 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2552124 2552125

| Parameter | Units | 40261506001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 2.9J | 100 | 100 | 104 | 101 | 101 | 98 | 90-110 | 3 | 15 | |
| Sulfate | mg/L | 58.5 | 100 | 100 | 157 | 154 | 98 | 96 | 90-110 | 2 | 15 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444663
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions,Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2552648 Matrix: Water
Associated Lab Samples: 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chloride | mg/L | <0.43 | 2.0 | 05/15/23 15:39 | |
| Sulfate | mg/L | <0.44 | 2.0 | 05/15/23 15:39 | |

LABORATORY CONTROL SAMPLE: 2552649

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chloride | mg/L | 20 | 19.4 | 97 | 90-110 | |
| Sulfate | mg/L | 20 | 19.2 | 96 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2552650 2552651

| Parameter | Units | 40261550004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 24.2 | 20 | 20 | 43.6 | 43.9 | 97 | 98 | 90-110 | 1 | 15 | |
| Sulfate | mg/L | 3.2 | 20 | 20 | 24.5 | 24.9 | 107 | 108 | 90-110 | 1 | 15 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2552652 2552653

| Parameter | Units | 40261746012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 63.4 | 100 | 100 | 161 | 159 | 97 | 95 | 90-110 | 1 | 15 | |
| Sulfate | mg/L | 18.1 | 100 | 100 | 123 | 121 | 104 | 103 | 90-110 | 2 | 15 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444662
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2552642 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chloride | mg/L | <0.43 | 2.0 | 05/15/23 11:16 | |
| Sulfate | mg/L | <0.44 | 2.0 | 05/15/23 11:16 | |

LABORATORY CONTROL SAMPLE: 2552643

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chloride | mg/L | 20 | 19.4 | 97 | 90-110 | |
| Sulfate | mg/L | 20 | 19.6 | 98 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2552644 2552645

| Parameter | Units | 40261749003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 17.3 | 20 | 20 | 37.4 | 37.7 | 100 | 102 | 90-110 | 1 | 15 | |
| Sulfate | mg/L | 14.2 | 20 | 20 | 34.6 | 34.9 | 102 | 104 | 90-110 | 1 | 15 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2552646 2552647

| Parameter | Units | 40261550001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | mg/L | 11.0 | 20 | 20 | 31.1 | 31.3 | 101 | 102 | 90-110 | 1 | 15 | |
| Sulfate | mg/L | 1.3J | 20 | 20 | 22.6 | 22.4 | 107 | 106 | 90-110 | 1 | 15 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444470 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: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2551353 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | <7.4 | 25.0 | 05/10/23 10:37 | |

LABORATORY CONTROL SAMPLE: 2551354

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 100 | 101 | 101 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2551355 2551356

| Parameter | Units | 40261472004 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 | 206 | 100 | 100 | 307 | 308 | 102 | 102 | 90-110 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2551357 2551358

| Parameter | Units | 40261550011 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 | 12.9J | 100 | 100 | 116 | 119 | 103 | 106 | 90-110 | 2 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444473 | 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: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006

METHOD BLANK: 2551369 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005, 40261550006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3, Dissolved | mg/L | <7.4 | 25.0 | 05/10/23 11:44 | |

LABORATORY CONTROL SAMPLE: 2551370

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3, Dissolved | mg/L | 100 | 98.7 | 99 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2551371 2551372

| Parameter | Units | 40261504001 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, Dissolved | mg/L | 639 | 200 | 200 | 820 | 818 | 90 | 89 | 90-110 | 0 | 20 | M0 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2551373 2551374

| Parameter | Units | 40261550006 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, Dissolved | mg/L | 21.0J | 100 | 100 | 127 | 125 | 106 | 104 | 90-110 | 2 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 444474
QC Batch Method: EPA 310.2
Analysis Method: EPA 310.2
Analysis Description: 310.2 Alkalinity, Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2551375 Matrix: Water
Associated Lab Samples: 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3, Dissolved | mg/L | <7.4 | 25.0 | 05/10/23 13:14 | |

LABORATORY CONTROL SAMPLE: 2551376

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3, Dissolved | mg/L | 100 | 101 | 101 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2551377 2551378

| Parameter | Units | 40261550007 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, Dissolved | mg/L | <7.4 | 100 | 100 | 113 | 117 | 106 | 110 | 90-110 | 3 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2551379 2551380

| Parameter | Units | 40261698029 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, Dissolved | mg/L | 376 | 200 | 200 | 581 | 584 | 102 | 104 | 90-110 | 1 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 443992 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005

METHOD BLANK: 2549037 Matrix: Water
Associated Lab Samples: 40261550001, 40261550002, 40261550003, 40261550004, 40261550005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dissolved Organic Carbon | mg/L | <0.14 | 0.50 | 05/04/23 05:58 | |

LABORATORY CONTROL SAMPLE: 2549038

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | mg/L | 12.5 | 12.2 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2549039 2549040

| Parameter | Units | 40261479001 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 | 2.7 | 6 | 6 | 8.5 | 8.5 | 98 | 97 | 80-120 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2549042 2549043

| Parameter | Units | 40261479002 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 | 1.7 | 6 | 6 | 7.6 | 7.6 | 98 | 98 | 80-120 | 0 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

QC Batch: 443993 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Dissolved Organic Carbon
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

METHOD BLANK: 2549044 Matrix: Water
Associated Lab Samples: 40261550006, 40261550007, 40261550008, 40261550009, 40261550010, 40261550011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dissolved Organic Carbon | mg/L | 0.16J | 0.50 | 05/04/23 13:20 | |

LABORATORY CONTROL SAMPLE: 2549045

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | mg/L | 12.5 | 12.0 | 96 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2549046 2549047

| Parameter | Units | 40261550006 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 | 9.2 | 6 | 6 | 15.1 | 14.8 | 100 | 93 | 80-120 | 2 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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# QUALIFIERS

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

## 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 - Estimated concentration at or above the LOD and below the LOQ.

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.

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 - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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. |
| 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: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 40261550001 | SW-C9_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550002 | SW-C1_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550003 | SW-STM_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550004 | SW-C5_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550005 | SW-EB_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550006 | SW-NBOUT_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550007 | SW-NB_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550008 | SW-HWY27W_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550009 | SW-HWY27E_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550010 | CP-04_20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550011 | SW-C5-DUP-20230429 | EPA 3010A | 443878 | EPA 6020B | 443961 |
| 40261550001 | SW-C9_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550002 | SW-C1_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550003 | SW-STM_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550004 | SW-C5_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550005 | SW-EB_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550006 | SW-NBOUT_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550007 | SW-NB_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550008 | SW-HWY27W_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550009 | SW-HWY27E_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550010 | CP-04_20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550011 | SW-C5-DUP-20230429 | EPA 3010A | 443881 | EPA 6020B | 443962 |
| 40261550001 | SW-C9_20230429 | SM 2540D | 443914 | | |
| 40261550002 | SW-C1_20230429 | SM 2540D | 443914 | | |
| 40261550003 | SW-STM_20230429 | SM 2540D | 443914 | | |
| 40261550004 | SW-C5_20230429 | SM 2540D | 443914 | | |
| 40261550005 | SW-EB_20230429 | SM 2540D | 443914 | | |
| 40261550006 | SW-NBOUT_20230429 | SM 2540D | 443914 | | |
| 40261550007 | SW-NB_20230429 | SM 2540D | 443914 | | |
| 40261550008 | SW-HWY27W_20230429 | SM 2540D | 443914 | | |
| 40261550009 | SW-HWY27E_20230429 | SM 2540D | 443914 | | |
| 40261550010 | CP-04_20230429 | SM 2540D | 443914 | | |
| 40261550011 | SW-C5-DUP-20230429 | SM 2540D | 443914 | | |
| 40261550001 | SW-C9_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550002 | SW-C1_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550003 | SW-STM_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550004 | SW-C5_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550005 | SW-EB_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550006 | SW-NBOUT_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550007 | SW-NB_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550008 | SW-HWY27W_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550009 | SW-HWY27E_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550010 | CP-04_20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550011 | SW-C5-DUP-20230429 | SM 4500-S F (2000) | 444010 | | |
| 40261550001 | SW-C9_20230429 | SM 4500-S F (2000) | 444057 | | |
| 40261550002 | SW-C1_20230429 | SM 4500-S F (2000) | 444057 | | |
| 40261550003 | SW-STM_20230429 | SM 4500-S F (2000) | 444057 | | |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40261550004** | **SW-C5_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550005** | **SW-EB_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550006** | **SW-NBOUT_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550007** | **SW-NB_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550008** | **SW-HWY27W_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550009** | **SW-HWY27E_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550010** | **CP-04_20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550011** | **SW-C5-DUP-20230429** | SM 4500-S F (2000) | 444057 | | |
| **40261550001** | **SW-C9_20230429** | EPA 300.0 | 444662 | | |
| **40261550002** | **SW-C1_20230429** | EPA 300.0 | 444662 | | |
| **40261550003** | **SW-STM_20230429** | EPA 300.0 | 444662 | | |
| **40261550004** | **SW-C5_20230429** | EPA 300.0 | 444662 | | |
| **40261550005** | **SW-EB_20230429** | EPA 300.0 | 444662 | | |
| **40261550006** | **SW-NBOUT_20230429** | EPA 300.0 | 444662 | | |
| **40261550007** | **SW-NB_20230429** | EPA 300.0 | 444662 | | |
| **40261550008** | **SW-HWY27W_20230429** | EPA 300.0 | 444662 | | |
| **40261550009** | **SW-HWY27E_20230429** | EPA 300.0 | 444662 | | |
| **40261550010** | **CP-04_20230429** | EPA 300.0 | 444662 | | |
| **40261550011** | **SW-C5-DUP-20230429** | EPA 300.0 | 444662 | | |
| **40261550001** | **SW-C9_20230429** | EPA 300.0 | 444564 | | |
| **40261550002** | **SW-C1_20230429** | EPA 300.0 | 444564 | | |
| **40261550003** | **SW-STM_20230429** | EPA 300.0 | 444564 | | |
| **40261550004** | **SW-C5_20230429** | EPA 300.0 | 444663 | | |
| **40261550005** | **SW-EB_20230429** | EPA 300.0 | 444663 | | |
| **40261550006** | **SW-NBOUT_20230429** | EPA 300.0 | 444663 | | |
| **40261550007** | **SW-NB_20230429** | EPA 300.0 | 444663 | | |
| **40261550008** | **SW-HWY27W_20230429** | EPA 300.0 | 444663 | | |
| **40261550009** | **SW-HWY27E_20230429** | EPA 300.0 | 444663 | | |
| **40261550010** | **CP-04_20230429** | EPA 300.0 | 444663 | | |
| **40261550011** | **SW-C5-DUP-20230429** | EPA 300.0 | 444663 | | |
| **40261550001** | **SW-C9_20230429** | EPA 310.2 | 444470 | | |
| **40261550002** | **SW-C1_20230429** | EPA 310.2 | 444470 | | |
| **40261550003** | **SW-STM_20230429** | EPA 310.2 | 444470 | | |
| **40261550004** | **SW-C5_20230429** | EPA 310.2 | 444470 | | |
| **40261550005** | **SW-EB_20230429** | EPA 310.2 | 444470 | | |
| **40261550006** | **SW-NBOUT_20230429** | EPA 310.2 | 444470 | | |
| **40261550007** | **SW-NB_20230429** | EPA 310.2 | 444470 | | |
| **40261550008** | **SW-HWY27W_20230429** | EPA 310.2 | 444470 | | |
| **40261550009** | **SW-HWY27E_20230429** | EPA 310.2 | 444470 | | |
| **40261550010** | **CP-04_20230429** | EPA 310.2 | 444470 | | |
| **40261550011** | **SW-C5-DUP-20230429** | EPA 310.2 | 444470 | | |
| **40261550001** | **SW-C9_20230429** | EPA 310.2 | 444473 | | |
| **40261550002** | **SW-C1_20230429** | EPA 310.2 | 444473 | | |
| **40261550003** | **SW-STM_20230429** | EPA 310.2 | 444473 | | |
| **40261550004** | **SW-C5_20230429** | EPA 310.2 | 444473 | | |
| **40261550005** | **SW-EB_20230429** | EPA 310.2 | 444473 | | |

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC-2023_04 FLAMBEAU MINE CO.
Pace Project No.: 40261550

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40261550006** | **SW-NBOUT_20230429** | EPA 310.2 | 444473 | | |
| **40261550007** | **SW-NB_20230429** | EPA 310.2 | 444474 | | |
| **40261550008** | **SW-HWY27W_20230429** | EPA 310.2 | 444474 | | |
| **40261550009** | **SW-HWY27E_20230429** | EPA 310.2 | 444474 | | |
| **40261550010** | **CP-04_20230429** | EPA 310.2 | 444474 | | |
| **40261550011** | **SW-C5-DUP-20230429** | EPA 310.2 | 444474 | | |
| **40261550001** | **SW-C9_20230429** | SM 5310C | 443992 | | |
| **40261550002** | **SW-C1_20230429** | SM 5310C | 443992 | | |
| **40261550003** | **SW-STM_20230429** | SM 5310C | 443992 | | |
| **40261550004** | **SW-C5_20230429** | SM 5310C | 443992 | | |
| **40261550005** | **SW-EB_20230429** | SM 5310C | 443992 | | |
| **40261550006** | **SW-NBOUT_20230429** | SM 5310C | 443993 | | |
| **40261550007** | **SW-NB_20230429** | SM 5310C | 443993 | | |
| **40261550008** | **SW-HWY27W_20230429** | SM 5310C | 443993 | | |
| **40261550009** | **SW-HWY27E_20230429** | SM 5310C | 443993 | | |
| **40261550010** | **CP-04_20230429** | SM 5310C | 443993 | | |
| **40261550011** | **SW-C5-DUP-20230429** | SM 5310C | 443993 | | |

40261550

# CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3
Cooler # 1 of 1

COC # FMC-2023_04

| Required Ship to Lab: | | Required Project Information: | | Required Invoice Information: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Name | Pace Analytical Services | *Facility ID #: | Flambeau Mine Co. | Send Invoice to: | Accounting | TAT: Standard 10 day | X | Rush | | Mark One | | |
| Address | | *Task Code # | FMC-2023_04 | Address. | 2121 Innovation Court P.O. Box 5126, De Pere, WI | If Rush, Date due | | | | | | |
| 1241 Bellevue Street - Suite 9, Green Bay, WI | | Site Address | – | City/State | De Pere, WI 54115 | Ph #. | 920-497-2500 | QC level Required: Standard | X | Special | | Mark one |
| Lab PM. | Tod Noltemeyer | City | Green Bay | State | WI | 17F777.23-07-73 | | Lab Project ID (lab use) | | | | |
| Phone/Fax | (608) 232-3300 | Project Contact: | Mark Ciardelli | Send EDD to: | Nick Glender | Requested Analyses | | | | | | |
| Lab PM email | Tod.Noltemeyer@pacelabs.com | Phone/Fax: | 920-496-6656 | CC Hardcopy report to | Sharon Kozicki, Nick Glander | Filtered (Y/N) | | | | | | |
| Applicable Leb Quote #. | | Email: | Mark.Ciardelli@foth.com | CC electronic copy report to | Sharon.Kozicki@foth.com<br>nick.glander@foth.com | N | Y | N | Y | Y | N | N | Y |

Valid Matrix Codes

| MATRIX | | MATRIX | |
|---|---|---|---|
| DRINKING WATER | WP | SURFACE WATER | WS |
| GROUND WATER | WG | WATER DC | WQ |
| WASTE WATER | WW | SLUDGE | SL |
| FREE PRODUCT | LF | RINSEATE | WH |
| SOIL | SO | LAB LEACHATE | |
| OIL | OL | SPLP | LLS |
| WIPE | SW | LAB LEACHATE + | |
| AMBIENT AIR | AA | TCLP | LLT |
| SVE AIR | AE | | |
| SOIL GAS | GS | | |

| ITEM # | *SAMPLE ID<br>Samples IDs MUST BE UNIQUE | *MATRIX CODE | SAMPLE TYPE<br>G=GRAB C=COMP | SAMPLE DATE | SAMPLE TIME (Military) | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Zinc Acetate & NaOH | 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 | Comments/ Lab Sample I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SW-C9_20230429 | WS | G | 4/29/2023 | 1230 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 001 |
| 2 | SW-C1_20230429 | WS | G | 4/29/2023 | 1430 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 002 |
| 3 | SW-STM_20230429 | WS | G | 4/29/2023 | 1030 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 003 |
| 4 | SW-C5_20230429 | WS | G | 4/29/2023 | 1530 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 004 |
| 5 | SW-EB-20230429 | WS | G | 4/29/2023 | 1630 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 005 |
| 6 | SW-NBOUT_20230429 | WS | G | 4/29/2023 | 1700 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 006 |
| 7 | SW-NB_20230429 | WS | G | 4/29/2023 | 1815 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 007 |
| 8 | SW-HWY27W_20230429 | WS | G | 4/29/2023 | 1130 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 008 |
| 9 | SW-HWY27E_20230429 | WS | G | 4/29/2023 | 1200 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 009 |
| 10 | CP-04_20230429 | WS | G | 4/29/2023 | 1330 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 010 |
| 11 | SW-C5-DUP-20230429 | WS | G | 4/29/2023 | 1830 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 011 |

Additional Comments/Special Instructions:

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| Jim Engelhardt/Merjent | 5/1/23 | 0900 | | | |
| Watco | 5/2/23 | 0820 | Mgmt | 5/2/23 | 0820 |
| | | | | | |
| | | | | | |

Sample Receipt Conditions

| | | | |
|---|---|---|---|
| | Y/N | Y/N | Y/N |
| 2,2,3 | (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) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE: Jim Engelhardt

SIGNATURE of SAMPLER: [signature] DATE Signed 5-1-23 Time 0900

| Temp in °C | Samples on Ice? | Sample intact? | Trip Blank? |
|---|---|---|---|
| | | | |

https://merjent1-my.sharepoint.com/personal/jim_engelhardt_merjent_com/Documents/Desktop/Flambeau Mine Monitoring/COC/2023_FMC_Stream C_COCs_202304292023_FMC_Stream C_COCs_20230429COC PACE SW-Stream C

COPY

40261550

# CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1
Cooler # 2 of 3

COC # FMC-2023_04

| Required Ship to Lab: | | Required Project Information: | | Required Invoice Information: | | | |
|---|---|---|---|---|---|---|---|
| Lab Name: | Pace Analytical Services | *Facility ID #: | Flambeau Mine Co. | Send Invoice to: | Accounting | TAT: Standard 10 day | X |
| Address: | | *Task Code # | FMC-2023_04 | Address: | 2121 Innovation Court P.O Box 5128, De Pere, WI | If Rush, Date due | |
| | 1241 Bellevue Street - Suite 9, Green Bay, WI | Site Address | -- | City/State | De Pere, WI 54115 | Ph #. | 920-497-2500 |
| Lab PM: | Tod Noltemeyer | City | Green Bay | State | WI | 17F777.23-07-73 | |
| Phone/Fax: | (608) 232-3300 | Project Contact: | Mark Ciardelli | Send EDD to: | Nick Glander | | |
| Lab PM email | Tod.Noltemeyer@pacelabs.com | Phone/Fax: | 920-496-6656 | CC Hardcopy report to | Sharon Kozicki, Nick Glander | | |
| Applicable Leb Quote #: | | Email: | Mark.Ciardelli@foth.com | CC electronic copy report to | Sharon.Kozicki@foth.com<br>nick.glander@foth.com | | |

| QC level Required: Standard | X | Special | | Mark one |
|---|---|---|---|---|
| Rush | | | | Mark One |

Lab Project ID (lab use)

Requested Analyses

Filtered (Y/N)

Valid Matrix Codes: MATRIX — DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LP; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AS; SOIL GAS GS; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; LAB LEACHATE - SPLP LLS; LAB LEACHATE - TCLP LLT

| ITEM # | *SAMPLE ID Samples IDs MUST BE UNIQUE | *MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | SAMPLE DATE | SAMPLE TIME (Military) | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Zinc Acetate & NaOH | N | Y | N | Y | Y | N | N | Y | Comments/ Lab Sample I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | 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 | |
| 1 | SW-C9_20230429 | WS | G | 4/29/2023 | 1230 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 2 | SW-C1_20230429 | WS | G | 4/29/2023 | 1430 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 3 | SW-STM_20230429 | WS | G | 4/29/2023 | 1030 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 4 | SW-C5_20230429 | WS | G | 4/29/2023 | 1530 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 5 | SW-EB-20230429 | WS | G | 4/29/2023 | 1630 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 6 | SW-NBOUT_20230429 | WS | G | 4/29/2023 | 1700 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 7 | SW-NB_20230429 | WS | G | 4/29/2023 | 1815 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 8 | SW-HWY27W_20230429 | WS | G | 4/29/2023 | 1130 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 9 | SW-HWY27E_20230429 | WS | G | 4/29/2023 | 1200 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 10 | CP-04_20230429 | WS | G | 4/29/2023 | 1330 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 11 | SW-C5-DUP-20230429 | WS | G | 4/29/2023 | 1830 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |

Additional Comments/Special Instructions:

Include Equis EDD's

*Required Information for electronic data deliverable.

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| Jim Engelhardt/Merjent | 5/4/23 | 0900 | | | |
| Walter | 5/4/23 | 0800 | Mann | 5/4/23 | 0840 |
| | | | | | |
| | | | | | |

Sample Receipt Conditions

| | Temp in °C | Samples on Ice? | Sample Intact? | Trip Blank? |
|---|---|---|---|---|
| | | Y/N | Y/N | Y/N |
| | 2.4,3 | (Y)N | (Y)N | Y/(N) |
| | | Y/N | Y/N | Y/N |
| | | Y/N | Y/N | Y/N |

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE: Jim Engelhardt

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-1-23 Time: 0900

https://merjent1-my.sharepoint.com/personal/jim_engelhardt_merjent_com/Documents/Desktop/Flambeau Mine Monitoring/COC/2023_FMC_Stream C_COCs_202304292023_FMC_Stream C_COCs_20230429COC PACE SW-Stream C

COPY

402615550

# Foth

## CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1
Cooler # 3 of 3

COC # FMC-2023_04

| Required Ship to Lab: | | Required Project Information: | | Required Invoice Information: | | | |
|---|---|---|---|---|---|---|---|
| Lab Name: | Pace Analytical Services | *Facility ID #: | Flambeau Mine Co. | Send Invoice to: | Accounting | TAT: Standard 10 day | X Rush ___ Mark One |
| Address: | | *Task Code # | FMC-2023_04 | Address: | 2121 Innovation Court P.O. Box 5126, De Pere, WI | If Rush, Date due | |
| 1241 Bellevue Street - Suite 9, Green Bay, WI | | Site Address | -- | City/State | De Pere, WI. 54115 | Ph #: 920-497-2500 | QC level Required: Standard X Special ___ Mark one |
| Lab PM. | Tod Noltemeyer | City | Green Bay | State | WI | 17F777.23-07-73 | Lab Project ID (lab use) |
| Phone/Fax: | (608) 232-3300 | Project Contact: | Merk Ciardelli | Send EDD to: | Nick Glander | | Requested Analyses |
| Lab PM email | Tod.Noltemeyer@pacelabs.com | Phone/Fax: | 920-496-6656 | CC Hardcopy report to | Sharon Kozicki, Nick Glander | | Filtered (Y/N) |
| Applicable Lab Quote #: | | Email: | Mark.Ciardelli@foth.com | CC electronic copy report to | Sharon.Kozicki@foth.com<br>nick.glander@foth.com | | N Y N Y Y N N Y |

Valid Matrix Codes: MATRIX — DRINKING WATER DW; GROUND WATER GW; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AS; SOIL GAS GS; SURFACE WATER WS; WATER CO WQ; SLUDGE SL; RINSEATE WH; LAB LEACHATE - LLS; EP/LP EPLP; LAB LEACHATE - LLT; TCLP TCLP

| ITEM # | *SAMPLE ID Samples IDs MUST BE UNIQUE | *MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | SAMPLE DATE | SAMPLE TIME (Military) | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Zinc Acetate & NaOH | 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 | Comments/ Lab Sample I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SW-C9_20230429 | WS | G | 4/29/2023 | 1230 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 2 | SW-C1_20230429 | WS | G | 4/29/2023 | 1430 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 3 | SW-STM_20230429 | WS | G | 4/29/2023 | 1030 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 4 | SW-C5_20230429 | WS | G | 4/29/2023 | 1530 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 5 | SW-EB-20230429 | WS | G | 4/29/2023 | 1630 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 6 | SW-NBOUT_20230429 | WS | G | 4/29/2023 | 1700 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 7 | SW-NB_20230429 | WS | G | 4/29/2023 | 1815 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 8 | SW-HWY27W_20230429 | WS | G | 4/29/2023 | 1130 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 9 | SW-HWY27E_20230429 | WS | G | 4/29/2023 | 1200 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 10 | CP-04_20230429 | WS | G | 4/29/2023 | 1330 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 11 | SW-C5-DUP-20230429 | WS | G | 4/29/2023 | 1830 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |

**Additional Comments/Special Instructions:**

**Include Equis EDD's**

***Required Information for electronic data deliverable.**

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| Jim Engelhardt/Merjent | 5/1/23 | 0900 | | | |
| Walter Shultz | 5/1/23 | 0810 | [signature] | 5/1/23 | 0810 |
| | | | | | |
| | | | | | |

**Sample Receipt Conditions**

| | Temp In °C | Samples on Ice? | Sample Intact? | Trip Blank? |
|---|---|---|---|---|
| | | Y/N | Y/N | Y/N |
| | 2.8 | (Y)N | (Y)N | Y(N) |
| | | Y/N | Y/N | Y/N |
| | | Y/N | Y/N | Y/N |

SHIPPING METHOD: (mark as appropriate) — UPS COURIER FEDEX / US MAIL

SAMPLER NAME AND SIGNATURE: Jim Engelhardt

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-1-23 Time: 0900

https://merjent1-my.sharepoint.com/personal/jim_engelhardt_merjent_com/Documents/Desktop/Flambeau Mine Monitoring/COC/2023_FMC_Stream C_COCs_202304292023_FMC_Stream C_COCs_20230429COC PACE SW-Stream C

# Sample Preservation Receipt Form

Client Name: Foth  Project # 402615SO

All containers needing preservation have been checked and noted below. ☑Yes ☐No ☐N/A  Initial when completed MH  Date/ Time.

Lab Lot# of pH paper. 1000722  Lab Std #ID of preservation (if pH adjusted)

| Pace Lab # | Glass: AG1U | BG1U | AG1H | AG4S | AG5U | AG2S | BG3U | Plastic: BP1U | BP3U | BP3B | BP3N | BP3S | BP2Z | Vials: VG9C | DG9T | VG9U | VG9H | VG9M | VG9D | Jars: JGFU | JG9U | WGFU | WPFU | General: SP5T | ZPLC | GN 1 | GN 2 | VOA Vials (>6mm)* | H2SO4 pH ≤2 | NaOH+Zn Act pH ≥9 | NaOH pH ≥12 | HNO3 pH ≤2 | pH after adjusted | Volume (mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 002 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 003 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 004 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 005 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 006 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 007 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 008 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 009 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 010 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 011 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 016 | | | | | MH 5/24/23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 017 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 018 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |

Exceptions to preservation check. VOA, Coliform (TOC) TOX, TOH, O&G, WI DRO, Phenolics, Other_____  Headspace in VOA Vials (>6mm) ☐Yes ☐No ☑N/A  ***If yes look in headspace column**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AG1U | 1 liter amber glass | BP1U | 1 liter plastic unpres | VG9C | 40 mL clear ascorbic w/ HCl | JGFU | 4 oz amber jar unpres |
| BG1U | 1 liter clear glass | BP3U | 250 mL plastic unpres | DG9T | 40 mL amber Na Thio | JG9U | 9 oz amber jar unpres |
| AG1H | 1 liter amber glass HCL | BP3B | 250 mL plastic NaOH | VG9U | 40 mL clear vial unpres | WGFU | 4 oz clear jar unpres |
| AG4S | 125 mL amber glass H2SO4 | BP3N | 250 mL plastic HNO3 | VG9H | 40 mL clear vial HCL | WPFU | 4 oz plastic jar unpres |
| AG5U | 100 mL amber glass unpres | BP3S | 250 mL plastic H2SO4 | VG9M | 40 mL clear vial MeOH | SP5T | 120 mL plastic Na Thiosulfate |
| AG2S | 500 mL amber glass H2SO4 | BP2Z | 500 mL plastic NaOH + Zn | VG9D | 40 mL clear vial DI | ZPLC | ziploc bag |
| BG3U | 250 mL clear glass unpres | | | | | GN 1 | |
| | | | | | | GN 2 | |

Page 1 of 2

# Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40261550

40261550

**Client Name:** Foth

**Courier:** ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Waltco
☐ Client ☐ Pace Other:

**Tracking #:** 3555908

**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 - 120 **Type of Ice:** (Wet) Blue Dry None ☐ Meltwater Only

**Cooler Temperature** Uncorr: 2,2,3 /Corr: 2,2,3

**Temp Blank Present:** ☒ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents:
Date: 5/2/23 /Initials: mH

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

Labeled By Initials:

| | | |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time. | ☒Yes ☐No | 5. |
| - DI VOA Samples frozen upon receipt | ☐Yes ☐No | Date/Time. |
| **Short Hold Time Analysis (<72hr):** | ☒Yes ☐No | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No | 7. |
| Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD. ☐Yes ☒No ☐N/A | | 8. |
| Correct Containers Used: Correct Type. Pace Green Bay, Pace IR, Non-Pace | ☒Yes ☐No | 9. |
| Containers Intact: | ☒Yes ☐No | 10. |
| Filtered volume received for Dissolved tests | ☒Yes ☐No ☐N/A | 11. |
| Sample Labels match COC: mH 5/2/23 -Includes date/time/ID/Analysis Matrix: W | ☒Yes ☐No ☐N/A | 12. 00011 - ILPOLY has ID of SW_CS_DUR mH 5/2/23 |
| Trip Blank Present | ☐Yes ☐No ☒N/A | 13. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒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: After pitting the total bottle for metals, the bottle tipped and Spilled half of the Sample mH 5/2/23

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

40261550

# CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3
Cooler # 1 of 1

COC # FMC-2023_04

**Required Ship to Lab:**

| | |
|---|---|
| Lab Name | Pace Analytical Services |
| Address | 1241 Bellevue Street - Suite 9, Green Bay, WI |
| Lab PM. | Tod Noltemeyer |
| Phone/Fax | (608) 232-3300 |
| Lab PM email | Tod.Noltemeyer@pacelabs.com |
| Applicable Leb Quote #. | |

**Required Project Information:**

| | |
|---|---|
| *Facility ID #: | Flambeau Mine Co. |
| *Task Code # | FMC-2023_04 |
| Site Address | – |
| City | Green Bay |
| State | WI |
| Project Contact: | Mark Ciardelli |
| Phone/Fax: | 920-496-6656 |
| Email: | Mark.Ciardelli@foth.com |

**Required Invoice Information:**

| | |
|---|---|
| Send Invoice to: | Accounting |
| Address. | 2121 Innovation Court P.O. Box 5126, De Pere, WI |
| City/State | De Pere, WI 54115 |
| Ph #. | 920-497-2500 |
| 17F777.23-07-73 | |
| Send EDD to: | Nick Glender |
| CC Hardcopy report to | Sharon Kozicki, Nick Glander |
| CC electronic copy report to | Sharon.Kozicki@foth.com; nick.glander@foth.com |

| | | | | | |
|---|---|---|---|---|---|
| TAT: Standard 10 day | X | Rush | | Mark One | |
| If Rush, Date due | | | | | |
| QC level Required: Standard | X | Special | | Mark one | |

Lab Project ID (lab use)

**Requested Analyses**

Valid Matrix Codes: MATRIX — DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AE; SOIL GAS GS; SURFACE WATER WS; WATER DC WQ; SLUDGE SL; RINSEATE WH; LAB LEACHATE; SPLP LLS; LAB LEACHATE + TCLP LLT

| ITEM # | *SAMPLE ID Samples IDs MUST BE UNIQUE | *MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | SAMPLE DATE | SAMPLE TIME (Military) | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Zinc Acetate & NaOH | Filtered (Y/N): N | Y | N | Y | Y | N | N | Y | Comments/ Lab Sample I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | 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 | |
| 1 | SW-C9_20230429 | WS | G | 4/29/2023 | 1230 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 001 |
| 2 | SW-C1_20230429 | WS | G | 4/29/2023 | 1430 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 002 |
| 3 | SW-STM_20230429 | WS | G | 4/29/2023 | 1030 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 003 |
| 4 | SW-C5_20230429 | WS | G | 4/29/2023 | 1530 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 004 |
| 5 | SW-EB-20230429 | WS | G | 4/29/2023 | 1630 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 005 |
| 6 | SW-NBOUT_20230429 | WS | G | 4/29/2023 | 1700 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 006 |
| 7 | SW-NB_20230429 | WS | G | 4/29/2023 | 1815 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 007 |
| 8 | SW-HWY27W_20230429 | WS | G | 4/29/2023 | 1130 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 008 |
| 9 | SW-HWY27E_20230429 | WS | G | 4/29/2023 | 1200 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 009 |
| 10 | CP-04_20230429 | WS | G | 4/29/2023 | 1330 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 010 |
| 11 | SW-C5-DUP-20230429 | WS | G | 4/29/2023 | ~~1830~~ 15:30 MCC | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | 011 |

**Additional Comments/Special Instructions:**

Include Equis EDD's

*Required Information for electronic data deliverable.

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| Jim Engelhardt/Merjent | 5/1/23 | 0900 | | | |
| Waltco | 5/2/23 | 0820 | Mgmt | 5/2/23 | 0820 |
| | | | | | |
| | | | | | |

**Sample Receipt Conditions**

| | Y/N | Y/N | Y/N |
|---|---|---|---|
| 22.3 | (Y)N | (Y)N | Y(N) |
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE: Jim Engelhardt

SIGNATURE of SAMPLER: [signature] DATE Signed 5-1-23 Time 0900

| Temp in °C | Samples on Ice? | Sample intact? | Trip Blank? |
|---|---|---|---|
| | | | |

https://merjent1-my.sharepoint.com/personal/jim_engelhardt_merjent_com/Documents/Desktop/Flambeau Mine Monitoring/COC/2023_FMC_Stream C_COCs_202304292023_FMC_Stream C_COCs_20230429COC PACE SW-Stream C

COPY

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# Foth

## CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1
Cooler # 2 of 3

COC # FMC-2023_04

| Required Ship to Lab: | | Required Project Information: | | Required Invoice Information: | | | |
|---|---|---|---|---|---|---|---|
| Lab Name: | Pace Analytical Services | *Facility ID #: | Flambeau Mine Co. | Send Invoice to: | Accounting | TAT: Standard 10 day | X Rush Mark One |
| Address: | | *Task Code # | FMC-2023_04 | Address: | 2121 Innovation Court P.O Box 5128, De Pere, WI | If Rush, Date due | |
| | 1241 Bellevue Street - Suite 9, Green Bay, WI | Site Address | -- | City/State | De Pere, WI 54115 | Ph #. | 920-497-2500 | QC level Required: Standard | X Special Mark one |
| Lab PM: | Tod Noltemeyer | City | Green Bay | State | WI | 17F777.23-07-73 | | Lab Project ID (lab use) | |
| Phone/Fax: | (608) 232-3300 | Project Contact: | Mark Ciardelli | Send EDD to: | Nick Glander | Requested Analyses | | | |
| Lab PM email | Tod.Noltemeyer@pacelabs.com | Phone/Fax: | 920-496-6656 | CC Hardcopy report to | Sharon Kozicki, Nick Glander | Filtered (Y/N) | | | |
| Applicable Leb Quote #: | | Email: | Mark.Ciardelli@foth.com | CC electronic copy report to | Sharon.Kozicki@foth.com<br>nick.glander@foth.com | | | | |

Valid Matrix Codes: MATRIX: DRINKING WATER DW; GROUND WATER GW; WASTE WATER WW; FREE PRODUCT LP; SOIL SO; OIL OL; WIPE WP; AMBIENT AIR AA; SVE AIR AS; SOIL GAS GS; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; LAB LEACHATE - SPLP LLS; LAB LEACHATE - TCLP LLT

| ITEM # | *SAMPLE ID Samples IDs MUST BE UNIQUE | *MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | SAMPLE DATE | SAMPLE TIME (Military) | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Zinc Acetate & NaOH | 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 | Comments/ Lab Sample I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SW-C9_20230429 | WS | G | 4/29/2023 | 1230 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 2 | SW-C1_20230429 | WS | G | 4/29/2023 | 1430 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 3 | SW-STM_20230429 | WS | G | 4/29/2023 | 1030 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 4 | SW-C5_20230429 | WS | G | 4/29/2023 | 1530 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 5 | SW-EB-20230429 | WS | G | 4/29/2023 | 1630 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 6 | SW-NBOUT_20230429 | WS | G | 4/29/2023 | 1700 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 7 | SW-NB_20230429 | WS | G | 4/29/2023 | 1815 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 8 | SW-HWY27W_20230429 | WS | G | 4/29/2023 | 1130 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 9 | SW-HWY27E_20230429 | WS | G | 4/29/2023 | 1200 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 10 | CP-04_20230429 | WS | G | 4/29/2023 | 1330 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 11 | SW-C5-DUP-20230429 | WS | G | 4/29/2023 | ~~1830~~ 15:30 MCC | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |

Additional Comments/Special Instructions:

Include Equis EDD's

*Required Information for electronic data deliverable.

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| Jim Engelhardt/Merjent | 5/4/23 | 0900 | | | |
| Walter | 5/4/23 | 0800 | Mark | 5/4/23 | 0840 |
| | | | | | |
| | | | | | |

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE: Jim Engelhardt

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-1-23 Time: 0900

Sample Receipt Conditions

| Temp in °C | Samples on Ice? | Sample Intact? | Trip Blank? |
|---|---|---|---|
| | Y/N | Y/N | Y/N |
| 2.4.3 | (Y)N | (Y)N | Y/(N) |
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |

https://merjent1-my.sharepoint.com/personal/jim_engelhardt_merjent_com/Documents/Desktop/Flambeau Mine Monitoring/COC/2023_FMC_Stream C_COCs_202304292023_FMC_Stream C_COCs_20230429COC PACE SW-Stream C

COPY

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# CHAIN-OF-CUSTODY / Analytical Request Document

Foth

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

Page: 1 of 1
Cooler # 3 of 3

COC # FMC-2023_04

| Required Ship to Lab: | | Required Project Information: | | Required Invoice Information: | | | |
|---|---|---|---|---|---|---|---|
| Lab Name: | Pace Analytical Services | *Facility ID #: | Flambeau Mine Co. | Send Invoice to: | Accounting | TAT: Standard 10 day | X Rush ___ Mark One |
| Address: | | *Task Code # | FMC-2023_04 | Address: | 2121 Innovation Court P.O. Box 5126, De Pere, WI | If Rush, Date due | |
| 1241 Bellevue Street - Suite 9, Green Bay, WI | | Site Address | -- | City/State | De Pere, WI. 54115 | Ph #: 920-497-2500 | QC level Required: Standard X Special ___ Mark one |
| Lab PM. | Tod Noltemeyer | City: Green Bay | State: WI | 17F777.23-07-73 | | Lab Project ID (lab use) | |
| Phone/Fax: | (608) 232-3300 | Project Contact: | Merk Ciardelli | Send EDD to: | Nick Glander | Requested Analyses | |
| Lab PM email | Tod.Noltemeyer@pacelabs.com | Phone/Fax: | 920-496-6656 | CC Hardcopy report to | Sharon Kozicki, Nick Glander | Filtered (Y/N) | |
| Applicable Lab Quote #: | | Email: | Mark.Ciardelli@foth.com | CC electronic copy report to | Sharon.Kozicki@foth.com<br>nick.glander@foth.com | N Y N Y Y N N Y | |

Valid Matrix Codes: MATRIX: DRINKING WATER DW; GROUND WATER GW; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AS; SOIL GAS GS; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; LAB LEACHATE - LLS; EP/LP EPLP; LAB LEACHATE - LLT; TCLP TCLP

| ITEM # | *SAMPLE ID Samples IDs MUST BE UNIQUE | *MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | SAMPLE DATE | SAMPLE TIME (Military) | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Zinc Acetate & NaOH | 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 | Comments/ Lab Sample I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SW-C9_20230429 | WS | G | 4/29/2023 | 1230 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 2 | SW-C1_20230429 | WS | G | 4/29/2023 | 1430 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 3 | SW-STM_20230429 | WS | G | 4/29/2023 | 1030 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 4 | SW-C5_20230429 | WS | G | 4/29/2023 | 1530 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 5 | SW-EB-20230429 | WS | G | 4/29/2023 | 1630 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 6 | SW-NBOUT_20230429 | WS | G | 4/29/2023 | 1700 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 7 | SW-NB_20230429 | WS | G | 4/29/2023 | 1815 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 8 | SW-HWY27W_20230429 | WS | G | 4/29/2023 | 1130 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 9 | SW-HWY27E_20230429 | WS | G | 4/29/2023 | 1200 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 10 | CP-04_20230429 | WS | G | 4/29/2023 | 1330 | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |
| 11 | SW-C5-DUP-20230429 | WS | G | 4/29/2023 | ~~1830~~ 15:30 MCC | 8 | 3 | 1 | 2 | | | | | 2 | X | X | X | X | X | X | X | X | |

Additional Comments/Special Instructions:

Include Equis EDD's

*Required Information for electronic data deliverable.

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| Jim Engelhardt/Merjent | 5/1/23 | 0900 | | | |
| Walter Shh3 | | 0810 | | Shh3 | 0810 |

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE: Jim Engelhardt

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-1-23 Time: 0900

| Sample Receipt Conditions | Temp in °C | Samples on Ice? | Sample Intact? | Trip Blank? |
|---|---|---|---|---|
| | | Y/N | Y/N | Y/N |
| | 2.8 | (Y)N | (Y)N | Y(N) |
| | | Y/N | Y/N | Y/N |
| | | Y/N | Y/N | Y/N |

https://merjent1-my.sharepoint.com/personal/jim_engelhardt_merjent_com/Documents/Desktop/Flambeau Mine Monitoring/COC/2023_FMC_Stream C_COCs_202304292023_FMC_Stream C_COCs_20230429COC PACE SW-Stream C

# Sample Preservation Receipt Form

Client Name: Foth  Project # 402615SO

All containers needing preservation have been checked and noted below. ☑Yes ☐No ☐N/A  Initial when completed MH  Date/ Time.

Lab Lot# of pH paper. 1000722  Lab Std #ID of preservation (if pH adjusted)

| Pace Lab # | Glass | | | | | | | Plastic | | | | | | Vials | | | | | | Jars | | | | General | | | | VOA Vials (>6mm) * | H2SO4 pH ≤2 | NaOH+Zn Act pH ≥9 | NaOH pH ≥12 | HNO3 pH ≤2 | pH after adjusted | Volume (mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AG1U | BG1U | AG1H | AG4S | AG5U | AG2S | BG3U | BP1U | BP3U | BP3B | BP3N | BP3S | BP2Z | VG9C | DG9T | VG9U | VG9H | VG9M | VG9D | JGFU | JG9U | WGFU | WPFU | SP5T | ZPLC | GN 1 | GN 2 | | | | | | | |
| 001 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 002 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 003 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 004 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 005 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 006 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 007 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 008 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 009 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 010 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 011 | | | | 1 | | | | 1 | 2 | | 2 | | 2 | | | | | | | | | | | | | | | | | X | | X | | 2.5 / 5 |
| 012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 016 | | | | | MH 5/24/23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 017 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 018 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |
| 020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2.5 / 5 |

Exceptions to preservation check. VOA, Coliform (TOC) TOX, TOH, O&G, WI DRO, Phenolics, Other

Headspace in VOA Vials (>6mm) ☐Yes ☐No ☑N/A ***If yes look in headspace column**

| | |
|---|---|
| AG1U | 1 liter amber glass |
| BG1U | 1 liter clear glass |
| AG1H | 1 liter amber glass HCL |
| AG4S | 125 mL amber glass H2SO4 |
| AG5U | 100 mL amber glass unpres |
| AG2S | 500 mL amber glass H2SO4 |
| BG3U | 250 mL clear glass unpres |

| | |
|---|---|
| BP1U | 1 liter plastic unpres |
| BP3U | 250 mL plastic unpres |
| BP3B | 250 mL plastic NaOH |
| BP3N | 250 mL plastic HNO3 |
| BP3S | 250 mL plastic H2SO4 |
| BP2Z | 500 mL plastic NaOH + Zn |

| | |
|---|---|
| VG9C | 40 mL clear ascorbic w/ HCl |
| DG9T | 40 mL amber Na Thio |
| VG9U | 40 mL clear vial unpres |
| VG9H | 40 mL clear vial HCL |
| VG9M | 40 mL clear vial MeOH |
| VG9D | 40 mL clear vial DI |

| | |
|---|---|
| JGFU | 4 oz amber jar unpres |
| JG9U | 9 oz amber jar unpres |
| WGFU | 4 oz clear jar unpres |
| WPFU | 4 oz plastic jar unpres |
| SP5T | 120 mL plastic Na Thiosulfate |
| ZPLC | ziploc bag |
| GN 1 | |
| GN 2 | |

Page 1 of 2

# Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40261550

40261550

**Client Name:** Foth

**Courier:** ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Waltco
☐ Client ☐ Pace Other:

**Tracking #:** 3555908

**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 - 120 **Type of Ice:** (Wet) Blue Dry None ☐ Meltwater Only

**Cooler Temperature** Uncorr: 2,2,3 /Corr: 2,2,3

**Temp Blank Present:** ☒ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents:
Date: 5/2/23 /Initials: mH

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

Labeled By Initials:

| | | |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time. | ☒Yes ☐No | 5. |
| - DI VOA Samples frozen upon receipt | ☐Yes ☐No | Date/Time. |
| **Short Hold Time Analysis (<72hr):** | ☒Yes ☐No | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No | 7. |
| Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD. ☐Yes ☒No ☐N/A | | 8. |
| Correct Containers Used: Correct Type. Pace Green Bay, Pace IR, Non-Pace | ☒Yes ☐No | 9. |
| Containers Intact: | ☒Yes ☐No | 10. |
| Filtered volume received for Dissolved tests | ☒Yes ☐No ☐N/A | 11. |
| Sample Labels match COC: mH 5/2/23 -Includes date/time/ID/Analysis Matrix: W | ☒Yes ☐No ☐N/A | 12. 0011 - ILPOW has ID of SW_CS_DUR mH 5/2/23 |
| Trip Blank Present | ☐Yes ☐No ☒N/A | 13. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒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: After pitting the total bottle for metals, the bottle tipped and Spilled half of the Sample mH 5/2/23

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

Page 2 of 2

# Attachment 6

# Flow Inspection Forms

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Project No.** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | March 28, 2023 | **Time:** | 1815 |
| **Weather:** | 38°, Overcast, 5 mph northwest wind, No precipitation | | |

**Inspection Notes**

Stream C flow observed on the evening of March 28, 2023, following an extended period of above freezing temps and obvious Spring breakup. A considerable snowpack still exists over a majority of the area and it is expected with the warming temps that additional flow will be observed over the site. Flow was observed both upstream and downstream of the culvert under Copper Park Lane and also at both the upstream and downstream ends of the culvert under Hwy 27. Water is beginning to accumulate in the East ditch of Hwy 27 along the upstream side of the culvert. Water appears to be working its way through the basins and has created flow enough to melt the snow upstream of the Copper Park Lane culvert. Photographs of site conditions are attached. No other monitoring conducted.

***END OF NOTES***

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: |
|---|---|
| 1 | March 28, 2023 |

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Upstream end of culvert under Copper Park Lane.

| Photo No. | Date: |
|---|---|
| 2 | March 28, 2023 |

**Direction Photo Taken:** Southwest

**Photo Taken By:** Jim Engelhardt

**Description:** Stream C downstream of Copper Park Lane.

| Photo No. | Date: |
|---|---|
| 3 | March 28, 2023 |

**Direction Photo Taken:** Southwest

**Photo Taken By:** Jim Engelhardt

**Description:** Downstream (west) end of culvert under Hwy 27.

| Photo No. | Date: |
|---|---|
| 4 | March 28, 2023 |

**Direction Photo Taken:** Northeast

**Photo Taken By:** Jim Engelhardt

**Description:** Upstream (east) end culvert under STH 27.

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Scope ID** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | April 12, 2023 | **Time:** | 1800 |
| **Weather:** | 84°, Sunny, 15 mph southwest wind, No precipitation | | |

**Inspection Notes**

Stream C flow observed on the evening of April 12, 2023, following above normal temps and a rapidly melting snowpack. Small amounts of snow remain in areas shaded from the sun. Flow was observed both upstream and downstream of the culvert under Copper Park Lane. The upstream end of the Copper Park Lane culvert was receiving a decent flow of runoff water from the full basins upstream. Stream C downstream of the culvert under Copper Park Lane was near bank full conditions with the increase runoff. Further observation of the water levels in Stream C downstream of the Copper Park Lane culvert to the confluence of the Flambeau River revealed water flowing at a considerable rate along its entire thread. At the confluence, the elevated water level in the Flambeau River is creating a backup of flow into Stream C at the confluence. With the warming weather, the flush of water through the system will create conditions where surface water monitoring will be possible following the first 0.5 inch precipitation event. Photographs of site conditions are attached. No other monitoring conducted.

***END OF NOTES***

Foth

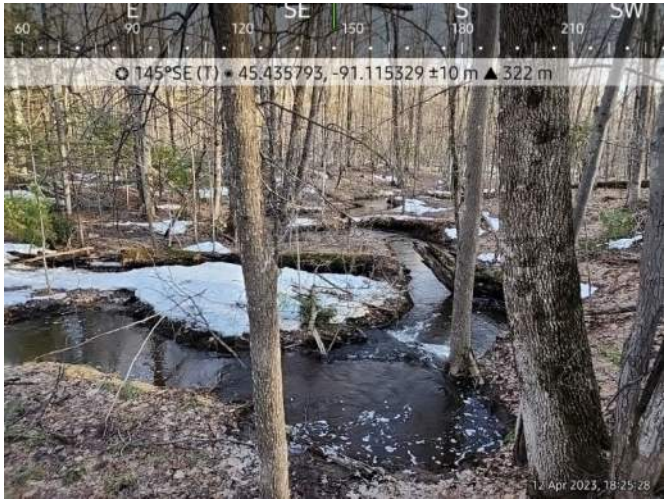
# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: | |
|---|---|---|
| 1 | April 12, 2023 |  |
| Direction Photo Taken: Southwest | | |
| Photo Taken By: Jim Engelhardt | | |
| Description: Downstream view of culvert under Copper Park Lane | | |

| Photo No. | Date: | |
|---|---|---|
| 3 | April 12, 2023 |   |
| Direction Photo Taken: Northeast | | |
| Photo Taken By: Jim Engelhardt | | |
| Description: View of waterway between Copper Park Lane and the Flambeau River. | | |

| Photo No. | Date: | |
|---|---|---|
| 2 | April 12, 2023 |  |
| Direction Photo Taken: North | | |
| Photo Taken By: Jim Engelhardt | | |
| Description: Upstream view of culvert under Copper Park Lane | | |

| Photo No. | Date: | |
|---|---|---|
| 4 | April 12, 2023 |   |
| Direction Photo Taken: Southeast | | |
| Photo Taken By: Jim Engelhardt | | |
| Description: View of waterway between Copper Park Lane and the Flambeau River. | | |

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: | Image |
|---|---|---|
| 5 | April 12, 2023 |  |

Direction Photo Taken: Northeast

Photo Taken By: Jim Engelhardt

Description: View of waterway between Copper Park Lane and the Flambeau River.

| Photo No. | Date: | Image |
|---|---|---|
| 7 | April 12, 2023 |  |

Direction Photo Taken: East

Photo Taken By: Jim Engelhardt

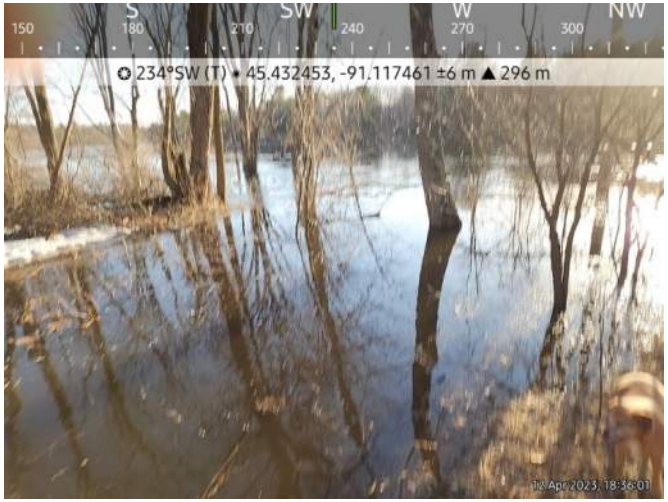
Description: View upstream at the confluence with the Flambeau River.

| Photo No. | Date: | Image |
|---|---|---|
| 6 | April 12, 2023 |  |

Direction Photo Taken: East

Photo Taken By: Jim Engelhardt

Description: View of waterway between Copper Park Lane and the Flambeau River.

| Photo No. | Date: | Image |
|---|---|---|
| 8 | April 12, 2023 |  |

Direction Photo Taken: Southwest

Photo Taken By: Jim Engelhardt

Description: Confluence at the Flambeau River.

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Scope ID** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | April 19, 2023 | **Time:** | 1100 |
| **Weather:** | 42°, Overcast/Light Rain, 21 mph east wind, 0.53 in. precip. event | | |

**Inspection Notes**

Stream C flow observed on the morning of April 19, 2023, following an extended period of above freezing temps and a 0.53 inch precipitation event. A considerable snowpack still exists over a majority of the area and it is expected with the warming temps that additional flow will continue to be observed over the site. Flow was observed both upstream and downstream of the culvert under Copper Park Lane, within the treatment cells, at the confluence of Stream C and Flambeau and at both the upstream and downstream ends of the culvert under Hwy 27. Water is accumulating rapidly in the East ditch of Hwy 27 along the upstream side of the culvert and providing considerable flow into the treatment cells. Water appears to be working its way rapidly through the treatment cells and has created considerable flow through the Copper Park Lane culvert. Stream C downstream of the Copper Park Lane culvert is flowing well at bank full capacity to the confluence of the Flambeau River. The increased flow resulting from rapid snow melt and runoff in combination with the precipitation event was enough to initiate the first round of surface water monitoring on the site. Photographs of site conditions are attached.

***END OF NOTES***

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: |
|---|---|
| 1 | April 19, 2023 |

**Direction Photo Taken:** West

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point CP-04

| Photo No. | Date: |
|---|---|
| 2 | April 19, 2023 |

**Direction Photo Taken:** South

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-NBOUT

| Photo No. | Date: |
|---|---|
| 3 | April 19, 2023 |

**Direction Photo Taken:** East

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-C1

| Photo No. | Date: |
|---|---|
| 4 | April 19, 2023 |

**Direction Photo Taken:** South

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-C5

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 5 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-C9 | |

| Photo No. 7 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** South | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-HWY27E | |

| Photo No. 6 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sampling Point SW-EB | |

| Photo No. 8 | Date: April 19, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sampling Point SW-HWY27W | |

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 9 | Date: April 19, 2023 |
|---|---|

**Direction Photo Taken:** West

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-NB

| Photo No. 11 | Date: April 19, 2023 |
|---|---|

**Direction Photo Taken:** West to East

**Video Taken By:** Jim Engelhardt

**Description:** Sample Point SW-STM Flow Video

SW-STM Confluence.mp4

| Photo No. 10 | Date: April 19, 2023 |
|---|---|

**Direction Photo Taken:** West

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-STM

| Photo No. 12 | Date: April 19, 2023 |
|---|---|

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-HWY27E Flow Video

Hwy 27 Culvert US.mp4

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Scope ID** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | April 29, 2023 | **Time:** | 1530 |
| **Weather:** | 46˚, Overcast/Light Rain, 12 mph northwest wind, 0.5 in. precip. Event | | |

**Inspection Notes**

Stream C flow observed on the morning of April 29, 2023, following an extended period of above freezing temps with spring runoff and a 0.5 inch precipitation event. With warmer daytime temps the snowpack on the site is now completely melted and the site is receiving the end of the spring runoff from melting snow. Flow was observed both upstream and downstream of the culvert under Copper Park Lane, within the basins, at the confluence of Stream C and the Flambeau River and at both the upstream and downstream ends of the culvert under Hwy 27. There is still a considerable amount of water ponded in the East ditch of Hwy 27 along the upstream side of the culvert which continues to provide some flow into the basins. Water appears to be working its way slowly through each of the basins and continues to consistently flow through the Copper Park Lane culvert. Stream C downstream of the Copper Park Lane culvert is flowing well just below bank full capacity to the confluence of the Flambeau River. The continual flow resulting from snow melt and runoff in combination with the 0.5 in. precipitation event was enough to initiate the second round of surface water monitoring on the site. Photographs of site conditions are attached.

***END OF NOTES***

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: |
|---|---|
| 1 | April 29, 2023 |

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Flow at upstream end of the Copper Park Lane culvert.

| Photo No. | Date: |
|---|---|
| 2 | April 29, 2023 |

**Direction Photo Taken:** Northeast

**Photo Taken By:** Jim Engelhardt

**Description:** Flow at downstream end of the Copper Park Lane culvert.

| Photo No. | Date: |
|---|---|
| 3 | April 29, 2023 |

**Direction Photo Taken:** West

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point CP-04.

| Photo No. | Date: |
|---|---|
| 4 | April 29, 2023 |

**Direction Photo Taken:** Northeast

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-C1.

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: |
|---|---|
| 5 | April 29, 2023 |

**Direction Photo Taken:** South

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-C5.

| Photo No. | Date: |
|---|---|
| 7 | April 29, 2023 |

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-HWY27E

| Photo No. | Date: |
|---|---|
| 6 | April 29, 2023 |

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-EB.

| Photo No. | Date: |
|---|---|
| 8 | April 29, 2023 |

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Sample Point SW-HWY27W.

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 9 | Date: April 29, 2023 |
|---|---|
| **Direction Photo Taken:** West | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-NB. | |

| Photo No. 11 | Date: April 29, 2023 |
|---|---|
| **Direction Photo Taken:** West | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-STM. | |

| Photo No. 10 | Date: April 29, 2023 |
|---|---|
| **Direction Photo Taken:** South | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Sample Point SW-NBOUT. | |

| Photo No. 12 | Date: |
|---|---|
| **Direction Photo Taken:** | |
| | |
| **Description:** | |

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Scope ID** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | June 12, 2023 | **Time:** | 1530 |
| **Weather:** | 70°, Overcast, 7 mph east wind, No precipitation | | |

**Inspection Notes**

Stream C flow observed on the afternoon of June 12, 2023, following a 0.22 inch precipitation event occurring in the morning of the same day. This precipitation event follows an extended period of extremely dry conditions which resulted in little to no flow in Stream C since the previous sampling round on April 29, 2023. Flow was observed both upstream and downstream of the culvert under Copper Park Lane, both the upstream and downstream ends of the culvert under Hwy 27 and at the confluence of the Stream C and the Flambeau River. The surface water that has accumulated on upstream end of the culvert under Hwy 27 is currently not flowing through the culvert. Water is also ponded at the downstream end of the Hwy 27 culvert and doesn't appear to be flowing into the treatment cells. The culvert under Copper Park Lane has a slight trickle of water exiting the downstream end of the culvert and is not enough to initiate a round of surface water sampling. Stream C at the confluence of the Flambeau River is completely dry with no observable flow. Photographs of site conditions are attached. No other monitoring conducted.

***END OF NOTES***

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. | Date: |
|---|---|
| 1 | June 12, 2023 |

**Direction Photo Taken:** Southwest

**Photo Taken By:** Jim Engelhardt

**Description:** View upstream near the confluence of the Flambeau River

| Photo No. | Date: |
|---|---|
| 2 | June 12, 2023 |

**Direction Photo Taken:** Southwest

**Photo Taken By:** Jim Engelhardt

**Description:** Flow downstream of culvert under Copper Park Drive

| Photo No. | Date: |
|---|---|
| 3 | June 12, 2023 |

**Direction Photo Taken:** Northeast

**Photo Taken By:** Jim Engelhardt

**Description:** View downstream near the confluence of the Flambeau River

| Photo No. | Date: |
|---|---|
| 4 | June 12, 2023 |

**Direction Photo Taken:** North

**Photo Taken By:** Jim Engelhardt

**Description:** Upstream of culvert under Copper Park Drive

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 5 | Date: June 12, 2023 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Flow upstream end of culvert under Copper Park Drive | |

| Photo No. 7 | Date: June 12, 2023 |
|---|---|
| **Direction Photo Taken:** Northeast | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** View upstream of culvert under Hwy 27 | |

| Photo No. 6 | Date: June 12, 2023 |
|---|---|
| **Direction Photo Taken:** Southwest | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** View downstream of culvert under Hwy 27 | |

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Scope ID** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | June 25, 2023 | **Time:** | 0900 |
| **Weather:** | 67°, Overcast, 6 mph southwest wind, 0.33 in. precip event on evening of June 24, 2023 | | |

**Inspection Notes**

Stream C flow observed on the morning of June 25, 2023, following a 0.33 inch precipitation event on the evening of June 24, 2023. This precipitation event follows a period of extremely dry conditions which resulted in little to no flow in Stream C since the previous flow observation on June 12, 2023. Flow was observed both upstream and downstream of the culvert under Copper Park Lane and at both the upstream and downstream ends of the culvert under Hwy 27. Conditions within the basin nearest Copper Park Lane was also observed. The surface water that has accumulated on upstream end of the culvert under Hwy 27 is still not enough to create flow to the downstream end of the culvert. Only pockets of standing water are present within the basins and it appears that no water is flowing continuously through this area. The culvert under Copper Park Lane has a slight trickle of water exiting the downstream end of the culvert and is not enough to initiate a round of surface water sampling. Photographs of site conditions are attached. No other monitoring conducted.

***END OF NOTES***

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 1 | Date: 6-25-23 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Upstream end of culvert under Copper Park Lane. | |

| Photo No. 2 | Date: 6-25-23 |
|---|---|
| **Direction Photo Taken:** Southwest | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Downstream end of culvert under Copper Park Lane. | |

| Photo No. 3 | Date: 6-25-23 |
|---|---|
| **Direction Photo Taken:** Southwest | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Downstream (west) end of culvert under Hwy 27. | |

| Photo No. 4 | Date: 6-25-23 |
|---|---|
| **Direction Photo Taken:** Northeast | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Upstream (east) end of culvert under STH 27. | |

# Stream C - Flow Monitoring Inspection Report

| | | | |
|---|---|---|---|
| **Client:** | Flambeau Mining Company | **Scope ID** | 17F777.23 |
| **Project:** | Stream C – Flow Monitoring | **Prepared by:** | Jim Engelhardt/Merjent |
| **Date:** | July 20, 2023 | **Time:** | 0900 |
| **Weather:** | 62°, Overcast, 8 mph northwest wind, 0.38 in. precip event on evening of July 19, 2023 | | |

**Inspection Notes**

Stream C flow observed on the morning of July 20, 2023, following a 0.38 inch precipitation event on the evening of July 19, 2023. This precipitation event follows a period of multiple small precipitation events that never completely saturated the ground surface and lead to very little runoff over the site. Flow was observed both upstream and downstream of the culvert under Copper Park Lane and at both the upstream and downstream ends of the culvert under Hwy 27. Conditions within the basin near sampling point SW-NBOUT was also observed. The surface water that has accumulated on the upstream end of the culvert under Hwy 27 is still not enough to create flow to the downstream end of the culvert. The west side ditch along Hwy 27 north of the culvert is heavily vegetated with no standing water. Pockets of standing water are present within the two basins and it appears that no water is flowing continuously through these areas. Once again, the culvert under Copper Park Lane has a slight trickle of water exiting the downstream end of the culvert and is not enough to show any significant flow that can be sampled. Stream C downstream of the Copper Park Lane culvert continues to show no significant flow. Surface water sampling was not conducted due to inadequate flow through the site. Photographs of site conditions are attached.

***END OF NOTES***

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 1 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Upstream end of culvert under Copper Park Lane. | |

| Photo No. 2 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** Southwest | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Downstream end of culvert under Copper Park Lane. | |

| Photo No. 3 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** Southwest | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Downstream (west) end of culvert under Hwy 27. | |

| Photo No. 4 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** Northeast | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Upstream (east) end of culvert under STH 27. | |

Foth

# Photographic Log

| Client's Name: | Site Location: | Project No. |
|---|---|---|
| Flambeau Mine Company | FMC - Stream C | 17F777.23 |

| Photo No. 5 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** North | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Ditch along West side of Hwy 27 north of culvert. | |

| Photo No. 7 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** Southwest | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Stream C downstream of the Cooper Park Lane culvert. | |

| Photo No. 6 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** East | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Upstream end of culvert under Hwy 27. | |

| Photo No. 8 | Date: 7-20-23 |
|---|---|
| **Direction Photo Taken:** Northeast | |
| **Photo Taken By:** Jim Engelhardt | |
| **Description:** Standing water near sample point SW-NBOUT. | |