

# 2024 Annual Groundwater Monitoring and Corrective Action Report

**Blue Pit** 

Coyote Station
Beulah, North Dakota

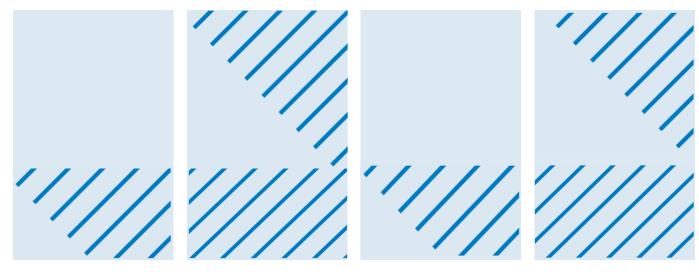
Prepared for Otter Tail Power Company

Prepared by Barr Engineering Co.

January 2025

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234 West Century Avenue Bismarck, ND 58503 701.225.5460 barr.com





## 2024 Annual Groundwater Monitoring and Corrective Action Report

## Blue Pit

## Coyote Station Beulah, North Dakota

## January 2025

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## Acronyms

CCR Coal Combustion Residuals
CFR Code of Federal Regulations
CSM Conceptual Site Model

EPA Environmental Protection Agency
NDAC North Dakota Administrative Code

NDDEQ North Dakota Department of Environmental Quality

OTP Otter Tail Power Company
SSI Statistically Significant Increase



## **Executive Summary**

This summary provides an overview of the Groundwater Monitoring & Corrective Action Program status as required by 40 CFR §257.94(e)(6). The CCR unit operated under the detection monitoring program described in 40 CFR §257.94 and NDAC 33.1-20-08-06-04 at the start and at the end of the 2024 annual reporting period. The current status is detection monitoring.

The monitoring program did not identify any statistically significant increases over background for any of the detection monitoring constituents listed in Appendix III to the EPA CCR Rule and Appendix I to the NDDEQ CCR Rule; therefore, constituents listed in Appendix IV to the EPA CCR Rule and Appendix II to the NDDEQ CCR Rule were not monitored. Corrective action provisions of the CCR Rules were not required.

#### 1 Introduction

Otter Tail Power Company (OTP) operates the Coyote Station (Coyote), located near Beulah, North Dakota. Coyote is a coal-fired electrical generating plant, operation of which results in coal combustion residuals (CCR) as a by-product. The Blue Pit is an existing CCR landfill at Coyote that is required to comply with the provisions of the US Environmental Protection Agency (EPA) CCR Rule (40 CFR Parts 257 and 261, Disposal of Coal Combustion Residuals from Electric Utilities), and the North Dakota Department of Environmental Quality (NDDEQ) CCR Rule (North Dakota Administrative Code [NDAC] Title 33.1, Article 20, Chapter 8). The Blue Pit is shown on Figure 1.

This 2024 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) describes the monitoring program and results for the Blue Pit at Coyote. The Blue Pit is currently in detection monitoring as described by 40 CFR 257.94 of the EPA CCR Rule and NDAC 33.1-20-08-06-04 of the NDDEQ CCR Rule.

## 1.1 Purpose

As stated in 40 CFR 257.90(e) and NDAC 33.1-20-08-06-01(e), the purpose of the Annual Report is to:

- Document the status of monitoring and corrective action program for the CCR unit
- Summarize key actions completed
- · Describe any problems encountered
- Discuss actions to resolve the problems
- Project key activities for the upcoming year

## 1.2 Status of the Groundwater Monitoring and Corrective Action Program

Baseline monitoring was completed in 2017, as documented in the 2017 Annual Groundwater Monitoring and Corrective Action Report, Blue Pit Area (Barr, 2018). Statistical evaluation of monitoring results under detection monitoring program, which is the evaluation of groundwater monitoring data for statistically significant increases (SSIs) over background began on October 17, 2017, and continued through 2024.

In 2024, the monitoring program did not identify any statistically significant increases over background for any of the detection monitoring constituents listed in the CCR Rules; therefore, assessment monitoring constituents listed in Appendix IV to the EPA CCR Rule and Appendix II to the NDDEQ CCR Rule were not monitored. Corrective action provisions of the CCR Rules were not required.

## 1.3 CCR Rule Requirements

This Annual Report has been prepared in accordance with the requirements of 40 CFR 257.90(e) of the EPA CCR Rule and NDAC 33.1-20-08-06-01(e) of the NDDEQ CCR Rule, as outlined in the following Table 1.

Table 1 CCR Rule Requirements

| EPA CCR<br>Rule<br>Reference<br>(40 CFR) | NDDEQ CCR<br>Rule Reference<br>(NDAC) | Content Required in Report  | Location   |
|--|---------------------------------------|---|--|
| §257.90(e)(1)                            | §33.1-20-08-06-<br>01(e)(1)           | Map showing the CCR unit and all monitoring wells that are part of the groundwater monitoring system  | Section 2.1.1 Documentation; see Figure 1  |
| §257.90(e)(2)                            | §33.1-20-08-06-<br>01(e)(2)           | Discuss any new or decommissioned monitoring wells  | Section 2.1.2 Changes to<br>Monitoring System  |
| §257.90(e)(3)                            | §33.1-20-08-06-<br>01(e)(3)           | All monitoring data obtained under §257.90 through §257.98 and §33.1-20-08-06; provide the number and date groundwater samples were collected, and the monitoring (i.e., detection or assessment) | Section 2.2 Monitoring and<br>Analytical Results; Table 2,<br>Figure 2, Figure 3, Appendices |
| §257.90(e)(4)                            | §33.1-20-08-06-<br>01(e)(4)           | Discuss any transition between monitoring programs  | Not applicable – no transition between monitoring programs occurred                          |
| §257.90(e)(5)                            | §33.1-20-08-06-<br>01(e)(5)           | Other information specified in §257.90 through §257.98  | Throughout report  |
| §257.90(e)(6)                            | n/a                                   | Overview at beginning of annual report  | Executive Summary  |

## 2 Groundwater Monitoring and Corrective Action Program

This section documents the status of the groundwater monitoring and corrective action program for the Blue Pit for 2024. The groundwater monitoring system is described in Section 2.1, the monitoring and analytical results are described in Section 2.2, key actions completed and problems encountered are described in Section 2.3, and key activities planned for 2025 are described in Section 2.4.

## 2.1 Groundwater Monitoring System

#### 2.1.1 Documentation

Figure 1 shows an aerial image of the Blue Pit and all upgradient (background) and downgradient monitoring wells, including the well identification numbers, that are part of the groundwater monitoring system, as required by 40 CFR 257.90(e)(1) and NDAC 33.1-20-08-06-01(e)(1). The conceptual site model (CSM) used to develop the network along with details on the monitoring system and the Blue Pit monitoring wells are included in the Groundwater Monitoring System Report, Coyote Station Blue Pit Area (Barr, 2016).

#### 2.1.2 Changes to Monitoring System

The groundwater monitoring system was unchanged in 2024.

## 2.2 Monitoring and Analytical Results

Groundwater samples were collected during two semiannual sampling events. A total of 12 groundwater samples (six monitoring wells and two sampling events) were collected and analyzed for the detection monitoring constituents in 2024 under the detection monitoring program, consistent with the requirements of 40 CFR 257.94(c) and NDAC 33.1-20-08-06-04(c).

Dates of sampling are reported on the field data sheets, and analytical laboratory reports are presented in Appendix A. Results are summarized in Table 2. Groundwater flow data, as required by 40 CFR 257.93(c) and NDAC 33.1-20-08-06-03(c), are presented in Figure 2, Figure 3, and Appendix B.

## 2.3 Key Actions Completed/Problems Encountered

The following key actions were completed for the groundwater monitoring program during 2024:

- Background was statistically evaluated and updated to include data through 2023 according to the Statistical Analysis Plan, Appendix B of the CCR Groundwater Sampling and Analysis Plan (Carlson McCain, 2017).
- Completed semiannual detection monitoring sampling for each background and downgradient well.
- Statistical analysis was conducted according to the Statistical Analysis Plan, Appendix B of the CCR Groundwater Sampling and Analysis Plan (Carlson McCain, 2017).
- Evaluated monitoring results pursuant to 40 CFR 257.93(h) and NDAC 33.1-20-08-06-03(h).
- Determined that no statistically significant increase over background levels occurred at any downgradient monitoring well during 2024.
- Problems were not encountered during the reporting period.

The Annual Fugitive Dust Control Report (40 CFR 257.80(c) and NDAC 33.1-20-08-05-01(c)) is included as Appendix C.

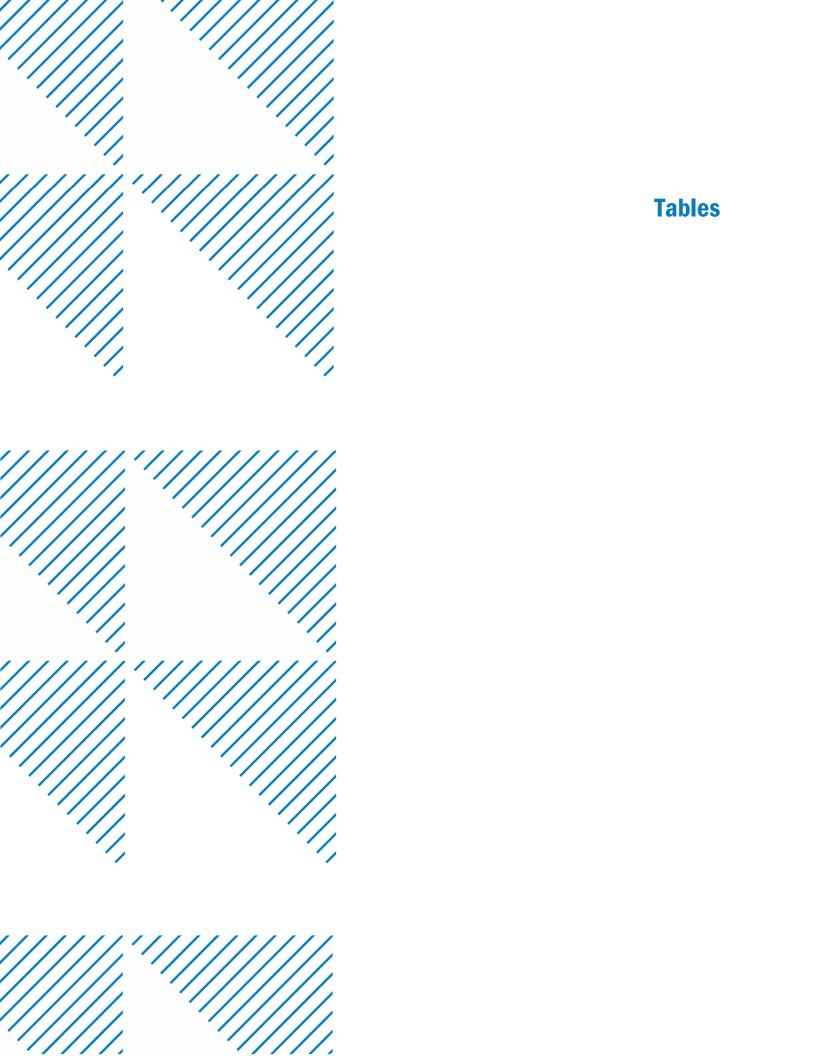
## 2.4 Key Activities for Upcoming Year

The following key groundwater monitoring program activities are planned for 2025:

- Conduct two groundwater sampling events, one in the spring and one in the fall.
- Evaluate analytical results from both 2025 semiannual detection monitoring events for statistically significant increases (SSIs) according to the Statistical Analysis Plan (Carlson McCain, 2017).
- Continue the detection monitoring program in accordance with the CCR Rules.

## 3 References

- Barr, 2018. 2017 Annual Groundwater Monitoring and Corrective Action Report, Coyote Station Blue Pit Area. Prepared for Otter Tail Power Company. January 2018.
- Barr, 2016. Groundwater Monitoring System Report, Coyote Station Blue Pit Area. Prepared for Otter Tail Power Company. November 2016.
- Carlson McCain, 2017. CCR Groundwater Sampling and Analysis Plan (Including Statistical Method Selection and Certification), Coyote Station Blue Pit. Prepared for Otter Tail Power Company. October 2017.



## Table 2 Groundwater Analytical Data Summary Coyote Station Otter Tail Power Company

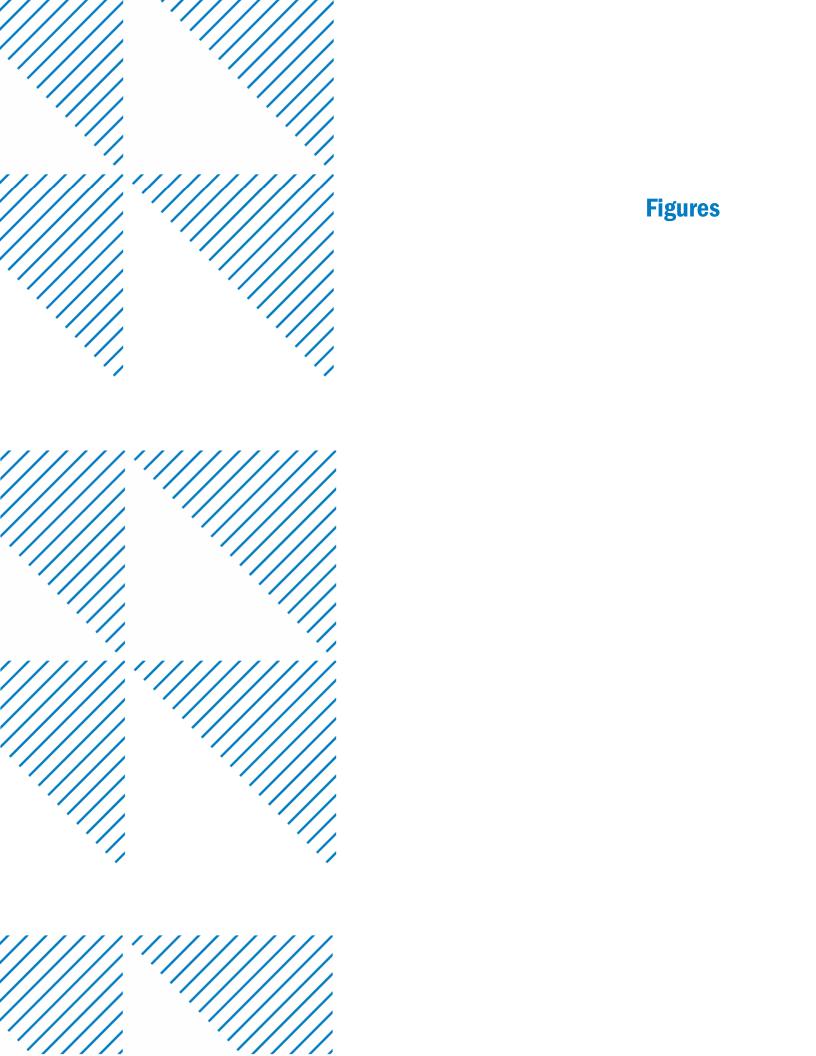
|                            |                      | Location  |         | Blue 6  | Blue 7  | Blue 7  | Blue 13 | Blue 13 | Blue 14 | Blue 14 | Blue 15 | Blue 15 | Blue 16 | Blue 16 | QC      | QC      |
|----------------------------|----------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                            |                      | Date      | 5/7/24  | 10/9/24 | 5/7/24  | 10/9/24 | 5/7/24  | 10/8/24 | 5/6/24  | 10/8/24 | 5/6/24  | 10/9/24 | 5/6/24  | 10/7/24 | 5/6/24  | 10/9/24 |
|                            | San                  | nple Type | N       | N       | N       | N       | N       | N       | N       | N       | N       | N       | N       | N       | FB      | FB      |
| Parameter                  | Analysis<br>Location | Units     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Appendix III               |                      |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Boron, total               | Lab                  | mg/l      | 0.37    | 0.37    | 0.37    | 0.36    | 0.46    | 0.62    | 0.49    | 0.51    | 0.46    | 0.48    | 0.37    | 0.39    | < 0.1 U | < 0.1 U |
| Calcium, total             | Lab                  | mg/l      | 195     | 218     | 193     | 200     | 130     | 130     | 292     | 324     | 131     | 135     | 147     | 163     | < 1 U   | < 1 U   |
| Chloride                   | Lab                  | mg/l      | 7.5     | 9.4     | 7.5     | 7.9     | 48.6    | 52.1    | 9.2     | 9.8     | 8.2     | 8.6     | 9.8     | 10.7    | < 2.0 U | < 2.0 U |
| Fluoride                   | Lab                  | mg/l      | 0.18    | 0.15    | 0.19    | 0.17    | 0.25    | 0.21    | 0.12    | 0.11    | 0.20    | 0.18    | 0.19    | 0.18    | < 0.1 U | < 0.1 U |
| рН                         | Field                | pH units  | 6.63    | 6.9     | 6.62    | 6.68    | 7.56    | 6.91    | 6.69    | 6.71    | 6.61    | 6.63    | 6.61    | 6.66    |         |         |
| Solids,<br>total dissolved | Lab                  | mg/l      | 1940    | 2030    | 2020    | 1950    | 4660    | 5150    | 4490    | 4620    | 2430    | 2330    | 1930    | 2040    | < 10 U  | < 10 U  |
| Sulfate, as SO4            | Lab                  | mg/l      | 917     | 918     | 960     | 801     | 2600    | 2500    | 2420    | 2360    | 952     | 942     | 841     | 856     | < 5 U   | < 5 U   |
| Groundwater<br>Elevation   | Field                | ft amsl   | 1917.67 | 1915.59 | 1916.85 | 1914.81 | 1940.42 | 1940.15 | 1919.90 | 1919.47 | 1917.48 | 1915.49 | 1918.49 | 1916.23 |         |         |

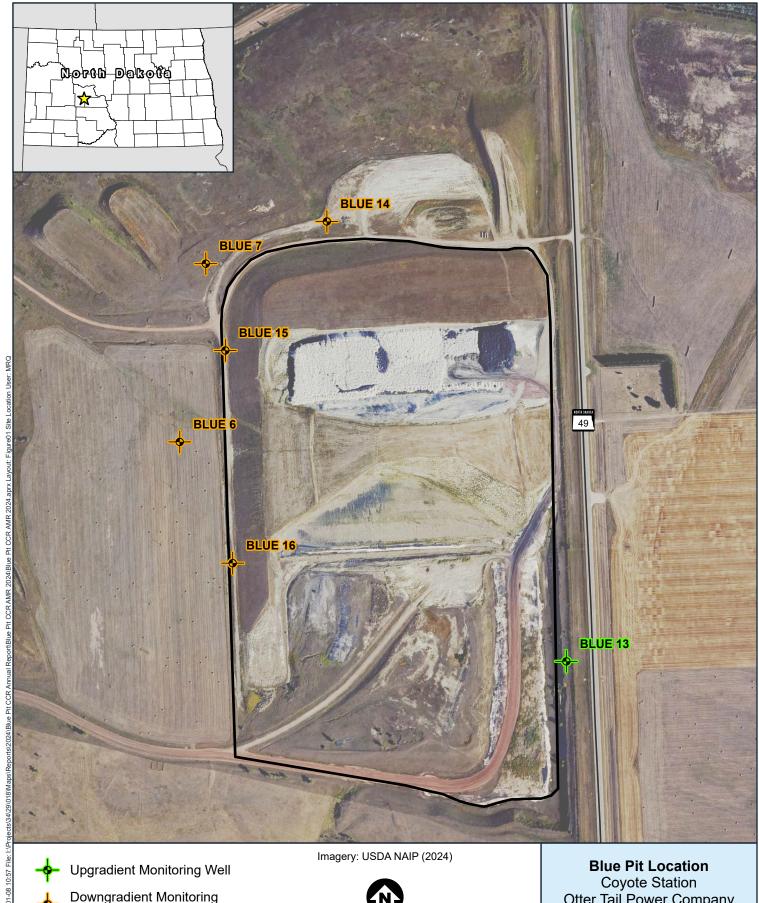
Not analyzed/Not available.

N Sample Type: Normal Detection Monitoring

FB Sample Type: Field Blank

U The analyte was analyzed for, but was not detected.

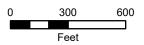




Downgradient Monitoring Well

Blue Pit





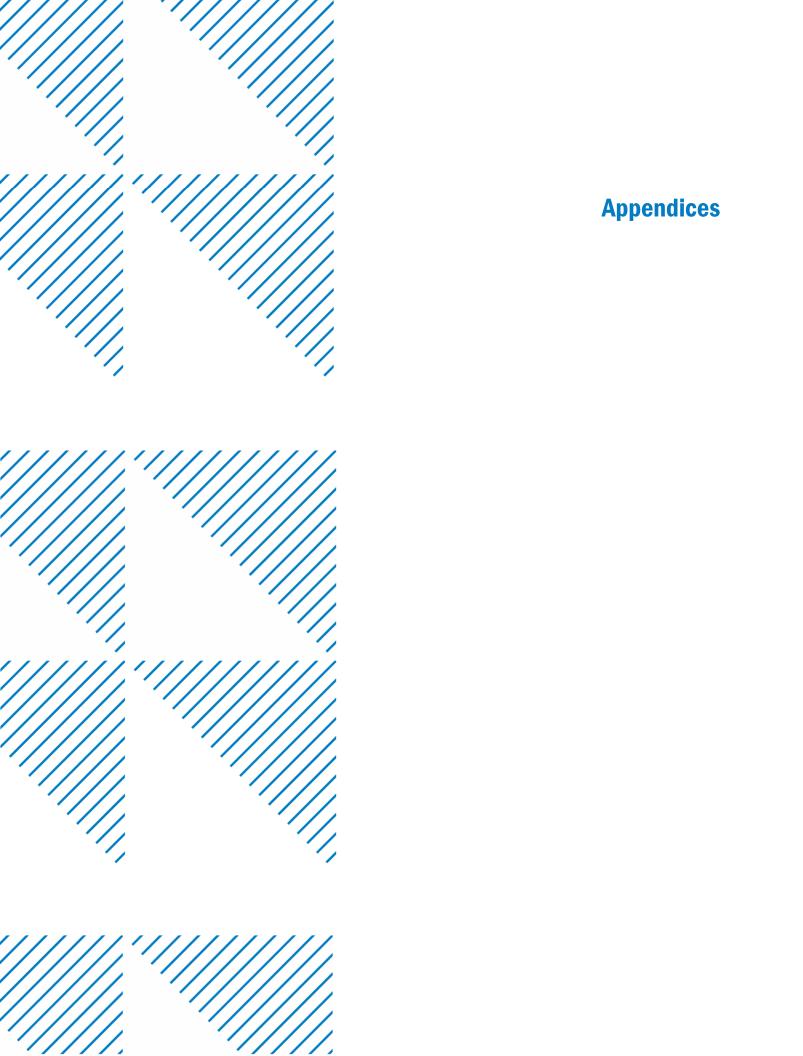
Coyote Station Otter Tail Power Company Beulah, North Dakota

FIGURE 1













1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

www.MVTL.com



Josh Hollen Otter Tail Power Company PO Box 496 Fergus Falls, MN 56538

#### **Certificate of Analysis**

#### **Approval**

All data reported has been reviewed and approved by:

C. Carriel

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS: MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS: MN LAB # 038-999-267 ND W/DW # ND-016

#### **Workorder Comments**

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Report Date: Thursday, May 23, 2024 2:32:34 PM



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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724001
 Date Collected:
 05/06/2024 14:00
 Matrix:
 Groundwater

 Sample ID:
 FB Blue
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| remp @ Receipt (C). 0.7  | Received of | ilce. 165 |     |    |                  |                  |      |
|--------------------------|-------------|-----------|-----|----|------------------|------------------|------|
| Parameter                | Results     | Units     | RDL | DF | Prepared         | Analyzed         | Qual |
|                          |             |           |     |    |                  |                  |      |
| Method: ASTM D516-16     |             |           |     |    |                  |                  |      |
| Sulfate                  | <5          | mg/L      | 5   | 1  |                  | 05/10/2024 13:24 |      |
| Method: EPA 6010D        |             |           |     |    |                  |                  |      |
| Boron                    | <0.1        | mg/L      | 0.1 | 1  | 05/08/2024 15:38 | 05/10/2024 10:39 |      |
| Calcium                  | <1          | mg/L      | 1   | 1  | 05/08/2024 15:38 | 05/13/2024 11:35 |      |
|                          |             | J         |     |    |                  |                  |      |
| Method: SM4500 H+ B-2011 |             |           |     |    |                  |                  |      |
| рН                       | 4.7         | units     | 0.1 | 1  |                  | 05/08/2024 13:50 | *    |
|                          |             |           |     |    |                  |                  |      |
| Method: SM4500-CI-E 2011 |             |           |     |    |                  |                  |      |
| Chloride                 | <2.0        | mg/L      | 2.0 | 1  |                  | 05/09/2024 11:22 |      |
|                          |             |           |     |    |                  |                  |      |
| Method: SM4500-F-C-2011  |             |           |     |    |                  |                  |      |
| Fluoride                 | <0.1        | mg/L      | 0.1 | 1  |                  | 05/08/2024 13:50 |      |
|                          |             |           |     |    |                  |                  |      |
| Method: USGS I-1750-85   |             |           |     |    |                  |                  |      |
| Total Dissolved Solids   | <10         | mg/L      | 10  | 1  |                  | 05/08/2024 15:57 |      |
|                          |             |           |     |    |                  |                  |      |

#### **Analysis Results Comments**

нα

Sample analyzed beyond holding time.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724002
 Date Collected:
 05/07/2024 12:05
 Matrix:
 Groundwater

 Sample ID:
 Blue 6
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| . ср @ т.ссс.р. (с).         |         |           |      |    |                  |                  |      |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|                              |         |           |      |    |                  |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 2572    | umhos/cm  | 1    | 1  |                  | 05/07/2024 12:05 |      |
| Mathaul, 450.0               |         |           |      |    |                  |                  |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.63    | units     | 0.01 | 1  |                  | 05/07/2024 12:05 |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
| Temperature - Field C        | 10.24   | degrees C |      | 1  |                  | 05/07/2024 12:05 |      |
|                              |         |           |      |    |                  |                  |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 917     | mg/L      | 25   | 5  |                  | 05/10/2024 13:26 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.37    | mg/L      | 0.1  | 1  | 05/08/2024 15:38 | 05/10/2024 10:39 |      |
| Calcium                      | 195     | mg/L      | 1    | 1  | 05/08/2024 15:38 | 05/13/2024 11:38 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
|                              | Clear   |           |      | 1  |                  | 05/07/2024 12:05 |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 05/07/2024 12.05 |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| рН                           | 6.8     | units     | 0.1  | 1  |                  | 05/08/2024 13:57 | *    |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
|                              |         | ,         | 0.0  |    |                  | 05/00/0004 44 00 |      |
| Chloride                     | 7.5     | mg/L      | 2.0  | 1  |                  | 05/09/2024 11:23 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.18    | mg/L      | 0.1  | 1  |                  | 05/08/2024 13:57 |      |
|                              |         |           |      |    |                  |                  |      |
| Method: USGS I-1750-85       |         |           |      | _  |                  |                  |      |
| Total Dissolved Solids       | 1940    | mg/L      | 10   | 1  |                  | 05/08/2024 15:57 |      |

#### **Analysis Results Comments**

pН

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724003
 Date Collected:
 05/07/2024 11:35
 Matrix:
 Groundwater

 Sample ID:
 Blue 7
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
|                              |         |           |      |    |                  |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 2798    | umhos/cm  | 1    | 1  |                  | 05/07/2024 11:35 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.62    | units     | 0.01 | 1  |                  | 05/07/2024 11:35 |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
| Temperature - Field C        | 9.73    | degrees C |      | 1  |                  | 05/07/2024 11:35 |      |
| Temperature - Field C        | 3.73    | degrees C |      | '  |                  | 03/07/2024 11:33 |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 960     | mg/L      | 50   | 10 |                  | 05/10/2024 13:37 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.37    | mg/L      | 0.1  | 1  | 05/08/2024 15:38 | 05/10/2024 10:40 |      |
| Calcium                      | 193     | mg/L      | 1    | 1  | 05/08/2024 15:38 | 05/13/2024 11:44 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 05/07/2024 11:35 |      |
|                              |         |           |      |    |                  |                  |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| pH                           | 6.8     | units     | 0.1  | 1  |                  | 05/08/2024 14:03 | *    |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 7.5     | mg/L      | 2.0  | 1  |                  | 05/09/2024 11:24 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.19    | mg/L      | 0.1  | 1  |                  | 05/08/2024 14:03 |      |
|                              |         | J         |      |    |                  |                  |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 2020    | mg/L      | 10   | 1  |                  | 05/08/2024 15:57 |      |

#### **Analysis Results Comments**

pН

Sample analyzed beyond holding time.

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Report Date: Thursday, May 23, 2024 2:32:34 PM





Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724004
 Date Collected:
 05/07/2024 09:57
 Matrix:
 Groundwater

 Sample ID:
 Blue 13
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
|                              |         |           |      |    |                  |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 6699    | umhos/cm  | 1    | 1  |                  | 05/07/2024 09:57 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 7.56    | units     | 0.01 | 1  |                  | 05/07/2024 09:57 |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
| Temperature - Field C        | 11.55   | degrees C |      | 1  |                  | 05/07/2024 09:57 |      |
|                              |         | 9         |      |    |                  |                  |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 2600    | mg/L      | 200  | 40 |                  | 05/10/2024 13:28 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.46    | mg/L      | 0.1  | 1  | 05/08/2024 15:38 | 05/10/2024 10:42 |      |
| Calcium                      | 130     | mg/L      | 1    | 1  | 05/08/2024 15:38 | 05/13/2024 11:46 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 05/07/2024 09:57 |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| рН                           | 7.7     | units     | 0.1  | 1  |                  | 05/08/2024 14:10 | *    |
|                              |         | dillo     | 0.1  | •  |                  | 00/00/2024 14.10 |      |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 48.6    | mg/L      | 2.0  | 1  |                  | 05/09/2024 11:25 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.25    | mg/L      | 0.1  | 1  |                  | 05/08/2024 14:10 |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 4660    | mg/L      | 10   | 1  |                  | 05/08/2024 15:57 |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724005
 Date Collected:
 05/06/2024 11:12
 Matrix:
 Groundwater

 Sample ID:
 Blue 14
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| remp @ Receipt (c).          | Received of | ilce. 165     |      |    |                  |                  |      |
|------------------------------|-------------|---------------|------|----|------------------|------------------|------|
| Parameter                    | Results     | Units         | RDL  | DF | Prepared         | Analyzed         | Qual |
|                              |             |               |      |    |                  |                  |      |
| Method: 120.1                |             |               |      |    |                  |                  |      |
| Specific Conductance - Field | 5443        | umhos/cm      | 1    | 1  |                  | 05/06/2024 11:12 |      |
| opeoine conductance Tricia   | 0110        | diffilos/offi |      | •  |                  | 00/00/2024 11.12 |      |
| Method: 150.2                |             |               |      |    |                  |                  |      |
| pH - Field                   | 6.69        | units         | 0.01 | 1  |                  | 05/06/2024 11:12 |      |
|                              |             |               |      |    |                  |                  |      |
| Method: 170.1                |             |               |      |    |                  |                  |      |
| Temperature - Field C        | 10.16       | degrees C     |      | 1  |                  | 05/06/2024 11:12 |      |
| Method: ASTM D516-16         |             |               |      |    |                  |                  |      |
| Sulfate                      | 2420        | mg/L          | 100  | 20 |                  | 05/10/2024 13:29 |      |
| Gunate                       | 2420        | mg/L          | 100  | 20 |                  | 03/10/2024 13:29 |      |
| Method: EPA 6010D            |             |               |      |    |                  |                  |      |
| Boron                        | 0.49        | mg/L          | 0.1  | 1  | 05/08/2024 15:38 | 05/10/2024 10:43 |      |
| Calcium                      | 292         | mg/L          | 1    | 1  | 05/08/2024 15:38 | 05/13/2024 11:47 |      |
|                              |             |               |      |    |                  |                  |      |
| Method: SM2110               |             |               |      |    |                  |                  |      |
| Appearance - Field           | Clear       |               |      | 1  |                  | 05/06/2024 11:12 |      |
| Method: SM4500 H+ B-2011     |             |               |      |    |                  |                  |      |
|                              | 7.0         | units         | 0.1  | 1  |                  | 05/08/2024 14:15 | *    |
| pH                           | 7.0         | units         | 0.1  | ı  |                  | 03/06/2024 14.13 |      |
| Method: SM4500-CI-E 2011     |             |               |      |    |                  |                  |      |
| Chloride                     | 9.2         | mg/L          | 2.0  | 1  |                  | 05/09/2024 11:27 |      |
|                              |             |               |      |    |                  |                  |      |
| Method: SM4500-F-C-2011      |             |               |      |    |                  |                  |      |
| Fluoride                     | 0.12        | mg/L          | 0.1  | 1  |                  | 05/08/2024 14:15 |      |
| Method: USGS I-1750-85       |             |               |      |    |                  |                  |      |
| Total Dissolved Solids       | 4490        | mg/L          | 10   | 1  |                  | 05/08/2024 15:57 |      |
| Total Dissolved Collus       | 7-130       | mg/L          | 10   | '  |                  | 00/00/2024 10.0/ |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724006
 Date Collected:
 05/06/2024 13:00
 Matrix:
 Groundwater

 Sample ID:
 Blue 15
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
|                              |         |           |      |    | •                |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 3421    | umhos/cm  | 1    | 1  |                  | 05/06/2024 13:00 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.61    | units     | 0.01 | 1  |                  | 05/06/2024 13:00 |      |
|                              |         |           |      |    |                  |                  |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
| Temperature - Field C        | 10.09   | degrees C |      | 1  |                  | 05/06/2024 13:00 |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 952     | mg/L      | 50   | 10 |                  | 05/10/2024 13:30 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.46    | mg/L      | 0.1  | 1  | 05/08/2024 15:38 | 05/10/2024 10:44 |      |
| Calcium                      | 131     | mg/L      | 1    | 1  | 05/08/2024 15:38 | 05/13/2024 11:54 |      |
| Calsiani                     |         | mg/L      | •    | •  | 00/00/2021 10:00 | 00/10/2021 11:01 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 05/06/2024 13:00 |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| рН                           | 6.9     | units     | 0.1  | 1  |                  | 05/08/2024 14:21 | *    |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 0.0     | ma/l      | 2.0  | 1  |                  | 05/00/2024 11:22 |      |
| Chloride                     | 8.2     | mg/L      | 2.0  | 1  |                  | 05/09/2024 11:28 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.20    | mg/L      | 0.1  | 1  |                  | 05/08/2024 14:21 |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 2430    | mg/L      | 10   | 1  |                  | 05/08/2024 15:57 |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 47724007
 Date Collected:
 05/06/2024 14:39
 Matrix:
 Groundwater

 Sample ID:
 Blue 16
 Date Received:
 05/07/2024 15:58
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.7 Received on Ice: Yes

| Parameter                               | Results       | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|---|---------------|-----------|------|----|------------------|------------------|------|
|   |               |           |      |    |                  |                  |      |
| Method: 120.1                           |               |           |      |    |                  |                  |      |
| Specific Conductance - Field            | 2635          | umhos/cm  | 1    | 1  |                  | 05/06/2024 14:39 |      |
| Method: 150.2                           |               |           |      |    |                  |                  |      |
| pH - Field                              | 6.61          | units     | 0.01 | 1  |                  | 05/06/2024 14:39 |      |
| pri - ricia                             | 0.01          | unito     | 0.01 |    |                  | 03/00/2024 14.00 |      |
| Method: 170.1                           |               |           |      |    |                  |                  |      |
| Temperature - Field C                   | 10.27         | degrees C |      | 1  |                  | 05/06/2024 14:39 |      |
| Method: ASTM D516-16                    |               |           |      |    |                  |                  |      |
| Sulfate                                 | 841           | mg/L      | 25   | 5  |                  | 05/10/2024 13:38 |      |
| Guilate                                 | 041           | mg/L      | 23   | 5  |                  | 03/10/2024 13:30 |      |
| Method: EPA 6010D                       |               |           |      |    |                  |                  |      |
| Boron                                   | 0.37          | mg/L      | 0.1  | 1  | 05/08/2024 15:38 | 05/10/2024 10:44 |      |
| Calcium                                 | 147           | mg/L      | 1    | 1  | 05/08/2024 15:38 | 05/13/2024 11:55 |      |
| Method: SM2110                          |               |           |      |    |                  |                  |      |
| Appearance - Field                      | Clear         |           |      | 1  |                  | 05/06/2024 14:39 |      |
| , | <b>0</b> .54. |           |      | ·  |                  | 33,33,23233      |      |
| Method: SM4500 H+ B-2011                |               |           |      |    |                  |                  |      |
| рН                                      | 6.9           | units     | 0.1  | 1  |                  | 05/08/2024 14:28 | *    |
| Method: SM4500-CI-E 2011                |               |           |      |    |                  |                  |      |
| Chloride                                | 9.8           | mg/L      | 2.0  | 1  |                  | 05/09/2024 11:29 |      |
|   |               | 9.=       |      |    |                  |                  |      |
| Method: SM4500-F-C-2011                 |               |           |      |    |                  |                  |      |
| Fluoride                                | 0.19          | mg/L      | 0.1  | 1  |                  | 05/08/2024 14:28 |      |
| Method: USGS I-1750-85                  |               |           |      |    |                  |                  |      |
| Total Dissolved Solids                  | 1930          | mg/L      | 10   | 1  |                  | 05/08/2024 15:57 |      |
|   |               | -         |      |    |                  |                  |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

| C Result | ts Summary         |              |              |                     |                               |                            | WO #:                      | 4772    | 4             |
|----------|--------------------|--------------|--------------|---------------------|-------------------------------|----------------------------|----------------------------|---------|---------------|
| Sulfate  |                    |              |              | Units: mg           | /L                            |                            |                            |         |               |
| QC Type  | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| .FB      |                    |              | 100          | 96.3                |                               | 85                         | 115                        |         |               |
| FB       |                    |              | 100          | 100.0               |                               | 85                         | 115                        |         |               |
| FB       |                    |              | 100          | 101.0               |                               | 85                         | 115                        |         |               |
| ИΒ       |                    | <5           |              |                     |                               |                            |                            |         |               |
| ИВ       |                    | <5           |              |                     |                               |                            |                            |         |               |
| ИΒ       |                    | <5           |              |                     |                               |                            |                            |         |               |
| /IS/MSD  | 47724003           |              | 1000         | 97.1                | 95.1                          | 85                         | 115                        | 1.0     | 20            |
| /IS/MSD  | 48128002           |              | 500          | 77.1                | 77.2                          | 85                         | 115                        | 0.0     | 20            |
|          |                    |              |              |                     |                               |                            |                            |         |               |
| Chloride |                    |              |              | Units: mg           |                               |                            |                            |         |               |
| QC Type  | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| FB       |                    |              | 30           | 94.9                |                               | 90                         | 110                        |         |               |
| FB       |                    |              | 30           | 93.8                |                               | 90                         | 110                        |         |               |
| FB       |                    |              | 30           | 94.8                |                               | 90                         | 110                        |         |               |
| FB       |                    |              | 30           | 93.8                |                               | 90                         | 110                        |         |               |
| FB       |                    |              | 30           | 93.7                |                               | 90                         | 110                        |         |               |
| ИΒ       |                    | <2.0         |              |                     |                               |                            |                            |         |               |
| ИВ       |                    | <2.0         |              |                     |                               |                            |                            |         |               |
| ИΒ       |                    | <2.0         |              |                     |                               |                            |                            |         |               |
| ИΒ       |                    | <2.0         |              |                     |                               |                            |                            |         |               |
| ИΒ       |                    | <2.0         |              |                     |                               |                            |                            |         |               |
|          |                    |              |              |                     |                               |                            |                            |         |               |
| /IS/MSD  | 47724003           |              | 30           | 92.8                | 93.8                          | 80                         | 120                        | 0.6     | 20            |
| MS/MSD   | 47886001           |              | 30           | 101.2               | 99.8                          | 80                         | 120                        | 0.6     | 20            |
| Boron    |                    |              |              | Units: mg           | /L                            |                            |                            |         |               |
| QC Type  | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| FB-OE    |                    |              | 0.4          | 104.0               |                               | 85                         | 115                        |         |               |
| ИВ       |                    | <0.1         |              |                     |                               |                            |                            |         |               |
| DS/PDSD  | 47285002           |              | 2            | 99.0                | 98.8                          | 75                         | 125                        | 0.2     | 20            |
| DS/PDSD  | 47285003           |              | 2            | 81.7                | 82.7                          | 75                         | 125                        | 0.7     | 20            |
|          |                    |              |              |                     |                               |                            |                            |         |               |



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Account #: 6106 C

Client: Otter Tail Power Company

| Calcium<br>QC Type | Original Sample ID | Blank Result | Spike Amount | Units: mg/L<br>Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
|--------------------|--------------------|--------------|--------------|------------------------------------|-------------------------------|----------------------------|----------------------------|---------|---------------|
| LFB-MI             |                    |              | 100          | 110.0                              |                               | 85                         | 115                        |         |               |
| МВ                 |                    | <1           |              |                                    |                               |                            |                            |         |               |
| PDS/PDSD           | 47724001           |              | 100          | 105.0                              | 105.0                         | 75                         | 125                        | 0.8     | 20            |
| DUP                | 47724003           |              |              |                                    |                               |                            |                            | 0.1     | 20            |
| PDS/PDSD           | 47727001           |              | 500          | 106.0                              | 106.0                         | 75                         | 125                        | 0.0     | 20            |
| PDS/PDSD           | 47735001           |              | 100          | 107.0                              | 107.0                         | 75                         | 125                        | 0.1     | 20            |
| PDS/PDSD           | 47954001           |              | 500          | 103.0                              | 102.0                         | 75                         | 125                        | 0.5     | 20            |
| PDS/PDSD           | 47954002           |              | 500          | 105.0                              | 105.0                         | 75                         | 125                        | 0.0     | 20            |
| рН                 |                    |              |              | Units: units                       |                               |                            |                            |         |               |
| QC Type            | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery                | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| CRM-PH             |                    |              | 6            | 100.2                              |                               | 98.33                      | 101.67                     |         |               |
| CRM-PH             |                    |              | 6            | 100.2                              |                               | 98.33                      | 101.67                     |         |               |
| CRM-PH             |                    |              | 6            | 100.2                              |                               | 98.33                      | 101.67                     |         |               |
| CRM-PH             |                    |              | 6            | 100.2                              |                               | 98.33                      | 101.67                     |         |               |
| DUP                | 47724003           |              |              |                                    |                               |                            |                            | 1.8     | 20            |
| DUP                | 47735002           |              |              |                                    |                               |                            |                            | 0.9     | 20            |
| DUP                | 47735011           |              |              |                                    |                               |                            |                            | 1.0     | 20            |
| DUP                | 47770001           |              |              |                                    |                               |                            |                            | 0.2     | 20            |
| Fluoride           |                    |              |              | Units: mg/L                        |                               |                            |                            |         |               |
| QC Type            | Original Sample ID | Blank Result | Spike Amount | Spike %                            | Spike Duplicate               | Lower Control              | Upper Control              | RPD (%) | RPD Limit (%) |
| CRM-F              |                    |              | 3.06         | Recovery<br>106.0                  | % Recovery                    | Limit (%)<br>83.99         | Limit (%)<br>111.11        |         |               |
| LFB-F              |                    |              | 0.5          | 106.0                              |                               | 90                         | 110                        |         |               |
| LFB-F              |                    |              | 0.5          | 100.0                              |                               | 90                         | 110                        |         |               |
| LFB-F              |                    |              | 0.5          | 102.0                              |                               | 90                         | 110                        |         |               |
| LFB-F              |                    |              | 0.5          | 104.0                              |                               | 90                         | 110                        |         |               |
| MB-F               |                    | <0.1         |              |                                    |                               |                            |                            |         |               |
| MB-F               |                    | <0.1         |              |                                    |                               |                            |                            |         |               |
| MB-F               |                    | <0.1         |              |                                    |                               |                            |                            |         |               |
| MB-F               |                    | <0.1         |              |                                    |                               |                            |                            |         |               |
| MS/MSD             | 47724001           |              | 0.5          | 106.0                              | 108.0                         | 80                         | 120                        | 1.9     | 20            |
| MS/MSD             | 47724003           |              | 0.5          | 100.0                              | 100.0                         | 80                         |                            |         | 20            |
| MS/MSD             | 47724003           |              | 0.5          | 100.0                              | 100.0                         | 80                         | 120                        | 0.0     | 20            |



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#### Account #: 6106 Client: Otter Tail Power Company

| Fluoride      |                    |              |              | Units: mg/          |                               |                            |                            |         |               |
|---------------|--------------------|--------------|--------------|---------------------|-------------------------------|----------------------------|----------------------------|---------|---------------|
| QC Type       | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| MS/MSD        | 47735002           |              | 0.5          | 92.0                | 90.0                          | 80                         | 120                        | 0.6     | 20            |
| MS/MSD        | 47736003           |              | 0.5          | 96.0                | 96.0                          | 80                         | 120                        | 0.0     | 20            |
| Total Dissolv | ed Solids          |              |              | Units: mg/          |                               |                            |                            |         |               |
| QC Type       | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| CRM           |                    |              | 736          | 100.0               |                               | 90.35                      | 110.33                     |         |               |
| MB            |                    | <10          |              |                     |                               |                            |                            |         |               |
| DUP           | 47736001           |              |              |                     |                               |                            |                            | 0.2     | 20            |
| DUP           | 47836002           |              |              |                     |                               |                            |                            | 0.8     | 20            |





Account #: 6106 Client: Otter Tail Power Company

| MV                  | boratories                  |               |      | Otter Tail Power Co<br>WO: 47724 |             |             |                        |              | ompany |              | Chain of Custody<br>Record |       |                          |             |             |  |                   |
|---------------------|-----------------------------|---------------|------|----------------------------------|-------------|-------------|------------------------|--------------|--------|--------------|----------------------------|-------|--------------------------|-------------|-------------|--|-------------------|
| Report To:<br>Attn: | Otter Tail Power            | CC:           |      |                                  |             |             |                        |              |        |              | Project Name:              |       | <b>OTP Coyote - Blue</b> |             |             |  |                   |
| Address:            | Josh Hollen<br>PO Box 496   |               |      |                                  |             |             |                        |              |        |              |                            |       |                          | Event:      |             |  |                   |
|                     | Fergus Falls, MN 56538-0496 |               |      |                                  | 6           |             |                        |              |        |              |                            |       |                          |             | Spring 2024 |  |                   |
| Phone:<br>Email:    | jhollen@otpco.com           |               |      |                                  |             |             |                        |              |        |              |                            |       |                          | Sampled B   | By: Je      | 7 th   | /                 |
|                     | Sampl                       | e Information |      |                                  |             | Sample      |                        |              |        | e Containers |                            |       |                          | Field Rea   | adings      |  |                   |
| Lab Number          | Sample ID                   | Date          | Time | Sample Type                      | 1 Liter Raw | 500 mL HN03 | 500 mL HNO3 (filtered) | 250 mL H2SO4 |        |              |                            |       | Temp (°C)                | Spec. Cond. | Hd          | Appearance (Clear-C, Partly<br>Cloudy-PC, Cloudy-CL) | Analysis Required |
| 001                 | FB Blue                     | 6Hzy24        | 1400 | GW                               | Х           | -           | Ш                      |              |        |              |                            |       | NA                       | NA          | NA          | NA   |                   |
| 002                 | Blue 6                      | 7110424       | 1205 | GW                               | Х           | Х           | Ш                      | _            | _      | L            | $\sqcup$                   | 1     | 10.24                    | 2572        | 6,63        | C  |                   |
| 003                 | Blue 7/MS7/MSD7             | 7 May 24      | 1135 | GW                               | 3           | 3           | Н                      | _            | _      | _            | Н                          | _     | 9,73                     | 2798        | 6.62        | C  |                   |
| 004                 | Blue 13                     | 7413424       | 0957 | GW                               | -           | Х           | Н                      | -            | 4      | 1            | $\vdash$                   | +     | 11.55                    | 6699        | 7.56        | C  |                   |
| 005                 | Blue 14                     | 6 May 24      | 1112 | GW                               | -           | X           | $\vdash$               | $\dashv$     | +      | +            | $\vdash$                   | +     | 10.16                    | 5443        | 6.69        | C  | OTP CCR App 3     |
| 006                 | Blue 15<br>Blue 16          | 6 May 24      | 1300 | GW                               | X           | -           | $\vdash$               | $\dashv$     | +      | $\vdash$     | $\vdash$                   | +     | 10.09                    | 3421        | 6.61        | C  |                   |
| 007                 | Dide 16                     | 6 May 24      | 1439 | GW                               | Х           | X           |                        |              | $\pm$  | $\perp$      |                            | $\pm$ | 10.27                    | 2635        | 6.61        |  |                   |
| 1.09                | 1                           |               |      |                                  | $\Gamma$    |             | ΤТ                     |              |        |              | $\Gamma$                   |       |                          |             |             |  | 1                 |

Sample Condition

Temp (°C)
1201 017
TM562 / TM803

Location Log In Walk In #2

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Name

Hast

Date/Time

1 may 24

Report Date: Thursday, May 23, 2024 2:32:34 PM

Relinquished By

Name

Date/Time

7 May 24 1558





Account #: 6106 Client: Otter Tail Power Company

#### **CCR - Appendix III Detection Monitoring**

Field Parameters

pH\*

\* Field and Laboratory Measurements

 Total Concentration Parameters
 Method

 Boron
 6010

 Calcium
 6010

 Chloride
 SM4500 CL E

 Fluoride
 EPA 300

 pH
 SM 4500 H+B-96

 Sulfate
 ASTM D516

 Dissolved Solids, Total
 SM 2540 C-97

NOTE: Total Recoverable Metals! Groundwater samples shall not be field filtered prior to analysis.



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Account #: 6106 Client: Otter Tail Power Company

## Coyote Blue Pit Sampling - 2024 CCR

| Site     | Parameter<br>List | Well<br>Depth | Diameter (Inches) | Well<br>Elevation | Sample<br>Equipment | Dedicated? | Pump Rate (ml/minute) | Goes Dry? | Sample Frequency** |  |
|----------|-------------------|---------------|-------------------|-------------------|---------------------|------------|-----------------------|-----------|--------------------|--|
| BLUE13   | CCR 3             | 116.46        | 2                 | 2045.27           | Bladder             | No         | LOW FLOW              | Yes       | 2,4                |  |
| BLUE6-93 | CCR 3             | 78.85         | 2                 | 1982.22           | Bladder             | No         | LOW FLOW              | YES       | 2,4                |  |
| BLUE14   | CCR 3             | 86.97         | 2                 | 1999.55           | Bladder             | No         | LOW FLOW              | No        | 2,4                |  |
| BLUE15   | CCR 3             | 87.74         | 2                 | 1995.88           | Bladder             | No         | LOW FLOW              | No        | 2,4                |  |
| BLUE16   | CCR 3             | 97.63         | 2                 | 1995.94           | Bladder             | No         | LOW FLOW              | No        | 2,4                |  |
| BLUE7-93 | CCR 3             | 97.26         | 2                 | 1998.38           | Bladder             | No         | LOW FLOW              | No        | 2,4                |  |

NOTE: Total Recoverable Metals! Groundwater samples shall not be field filtered prior to analysis.

2 = May 28 - June 1

4 = Early November

<sup>\*\*</sup> Sample Periods



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Client: Account #: 6106 Otter Tail Power Company

0.65 1.035 0.00 μS/cm 25.00 °C

1,135.7 µS/cm 1,413.0 µS/cm

Calibration\_1025047\_2024-05-07.html

**Calibration Report** 

Instrument Serial Number Created

5/7/24, 3:53 PM

Aqua TROLL 600 1025047 5/7/2024

Sensor Conductivity Serial Number Last Calibrated

Calibration Details
TDS Conversion Factor (ppm)
Cell Constant
Offset
Reference Temperature

Calibration Point 1

Pre Measurement Actual Conductivity

1,082.9 µS/cm 1,347.3 µS/cm Specific Conductivity

Post Measurement Actual Conductivity

Specific Conductivity

Sensor Serial Number Last Calibrated 1014554 5/7/2024

Calibration Details
Slope 1.1419283
Offset -0.00 mg/L

Calibration point 100%
Concentration
Pre Measurement
Post Measurement
Temperature
Barometric Pressure

 $file: /// C./Users/jmeyer/App Data/Local/Microsoft/Windows/INetCache/Content. Outlook/LOOILZMK/Calibration\_1025047\_2024-05-07. html // Cache/Content. Outlook/LOOILZMK/Cache/Content. Outlook/LOOILZMK/Cache/Cache/Content. Outlook/LOOILZMK/Cache/Cache/Cache/Cache/Content. Outlook/LOOILZMK/Cache/C$ 

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Account #: 6106 Client: Otter Tail Power Company

Calibration\_1025047\_2024-05-07.html 5/7/24, 3:53 PM Sensor Serial Number 953082 5/7/2024 Last Calibrated Calibration Details 140.3 mV 14.48 °C Pre Measurement pH 3.99 pH pH mV 140.3 mV Post Measurement pH 4.00 pH pH mV 135.4 mV Calibration Point 2
PH of Buffer 7.04 pH pH mV -27.2 mV
Temperature 14.61 °C 
 Pre Measurement

 pH
 7.05 pH

 pH mV
 -27.2 mV

 Post Measurement

 pH
 7.04 pH

 pH mV
 -26.2 mV
 Calibration Point 3
pH of Buffer 10.11 pH
pH mV -197.5 mV
Temperature 14.63 °C 
 Pre Measurement

 pH
 10.10 pH

 pH mV
 -197.7 mV

 Post Measurement

 pH
 10.11 pH

 pH mV
 -190.7 mV
 Slope and Offset 1
Slope -55.1 mV/pH
Offset -25.0 mV Slope and Offset 2 Slope -55.5 mV/pH Offset -24.9 mV ORP Solution Temperature
Pre Measurement
Post Measurement 241.8 mV 242.5 mV Turbidity Serial Number Last Calibrated 1022520 5/7/2024 Calibration Details
Slope 0.9090995
Offset -0.14 NTU Calibration Point 1 Pre Measurement Post Measurement Calibration Point 2
Pre Measurement
Post Measurement 98.03 NTU 100.00 NTU Barometric Pressure Sensor Serial Number Last Calibrated 1025047 Factory Defaults Pressure Sensor Serial Number Last Calibrated 1023082 Factory Defaults 12 7 May 24

file:///C:/Users/jmeyer/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/LO0ILZMK/Calibration\_1025047\_2024-05-07.html

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Client: Account #: 6106 Otter Tail Power Company

> 5/7/24, 3:46 PM Calibration\_1025047\_2024-05-06.html

**Calibration Report** 

Instrument Serial Number Created Aqua TROLL 600 1025047 5/6/2024

Conductivity Sensor Serial Number Last Calibrated 1022539 5/6/2024

Calibration Details
TDS Conversion Factor (ppm)
Cell Constant
Offset
Reference Temperature 0.65 0.03 0.987 0.00 μS/cm 25.00 °C

Calibration Point 1

Pre Measurement Actual Conductivity

1,160.4 µS/cm 1,397.7 µS/cm

Post Measurement
Actual Conductivity
Specific Conductivity

RDO 1014554 5/6/2024 Sensor Serial Number Last Calibrated

Calibration Details
Slope 1.1974647
Offset -0.00 mg/L

Calibration point 100%
Concentration
Pre Measurement
Post Measurement
Temperature
Barometric Pressure 7.54 mg/L 88.86 %Sat 100.00 %Sat 18.06 °C 968,41 mbar

file:///C:/Users/jmeyer/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/LO0ILZMK/Calibration\_1025047\_2024-05-06.html



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Client: Account #: 6106 Otter Tail Power Company Calibration\_1025047\_2024-05-06.html 5/7/24, 3:46 PM pH/ORP Sensor Serial Number Last Calibrated Calibration Details Calibration Point 1

pH of Buffer 4.00 pH

pH mV 140.2 m

Temperature 15.59 °C 140.2 mV 15.59 °C 
 Pre Measurement

 pH
 4.11 pH

 pH mV
 140.0 mV

 Post Measurement

 pH
 4.00 pH

 pH mV
 135.8 mV
 PH of Buffer 7.04 pH pH mV -26.9 mV Temperature 15.72 °C Pre Measurement
pH 7.08 pH
pH mV -27.0 mV 
 Post Measurement

 pH
 7.04 pH

 pH mV
 -26.1 mV
 PH of Buffer pH mV -198.8 m'
Temperature 15.64 °C -198.8 mV 15.64 °C 
 Pre Measurement

 pH
 10.10 pH

 pH mV
 -198.9 mV

 Post Measurement

 pH
 10.11 pH

 pH mV
 -192.6 mV
 Slope and Offset 1 Slope -54.97 mV/pH Offset -24.7 mV Slope and Offset 2
Slope -56 mV/pH
Offset -24.7 mV ORP Solution Zobell's 13.8 mV 15.32 °C Temperature Pre Measurement 242.0 mV 241.8 mV Post Measurement Sensor Turbidity Serial Number Last Calibrated 1022520 Calibration Details
Slope 0.8917325
Offset -0.24 NTU

FMay 24

file:///C:/Users/jmeyer/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/LO0ILZMK/Calibration\_1025047\_2024-05-06.html

2/2

Calibration Point 1
Pre Measurement
Post Measurement

Calibration Point 2
Pre Measurement
Post Measurement

Sensor Serial Number Last Calibrated

Sensor Serial Number Last Calibrated 0.65 NTU 0.10 NTU

Barometric Pressure

1025047 Factory Defaults Pressure

1023082 Factory Defaults



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NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

| 2616 E. Broadway Ave,                      | 4             |             |             | d Da          |          |              |                 | Event:<br>Sample ID:<br>Sampling F |             | Spring    |                                |
|--|---------------|-------------|-------------|---------------|----------|--------------|-----------------|------------------------------------|-------------|-----------|--------------------------------|
| Phone: (701) 258                           |               |             |             |               |          |              |                 |                                    |             |           |                                |
| Weather Condition                          | ıs:           | Temp:       | 50          | °F            | Wind:    | 5            | @5-10           |                                    | Precip:     | Sunny / R | artly Cloudy / Cloudy          |
|  | WELL INFO     | DRMATIO     | N           |               |          |              |                 | SAM                                | PLING IN    | FORMATI   | ON                             |
| Well Locked?                               | TE8           | NO          |             |               | ]        | Purging Mo   |                 | Bladder                            |             |           | Control Settings:              |
| Well Labeled?                              | YES           | NO          |             |               | ]        | Sampling N   |                 | Bladder                            |             |           | Purge: B Se                    |
| Repairs Necessary?                         |               |             |             |               |          | Dedicated    | Equipment:      |                                    | NO          |           | Recover: /2 See                |
|  | na Diamastani |             | 2"          |               |          |              |                 | Tubing<br>Replaced                 | T/:         |           | PSI:                           |
| Water Level B                              | ng Diameter:  |             | <u>56</u>   | ft            | 1        |              |                 | Replaced                           | roms        |           |                                |
|  | epth of Well: |             | 10          | ft            | 1        |              | Bott            | le List:                           |             | 1         | Duplicate Sample?              |
|  | Well Volume:  |             | 0           | liters        | 1        | 1 Liter Raw  | Dott            | ie List.                           |             |           | YES / (NO                      |
| Top of Pum                                 |               |             |             | ft            | 1        | 500mL Nitri  | c               |                                    |             |           | Duplicate Sample ID:           |
| Water Level A                              |               |             | .27         | ft            | i        | Joonne Hilli |                 |                                    |             |           | Dupireute sumple is:           |
| Measurem                                   | ent Method:   |             | Nater Level | Indicator     | 1        |              |                 |                                    |             |           | _                              |
|  |               |             |             |               | . EIE    | LD READI     | vec             |                                    |             |           | <u> </u>                       |
| Stabilization Par                          | ameters       | Temp.       | Spec.       | T             | DO       | ORP          | Turbidity       | T 1                                | Pumping     | mL        | Appearance or Comment          |
| (3 Consecut                                | ive)          | (°C)        | Cond.       | pН            | (mg/L)   | (mV)         | (NTU)           | Water Level                        | Rate        | Removed   | Clarity, Color, Odor, Ect.     |
| Purge Date                                 | Time          |             | ±5%         | ±0.1          | ±10%     | ±10          | <5.0            | (ft)                               | mL/Min      |           | clear, slightly turbid, turbid |
| / (/ 314                                   | 1450          | Start of We | l Purge     |               |          |              | <del></del>     |                                    |             |           |                                |
| 6 May 24                                   | 1510          | 10.60       | 2390        | 6+70          | 2.55     | 67.9         | 10.07           | Below Any                          | 3000 3W     | 0,000,0   | Cles                           |
|  |               | Purged      | Dry         |               |          |              |                 |                                    |             |           |                                |
| 7 May 24                                   | 1200          | Start       | of puge     |               | line     |              |                 | 65,05                              |             |           |                                |
| 1110901                                    | 1205          | 10.24       | 2572        | 6.63          | 5.03     | 64.7         | 7.43            | 65.05                              | 100,0       | 500.0     | Clear                          |
|  |               |             |             |               |          |              |                 | 06:30                              | 1000        |           |                                |
|  |               |             | ļ           | 1             | ļ        | <b>.</b>     | <u> </u>        | -                                  |             |           |                                |
|  |               |             | ļ           | ļ             | ļ        |              | <del> </del>    |                                    |             |           |                                |
|  |               |             |             |               |          |              | 1               | 1                                  |             |           |                                |
|  |               |             | <b> </b>    | <del> </del>  | <b>-</b> |              |                 |                                    |             | 2.00      |                                |
|  |               |             |             |               |          |              |                 |                                    |             |           |                                |
| 18.00000 a a a a a a a a a a a a a a a a a | Well St       | abilized?   | YES         | (NO)          |          |              |                 | Total Vol                          | ume Purged: | 6500,0    | Liters                         |
| EARWAN A.F. LT.                            | Well St       | ,           |             | (NO)          |          |              | Tombidies       | Total Vol                          | ume Purged: | 6500,0    | -                              |
| Sample Date                                | Well St       | Temp.       | Spec.       | (NO)<br>pH    |          |              | Turbidity       | Total Vol                          | ume Purged: | 6500,0    | Appearance or Comment          |
| Sample Date                                | т             | ,           |             | $\overline{}$ |          |              | Turbidity (NTU) | Total Vol                          | ume Purged: | 6500,0    | -                              |

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NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

|  |                              |              | Eial          | 40           | atask        | 200+                       |            | Company:    |             | OTP Coyo   | te                             |
|--|------------------------------|--------------|---------------|--------------|--------------|----------------------------|------------|-------------|-------------|--|--------------------------------|
| MVTI   |                              |              | riei          | uDa          | ıtası        | ieet                       |            | Event:      |             | Spring   | 2024                           |
|  |                              |              | Gi            | roundwate    | er Assessm   | ent                        |            | Sample ID:  |             |  | Blue 7                         |
| 2616 E. Broadway Ave, B                        | ismarck, ND                  |              |               |              |              |                            |            | Sampling F  | ersonal:    | ,  | Jenny Phy -                    |
| Phone: (701) 258-                              | 9720                         |              |               |              |              |                            |            |             |             |  |                                |
| Weather Condition:                             | s:                           | Temp:        | 50            | °F           | Wind:        | E                          | @ 5-10     | ,           | Precip:     | Sunny / R  | artly Cloudy / Cloudy          |
|  | WELL INFO                    | ORMATIO      | N             |              |              |                            |            | SAM         | PLINGIN     | FORMATI  | ON                             |
| Vell Locked?                                   | V.ES                         | NO           |               |              | 1            | Purging Me                 | thod:      | Bladder     |             | ]  | Control Settings:              |
| Vell Labeled?                                  | VES                          | NO           |               |              | 1            | Sampling N                 |            | Bladder     |             | 1  | Purge: S                       |
| epairs Necessary?                              |                              |              |               |              | 1            | Dedicated                  | Equipment: |             | NO          | ]  | Recover: S                     |
| 100 Over 1275 000 TEL AT 200 OVER 100 OF 100 O | <u> </u>                     | ,            |               |              | 1            |                            |            | Tubing      |             |  | PSI:                           |
|  | g Diameter:                  |              | 2"            |              | 4            |                            |            |             |             |  |                                |
| Water Level Be                                 |                              | Bir          |               | ft           | 4            |                            | D-11       |             |             | 1  |                                |
|  | pth of Well:<br>/ell Volume: | B7.          | <del>10</del> | liters       | 4            | 4111 8                     | Bott       | e List:     |             |  | Duplicate Sample?  YES / NO    |
| VV   | ren volume.                  | 50           | .0            | IILEI 3      | 1            | 1 Liter Raw<br>500mL Nitri |            | ×           | ?           |  | Duplicate Sample ID:           |
| Water Level At                                 | fter Sample:                 | 81.5         | 56            | ft           | 1            | Soonie Mith                | •          | ^-          | 3           |  |                                |
| Measureme                                      |                              |              | Nater Level   | Indicator    |              | 3                          |            |             |             |  | MS/MSD                         |
|  |                              |              |               |              |              | LD READIN                  | ıcc        |             |             | 1  |                                |
| Stabilization Para                             | meters                       | Temp.        | Spec.         | T            | DO           | ORP                        | Turbidity  |             | Pumping     | mL   | Appearance or Comment          |
| (3 Consecutiv                                  |                              | (°C)         | Cond.         | pH           | (mg/L)       | (mV)                       | (NTU)      | Water Level | Rate        | Removed  | Clarity, Color, Odor, Ect.     |
| Purge Date                                     | Time                         | , ,          | ±5%           | ±0.1         | ±10%         | ±10                        | <5.0       | (ft)        | mL/Min      |  | clear, slightly turbid, turbid |
| 17.14 317                                      | 1100                         | Start of Wel | l Purge       |              |              |                            |            |             |             |  |                                |
| 4 May 24                                       | 1120                         | 9.81         | 2798          | 6.64         | 0.07         | -67,7                      | 6.04       | 81.52       | 100,0       | 2000.0   | Clear                          |
|  | 1125                         | 9.80         | 2794          | 6.63         | 0,06         | -69.4                      | 3,12       | 81.54       | Iwa         | 500.0  | Clerr                          |
|  | 1130                         | 9.76         | 2792          | 6.62         | 0.06         | -74.3                      | 2,76       | 81.54       | 100,0       | 500,0  | Cles                           |
|  | 1135                         | 9,73         | 2798          | 6.62         | 0.06         | - 65.2                     | 2.59       | 81.55       | iw.o        | 500,0  | Cles                           |
|  |                              |              | ļ             | ļ            | <del> </del> |                            | -          |             |             |  | <del> </del>                   |
|  |                              |              | <del> </del>  | <del> </del> |              | <del> </del>               |            |             |             | <u> </u>   | <u> </u>                       |
|  |                              |              | <b></b>       | <del> </del> |              | +                          |            | <u> </u>    |             | <b>†</b>   |                                |
|  |                              |              | <del> </del>  | <u> </u>     |              |                            |            | 1           |             | <del>                                     </del> |                                |
|  |                              |              |               |              | 1            |                            |            |             |             |  |                                |
|  | Well St                      | abilized?    | YES           | NO           | •            |                            | *          | Total Vol   | ume Purged: | 3500.0   | Liters                         |
| Sample Date                                    | Time                         | Temp.        | Spec.         | На           |              | Twee sections              | Turbidity  | T           |             | T  | Appearance or Comment          |
|  | ime                          | (°C)         | Cond.         | pH           |              |                            | (NTU)      |             |             |  | Clarity, Color, Odor, Ect.     |
| 7 May 24                                       | 1135                         | 9,73         | 2798          | 6.62         |              |                            | 2,59       |             |             |  | dear                           |
| Comments:                                      | 1                            |              |               |              |              |                            |            |             |             |  |                                |

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NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

| 440                      |              |              | Eial        | d Da      | tack      | 2001          |            | Company:    |            | OTP Coyo  |                                |
|--------------------------|--------------|--------------|-------------|-----------|-----------|---------------|------------|-------------|------------|-----------|--------------------------------|
| MVTL                     |              |              | LIGI        | u Da      | Lasi      | iccl          |            | Event:      |            | Spring    | 2024                           |
|                          |              |              | G           | roundwate | r Assessm | ent           |            | Sample ID:  |            |           | Blue 13                        |
| 2616 E. Broadway Ave, Bi | smarck, ND   |              |             |           |           |               |            | Sampling F  | ersonal:   |           | Like                           |
| Phone: (701) 258-9       |              |              |             |           |           |               |            |             |            |           |                                |
| Weather Conditions       | 3:           | Temp:        | 50          | °F        | Wind:     | E             | @S-10      |             | Precip:    | Sunny / P | artly Cloudy Cloudy            |
|                          | WELL INFO    | ORMATIO      | V           |           |           |               |            | SAM         | IPLING IN  | FORMATI   | ON                             |
| Well Locked?             | YES          | (NO)         |             |           |           | Purging Me    | ethod:     | Bladder     |            | ]         | Control Settings:              |
| Well Labeled?            | YES          | NO           |             |           |           | Sampling N    | /lethod:   | Bladder     |            | ]         | Purge: 12 /12 Sec.             |
| Repairs Necessary?       | Hinge -      | broken       |             |           |           | Dedicated     | Equipment? |             | NO         | ]         | Recover: 8 / 48 Sec.           |
| Casing                   | g Diameter:  | 2            |             |           |           |               |            | Tubing      |            |           | P31.                           |
| Water Level Be           |              | 104.         |             | ft        |           |               |            |             |            |           |                                |
|                          | pth of Well: | 116.6        |             | ft        |           |               | Bottl      | e List:     |            | 7         | Duplicate Sample?              |
| W                        | ell Volume:  | 7.3          |             | liters    |           | 1 Liter Raw   |            |             |            |           | YES /(NO)                      |
| Depth to try             | of pune ".   |              |             | f+        |           | 500mL Nitri   | С          |             |            |           | Duplicate Sample ID:           |
| Water Level Af           |              |              | 72          | ft        |           | 1             |            |             |            |           |                                |
| Measureme                | nt Method:   | Electric V   | Vater Level | Indicator |           | L             |            |             |            | _         |                                |
|                          |              |              |             |           | FIE       | LD READIN     | NGS        |             |            |           |                                |
| Stabilization Parar      |              | Temp.        | Spec.       | На        | DO        | ORP           | Turbidity  | Water Level | Pumping    | mL        | Appearance or Comment          |
| (3 Consecutiv            |              | (°C)         | Cond.       |           | (mg/L)    | (mV)          | (NTU)      |             | Rate       | Removed   | Clarity, Color, Odor, Ect.     |
| Purge Date               | Time         |              | ±5%         | ±0.1      | ±10%      | ±10           | <5.0       | (ft)        | mL/Min     |           | clear, slightly turbid, turbid |
| 6 May 24                 | 1535         | Start of Wel |             | 1 ( a)    |           | 1 3           | 1 (1 )     |             |            | 17.       |                                |
|                          | 1555         | 10.66        | 6237        | 6.96      | 0.52      | -52.3         | 16.43      | Below Porg  | 300.0      | 6000.0    | Clear                          |
|                          | 62. 50       | Purged       | Dig         | to clear  | 7.        | <del> </del>  | ļ          | 105.40      |            | 1         |                                |
| 7 May 24                 | 0452         | 11,55        | 6699        | 7.56      | 1,72      | 47.3          | 34.55      | 103.70      | 100.0      | 560,0     | Clen                           |
| ,                        | -134         | 111.22       | 0011        | +.30      | 1176      | 14.3          | 3713       |             | 100.0      | 360,0     | 1                              |
|                          |              |              |             |           |           |               | <b>†</b>   |             |            |           |                                |
|                          |              |              |             |           |           | 1             |            |             |            |           |                                |
|                          |              |              |             |           |           |               |            |             |            |           |                                |
|                          |              |              |             |           |           |               |            |             |            |           |                                |
|                          |              |              |             |           |           |               |            |             |            |           |                                |
|                          | Well Sta     | abilized?    | YES         | WO        |           |               |            | Total Vol   | ume Purged | :6500,0   | Liters                         |
| Sample Date              | Time         | Temp.        | Spec.       | рН        |           |               | Turbidity  |             |            |           | Appearance or Comment          |
| - Sumple Date            |              | (°C)         | Cond.       | ,         |           |               | (NTU)      |             |            |           | Clarity, Color, Odor, Ect.     |
| 7 May 24                 | 0957         | 11,55        | 6699        | 7.56      |           | 0<br>0 0<br>0 | 34.59      |             |            |           | Clear                          |
| Comments:                |              |              |             |           |           |               |            |             |            |           |                                |

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.





NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

| Event:   Spring 2024   Sample Dis   Blue   I   |   |            |            |   |  |               | _           |           | Company:   |   | OTP Covo  | to   |
|--|---|------------|------------|---|--|---------------|-------------|-----------|--|---|-----------|--|
| Sample   D:      | MVTI                                    |            |            | Fiel                                    | d Da                                   | atasr         | neet        |           |  |   |           |  |
| Sampling Personal:   Jerry   Menore (701) 258-9720     |   | 1          |            | G                                       | roundwate                              | er Assessm    | ent         |           |  |   | Spring    |  |
| Well Locked? File No Well Linformation Well Linformation Well Locked? File No Well Well & Manual Company of the Well & Manu | 2616 F. Broadway Ave. Bisn              | narck. ND  |            |   |  |               |             |           |  |   | 1         |  |
| Well Linkformation   Well L    |   |            |            |   |  |               |             |           | oumping i  | oroonan                                 | <u> </u>  | and in   |
| WELL INFORMATION   Well Loked?   YES   NO   NO   No   No   No   No   No   No   |   |            | Temp:      | 50                                      | °F                                     | Wind:         | E           | @ 10-15   |  | Precip:                                 | Sunny / P | artly Cloudy (Cloudy)  |
| Purging Method: Bladder   Con Purge: Backbern   Purging Method: Bladder   Sampling Method: Bladder   Purge: Backbern   Purging Method: Bladder   Purge: Backbern   Purging Method: Bladder   Purging M   | 14                                      | JELL INEC  | DMATIO     | NI .                                    |  |               |             | - 10 (3   |  | DUNC IN                                 |           |  |
| Sampling Method:   Bladder   Dedicated Equipment?   AFS   NO   Twinty   Sampling Method:   Dedicated Equipment?   AFS   NO   Twinty   Total Depth of Well:   Blo. 9.5   ft   Bottle List:   Duplicated Equipment   AFS   Sompling Method:   Dedicated Equipment?   AFS   NO   Twinty   AFS   Sompling Method:   Dedicated Equipment?   AFS   NO   Twinty   AFS   Sompling Method:   Dedicated Equipment?   AFS   NO   Twinty   AFS   Sompling Method:   Dedicated Equipment?   AFS   NO   Twinty   AFS   Sompling Method:   Dedicated Equipment?   AFS   Dedicated Equipment   |   |            |            | IV                                      |  | 7             | Purging M   | ethod:    |  | PLING IIV                               |           | Control Settings:  |
| Dedicated Equipment?   YES   NO     Recover: S   PSI:  |   |            |            |   |  | 1             |             |           |  |   |           |  |
| Casing Diameter:   2"  | naire Necessary?                        |            |            |   |  | 1             |             |           | YES  | NO                                      | 1         | Recover: \$2 Se  |
| Water Level Before Purge: 子9.65 ft   74.65 ft   74.     | • |            |            |   |  |               |             |           | Tubing   |   | -         | PSI: —   |
| Total Depth of Well:   86.95   ft   1   1   1   1   1   1   1   1   1  |   |            |            |   | 4                                      | 4             |             |           |  |   |           |  |
| Well Volume:   Y   S   liters     1   Liter Raw   500mL Nitric     1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric   1   Liter Raw   500mL Nitric      |   |            |            |   |  | 4             |             | D-441     | a liete  |   | 1         | F F F 6 12   |
| Water Level After Sample:  |   |            | 06.0       | 12                                      |  | -             | 1 Liter Day | Botti     | e List:  | *************************************** |           | Duplicate Sample?  YES / NO  |
| Water Level After Sample:   BQ. ₹3   ft  | VVCI                                    | ii volume. | 7,         | 3                                       | nccr3                                  | 1             |             | c         |  |   |           | Duplicate Sample ID:   |
| Stabilization Parameters   Temp. (3 Consecutive)   (*C)   Cond.   pH (mg/L) (mV) (mV) (NTU) (NTU)   Water Level Rate   Removed (Clarity, 100元  | Water Level Afte                        | er Sample: | Bo         | 173                                     | ft                                     |               | Joseph Line |           |  |   |           | Dupicate Sample ID.  |
| Stabilization Parameters   Temp. (3 Consecutive)   (**)  | Measuremen                              | t Method:  | Electric V | Nater Level                             | Indicator                              |               |             |           |  |   |           |  |
| Stabilization Parameters   Temp. (3 Consecutive)   (**)  |   |            |            |   |  | FIE           | LD READII   | NGS       |  |   | -0        |  |
| Cond.   Cond   | Stabilization Parame                    | eters      | Temp.      | Spec.                                   | , nu                                   |               |             |           | W  | Pumping                                 | mL        | Appearance or Comment  |
| 1007   Start of Well Purge   |   |            | (°C)       |   |  |               |             |           | and the same of th |   | Removed   | Clarity, Color, Odor, Ect.   |
| 1027   10.37   5537   6.32   1.33   70.6   31.74   60.26   100.0   200.0   Clear     1047   10.16   546   6.30   2.54   66.4   6.34   60.55   100.0   200.0   Clear     1057   10.23   545   6.30   2.66   67.6   5.66   80.63   100.0   1000.0     1102   10.23   545   6.30   2.31   65.0   41.1   80.65   100.0   500.0   Clear     1103   10.6   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clear     1112   10.16   544   6.69   2.80   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2   1.96   69.2      | Purge Date                              |            |            |   | ±0.1                                   | ±10%          | ±10         | <5.0      | (ft)   | mL/Min                                  |           | clear, slightly turbid, turbid   |
| 1047   0.10   5469   5.70   2.54   66.4   6.74   60.55   100   2000.0   Clay     1057   10.23   5459   6.70   2.66   67.6   5.66   80.63   100   1000.0   Clay     11 07   10.05   5451   6.70   2.76   66.0   4.11   00.66   100.0   500.0   Clay     11 07   10.16   5448   6.69   2.81   66.5   4.66   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5443   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5448   6.69   2.80   69.2   1.96   80.70   100.0   500.0   Clay     11 12   10.16   5448   6.69   2.80   69.2   69.2   1.96   80.70   100.0   500.0   100   | 6 elsu 24 -                             |            |            |   | 1 ( 20                                 | T / 22        | 1 20 4      | T 15. 15. | 100  | 1.0 -                                   | 10200     | T  |
| 10 S 7   |   |            |            |   |  |               |             |           |  |   |           | Clear  |
| 10   2   10,23   545   5,40   2,46   66.0   41.11   60,68   10.0   500.0   Clear     10   10,16   5448   6.69   2.80   69.5   41.66   60,70   100.0   500.0   Clear     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0   Clear     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0   Clear     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     11   10,16   5443   6.69   2.80   69.2   1.96   60,72   100.0   500.0     12   10,16   5443   6.69   2.80   69.2   1.96   60.7   100.0     13   10,16   5443   6.69   2.80   69.2   1.96   60.7   100.0     14   10,16   5443   6.69   7.96   | F                                       |            |            |   |  |               |             |           |  |   |           |  |
| Total Volume Purged: 65(0.2)   Litters   | H                                       |            |            |   | 1 -                                    |               | +           |           |  | 100                                     |           |  |
| M12   10,16   5443   6.69   2.60   69.2   1.96   80.72   100.0   500.0   Class   Well Stabilized?   Well Stabilized?   Well Stabilized?   Well Stabilized?   PH   Turbidity (NTU)   Appear   Clarity (NTU)   Clarity     | <u> </u>                                |            |            |   |  |               |             |           |  |   |           |  |
| Well Stabilized?   |   |            |            |   |  |               |             |           |  |   |           |  |
| Sample Date Time Temp. (°C) Cond. pH Turbidity (NTU) Appear  |   |            |            |   | 1                                      |               | 1           | 1         | 00.7-  |   |           |  |
| Sample Date Time Temp. (°C) Cond. pH Turbidity (NTU) Appear  |   |            |            |   |  |               |             |           |  |   |           | THE STATE OF THE S |
| Sample Date Time Temp. (°C) Cond. pH Turbidity (NTU) Appear  |   |            |            |   |  |               |             |           |  |   |           |  |
| Sample Date Time Temp. (°C) Cond. pH Turbidity (NTU) Appear  |   |            |            |   | L.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 1             | L           |           |  |   |           |  |
| Sample Date Time (°C) Cond. pH (NTU) Clarity   |   | Well Sta   | bilized?   | (YES)                                   | NO                                     | ************* |             |           | Total Vol  | ume Purged:                             | 6500.0    | Liters<br>-  |
| (C) Cond. (NTU) Clarity  | Sample Date                             | Time       |            | 10.000000000000000000000000000000000000 | nН                                     |               |             | Turbidity |  |   |           | Appearance or Comment  |
| 6 May 24 1112 10.16   5443   6.69   1.96   Char  |   |            | (°C)       |   |  |               |             | (NTU)     |  |   |           | Clarity, Color, Odor, Ect.   |
|  | 6 May 24                                | 1115       | 10.16      | 5443                                    | 6.69                                   |               |             | 1.96      |  |   |           | Clen   |
| Comments:  |   |            |            |   |  |               |             |           | -  |   |           |  |

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NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

|                                     |              |                | Eigl        | 40-       | atasl      | 200+        |            | Company:    |              | OTP Coyo  | te                             |
|-------------------------------------|--------------|----------------|-------------|-----------|------------|-------------|------------|-------------|--------------|-----------|--------------------------------|
| MVTI                                |              |                | LIGI        | u Da      | acasi      | ieet        |            | Event:      |              | Spring    | 2024                           |
|                                     |              |                | G           | roundwate | er Assessm | ent         |            | Sample ID:  |              |           | Blue 15                        |
| 2616 E. Broadway Ave, Bi            | ismarck, ND  |                |             |           |            |             |            | Sampling F  | Personal:    |           | hum Hen                        |
| Phone: (701) 258-                   | 9720         |                |             |           |            |             |            |             |              |           |                                |
| <b>Weather Conditions</b>           | s:           | Temp:          | 50          | °F        | Wind:      | F           | @ 10-15    |             | Precip:      | Sunny / P | artly Cloudy / Cloudy)         |
|                                     | WELL INFO    | ORMATIO        | N           |           |            |             |            | SAM         | IPLING IN    | FORMATI   | ON                             |
| Well Locked?                        | YES          | NO             |             |           | 7          | Purging Me  | ethod:     | Bladder     | ii Liivo iiv | ]         | Control Settings:              |
| Well Labeled?                       | (YES)        | NO             |             |           | 1          | Sampling N  |            | Bladder     |              | 1         | Purge: — BØ So                 |
| Repairs Necessary?                  |              |                |             |           | 1          | Dedicated   | Equipment: | YES         | NO           |           | Recover: - 52 Se               |
|                                     |              |                |             |           | _          |             |            | Tubing      |              | -         | PSI: —                         |
|                                     | g Diameter:  |                | 2"          |           |            |             |            | . )         |              |           |                                |
| Water Level Be                      |              | 78.            |             | ft        |            |             |            |             |              |           |                                |
|                                     | pth of Well: | 87.1           |             | ft        | _          |             | Bottl      | e List:     |              |           | Duplicate Sample?              |
| W                                   | ell Volume:  | 5              | 1B          | liters    |            | 1 Liter Raw |            |             |              |           | YES / (NO)                     |
|                                     |              |                |             |           |            | 500mL Nitri | c          |             |              | 1         | Duplicate Sample ID:           |
| Water Level Af                      |              |                | .52         | ft        |            |             |            |             |              |           |                                |
| Measureme                           | ent Method:  | Electric \     | Nater Level | Indicator |            | L           |            |             |              |           |                                |
|                                     |              |                |             |           | FIE        | LD READIN   | NGS        |             |              |           |                                |
| Stabilization Para                  | meters       | Temp.          | Spec.       | рН        | DO         | ORP         | Turbidity  | Water Level | Pumping      | mL        | Appearance or Comment          |
| (3 Consecutiv                       |              | (°C)           | Cond.       |           | (mg/L)     | (mV)        | (NTU)      |             | Rate         | Removed   | Clarity, Color, Odor, Ect.     |
| Purge Date                          | Time         |                | ±5%         | ±0.1      | ±10%       | ±10         | <5.0       | (ft)        | mL/Min       |           | clear, slightly turbid, turbid |
| 6 May 24                            | 1145         | Start of Wel   |             |           |            |             | ,          |             |              |           |                                |
| 61,34-1                             | 1205         | 10,34          | 3469        | 6.61      | 0.12       | -25.7       | 27.22      | 78.48       | 100.0        | 2000,0    | Clear                          |
|                                     | 1225         | 10.21          | 3452        | 6.61      | 0.05       | -41.6       | B.03       | 78,50       | 1000         | 2000.0    | Clear                          |
|                                     | 1235         | 10.30          | 3442        | 6.61      | 0.04       | -49.1       | 6.01       | 78,50       | 100.0        | 1000.0    | Clear                          |
|                                     | 1245         | 10.26          | 3427        | 6.61      | 0.03       | -51.9       | 4.70       | 78.51       | 100.0        | 1000.0    | Clan                           |
|                                     | 1250         | 10.22          | 3422        | 6,61      | 0.05       | - 35,6      | 2.98       | 78.51       | (000         | 500.0     | Clear                          |
| 1                                   | 1255         | 10.17          | 3420        | 6.61      | 0.02       | -55.1       | 2,55       | 78.52       | 10000        | 500.0     | Clear                          |
|                                     | 1300         | 10.09          | 3421        | 6161      | 0.02       | -58.0       | 2.60       | 78,52       | 100.0        | 500.0     | Clear                          |
|                                     | ļ            |                |             |           |            |             | L          | ļ           |              |           |                                |
|                                     |              |                |             |           |            |             |            | ļ           |              |           |                                |
|                                     | M/-II Ch     | l<br>abilized? | (Fee)       |           |            |             |            |             | L            |           | L.                             |
|                                     | weirst       | abilizeur      | (YES)       | NO        |            |             |            | lotal Vol   | ume Purged   | 7500.0    | Liters<br>-                    |
| Sample Date                         | Time         | Temp.          | Spec.       | рН        |            |             | Turbidity  |             |              |           | Appearance or Comment          |
| AND THE PROPERTY OF THE PROPERTY OF | ļ            | (°C)           | Cond.       | 1 6 7     |            | <b> </b>    | (NTU)      | ļ           |              |           | Clarity, Color, Odor, Ect.     |
| 6 May 24                            | 1300         | 10.09          | 3421        | 6.61      |            |             | 2.60       |             |              |           | Clear                          |
| Comments:                           |              |                |             |           |            |             |            |             | 4            |           |                                |

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NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

| MVT                                     |               |                | Fiel                | d Da        | atasl        | neet        |            | Company:<br>Event:                      |            | OTP Coyo<br>Spring |                                |
|---|---------------|----------------|---------------------|-------------|--------------|-------------|------------|---|------------|--------------------|--------------------------------|
|   | 4             |                |                     |             | er Assessm   |             |            | Sample ID:                              |            | Spring             | Blue /6                        |
| 2010 F P                                | i ND          |                | O.                  | ouliuwate   | ei Maacaaiii | ent         |            | Sampling F                              |            |                    | blue /6                        |
| 2616 E. Broadway Ave, B                 |               |                |                     |             |              |             |            | Sampling i                              | rersonal:  | ~                  | 775                            |
| Phone: (701) 258-<br>Weather Condition: |               | T              |                     | 00          | W. I         |             | 0 1        |   |            |                    | - 1 A - 1 / A - 7              |
| weather Condition                       | S:            | Temp:          | 50                  | <u> </u>    | Wind:        | E           | @ 10-15    |   | Precip:    | Sunny / P          | artly Cloudy / Cloudy          |
|   | WELL INFO     | ORMATIO        | N                   |             | _            |             |            | SAM                                     | IPLING IN  | FORMATI            | ON                             |
| Well Locked?                            | YES           | NO             |                     |             | ]            | Purging M   | ethod:     | Bladder                                 |            |                    | Control Settings:              |
| Well Labeled?                           | YES)          | NO             |                     |             |              | Sampling I  |            | Bladder                                 |            |                    | Purge: — 88 Se                 |
| Repairs Necessary?                      |               |                |                     |             |              | Dedicated   | Equipment? |   | NO         |                    | Recover: — 52 Se               |
| 1500 1000 1000 1000 1000 1000 1000 1000 | L             |                |                     |             | 1            |             |            | Tubing                                  |            |                    | PSI:                           |
|   | g Diameter:   |                | 2"                  |             | 4            |             |            | ,                                       |            |                    |                                |
| Water Level Be                          |               |                | 7.45                | ft<br>ft    | 4            |             |            |   |            | ,                  | F                              |
|   | pth of Well:  |                | 1,50                | π<br>liters | 4            |             | Bottl      | e List:                                 |            |                    | Duplicate Sample?              |
|   | ell Volume:   |                | 12,4                | liters      | -            | 1 Liter Raw |            |   |            |                    | YES / (NO)                     |
| Water Level A                           | Gan Camania.  | <u> </u>       | 100                 | ft          | -            | 500mL Nitr  | С          |   |            |                    | Duplicate Sample ID:           |
|   | ent Method:   |                | 7.53<br>Nater Level |             | -            |             |            |   |            |                    |                                |
| ivieasurenie                            | int iviethou. | Liectric       | vater Level         | mulcator    |              |             |            |   |            | 1                  | L                              |
|   |               |                |                     |             | FIE          | LD READI    | NGS        |   |            |                    |                                |
| Stabilization Para                      |               | Temp.          | Spec.               | На          | DO           | ORP         | Turbidity  | Water Level                             | Pumping    | mL                 | Appearance or Comment          |
| (3 Consecutiv                           |               | (°C)           | Cond.               |             | (mg/L)       | (mV)        | (NTU)      | 150000000000000000000000000000000000000 | Rate       | Removed            | Clarity, Color, Odor, Ect.     |
| Purge Date                              | Time          |                | ±5%                 | ±0.1        | ±10%         | ±10         | <5.0       | (ft)                                    | mL/Min     |                    | clear, slightly turbid, turbid |
| 6 Hay 24                                | 1324          | Start of Wel   |                     |             | _            |             |            |   |            |                    |                                |
| 6 (104) 24                              | 1344          | 10.13          | 2627                | 6.61        | 0.06         | 25,4        | 56.01      | 77.51                                   | 1000       | 2000.0             | Clear                          |
|   | 1404          | 10.23          | 2631                | 6.61        | 0.03         | 35.7        | 12.90      | 77.51                                   | 100,0      | 20000              | Clear                          |
|   | 1414          | 10.32          | 2620                | 6.61        | 0,02         | 31.9        | 7.35       | 77.51                                   | 100.0      | 1000,0             | Clear                          |
|   | 1419          | 10.29          | 2634                | 6.61        | 0105         | 30,5        | 5.34       | 77.52                                   | 1000       | 5w.0               | Clear                          |
|   | 1424          | 10,29          | 2644                | 6.61        | 0.01         | 34.1        | 4.87       | 77,52                                   | 100,0      | 500. J             | Clear                          |
|   | 1429          | 10.28          | 2634                | 6,61        | 0,02         | 31.6        | 4.32       | 71.52                                   | 100.0      | 500,0              | Clear                          |
|   | 1434          | 10,27          | 2635                | 6.61        | 0,01         | 30.4        | 4.27       | 77.53                                   | 100,0      | SWID               | Clear                          |
|   |               |                |                     |             |              | -           |            |   |            | ļ                  |                                |
|   |               |                | ļ                   |             | -            |             | -          |   |            |                    |                                |
| - New                                   | Moll St       | l<br>abilized? | 200                 | NO          | <u> </u>     |             | <u> </u>   | T-1-11/-1                               | ume Purged | 70 -               | Liters                         |
|   | weirst        | abilizeut      | Œ                   | NO          |              |             |            | Total voi                               | ume Purgea | 100.0              | _ citers                       |
| Sample Date                             | Time          | Temp.          | Spec.               | рН          |              |             | Turbidity  |   |            |                    | Appearance or Comment          |
| Sample Date                             | 111110        | (°C)           | Cond.               | Pii         |              |             | (NTU)      |   |            |                    | Clarity, Color, Odor, Ect.     |
| 6 May 24                                | 1439          | 10,27          | 2635                | 6.61        |              |             | 4.27       |   |            |                    | Clea                           |
|   |               |                |                     |             |              |             |            |   |            |                    |                                |

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www.MVTL.com



Josh Hollen Otter Tail Power Company PO Box 496 Fergus Falls, MN 56538

#### **Certificate of Analysis**

# **Approval**

All data reported has been reviewed and approved by:

C. Courted

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS: MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS: MN LAB # 038-999-267 ND W/DW # ND-016

#### **Workorder Comments**

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289001
 Date Collected:
 10/09/2024 10:15
 Matrix:
 Groundwater

 Sample ID:
 FB Blue
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| Parameter  | Results | Units | RDL | DF | Prepared         | Analyzed         | Qual |
|--|---------|-------|-----|----|------------------|------------------|------|
|  |         |       |     |    |                  |                  |      |
| Method: ASTM D516-16                                 |         |       |     |    |                  |                  |      |
| Sulfate  | <5      | mg/L  | 5   | 1  |                  | 10/16/2024 11:30 |      |
| Method: EPA 6010D                                    |         |       |     |    |                  |                  |      |
| Boron  | <0.1    | mg/L  | 0.1 | 1  | 10/10/2024 16:55 | 10/24/2024 10:50 |      |
| Calcium  | <1      | mg/L  | 1   | 1  | 10/10/2024 16:55 | 10/17/2024 10:09 |      |
| Method: SM4500 H+ B-2011                             |         |       |     |    |                  |                  |      |
| рН   | 6.5     | units | 0.1 | 1  |                  | 10/10/2024 16:39 | *    |
| Method: SM4500-CI-E 2011                             |         |       |     |    |                  |                  |      |
| Chloride   | <2.0    | mg/L  | 2.0 | 1  |                  | 10/15/2024 09:57 |      |
| Method: SM4500-F-C-2011                              |         |       |     |    |                  |                  |      |
| Fluoride   | <0.1    | mg/L  | 0.1 | 1  |                  | 10/10/2024 16:39 |      |
| Matha da 110.00 1 4750 05                            |         | -     |     |    |                  |                  |      |
| <b>Method: USGS I-1750-85</b> Total Dissolved Solids | <10     | mg/L  | 10  | 1  |                  | 10/11/2024 14:20 |      |

### **Analysis Results Comments**

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Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289002
 Date Collected:
 10/09/2024 09:25
 Matrix:
 Groundwater

 Sample ID:
 Blue 6
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| · · · · · · · · · · · · · · · · · · · |         |              |      |    |                  |                  |      |
|---------------------------------------|---------|--------------|------|----|------------------|------------------|------|
| Parameter                             | Results | Units        | RDL  | DF | Prepared         | Analyzed         | Qual |
|                                       |         |              |      |    |                  |                  |      |
| Method: 120.1                         |         |              |      |    |                  |                  |      |
| Specific Conductance - Field          | 2521    | umhos/cm     | 1    | 1  |                  | 10/09/2024 09:25 |      |
| Method: 150.2                         |         |              |      |    |                  |                  |      |
| pH - Field                            | 6.9     | units        | 0.01 | 1  |                  | 10/09/2024 09:25 |      |
| -                                     |         |              | 2    | •  |                  |                  |      |
| Method: 170.1                         |         |              |      |    |                  |                  |      |
| Temperature - Field C                 | 11.42   | degrees C    |      | 1  |                  | 10/09/2024 09:25 |      |
| Method: ASTM D516-16                  |         |              |      |    |                  |                  |      |
| Sulfate                               | 918     | mg/L         | 25   | 5  |                  | 10/16/2024 11:32 |      |
|                                       |         | <i>3</i> · – |      | •  |                  |                  |      |
| Method: EPA 6010D                     |         |              |      |    |                  |                  |      |
| Boron                                 | 0.37    | mg/L         | 0.1  | 1  | 10/10/2024 16:55 | 10/24/2024 10:52 |      |
| Calcium                               | 218     | mg/L         | 1    | 1  | 10/10/2024 16:55 | 10/17/2024 10:10 |      |
| Method: SM2110                        |         |              |      |    |                  |                  |      |
| Appearance - Field                    | Clear   |              |      | 1  |                  | 10/09/2024 09:25 |      |
|                                       |         |              |      |    |                  |                  |      |
| Method: SM4500 H+ B-2011              |         |              |      |    |                  |                  |      |
| pH                                    | 7.2     | units        | 0.1  | 1  |                  | 10/10/2024 16:45 | *    |
| Method: SM4500-CI-E 2011              |         |              |      |    |                  |                  |      |
| Chloride                              | 9.4     | mg/L         | 2.0  | 1  |                  | 10/15/2024 09:58 |      |
|                                       |         | -            |      |    |                  |                  |      |
| Method: SM4500-F-C-2011               |         | _            |      |    |                  |                  |      |
| Fluoride                              | 0.15    | mg/L         | 0.1  | 1  |                  | 10/10/2024 16:45 |      |
| Method: USGS I-1750-85                |         |              |      |    |                  |                  |      |
|                                       |         |              |      |    |                  |                  |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289003
 Date Collected:
 10/09/2024 10:55
 Matrix:
 Groundwater

 Sample ID:
 Blue 7
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
|                              |         |           |      |    |                  |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 2579    | umhos/cm  | 1    | 1  |                  | 10/09/2024 10:55 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.68    | units     | 0.01 | 1  |                  | 10/09/2024 10:55 |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
| Temperature - Field C        | 12.41   | degrees C |      | 1  |                  | 10/09/2024 10:55 |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 801     | mg/L      | 25   | 5  |                  | 10/16/2024 11:40 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.36    | mg/L      | 0.1  | 1  | 10/10/2024 16:55 | 10/24/2024 10:55 |      |
| Calcium                      | 200     | mg/L      | 1    | 1  | 10/10/2024 16:55 | 10/17/2024 10:25 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 10/09/2024 10:55 |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| рН                           | 6.9     | units     | 0.1  | 1  |                  | 10/10/2024 16:51 | *    |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 7.9     | mg/L      | 2.0  | 1  |                  | 10/15/2024 09:59 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.17    | mg/L      | 0.1  | 1  |                  | 10/10/2024 16:51 |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 1950    | mg/L      | 10   | 1  |                  | 10/11/2024 14:20 |      |

#### **Analysis Results Comments**

рΗ

Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289004
 Date Collected:
 10/08/2024 15:20
 Matrix:
 Groundwater

 Sample ID:
 Blue 13
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| 10p @ 11000.pt (0).          |         |           |      |    |                  |                  |      |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|                              |         |           |      |    |                  |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 6540    | umhos/cm  | 1    | 1  |                  | 10/08/2024 15:20 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.91    | units     | 0.01 | 1  |                  | 10/08/2024 15:20 |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
|                              | 44.00   | 1 0       |      | 4  |                  | 40/00/0004 45 00 |      |
| Temperature - Field C        | 14.83   | degrees C |      | 1  |                  | 10/08/2024 15:20 |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 2500    | mg/L      | 100  | 20 |                  | 10/16/2024 11:34 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.62    | mg/L      | 0.5  | 5  | 10/10/2024 16:55 | 10/24/2024 10:58 |      |
| Calcium                      | 130     | mg/L      | 5    | 5  | 10/10/2024 16:55 | 10/17/2024 10:34 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 10/08/2024 15:20 |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| pH                           | 7.3     | units     | 0.1  | 1  |                  | 10/10/2024 16:57 | *    |
|                              |         |           |      |    |                  |                  |      |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 52.1    | mg/L      | 2.0  | 1  |                  | 10/15/2024 10:01 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.21    | mg/L      | 0.1  | 1  |                  | 10/10/2024 16:57 |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 5150    | mg/L      | 10   | 1  |                  | 10/11/2024 14:20 |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289005
 Date Collected:
 10/08/2024 14:33
 Matrix:
 Groundwater

 Sample ID:
 Blue 14
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
|                              |         |           |      |    | •                |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 5623    | umhos/cm  | 1    | 1  |                  | 10/08/2024 14:33 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.71    | units     | 0.01 | 1  |                  | 10/08/2024 14:33 |      |
|                              |         |           |      |    |                  |                  |      |
| Method: 170.1                | 45.00   | 4         |      | 4  |                  | 40/00/0004 44 00 |      |
| Temperature - Field C        | 15.02   | degrees C |      | 1  |                  | 10/08/2024 14:33 |      |
| Method: ASTM D516-16         |         |           |      |    |                  |                  |      |
| Sulfate                      | 2360    | mg/L      | 100  | 20 |                  | 10/16/2024 11:35 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.51    | mg/L      | 0.5  | 5  | 10/10/2024 16:55 | 10/24/2024 10:58 |      |
| Calcium                      | 324     | mg/L      | 5    | 5  | 10/10/2024 16:55 | 10/17/2024 10:35 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 10/08/2024 14:33 |      |
|                              |         |           |      |    |                  |                  |      |
| Method: SM4500 H+ B-2011     | 7.0     | :4        | 0.4  | 4  |                  | 40/40/2024 47:02 | *    |
| pH                           | 7.0     | units     | 0.1  | 1  |                  | 10/10/2024 17:03 |      |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 9.8     | mg/L      | 2.0  | 1  |                  | 10/15/2024 10:02 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.11    | mg/L      | 0.1  | 1  |                  | 10/10/2024 17:03 |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 4620    | mg/L      | 10   | 1  |                  | 10/11/2024 14:20 |      |
| Total Dissolved Solids       | 4020    | mg/L      | 10   | 1  |                  | 10/11/2024 14.20 |      |

#### **Analysis Results Comments**

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Sample analyzed beyond holding time.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.





Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289006
 Date Collected:
 10/09/2024 10:05
 Matrix:
 Groundwater

 Sample ID:
 Blue 15
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| remp @ Receipt (C).          | Received of | ilce. 165 |   |     |                  |                     |      |
|------------------------------|-------------|-----------|---|-----|------------------|---------------------|------|
| Parameter                    | Results     | Units     | RDL                                     | DF  | Prepared         | Analyzed            | Qual |
|                              |             |           |   |     |                  |                     |      |
| Method: 120.1                |             |           |   |     |                  |                     |      |
| Specific Conductance - Field | 3252        | umhos/cm  | 1                                       | 1   |                  | 10/09/2024 10:05    |      |
| opecine conductance - Field  | 3232        | ummos/cm  | '                                       | '   |                  | 10/09/2024 10:03    |      |
| Method: 150.2                |             |           |   |     |                  |                     |      |
| pH - Field                   | 6.63        | units     | 0.01                                    | 1   |                  | 10/09/2024 10:05    |      |
|                              |             |           |   |     |                  |                     |      |
| Method: 170.1                |             |           |   |     |                  |                     |      |
| Temperature - Field C        | 11.56       | degrees C |   | 1   |                  | 10/09/2024 10:05    |      |
| Method: ASTM D516-16         |             |           |   |     |                  |                     |      |
|                              |             | ,,        |   | 4.0 |                  | 10/10/0001 11 00    |      |
| Sulfate                      | 942         | mg/L      | 50                                      | 10  |                  | 10/16/2024 11:36    |      |
| Method: EPA 6010D            |             |           |   |     |                  |                     |      |
| Boron                        | 0.48        | mg/L      | 0.1                                     | 1   | 10/10/2024 16:55 | 10/24/2024 10:59    |      |
| Calcium                      | 135         | mg/L      | 1                                       | 1   | 10/10/2024 16:55 | 10/17/2024 10:36    |      |
|                              |             |           |   |     |                  |                     |      |
| Method: SM2110               |             |           |   |     |                  |                     |      |
| Appearance - Field           | Clear       |           |   | 1   |                  | 10/09/2024 10:05    |      |
| Method: SM4500 H+ B-2011     |             |           |   |     |                  |                     |      |
| рН                           | 6.9         | units     | 0.1                                     | 1   |                  | 10/10/2024 17:09    | *    |
| F                            |             | u         | • | ·   |                  | 10, 10,202 1 11 100 |      |
| Method: SM4500-CI-E 2011     |             |           |   |     |                  |                     |      |
| Chloride                     | 8.6         | mg/L      | 2.0                                     | 1   |                  | 10/15/2024 10:03    |      |
|                              |             |           |   |     |                  |                     |      |
| Method: SM4500-F-C-2011      |             |           |   |     |                  |                     |      |
| Fluoride                     | 0.18        | mg/L      | 0.1                                     | 1   |                  | 10/10/2024 17:09    |      |
| Method: USGS I-1750-85       |             |           |   |     |                  |                     |      |
| Total Dissolved Solids       | 2330        | mg/L      | 10                                      | 1   |                  | 10/11/2024 14:20    |      |
| Total Dissolved Collus       | 2000        | mg/L      | 10                                      | '   |                  | 10/11/2024 14.20    |      |

#### **Analysis Results Comments**

pН

Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

**Analytical Results** 

 Lab ID:
 67289007
 Date Collected:
 10/07/2024 14:32
 Matrix:
 Groundwater

 Sample ID:
 Blue 16
 Date Received:
 10/10/2024 08:42
 Collector:
 MVTL Field Service

Temp @ Receipt (C): 0.1 Received on Ice: Yes

| Parameter                    | Results | Units     | RDL  | DF | Prepared         | Analyzed         | Qual |
|------------------------------|---------|-----------|------|----|------------------|------------------|------|
|                              |         |           |      |    |                  |                  |      |
| Method: 120.1                |         |           |      |    |                  |                  |      |
| Specific Conductance - Field | 2647    | umhos/cm  | 1    | 1  |                  | 10/07/2024 14:32 |      |
| Method: 150.2                |         |           |      |    |                  |                  |      |
| pH - Field                   | 6.66    | units     | 0.01 | 1  |                  | 10/07/2024 14:32 |      |
| Method: 170.1                |         |           |      |    |                  |                  |      |
| Temperature - Field C        | 18.31   | degrees C |      | 1  |                  | 10/07/2024 14:32 |      |
|                              |         | <b>J</b>  |      |    |                  |                  |      |
| Method: ASTM D516-16         |         |           |      | _  |                  |                  |      |
| Sulfate                      | 856     | mg/L      | 25   | 5  |                  | 10/16/2024 11:37 |      |
| Method: EPA 6010D            |         |           |      |    |                  |                  |      |
| Boron                        | 0.39    | mg/L      | 0.1  | 1  | 10/10/2024 16:55 | 10/24/2024 11:00 |      |
| Calcium                      | 163     | mg/L      | 1    | 1  | 10/10/2024 16:55 | 10/17/2024 10:46 |      |
| Method: SM2110               |         |           |      |    |                  |                  |      |
| Appearance - Field           | Clear   |           |      | 1  |                  | 10/07/2024 14:32 |      |
| Method: SM4500 H+ B-2011     |         |           |      |    |                  |                  |      |
| рН                           | 7.0     | units     | 0.1  | 1  |                  | 10/10/2024 17:15 | *    |
|                              | 7.0     | units     | 0.1  | •  |                  | 10/10/2024 17:10 |      |
| Method: SM4500-CI-E 2011     |         |           |      |    |                  |                  |      |
| Chloride                     | 10.7    | mg/L      | 2.0  | 1  |                  | 10/15/2024 10:09 |      |
| Method: SM4500-F-C-2011      |         |           |      |    |                  |                  |      |
| Fluoride                     | 0.18    | mg/L      | 0.1  | 1  |                  | 10/10/2024 17:15 |      |
| Method: USGS I-1750-85       |         |           |      |    |                  |                  |      |
| Total Dissolved Solids       | 2040    | mg/L      | 10   | 1  |                  | 10/11/2024 14:20 |      |

#### **Analysis Results Comments**

pН

Sample analyzed beyond holding time.

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Account #: 6106 Client: Otter Tail Power Company

| C Result            | ts Summary         |              |              |                     |  |                            | WO #:                      | 6728    | 9             |
|---------------------|--------------------|--------------|--------------|---------------------|--|----------------------------|----------------------------|---------|---------------|
| Sulfate             |                    |              |              | Units: mg/          | L  |                            |                            |         |               |
| QC Type             | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery                  | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| .FB                 |                    |              | 100          | 100.0               |  | 85                         | 115                        |         |               |
| .FB                 |                    |              | 100          | 95.3                |  | 85                         | 115                        |         |               |
| .FB                 |                    |              | 100          | 96.0                |  | 85                         | 115                        |         |               |
| FB                  |                    |              | 100          | 98.6                |  | 85                         | 115                        |         |               |
|                     |                    |              |              |                     |  | 85                         |                            |         |               |
| FB                  |                    |              | 100          | 101.0               |  | 85                         | 115                        |         |               |
| FB                  |                    |              | 100          | 97.9                |  | 85                         | 115                        |         |               |
| FB                  |                    |              | 100          | 104.0               |  | 85                         | 115                        |         |               |
| .FB                 |                    |              | 100          | 97.9                |  | 85                         | 115                        |         |               |
| ИВ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| ИΒ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| ив                  |                    | <5           |              |                     |  |                            |                            |         |               |
|                     |                    |              |              |                     |  |                            |                            |         |               |
| ИВ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| ИВ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| ИВ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| ИВ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| ИВ                  |                    | <5           |              |                     |  |                            |                            |         |               |
| /IS/MSD             | 67244001           |              | 1000         | 84.5                | 83.9   | 85                         | 115                        | 0.0     | 20            |
|                     |                    |              |              |                     |  |                            |                            |         |               |
| AS/MSD              | 67289003           |              | 500          | 105.9               | 109.6  | 85                         | 115                        | 1.5     | 20            |
| MS/MSD              | 67312002           |              | 500          | 83.7                | 82.3   | 85                         | 115                        | 0.9     | 20            |
| AS/MSD              | 67447003           |              | 500          | 80.9                | 81.1   | 85                         | 115                        | 0.2     | 20            |
| AS/MSD              | 67467011           |              | 10000        | 88.1                | 92.1   | 85                         | 115                        | 2.0     | 20            |
| /IS/MSD             | 67472001           |              | 1000         | 101.7               | 91.1   | 85                         | 115                        | 3.8     | 20            |
| Chlorida            |                    |              |              | Haite: mari         | <u>,                                      </u> |                            |                            |         |               |
| Chloride<br>QC Type | Original Sample ID | Blank Result | Spike Amount | Units: mg/          | Spike Duplicate                                | Lower Control              | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| FB                  |                    |              | 30           | 98.2                | % Recovery                                     | Limit (%)                  | 110                        |         |               |
| FB                  |                    |              | 30           | 97.9                |  | 90                         | 110                        |         |               |
| FB                  |                    |              | 30           | 97.9                |  | 90                         | 110                        |         |               |
| FB                  |                    |              | 30           | 97.8                |  | 90                         | 110                        |         |               |
|                     |                    |              | 30           | 37.0                |  | 50                         | 110                        |         |               |



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Account #: 6106 Client: Otter Tail Power Company

| Chloride<br>QC Type | Original Sample ID | Blank Result | Spike Amount | Units: r<br>Spike %<br>Recovery | ng/L<br>Spi<br>% F | ke Duplicate<br>Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
|---------------------|--------------------|--------------|--------------|---------------------------------|--------------------|--------------------------|----------------------------|----------------------------|---------|---------------|
| LFB                 |                    |              | 30           | 97.6                            | 70 P               | tecovery                 | 90                         | 110                        |         |               |
| LFB                 |                    |              | 30           | 98.0                            |                    |                          | 90                         | 110                        |         |               |
| LFB                 |                    |              | 30           | 97.9                            |                    |                          | 90                         | 110                        |         |               |
| LFB                 |                    |              | 30           | 97.3                            |                    |                          | 90                         | 110                        |         |               |
| MB                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| МВ                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| MB                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| MB                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| MB                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| МВ                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| MB                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| MB                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| МВ                  |                    | <2.0         |              |                                 |                    |                          |                            |                            |         |               |
| MS/MSD              | 66884003           |              | 30           | 106.7                           | 91.:               | 1                        | 80                         | 120                        | 9.1     | 20            |
| MS/MSD              | 67150001           |              | 30           | 104.8                           | 100                | 1.6                      | 80                         | 120                        | 0.8     | 20            |
| MS/MSD              | 67289003           |              | 30           | 95.3                            | 93.3               | 2                        | 80                         | 120                        | 1.7     | 20            |
| MS/MSD              | 67447003           |              | 30           | 102.6                           | 93.5               | 5                        | 80                         | 120                        | 7.2     | 20            |
| MS/MSD              | 67467011           |              | 30           | 95.4                            | 90.                | 7                        | 80                         | 120                        | 2.1     | 20            |
| Boron               |                    |              |              | Units: r                        | ng/L               |                          |                            |                            |         |               |
| QC Type  LFB-OE     | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery<br>94.5     | Spi<br>% F         | ke Duplicate<br>Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| LI-BIUE             |                    |              | U.49         | 54.5                            |                    |                          | 03                         | 115                        |         |               |
| LFB-OE              |                    |              | 0.4          | 96.4                            |                    |                          | 85                         | 115                        |         |               |
| МВ                  |                    | <0.1         |              |                                 |                    |                          |                            |                            |         |               |
| MB                  |                    | <0.1         |              |                                 |                    |                          |                            |                            |         |               |
| MS/MSD              | 67289001           |              | 0.4          | 96.0                            | 99.7               | 7                        | 70                         | 130                        | 3.8     | 20            |
| MS/MSD              | 67289003           |              | 0.4          | 92.4                            | 93.:               | 1                        | 70                         | 130                        | 0.4     | 20            |
| Calcium             |                    |              |              | Units: r                        | ng/L               |                          |                            |                            |         |               |
| QC Type             | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery             |                    | ke Duplicate<br>Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| LFB-MI              |                    |              | 100          | 112.0                           | 761                |                          | 85                         | 115                        |         |               |
| LFB-MI              |                    |              | 100          | 107.0                           |                    |                          | 85                         | 115                        |         |               |
| MB                  |                    | <1           |              |                                 |                    |                          |                            |                            |         |               |

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Account #: 6106 Client: Otter Tail Power Company

| Calcium<br>QC Type  | Original Sample ID                       | Blank Result | Spike Amount                    | Spike %  | mg/L  | Spike Duplicate               | Lower Control   | Upper Control   | RPD (%)       | RPD Limit (%)                  |
|---|--|--------------|---------------------------------|--|-------|-------------------------------|---|---|---------------|--------------------------------|
| MB  | 100-00-00-00-00-00-00-00-00-00-00-00-00- | <1           |                                 | Recovery   |       | % Recovery                    | Limit (%)   | Limit (%)   | 510.110.650.6 | 1000000 CHING TO 10000 MC 7484 |
|   |  |              |                                 |  |       |                               |   |   |               |                                |
| PDS/PDSD  | 65433006                                 |              | 100                             | 96.1   |       | 96.0                          | 75  | 125   | 0.0           | 20                             |
| PDS/PDSD  | 65702016                                 |              | 100                             | 91.8   |       | 92.8                          | 75  | 125   | 0.6           | 20                             |
| 103/1030  | 83702010                                 |              | 100                             | 31.0   |       | 32.0                          | ,,,   | 123   | 0.0           | 20                             |
| PDS/PDSD  | 65827002                                 |              | 100                             | 101.0  |       | 101.0                         | 75  | 125   | 0.0           | 20                             |
| DUP   | 65827007                                 |              |                                 |  |       |                               |   |   | 0.5           | 20                             |
| 501   | 03027007                                 |              |                                 |  |       |                               |   |   | 0.5           | 20                             |
| DUP   | 67289002                                 |              |                                 |  |       |                               |   |   | 0.9           | 20                             |
| DUP   | 67289003                                 |              |                                 |  |       |                               |   |   | 1.1           | 20                             |
| DOF   | 07203003                                 |              |                                 |  |       |                               |   |   | 1.1           | 20                             |
| PDS/PDSD  | 67289003                                 |              | 100                             | 96.9   |       | 100.0                         | 75  | 125   | 1.1           | 20                             |
| PDS/PDSD  | 67441001                                 |              | 100                             | 102.0  |       | 104.0                         | 75  | 125   | 1.7           | 20                             |
| . 55/1 555  | 0/441001                                 |              | 200                             | 102.0  |       | 20.00                         |   | 11.5  | AV.           | 20                             |
| PDS/PDSD  | 67441009                                 |              | 500                             | 103.0  |       | 95.4                          | 75  | 125   | 3.5           | 20                             |
| PDS/PDSD  | 67447003                                 |              | 100                             | 101.0  |       | 102.0                         | 75  | 125   | 0.4           | 20                             |
| ,   |  |              |                                 |  |       |                               |   |   |               |                                |
| PDS/PDSD  | 67467010                                 |              | 100                             | 99.6   |       | 100.0                         | 75  | 125   | 0.5           | 20                             |
| PDS/PDSD  | 67601001                                 |              | 100                             | 98.3   |       | 101.0                         | 75  | 125   | 1.7           | 20                             |
|   |  |              |                                 |  |       |                               |   |   |               |                                |
| рН  |  |              |                                 | Units:   | units |                               |   |   |               |                                |
| QC Type   | Original Sample ID                       | Blank Result | Spike Amount                    | Spike %<br>Recovery  |       | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%)  | Upper Control<br>Limit (%)  | RPD (%)       | RPD Limit (%)                  |
| CRM-PH  |  |              | 6                               | 98.5   |       |                               |   |   |               |                                |
|   |  |              |                                 | 98.5   |       |                               | 98.33   | 101.67  |               |                                |
| CRM-PH  |  |              | 6                               | 98.5   |       |                               | 98.33<br>98.33  | 101.67  |               |                                |
| CRM-PH  |  |              |                                 |  |       |                               |   |   |               |                                |
|   |  |              |                                 |  |       |                               |   |   |               |                                |
| CRM-PH  |  |              | 6                               | 98.8   |       |                               | 98.33   | 101.67  |               |                                |
| CRM-PH<br>CRM-PH  |  |              | 6                               | 98.8   |       |                               | 98.33<br>98.33  | 101.67  |               |                                |
| CRM-PH<br>CRM-PH  | 67289003                                 |              | 6                               | 98.8   |       |                               | 98.33<br>98.33  | 101.67  | 2.7           | 20                             |
| CRM-PH<br>CRM-PH<br>DUP   | 67289003<br>67290004                     |              | 6                               | 98.8   |       |                               | 98.33<br>98.33  | 101.67  | 2.7           | 20                             |
| CRM-PH CRM-PH DUP   | 67290004                                 |              | 6                               | 98.8   |       |                               | 98.33<br>98.33  | 101.67  | 1.2           | 20                             |
| CRM-PH CRM-PH DUP   |  |              | 6                               | 98.8   |       |                               | 98.33<br>98.33  | 101.67  |               |                                |
| CRM-PH CRM-PH DUP DUP   | 67290004                                 |              | 6                               | 98.8<br>98.7<br>99.5   | mg/L  |                               | 98.33<br>98.33  | 101.67  | 1.2           | 20                             |
| CRM-PH  CRM-PH  DUP  DUP  DUP   | 67290004                                 | Blank Result | 6                               | 98.8<br>98.7<br>99.5<br>Units:   | mg/L  | Spike Duplicate               | 98.33<br>98.33<br>98.33   | 101.67<br>101.67<br>101.67  | 1.2           | 20                             |
| CRM-PH  DUP  DUP  DUP  Fluoride  QC Type                              | 67290004<br>67441006                     | Blank Result | 6 6                             | 98.8<br>98.7<br>99.5<br>Units:   | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33   | 101.67  | 0.8           | 20                             |
| CRM-PH  CRM-PH  DUP  DUP  DUP  Fluoride  QC Type  CRM-F               | 67290004<br>67441006                     | Blank Result | 6 6 Spike Amount                | 98.8<br>98.7<br>99.5<br>Units:<br>Spike %<br>Recovery<br>94.8                  | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33<br>Lower Control<br>Limit (%)<br>83.99                | 101.67  101.67  101.67  Upper Control Unit (%)  111.11            | 0.8           | 20                             |
| CRM-PH  CRM-PH  DUP  DUP  DUP  Fluoride  QC Type  CRM-F               | 67290004<br>67441006                     | Blank Result | 6 6 6 Spike Amount              | 98.8<br>98.7<br>99.5<br>Units:<br>Spike %<br>Recovery                          | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33<br>Lower Control<br>Limit (%)                         | 101.67 101.67 101.67 Upper Control Unit (%)                       | 0.8           | 20                             |
| CRM-PH CRM-PH DUP DUP DUP Fluoride QC Type CRM-F                      | 67290004<br>67441006                     | Blank Result | 6 6 Spike Amount                | 98.8<br>98.7<br>99.5<br>Units:<br>Spike %<br>Recovery<br>94.8                  | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33<br>Lower Control<br>Limit (%)<br>83.99                | 101.67  101.67  101.67  Upper Control Unit (%)  111.11            | 0.8           | 20                             |
| CRM-PH  CRM-PH  DUP  DUP  DUP  Fluoride  QC Type  CRM-F               | 67290004<br>67441006                     | Blank Result | 6 6 6 Spike Amount 3.06 0.5     | 98.8<br>98.7<br>99.5<br>99.5<br>Units:<br>Spike %<br>Recovery<br>94.8<br>102.0 | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33<br>98.33<br>Lower Control<br>Limit (%)<br>83.99<br>90 | 101.67  101.67  101.67  Upper Control Unit (%)  111.11  110       | 0.8           | 20                             |
| CRM-PH  DUP  DUP  DUP  Fluoride  QC.Type  CRM-F                       | 67290004<br>67441006                     | Blank Result | 6 6 6 Spike Amount 3.06 0.5     | 98.8<br>98.7<br>99.5<br>99.5<br>Units:<br>Spike %<br>Recovery<br>94.8          | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33<br>Lower Control<br>Limit (%)<br>83.99                | 101.67  101.67  101.67  Upper Control Limit (%)  111.11           | 0.8           | 20                             |
| CRM-PH  CRM-PH  DUP  DUP  DUP  Fluoride  QC Type  CRM-F               | 67290004<br>67441006                     | Blank Result | 6 6 6 Spike Amount 3.06 0.5     | 98.8<br>98.7<br>99.5<br>99.5<br>Units:<br>Spike %<br>Recovery<br>94.8<br>102.0 | mg/L  | Spike Duplicate<br>% Recovery | 98.33<br>98.33<br>98.33<br>98.33<br>Lower Control<br>Limit (%)<br>83.99<br>90 | 101.67  101.67  101.67  Upper Control Unit (%)  111.11  110       | 0.8           | 20                             |
| CRM-PH  CRM-PH  DUP  DUP  DUP  CRM-F  Fluoride  QC Type  CRM-F  LFB-F | 67290004<br>67441006                     | Blank Result | 6 6 6 Spike Amount 3.06 0.5 0.5 | 98.8 98.7 99.5 Units: Spike % Recovery 94.8 102.0 100.0                        | mg/L  | Spike Duplicate<br>% Recovery | 98.33 98.33 98.33  98.33  Lower Control Limit (%) 83.99  90  90               | 101.67  101.67  101.67  Upper Control Limit (%)  111.11  110  110 | 0.8           | 20                             |

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Account #: 6106 Client: Otter Tail Power Company

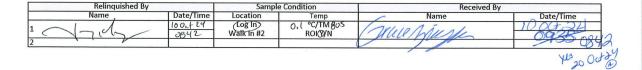
| Fluoride        |                    |              |              | Units: mg/          | L                             |                            |                            |         |               |
|-----------------|--------------------|--------------|--------------|---------------------|-------------------------------|----------------------------|----------------------------|---------|---------------|
| QC Type         | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| MB-F            |                    | <0.1         |              |                     |                               |                            |                            |         |               |
| MB-F            |                    | <0.1         |              |                     |                               |                            |                            |         |               |
| MS/MSD          | 67289003           |              | 0.5          | 104.0               | 102.0                         | 80                         | 120                        | 1.5     | 20            |
| MS/MSD          | 67290004           |              | 0.5          | 104.0               | 104.0                         | 80                         | 120                        | 0.0     | 20            |
| MS/MSD          | 67441008           |              | 0.5          | 104.0               | 104.0                         | 80                         | 120                        | 0.0     | 20            |
| Total Dissolved | Solids             |              |              | Units: mg/          | L                             |                            |                            |         |               |
| QC Type         | Original Sample ID | Blank Result | Spike Amount | Spike %<br>Recovery | Spike Duplicate<br>% Recovery | Lower Control<br>Limit (%) | Upper Control<br>Limit (%) | RPD (%) | RPD Limit (%) |
| CRM             |                    |              | 736          | 99.0                |                               | 90.35                      | 110.33                     |         |               |
| CRM             |                    |              |              |                     |                               |                            |                            |         |               |
|                 |                    |              | 736          | 98.0                |                               | 90.35                      | 110.33                     |         |               |
| МВ              |                    | <10          | 736          | 98.0                |                               | 90.35                      | 110.33                     |         |               |
| МВ              |                    | <10          | 736          | 98.0                |                               | 90.35                      | 110.33                     |         |               |
|                 | 67251001           |              | 736          | 98.0                |                               | 90.35                      | 110.33                     | 9.6     | 20            |





Account #: 6106 Client: Otter Tail Power Company

| MI                  | Minneson<br>2616 E. Bro<br>Bismarck, I<br>(701) 258-9 | esting La        |      |             |             |             | WO: 67289              |              |      |          | Compa | Chain of Custody<br>Record |           |             |         |  |                   |
|---------------------|---|------------------|------|-------------|-------------|-------------|------------------------|--------------|------|----------|-------|----------------------------|-----------|-------------|---------|--|-------------------|
| Report To:<br>Attn: | Otter Tail Power<br>Josh Hollen                       |                  |      | CC:         |             |             |                        |              |      |          |       |                            |           | Project Na  | me:     | 0  | TP Coyote - Blue  |
| Address:            | PO Box 496  |                  |      |             |             |             |                        |              |      |          |       |                            |           | Event:      |         |  | Fall 2024         |
| Phone:              | Fergus Falls, MN 56538-0                              | 0496             |      |             |             |             |                        |              |      |          |       |                            |           | Sampled E   |         |  | raii 2024         |
| Email:              | jhollen@otpco.com                                     |                  |      |             |             |             |                        |              |      |          |       |                            |           | Sampled E   | Jer Jer | emy 1  | eyer/Ethan Gress  |
|                     | Sampl   | e Information    |      |             |             |             | San                    | nple         | Cont | aine     | rs    | T                          |           | Field Re    | adings  | •  |                   |
| Lab Number          | Sample ID   | Date             | Тіте | Sample Type | 1 Liter Raw | 500 mL HNO3 | 500 mL HNO3 (filtered) | 250 mL H2SO4 |      |          |       |                            | Temp (°C) | Spec. Cond. | Hd      | Appearance (Clear-C,<br>Partly Cloudy-PC, Cloudy-<br>CL) | Analysis Required |
| 001                 | FB Blue   | 9 Det 24         | 1015 | GW          | Х           | _           | Н                      | +            | +    | Н        | +     | +                          | NA        | NA          | NA      | NA   |                   |
| 002                 | Blue 6 Blue 7/MS7/MSD7                                | 9 oct 24         | 1055 | GW          | 3           | X<br>3      | Н                      | +            | +    | H        | +     | _                          | 11.42     | 2579        | 6.68    | C  | -                 |
| 003                 | Blue 13   | 90x24<br>BOct 24 | 1520 | GW          | Х           | _           | H                      | +            | +    | $\vdash$ | +     | $\rightarrow$              | 14.83     | 6540        | 6,91    | C  |                   |
| 005                 | Blue 14   | 8 Oct 24         | 1433 | GW          | х           | _           | $\vdash$               | +            | +    | $\vdash$ | +     | -                          | 15.02     | 5623        | 6.71    | c  |                   |
| 006                 | Blue 15   | 9 Oct 24         | 1005 | GW          | Х           | Х           |                        |              |      |          |       | $\Box$                     | 11.56     | 3252        | 6.63    | С  | OTP CCR App 3     |
| 007                 | Blue 16   | 7 Oct 24         | 1432 | GW          | Х           | Х           | H                      | 7            | F    | H        | F     | П                          | 18,31     | 2647        | 6.66    | С  |                   |
|                     |   |                  |      |             |             |             |                        | #            | +    |          | ‡     |                            |           |             |         |  |                   |



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Report Date: Friday, October 25, 2024 4:41:24 PM

Comments:





NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

| AUVT                      |                             |              | Fial        | d Da                                  | tack      | neet                       |              | Company:                                |                | OTP Coyo   |  |
|---------------------------|-----------------------------|--------------|-------------|---------------------------------------|-----------|----------------------------|--------------|---|----------------|------------|--|
| MVTI                      |                             |              | 1161        | uDa                                   | ıtası     | ICCL                       |              | Event:                                  |                | Fall       | 2024   |
|                           |                             |              | Gr          | oundwate                              | r Assessm | ent                        |              | Sample ID                               | :              |            | Blue 16  |
| 2616 E. Broadway Ave, Bi  | smarck, ND                  |              |             |                                       |           |                            |              | Sampling I                              | Personal:      | ~ ler      | n Mar  |
| Phone: (701) 258-9        | 9720                        |              |             |                                       |           |                            |              | *************************************** |                |            | 107  |
| <b>Weather Conditions</b> | :                           | Temp:        | 70          | °F                                    | Wind:     | 5                          | @ 5-10       |   | Precip: (      | Sunny / Pa | artly Cloudy / Cloudy                            |
|                           | WELL INEC                   | DRMATIO      | N           |                                       |           |                            |              | SAN                                     | IDI ING IN     | FORMATI    | ON   |
| Well Locked?              | YES.                        | NO           |             |                                       | 1         | Purging M                  | ethod:       | Bladder                                 | IF LING IN     | TORIVIATIO | Control Settings:                                |
| Well Labeled?             | YES                         | NO           |             |                                       | 1         | Sampling N                 |              | Bladder                                 |                |            | Purge: B Sec.                                    |
| Repairs Necessary?        |                             |              |             |                                       | 1         |                            | Equipment    | (YES                                    | NO             |            | Recover: \$7 Sec.                                |
|                           |                             |              |             |                                       |           | 7th's                      |              |   |                | •          | PSI:   |
|                           | g Diameter:                 |              | <u>'''</u>  | · · · · · · · · · · · · · · · · · · · | 1         |                            |              |   |                |            |  |
| Water Level Be            |                             | 79.          |             | ft<br>ft                              | 4         |                            |              |   |                | 1          |  |
|                           | oth of Well:<br>ell Volume: | 97           |             | liters                                | 4         |                            | Bott         | le List:                                |                |            | Duplicate Sample?                                |
| w                         | eli volume:                 | 11.          | U           | inters                                | -         | 1 Liter Raw<br>500mL Nitri | _            |   |                |            | YES / (NO) Duplicate Sample ID:                  |
| Water Level Af            | ter Sample                  | 70           | ,74         | ft                                    | 1         | SOUTHL WITT                | C            |   |                |            | Duplicate sample 10.                             |
| Measureme                 |                             |              | Vater Level |                                       | 1         | 1                          |              |   |                |            |  |
|                           |                             |              |             |                                       | J         |                            | 100          |   |                | 1          | C  |
| Stabilization Parar       | motore                      | Temp.        | Spec.       |                                       | DO        | LD READII                  | Turbidity    | Water                                   | Pumping        | mL         | T  |
| (3 Consecutiv             |                             | (°C)         | Cond.       | pН                                    | (mg/L)    | (mV)                       | (NTU)        | Level                                   | Rate           | Removed    | Appearance or Comment Clarity, Color, Odor, Ect. |
| Purge Date                | Time                        | 1 9/         | ±5%         | ±0.1                                  | ±10%      | ±10                        | <5.0         | (ft)                                    | mL/Min         | Removed    | clear, slightly turbid, turbid                   |
|                           | 1302                        | Start of Wel | l Purge     |                                       |           | 1                          |              | 1 1:-7                                  | 1              | <u> </u>   | orear, singitary cursia, cursia                  |
| 70424                     | 1322                        | 17.50        | 2646        | 6.68                                  | 0.88      | 128.7                      | 32,43        | 79.77                                   | 100.0          | 2000,0     | Cler   |
| 7001                      | 1342                        | 17.74        | 2657        | 6.66                                  | 0.52      | 52.4                       | 16.19        | 79.72                                   | 100.0          | 2000.0     | Cles.  |
|                           | 1352                        | 17.81        | 2673        | 6,66                                  | 0.50      | 49.9                       | 15,12        | 79.70                                   | 100,0          | 1000.0     | Clear  |
|                           | 19,02                       | 17.92        | 2655        | 6,67                                  | 0,54      | 47.8                       | 15,33        | 79.73                                   | 100.0          | 1000.0     | den  |
|                           | 1412                        | 18.03        | 2652        | 6.67                                  | 0.63      | 49.9                       | 15.16        | 79.69                                   | 100,0          | 1000.0     | Clear  |
|                           | 1417                        | 18,09        | 2651        | 6.67                                  | 0.67      | 54.01                      | 14.09        | 79.74                                   | 100.0          | 5000       | Clen   |
|                           | 1422                        | 18.15        | 2651        | 6.66                                  | 0.70      | 56.4                       | 16,78        | 79,74                                   | 100.0          | 500.0      | Clear  |
|                           | 1427                        | 18,30        | 2649        | 6.66                                  | 0.74      | 58.6                       | 11.80        | 79.72                                   | 0.601          | 5000       | clear  |
|                           | 1435                        | 18,31        | 2647        | 6.66                                  | 0.80      | 59.3                       | 13.61        | 79,74                                   | 100.0          | 500,0      | Clesa  |
| L                         | Mell St                     | abilized?    | (YES)       | NO ·                                  | 4 21 5    | 1, 1, 1,                   | <del> </del> | Total Vo                                | lume Purged:   | 9000,0     | Liters   |
|                           | Well St                     | abinzeu:     | (13)        | NO .                                  | exept to  | r turbidi                  |              | Total vo                                | idilie ruiged. |            | -  |
| Sample Date               | Time                        | Temp.        | Spec.       | рН                                    |           |                            | Turbidity    |   |                |            | Appearance or Comment                            |
|                           |                             | (°C)         | Cond.       | -                                     | <b>_</b>  | <b></b>                    | (NTU)        | <del> </del>                            |                |            | Clarity, Color, Odor, Ect.                       |
| 7 Oct 24                  | 1432                        | 18:31        | 2647        | 6.66                                  |           |                            | 13.61        |   |                |            | Clear  |
| Comments:                 | Tuble                       | ity on       | H ab v      | ves not                               | - stabili | in below                   | 5 NT         | J                                       |                |            |  |

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Account #:

6106

Client:

Otter Tail Power Company

#### **CCR - Appendix III Detection Monitoring**

Field Parameters

pH\*

\* Field and Laboratory Measurements

Total Concentration Parameters
Boron
Calcium
Chloride
Fluoride

pH Sulfate

Dissolved Solids, Total

Method

6010 6010 SM4500 CL E EPA 300 SM 4500 H+B-96 ASTM D516 SM 2540 C-97

NOTE: Total Recoverable Metals! Groundwater samples shall not be field filtered prior to analysis.

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Account #: 6106 Client: Otter Tail Power Company

| 0/10/24, 5:57 AM  | VuSitu_Calibration_1025047_2024-10-07.html |
|---|--|
| Calibration Report  |  |
| Instrument  |  |
| Sensor         Conductivity           Sorial Number         1022338           Last Calibrated         107/2024  |  |
| Calbration Details TDS Conversion Factor (ppm) 0.85 Call Constant 0.853 Clitic Onstant 0.853 Clitic Onstant 0.853 Reterence Emperature 0.25,09 °C Calbration Point 1.               |  |
| Pre Measurement Actual Conductivity 1,235.1,550cm Specific Conductivity 1,457.1,550cm Post Measurement Actual Conductivity 1,216.4,p50cm  |  |
| Specific Conductivity 1,413,0 µS/cm   |  |
| Serial Number 1120735 Last Calibrated 107/2024  Calibration Data ils  |  |
| Caltration Details Slove 1.0585901 Offset 4.0.00 mg L  Concertisation point 100% 32.4 mg/L  Concertisation 1.014 97.45.01 Post Measurement 1.01.07 45.01 Post Measurement 5.5.67 °C |  |
| Barometric Pressure 997,05 mbar   |  |
| Sorial Number   |  |
| Calibration Point 1 pH of Buffer 4,00 pH pH mV 169,2 mV Temperature 18,43 °C  |  |
| Pro Measurement<br>pH 5.93 pH<br>pH mV 169.3 mV   |  |
| Post Measurement pH 4,00 pH pH mV 1855 mV Calibration Point 2   |  |
| Cationation Point 2 PH of Suffer 7:32 PH PH of Suffer 7:32 PH PH of Suffer 16.59 °C Pre Measurement   |  |
| Par Measurement pH MS 29 pH pH MV 4.0 mV Part Measurement pH 7.02 pH pH mV 3.0 mV   |  |
| prim -s, mv Cationaton-Point 3 pri of Buffer 10,05 pH pri mV -190,2 mV Temperature 19,20 °C   |  |
| Pro Measurement<br>pH 9.97 pH<br>pH mV -180.4 mV  |  |
| Post Moasurement   10,00 ph   10,00 ph   H   V   178,7 mV   Sieze and Offset 1   Slope - 57,3 m/ v9H  |  |
| Slope   |  |
| ORP Solution Zobell's Offset -1,5 mV Temporature 9,33 °C PM Massuremen: 25.3 m V  |  |
| Post Measurement 249.5 mV  Sensor Turbidity  Serial Number 113349  Last Celibrated 107/7224   |  |
| Calibration Details Slope 0.9579784 Offset ~0.66 NTU  |  |
| Calibration Point 1: 0.87 NTU Pre Measurement: 0.87 NTU Post Measurement: 0.10 NTU  |  |
| Calibration Point 2 Pre Measurement 96.27 NTU Post Measurement 100.00 NTU   | v  |
| Sensor         Barometric Pressure           Serial Number         1025047           Last Calibrated         Factory Defaults           Sensor         Pressure                     |  |
| Serial Number 1023092<br>Last Calibrated Factory Defaults   |  |

 $file: ///C:/Users/jmeyer/AppData/Local/Microsoft/Windows/INetCache/Content. Outlook/LO0ILZMK/VuSitu\_Calibration\_1025047\_2024-10-07. html$ 

1/1



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Account #: 6106 Client: Otter Tail Power Company

| 0/10/24, 5:56 AM   | VuSitu_Calibration_1025047_2024-10-08.html |  |
|--|--|--|
| Calibration Report   |  |  |
| Instrument Aqua TROLL 600<br>Sorial Number 1025047<br>Created 10 87024   |  |  |
| Sonisor   Conductivity   |  | J. 1000 C. 100 |
| Calibration Details 'TIS Conversion Factor (ppm') Cell Constant Offset Reference Temperature Calibration Point 1   |  |  |
| Pra Measurement Actual Conductivity 1,244,7 µS/cm Specific Conductivity 1,384.0 µS/cm  |  |  |
| Post Measurement Actual Conductivity 1,289.4 µSlcm Specific Conductivity 1,413.0 µSlcm   |  |  |
| Serial Number   120735     Last Calibrated   10/8/2024   |  |  |
| Calibration Details Slope 1, 10/98574 Offset -0.00 mg/L Calibration point 10/56 Concentration 911 For Measurement 96,88 1,58 1,58 1 For Measurement 91,88 1,58 1,58 1 For Measurement 91,89 1,58 1,58 1 For Measurement 91,89 1,58 1,58 1,58 1 For Measurement 91,89 1,58 1,58 1,58 1,58 1,58 1,58 1,58 1,58   |  |  |
| Sensor   |  |  |
| Calibration Dates Is  Calibration Point 1 ph of B-filler 4,00 pH ph of B-filler 7,00 pH ph  |  |  |
| Per Modelling Pe |  |  |
| Space and Offset   1   |  |  |
| Sersor   |  |  |
| Cationation Point 1 Pro Measurement 2.04 NTU Post Measurement 0.10 NTU Cationation Point 2 Pro Measurement 197.37 NTU Pro Measurement 197.00 NTU Sonsor Barometric Pressure  |  |  |
| Sonior Sonio Pressure Sorio Numbor 202302 Sorio Pressure   Pactory Defaultis   Pactory Defaultis   Pressure   Pactory Defaultis   Pa | ·  |  |
| Last valionated Factory Detautis   |  |  |

 $file: \verb||/|C:|/Users/jmeyer/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/LO0ILZMK/VuSitu\_Calibration\_1025047\_2024-10-08.html| | Content_Content$ 

1/1



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6106 Client: Otter Tail Power Company Account #:

| 0/10/24, 6:18   | 3 AM   |   | VuSitu_Calibration_ | 744333_2024-10-09_2. | html |  |
|---|--|---|---------------------|----------------------|------|--|
| Calibration F   | Report   |   |                     |                      |      |  |
|   | Aqua TROLL 600<br>744333<br>10 9/2024                    |   |                     |                      |      |  |
| Sensor<br>Serial Number<br>Last Calibrated  | RDO<br>954563<br>10/9/2024                               |   |                     |                      |      |  |
| Slope 1.2<br>Offset -0.0  | otalis<br>1240353<br>00 mg/L                             |   |                     |                      |      |  |
| Calibration por<br>Concentration<br>Pro Measurer<br>Post Measurer<br>Temperature<br>Barometric Pr | 100,00 %Sat<br>19.27 °C<br>ressure 1,024,8 mbar          |   |                     |                      |      |  |
| Sensor<br>Sorial Number<br>Last Calibrated  | pH/ORP<br>1112445<br>10/9/2024                           |   |                     |                      |      |  |
| Calibration Do Calibration Po pH of Buffer pH mV Temperature                                      | otalis<br>oint 1<br>4,00 pH<br>170.5 mV<br>20.88 °C      |   |                     |                      |      |  |
| pH 3.<br>pH mV 17   | ment<br>97 pH<br>70.3 mV                                 |   |                     |                      |      |  |
| Post Measure pH 4, pH mV 16 Calibration Po pH of Buffer pH mV Temperature                         | 00 pH<br>58.2 mV<br>oint 2<br>7.02 pH                    |   |                     |                      |      |  |
| Pre Measures  Pre Measures  PH 7.  pH mV -4   | -4.1 mV<br>20.73 °C<br>ment<br>15 pH                     |   |                     |                      |      |  |
| pH 7.<br>pH mV -4   | ement<br>02 pH<br>.0 mV                                  |   |                     |                      |      |  |
| Calibration Po<br>pH of Buffer<br>pH mV<br>Temperature<br>Pre Measures                            | 10.05 pH<br>-178,6 mV<br>20.85 °C                        |   |                     |                      |      |  |
| Pre Measures pH 10 pH mV -1  Post Measure pH 10 pH mV -1  | 78.9 mV<br>omaat<br>0.05 pH<br>76.1 mV                   |   |                     |                      |      |  |
| Slope and Off<br>Slope -57<br>Offset -3.1   | fset 1<br>r.83 mV/pH<br>0 mV                             |   |                     |                      |      |  |
| Slope and Off<br>Slope -57<br>Offset -3.I<br>ORP<br>ORP Solution                                  | Zahalia  |   |                     |                      |      |  |
| Offset Temperature Pre Measurer Post Measurer   | Conductivity   |   |                     |                      |      |  |
| Serial Number<br>Last Calibrated  | 845642<br>10/9/2024                                      |   |                     |                      |      |  |
| Reference to  |  | - |                     |                      |      |  |
| Pre Measurer<br>Actual Condu<br>Specific Cond   | ment<br>ctivity 1,222.4 µS/cm<br>ductivity 1,454.9 µS/cm |   |                     |                      |      |  |
| Post Measure<br>Actual Condu<br>Specific Cond   | Turbidibe  |   |                     |                      |      |  |
| Serial Number<br>Last Calibrated  | 1141173<br>10/9/2024                                     |   |                     |                      |      |  |
| Calibration De<br>Slope 0.9<br>Offset 0.6<br>Calibration Po                                       | eteils<br>3544215<br>4 NTU                               |   |                     |                      |      |  |
| Pre Measurer Post Measurer Post Measurer Pre Measurer Post Measurer Post Measurer                 |  |   |                     |                      |      |  |
| Sensor<br>Serial Number<br>Last Calibrated  | Barometric Pressure<br>744333<br>Factory Defaults        |   |                     |                      |      |  |
| Sensor<br>Serial Number<br>Last Calibrated  | Pressure<br>739438<br>Factory Defaults                   |   |                     |                      |      |  |

 $file: /// C:/Users/jmeyer/AppData/Local/Temp/44bb84de-a80f-469f-a8b6-1e3c8ae69d23\_VuSitu\_Data\_Reports\_2024-10-10\_06-09-20.zip.d23/VuSitu\_C... \\ 1/1$ 



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Account #: 6106 Client: Otter Tail Power Company

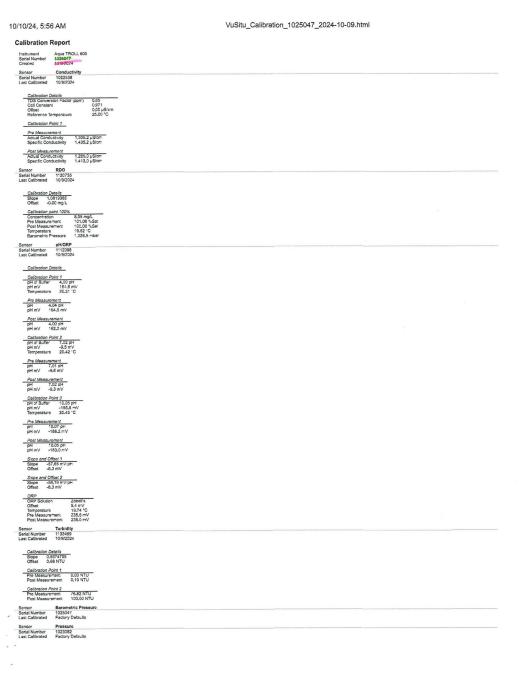
| 10/10/24, 6:17  | 7 AM   |   | VuSitu_Calibration_7   | 44333_2024-10-09.html |  |
|---|--|---|--|-----------------------|--|
| Calibration F   | Report   |   |  |                       |  |
| Instrument<br>Serial Number<br>Created  | Aqua TROLL 600<br>744333<br>10 9/2024  |   |  |                       |  |
| Sensor<br>Serial Number<br>Last Galibrated  | 954563<br>10/9/2024  |   |  |                       |  |
| Slope 1,2<br>Offset -0.   | lotal/s<br>2240353<br>.00 mg/L   |   |  |                       |  |
| Calibration pi<br>Concentration<br>Pro Measure<br>Post Measure<br>Tomperature<br>Barometric P | ressure 1,024,8 mbar   |   |  |                       |  |
| Sensor<br>Serial Number<br>Last Calibrated  | pH/ORP<br>1112445<br>10/9/2024   |   |  |                       |  |
| Calibration D Calibration P   |  |   |  |                       |  |
| PH of Butter<br>pH mV<br>Temperature  | 4,00 pH<br>170.5 mV<br>20,58 °C  |   |  |                       |  |
| Pre Measure<br>pH 3,<br>pH mV 17  | 97 pH<br>70.3 mV   |   |  |                       |  |
| Post Measure pH 4. pH mV 11   | 00 pH<br>68.2 mV   |   |  |                       |  |
| PH of Buffer<br>pH mV<br>Temperature  | 7.02 pH<br>-4.1 mV<br>20.73 °C   |   |  |                       |  |
| Pre Measure<br>pH 7.<br>pH mV -4  | 15 pH<br>1.2 mV  |   |  |                       |  |
| Post Measure<br>pH 7.<br>pH mV -4   | ement<br>.02 pH<br>I.0 mV  |   |  |                       |  |
| pH of Buffor<br>pH mV<br>Temperature  | 10,05 pH<br>-178,6 mV<br>20,85 °C  |   |  |                       |  |
| Pre Measure<br>pH 10<br>pH mV -1  | ment<br>0.27 pH<br>178,9 mV  |   |  |                       |  |
| Post Measure<br>pH 10<br>pH mV -1   |  |   |  |                       |  |
| Slope and Of<br>Slope -57<br>Offset -3.   | #set 1<br>7.83 mV/pH<br>0 mV   |   |  |                       |  |
| Slope and Of<br>Slope -57<br>Offset -3.   | 0 mV   |   |  |                       |  |
| ORP Solution<br>Offset<br>Temperature<br>Pre Measure<br>Post Measure                          |  |   |  |                       |  |
| Sensor<br>Serial Number<br>Last Calibrated  | Conductivity<br>845642<br>10/9/2024  |   | The same of the sa |                       |  |
| TDS Conversion D  | etails<br>sion Factor (ppm) 0,65<br>1 2,166<br>0,00 µS/cm<br>emperature 25,00 °C | - |  |                       |  |
| Reference Te<br>Calibration P   |  |   |  |                       |  |
| Pre Measure<br>Actual Condu<br>Specific Cond  | mon!<br>ictivity 1,287.5 µS/cm<br>ductivity 1,408,2 µS/cm                        |   |  |                       |  |
| Post Measure<br>Actual Condu<br>Specific Cond   | ictivity 1,291,9 µS/cm<br>ductivity 1,413.0 µS/cm                                |   |  |                       |  |
| Sensor<br>Serial Number<br>Last Calibrated  | Turbidity<br>1141173<br>10/9/2024  |   |  |                       |  |
| Slope 0.9<br>Offset 0.6   | etalls<br>/3544215<br>/4 NTU   |   |  |                       |  |
| Pre Measurer<br>Post Measurer   | oint 1 ment 0.00 NTU ament 0.10 NTU  |   |  |                       |  |
| Pre Measure<br>Post Measure   |  |   |  |                       |  |
| Sensor<br>Serial Number<br>Last Calibrated  | Barometric Pressure<br>744333<br>Factory Delaults                                |   |  |                       |  |
| Sensor<br>Serial Number<br>Last Calibrated  | Pressure<br>739438<br>Factory Defaults   |   |  |                       |  |

 $file: ///C./Users/jmeyer/AppData/Local/Temp/72e19a68-517d-43ea-a16a-2d0c3d997bab\_VuSitu\_Data\_Reports\_2024-10-10\_06-09-20.zip.bab/VuSitu\_... \\ 1/1$ 





Account #: 6106 Client: Otter Tail Power Company



 $file: ///C:/Users/jmeyer/AppData/Local/Microsoft/Windows/INetCache/Content, Outlook/LO0ILZMK/VuSitu\_Calibration\_1025047\_2024-10-09. html$ 

1/1





NA or - = not appliciable

Account #: 6106 Client: Otter Tail Power Company

| MVT                     |              |              | Fiel        | d Da      | ntask        | neet        |           | Company:     |             | OTP Coyo  | te<br>2024                     |
|-------------------------|--------------|--------------|-------------|-----------|--------------|-------------|-----------|--------------|-------------|-----------|--------------------------------|
| N. C.                   |              |              |             |           | r Assessme   |             |           | Sample ID:   |             | rali      | Blue 6                         |
|                         |              |              | Gr          | ounawate  | r Assessine  | ent         |           |              |             |           | 0                              |
| 2616 E. Broadway Ave, B |              |              |             |           |              |             |           | Sampling F   | ersonal:    | ~J-       | 7 M                            |
| Phone: (701) 258-       |              | _            | - 7 0       | <b>NE</b> | Wind:        |             |           |              |             |           |                                |
| Weather Condition       | s:           | Temp:        | 60          | -F        | wina:        | 7           | @ 5-10    |              | Precip:     | Sunny / P | artly Cloudy / Cloudy          |
|                         | WELL INFO    |              | N           |           | _            |             |           |              | IPLING IN   | FORMATI   |                                |
| Well Locked?            | (FES         | NO           |             |           |              | Purging Me  |           | Bladder      |             |           | Control Settings:              |
| Well Labeled?           | VES          | NO           |             |           |              | Sampling N  |           | Bladder      |             |           | Purge: 8 Se                    |
| Repairs Necessary?      |              |              |             |           |              | Dedicated   | Equipment |              | NO          |           | Recover: (2 / \$2 Sec          |
| Casin                   | g Diameter:  | 2            | п           |           | 1            |             |           | Tubing       |             |           | PSI:                           |
| Water Level Be          |              | 66.6         |             | ft        | 1            |             |           |              |             |           |                                |
|                         | pth of Well: | 79.1         |             | ft        | 1            |             | Bott      | le List:     |             | 1         | Duplicate Sample?              |
| W                       | /ell Volume: | 9            | .0          | liters    | 1            | 1 Liter Raw |           |              |             |           | YES / (NO)                     |
|                         | of pump ".   | 71.89        |             | 4+        | ]            | 500mL Nitri | С         |              |             |           | Duplicate Sample ID:           |
| Water Level A           |              | Below        |             | ft        | ]            |             |           |              |             |           | -                              |
| Measureme               | ent Method:  | Electric V   | Vater Level | Indicator | _            |             |           |              |             |           |                                |
|                         |              |              |             |           | FIE          | LD READIN   |           |              |             |           |                                |
| Stabilization Para      |              | Temp.        | Spec.       | На        | DO           | ORP         | Turbidity | Water        | Pumping     | mL        | Appearance or Comment          |
| (3 Consecutiv           | 10000        | (°C)         | Cond.       |           | (mg/L)       | (mV)        | (NTU)     | Level        | Rate        | Removed   | Clarity, Color, Odor, Ect.     |
| Purge Date              | Time         | Start of Wel | ±5%         | ±0.1      | ±10%         | ±10         | <5.0      | (ft)         | mL/Min      | l         | clear, slightly turbid, turbid |
| 8 Oct 24                | 1125         | 17. 28       | 255 l       | 6.60      | 0.45         | 23.3        | 29,79     | Below Pory   | 300,0       | 6000.0    | Clin                           |
|                         | 1103         | Project      | Dry         | 6.60      | 0.43         | 23.3        | 61. TI    | 125(07)      | 300,0       | 6000.0    | Ca                             |
| 0.41                    | 0905         | Start of     |             | in Pune   | i e          | 1           |           |              |             |           |                                |
| 9 Oct 24                | 0910         | 11.40        | 25 22       | 6.81      | 7.76         | 63.2        | 15.58     | 66,70        | 1000        | 5000      | Clear                          |
|                         | 0915         | 11.36        | 2529        | 6.82      | 7.51         | 64.1        | 14.97     | 68,65        | 100.0       | 500,0     | Clear                          |
|                         | 0920         | 11.37        | 22052       | 6.82      | 7.45         | 64.7        | 14,43     | 69,04        | 100.0       | 50.0      | Clean                          |
|                         | 2500         | 11.42        | 2521        | 6,90      | 7.79         | 61,0        | 12.37     | 69.85        | 100.0       | 50.0      | Char                           |
| İ                       |              |              |             |           | -            |             | ļ         | -            |             |           |                                |
|                         |              |              |             |           | <del> </del> | <b>-</b>    | -         | <del> </del> |             |           |                                |
|                         | Well Sta     | abilized?    | YES         | NO        | Perged       | Dm          | <u> </u>  | Total Vol    | ume Purged: | 8.0       | Liters                         |
| Sample Date             | Time         | Temp.        | Spec.       | pH        | T            |             | Turbidity |              |             |           | Appearance or Comment          |
|                         | , and        | (°C)         | Cond.       |           |              |             | (NTU)     |              |             |           | Clarity, Color, Odor, Ect.     |
| 9 oct 24                | 0925         | 11.42        | 2521        | 6.90      |              |             | 15.37     |              |             |           | Clew                           |
| Comments:               | 1            |              |             |           |              |             |           |              |             |           |                                |

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Account #: 6106 Client: Otter Tail Power Company

| MVT                       |              |               | Fiel         | d Da         | atasl          | neet         |               | Company<br>Event: | :                                     | OTP Coyo | 2024                           |
|---------------------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-------------------|---------------------------------------|----------|--------------------------------|
|                           | 4            |               | G            | roundwate    | er Assessm     | ent          |               | Sample ID         | ):                                    |          | Blue 7                         |
| 2616 E. Broadway Ave, B   | ismarck, ND  |               |              |              |                |              |               | Sampling          | Personal:                             | -        | Jacke                          |
| Phone: (701) 258-         | -9720        |               |              |              |                |              |               |                   |                                       |          | 7. **                          |
| <b>Weather Condition</b>  |              | Temp:         | 65           | 5 °F         | Wind:          | 2            | @ 5010        | >                 | Precip:                               | Sunny P  | artly Cloudy / Cloudy          |
|                           | WELL INFO    | ORMATIO       | N            |              |                |              |               | SAN               | MPLING IN                             | FORMATI  | ON                             |
| Well Locked?              | YES          | NO            |              |              | 7              | Purging M    | ethod:        | Bladder           | · · · · · · · · · · · · · · · · · · · | ]        | Control Settings:              |
| Well Labeled?             | (VES         | NO            |              |              |                | Sampling I   | Method:       | Bladder           |                                       | ]        | Purge: B Se                    |
| Repairs Necessary?        |              |               |              |              |                | Dedicated    | Equipment     |                   | NO                                    | ]        | Recover: 12 Se                 |
|                           | g Diameter:  |               | 2"           |              | -              |              |               | Tubing            |                                       |          | PSI: —                         |
| Water Level Be            |              |               | 152          | ft           | -              |              |               |                   |                                       |          |                                |
|                           | oth of Well: |               | ,71          | ft           | 1              |              | Bott          | le List:          |                                       | 1        | Duplicate Sample?              |
| W                         | ell Volume:  |               | 3.7          | liters       |                | 1 Liter Raw  |               |                   |                                       | ×3       | YES / NO                       |
|                           |              |               |              |              | ]              | 500mL Nitr   | ic            |                   |                                       |          | Duplicate Sample ID:           |
| Water Level A             |              |               | 3,62         | ft           |                |              |               |                   |                                       |          | MS/MSD                         |
| Measureme                 | ent Method:  | Electric      | Water Leve   | Indicator    |                | L            |               |                   |                                       | j        | 113/100                        |
|                           |              |               |              |              | FIE            | LD READI     |               |                   |                                       |          |                                |
| Stabilization Para        |              | Temp.         | Spec.        | На           | DO             | ORP          | Turbidity     | Water             | Pumping                               | mL       | Appearance or Comment          |
| (3 Consecutive Purge Date | ve)<br>Time  | (°C)          | Cond.        | ±0.1         | (mg/L)<br>±10% | (mV)<br>±10  | (NTU)<br><5.0 | Level<br>(ft)     | Rate<br>mL/Min                        | Removed  | Clarity, Color, Odor, Ect.     |
| Purge Date                | 1010         | Start of We   |              | 10.1         | 110%           | 1 110        | (5.0          | (11)              | mL/IVIIII                             | l        | clear, slightly turbid, turbid |
| 90424                     | 1020         | 13.45         | 2648         | 16.74        | 1,02           | 37.8         | 19.42         | 183.60            | 100.0                                 | 1000.0   | Cloz                           |
|                           | 1030         | 13,28         | 2604         | 6.74         | 0.46           | 22.9         | 10.19         | 83,61             | 100.0                                 | 1000,0   | Cler                           |
|                           | 1040         | 12.53         | B586         | 6.71         | 0,33           | 7.2          | 6.49          | 83.61             | 100.0                                 | 1000.0   | Cler                           |
|                           | 1045         | 12.70         | 2592         | 6,70         | 0,31           | -4.2         | 4.72          | 83.61             | 100.0                                 | 500,0    | Cler                           |
|                           | 1050         | 12.44         | 2587         | 6.69         | 0.28           | -10,4        | 3.26          | 83.61             | 1000                                  | 500.0    | Clear                          |
|                           | 1055         | 12.41         | 2579         | 6168         | 0.27           | -11.5        | 2.98          | 83,61             | 120.0                                 | 500,0    | Clear                          |
|                           |              |               | <del> </del> | <b></b>      | <b>-</b>       | <del> </del> | <b></b>       | -                 | <b>_</b>                              |          |                                |
|                           |              | -             | <del> </del> | -            | -              | 1            | 1             | -                 | -                                     |          |                                |
|                           |              |               | <del> </del> | <del> </del> | +              | <del> </del> | <del> </del>  |                   | -                                     |          |                                |
|                           | Well St      | abilized?     | (YES)        | NO           | -              |              |               | Total Vo          | olume Purged                          | 45020    | Liters                         |
|                           | Time         | Temp.<br>(°C) | Spec.        | рН           |                |              | Turbidity     |                   |                                       |          | Appearance or Comment          |
| Sample Date               |              |               | Cond.        | 1            | 1              | 1            | (NTU)         | 1                 | 1                                     |          | Clarity, Color, Odor, Ect.     |
| Sample Date               | 1055         | 12.41         | 2579         | 6.68         |                | 1            | 2.98          |                   |                                       |          | Cler                           |

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Account #: 6106 Client: Otter Tail Power Company

| MVTI                     |              |              | Fiel               | d Da           | tacl         | neet   |              | Company:     |            | OTP Coyo  |  |
|--------------------------|--------------|--------------|--------------------|----------------|--------------|--|--------------|--------------|------------|-----------|--|
| MIVIT                    | ~            |              |                    |                |              |  |              | Event:       |            | Fall      | 2024   |
|                          |              |              | Gr                 | oundwate       | r Assessm    | ent  |              | Sample ID    |            |           | Blue (3  |
| 2616 E. Broadway Ave, Bi | ismarck, ND  |              |                    |                |              |  |              | Sampling I   | Personal:  |           | Sieh   |
| Phone: (701) 258-        |              |              |                    |                |              |  |              |              |            |           |  |
| Weather Conditions       | s:           | Temp:        | 65                 | °F             | Wind:        | 5  | @ 16 -       | 15           | Precip:    | Sunny / P | artly Cloudy / Cloudy                            |
| ,                        | WELL INFO    | ORMATIO      | N                  |                |              |  |              | SAN          | IPLING IN  | FORMATI   | ON   |
| Well Locked?             | YES          | NO           |                    |                | ]            | Purging Me                                       | ethod:       | Bladder      |            |           | Control Settings:                                |
| Well Labeled?            | YES          | NO           |                    |                |              | Sampling N                                       |              | Bladder      |            |           | Purge: B / 18 12 Sec                             |
| Repairs Necessary?       | Himse        |              |                    |                |              | Dedicated  | Equipment    | Tubing       | NO         | J         | Recover: 12 / See 48 Sec<br>PSI: 100 / Sec       |
|                          | g Diameter:  |              | 2"                 |                | 1            |  |              | , ,          |            |           |  |
| Water Level Be           |              |              | •                  | ft             |              |  |              |              |            |           |  |
|                          | pth of Well: |              | 75                 | ft             | 1            |  | Bott         | le List:     |            |           | Duplicate Sample?                                |
| 75.p of                  | ell Volume:  | 7            | 1.2                |                |              | 1 Liter Raw                                      |              |              |            |           | YES /(NO)  |
| Water Level Af           |              | 108          | 3.3                | f <del>†</del> |              | 500mL Nitri                                      | С            |              |            |           | Duplicate Sample ID:                             |
| Measureme                |              |              | دد۱<br>Nater Level |                | 1            |  |              |              |            |           |  |
|                          |              |              |                    |                | ,            | LD READIN  | icc          |              |            |           |  |
| Stabilization Parar      | meters       | Temp.        | Spec.              | T T            | DO           | ORP  | Turbidity    | Water        | Pumping    | mL        | Appearance or Comment                            |
| (3 Consecutiv            | /e)          | (°C)         | Cond.              | pH             | (mg/L)       | (mV)   | (NTU)        | Level        | Rate       | Removed   | Clarity, Color, Odor, Ect.                       |
| Purge Date               | Time         |              | ±5%                | ±0.1           | ±10%         | ±10  | <5.0         | (ft)         | mL/Min     |           | clear, slightly turbid, turbid                   |
|                          | 1530         | Start of Wel |                    |                |              |  |              |              |            |           |  |
|                          | 1548         | 12.69        | 5917               | 495            | 07Z          | 6.0  | 41.59        | Belowby      | 300,0      | 5400.0    | Clery  |
| 7 net 24_                |              | Purged       | Dm                 |                |              |  |              |              |            |           |  |
|                          | 1505         | Start of     |                    | The Ause       |              |  | 85.00        | 103.12       |            | (T        |  |
| 30024<br>80024           | 1510         | 14,72        | 6950               | 6.79           | 3.06         | 33.9   | 17,02        | 103,43       | 100.0      | 500.0     | Clear  |
|                          | 1520         | 14.93        | 6540               | 6.90           | 0.28         | 10,9   | 2.128        | 107,67       | 100.0      | 500,0     |  |
|                          | 1500         | 19.03        | 4240               | 6,11           | 0.00         | 1079   | 4.00         | 101161       | 7          | 350,0     | Clear  |
|                          |              | <b>-</b>     |                    |                |              | <del> </del>                                     | <del> </del> | <del> </del> | <u> </u>   |           |  |
|                          |              |              |                    | <del> </del>   | <b>†</b>     | <del>                                     </del> | <b>†</b>     | <del> </del> | l          |           |  |
|                          |              |              |                    |                |              |  |              |              |            |           |  |
|                          | Well St      | abilized?    | YES                | (NO)           |              |  |              | Total Vol    | ume Purged | 6200      | Liters   |
| Sample Date              | Time         | Temp.        | Spec.              | рН             |              |  | Turbidity    |              |            |           | Appearance or Comment Clarity, Color, Odor, Ect. |
| 0 5 1 2 4                | 1570         |              | Cond.              | 1001           | <del> </del> | <del> </del>                                     | (NTU)        | <del> </del> |            | -         | 47   |
| B Oct 24                 | 1520         | 14.83        | 6540               | 6.91           |              |  | 2.08         |              |            |           | Clear  |
| Comments:                |              |              |                    |                |              |  |              |              |            |           |  |

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Account #: 6106 Client: Otter Tail Power Company

|                                  |               |             | Eial            | 4 D-         | atask        | 200+        |           | Company:   |            | OTP Coyo     | te   |
|----------------------------------|---------------|-------------|-----------------|--------------|--------------|-------------|-----------|------------|------------|--------------|--|
| MVT                              |               |             | LIGI            | uDa          | ıtası        | ieei        |           | Event:     |            | Fall         | 2024   |
|                                  | 4             |             | G               | roundwate    | er Assessm   | ent         |           | Sample ID  | :          | ***          | Blue /나  |
| 2616 E. Broadway Ave, I          | Bismarck, ND  |             |                 |              |              |             |           | Sampling F | Personal:  | len          | enns Plen -  |
| Phone: (701) 258                 | -9720         |             |                 |              |              |             |           |            |            |              |  |
| <b>Weather Condition</b>         | is:           | Temp:       | 70              | °F           | Wind:        | C           | @5-10     |            | Precip:    | Sunny /P     | artly Cloudy / Cloudy  |
|                                  | WELLINFO      | ORMATIO     | N               |              |              |             |           | SAN        | DINGIN     | FORMATI      | ON   |
| Well Locked?                     | (YES          | NO          |                 |              | 1            | Purging Me  | ethod:    | Bladder    | IF LING IN |              | Control Settings:  |
| Well Labeled?                    | YES           | NO          |                 |              | 1            | Sampling N  |           | Bladder    |            | 1            | Purge: 8 Sec   |
| Repairs Necessary?               |               |             |                 |              | 1            | Dedicated   | Equipment | (VES       | NO         | 1            | Recover: 57 Sec  |
|                                  |               |             |                 |              |              |             |           | Tiday      |            | -            | PSI: —   |
|                                  | ng Diameter:  |             | 2"              |              |              |             |           |            |            |              |  |
| Water Level B                    |               | BO          |                 | ft           |              |             |           |            |            | _            |  |
|                                  | epth of Well: |             | 95              | ft           |              |             | Bott      | le List:   |            |              | Duplicate Sample?  |
| V                                | Vell Volume:  | 4           | 12              | liters       |              | 1 Liter Raw |           |            |            |              | YES /( NO)   |
|                                  |               |             | 7.0             |              |              | 500mL Nitri | С         |            |            |              | Duplicate Sample ID:   |
| Water Level A                    |               | 82.         | い<br>Water Leve | ft           | -            |             |           |            |            |              |  |
| ivieasurem                       | ent Method:   | Electric    | water Leve      | Indicator    | _            | L           |           |            |            | J            | L  |
|                                  |               |             |                 |              | FIE          | LD READIN   | IGS       |            |            | 75.00        |  |
| Stabilization Para               |               | Temp.       | Spec.           | На           | DO           | ORP         | Turbidity | Water      | Pumping    | mL           | Appearance or Comment  |
| (3 Consecuti                     |               | (°C)        | Cond.           |              | (mg/L)       | (mV)        | (NTU)     | Level      | Rate       | Removed      | Clarity, Color, Odor, Ect.   |
| Purge Date                       | Time          |             | ±5%             | ±0.1         | ±10%         | ±10         | <5.0      | (ft)       | mL/Min     |              | clear, slightly turbid, turbid   |
| 8 Oct 24                         | 1338          | Start of We |                 |              |              |             |           |            |            | 19           |  |
| 600101                           | 1358          | 14.95       | 5822            | 6.72         | 0.73         | 83.1        | 20,18     | 81.15      | 1000.      | 20000        | Clear  |
| ĺ                                | 1408          | 15.10       | 5667            | 6.69         | 0.50         | 47.4        | 8,72      | 81.37      | 100.0      | 1000,0       | Clear  |
|                                  | 1418          | 15.01       | 5675            | 6.68         | 0.40         | 41,4        | 4.05      | 81.70      | 100.0      | 1000.0       | Clear  |
| 9                                | 1423          | 14.78       | 5588            | 6.69         | 0.42         | 40.6        | 2.88      | 82.00      | 00.0       | 500.0        | Clear  |
|                                  | 1428          | 14.93       | 5624            | 0.70         | 0.44         | O 37,0      | 3.17      | 82.05      |            | 500:0        | Clear  |
|                                  | 1433          | 15.02       | 5623            | 6.71         | 0.43         | 30.1        | 2.71      | 82.34      | 100.0      | 500.0        | Clean  |
|                                  |               | <u> </u>    |                 | <del> </del> | <del> </del> |             |           | -          |            | -            |  |
|                                  | <b>———</b>    |             |                 | <del> </del> | <del> </del> | <b>†</b>    |           | <u> </u>   |            | <del> </del> |  |
|                                  |               |             |                 | <del> </del> | <del> </del> | 1           |           | -          |            | <del> </del> |  |
|                                  | Well St       | abilized?   | (ÝES)           | NO           | .1           | 1           | <u> </u>  | Total Vol  | ume Purged | 855          | Liters   |
| Sample Date                      | Time          | Temp.       | Spec.           | рН           |              |             | Turbidity |            | T T        |              | Appearance or Comment  |
| 30000000 <b>E</b> 000-0000-0-0-0 | +             | (°C)        | Cond.           |              | 1            | ļ           | (NTU)     | _          |            |              | Clarity, Color, Odor, Ect.   |
| 80ct 24                          | 1433          | 15.02       | 5623            | 6.71         |              |             | 2.71      |            |            |              | Clear  |
| Comments:                        |               |             |                 |              |              |             |           |            |            |              | Andreas and a surface to the surface of the surface |

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



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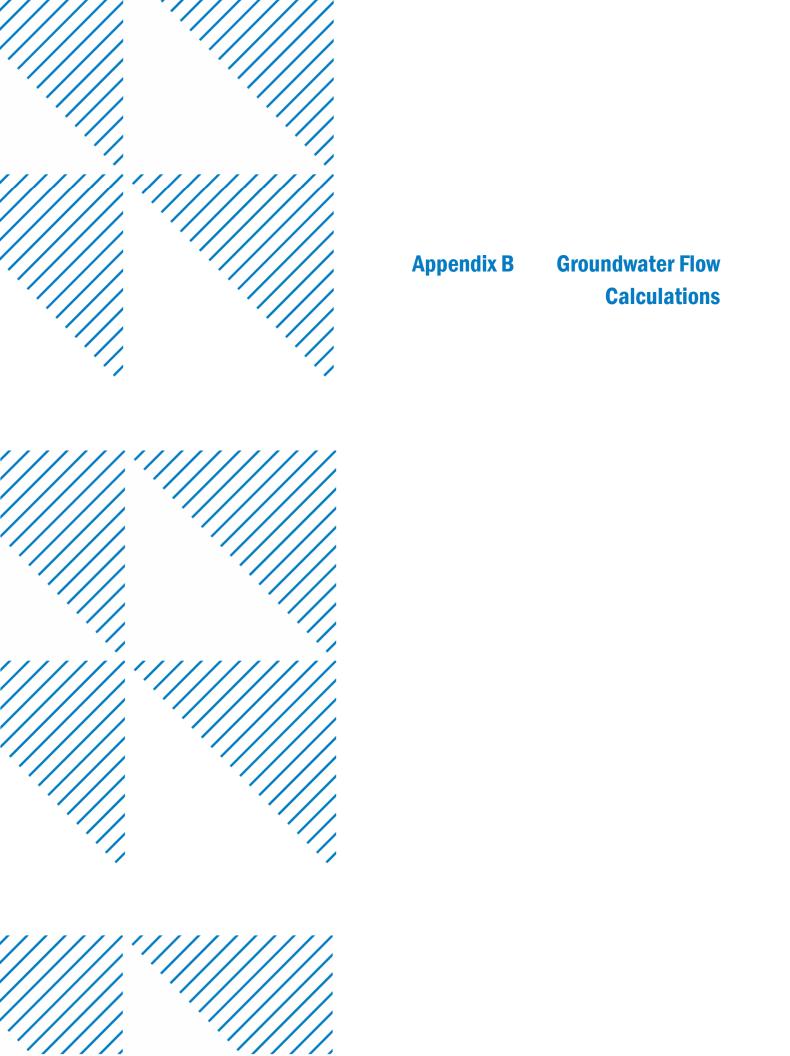
Account #: 6106 Client: Otter Tail Power Company

Error resolved after catib recallbration.

| FORMATION NO N  | Gr<br>5/><br>DN<br>2"<br>,39<br>₹2                         | d Da roundwate   | r Assessm<br>Wind: ع   | Purging Me   | @ & Sthod: Nethod: Nethod: Tequipment?  Bottli  | SAM<br>Bladder<br>Bladder        | ersonal: Precip: PLING IN | Sunny/ Pa   | Duplicate Sample ID:   |
|--|--|--|--|--|---|----------------------------------|---------------------------|-------------|--|
| FORMATION NO N  | 2", 39, 72, 33, 65, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64 | ft<br>ft<br>ft<br>liters<br>ft<br>lindicator   | Wind: 4  | Purging Me<br>Sampling M<br>Dedicated I  | @ & Sthod: Nethod: Nethod: Tequipment?  Bottli  | SAM Bladder Bladder VES          | ersonal: Precip: PLING IN | Sunny/ Pa   | Artly Cloudy / Cloudy  ON  Control Settings:  Purge: Secretary Secretary  Recover: 52 Secretary  PSI:  Duplicate Sample?  YES K NO |
| FORMATION NO N  | 2" 39 42 3 Water Level                                     | ft<br>ft<br>liters<br>ft<br>lindicator   | FIE  | Purging Me<br>Sampling M<br>Dedicated I<br>1 Liter Raw<br>500mL Nitrio   | @ C Sthod: Rethod: Equipment? Bottl   | SAM Bladder Bladder VES          | Precip: PLING IN          | Sunny/ Pa   | Purge: Sec<br>Recover: 52 Sec<br>PSI:  Duplicate Sample?   |
| FORMATION NO N  | 2" 39 42 3 Water Level                                     | ft<br>ft<br>liters<br>ft<br>lindicator   | FIE  | Purging Me<br>Sampling M<br>Dedicated I<br>1 Liter Raw<br>500mL Nitrio   | ethod:<br>lethod:<br>Equipment?<br>Bottl  | SAM<br>Bladder<br>Bladder<br>VES | PLING IN                  | FORMATIO    | ON  Control Settings:  Purge: Secretary Secretary  Recover: £2 Secretary  Duplicate Sample?  YES £ NO                              |
| FORMATION NO N  | 2" 39 42 3 Water Level                                     | ft<br>ft<br>liters<br>ft<br>lindicator   | FIE  | Purging Me<br>Sampling M<br>Dedicated I<br>1 Liter Raw<br>500mL Nitrio   | ethod:<br>lethod:<br>Equipment?<br>Bottl  | SAM<br>Bladder<br>Bladder<br>VES | PLING IN                  | FORMATIO    | ON  Control Settings:  Purge: Secretary Secretary  Recover: £2 Secretary  Duplicate Sample?  YES £ NO                              |
| NO N   | 2"<br>,39<br>#2<br>3<br>,65<br>Water Level                 | ft<br>liters<br>ft<br>Indicator  | 1  | Sampling M<br>Dedicated I  | Tethod: Equipment?  Bottl   | Bladder Bladder YES              | NO                        |             | Control Settings: Purge: Sec Recover: £2 Sec PSI:  Duplicate Sample? YES NO  |
| NO  T:  E: 80  I: 06  E: 5.7  E: Company of the com | 39<br>72<br>3<br>, 66<br>Water Level                       | ft<br>liters<br>ft<br>Indicator  | 1  | Sampling M<br>Dedicated I  | Tethod: Equipment?  Bottl   | Bladder<br>YES                   |                           |             | Purge: Sec<br>Recover: F2 Sec<br>PSI:  Duplicate Sample?  YES K NO >   |
| r: 80<br>l: 68.  | 39<br>72<br>3<br>, 66<br>Water Level                       | ft<br>liters<br>ft<br>Indicator  | 1  | 1 Liter Raw<br>500mL Nitric  | Equipment?  Bottl   | Tubing                           |                           |             | Recover: £2 Sec PSI:  Duplicate Sample?  YES KNO   |
| e: 80<br>l: 88<br>e: 5.7   | 39<br>72<br>3<br>, 66<br>Water Level                       | ft<br>liters<br>ft<br>Indicator  | 1  | 1 Liter Raw<br>500mL Nitrio  | Bottl   | Tubing                           |                           |             | PSI:  Duplicate Sample?  YES (NO)  |
| e: 80<br>l: 88<br>e: 5.7   | 39<br>72<br>3<br>, 66<br>Water Level                       | ft<br>liters<br>ft<br>Indicator  | 1  | 500mL Nitrio   | IGS   |                                  |                           |             | Duplicate Sample?  YES NO  |
| e: 80<br>l: 88<br>e: 5.7   | 39<br>72<br>3<br>, 66<br>Water Level                       | ft<br>liters<br>ft<br>Indicator  | 1  | 500mL Nitrio   | IGS   |                                  |                           | æ           | YES (NO)   |
| e: 5. / Electric   | 72<br>3<br>Water Level                                     | ft<br>Indicator  | 1  | 500mL Nitrio   | IGS   | e List:                          |                           | e e         | YES (NO)   |
| e: 5.7 e: 5.7 f: Electric  | 3<br>Water Level   | ft<br>I Indicator  | 1  | 500mL Nitrio   | IGS   |                                  |                           |             | YES (NO)   |
| d: Electric  | Water Level  | Indicator  | 1  | LD READIN  | IGS   |                                  |                           |             | Duplicate Sample ID:   |
| d: Electric  | Water Level  | Indicator  | 1  |  |   |                                  |                           |             |  |
| Temp.  | Spec.  | т  | 1  |  |   |                                  |                           |             |  |
|  | 1  | рН   | 1  |  |   |                                  |                           |             |  |
|  | 1  | pН   | DO   | ORP  |   |                                  |                           |             |  |
| (°C)   | Cond-  |  |  |  | Turbidity   | Water                            | Pumping                   | mL          | Appearance or Comment  |
|  |  |  | (mg/L)   | (mV)   | (NTU)   | Level                            | Rate                      | Removed     | Clarity, Color, Odor, Ect.   |
| Start of We  | ±5%  | ±0.1   | ±10%   | ±10  | <5.0  | (ft)                             | mL/Min                    | <u> </u>    | clear, slightly turbid, turbid   |
| 10,44  | 7191   | 6.57   | 12.05  | 146.7  | 25.21   | 180.62                           | 100.0                     | 12000.0     | 1 / 1 =  |
| 10,44  | 7187   | 6.54   | 0.46   | 2.6  | 10,22   | 80.71                            | 100.0                     | 1000.0      | Clear  |
| 16,44  | 7184   | 8.54   | 0.39   | -15.3  | 5,92  | 80,70                            | 100.0                     | 1000.0      | Clear  |
| 10,43  | 2190   | 6.55   | 0.46   | -31.7  | 13.20   | 80.69                            | 100.0                     | 500.0       | Clear  |
| 10.54  | 7200   | 6.55   | 0.38   | -37.1  | 8.72  | 80.67                            | 100.0                     | 500.0       | Clear  |
|  |  |  |  |  |   |                                  |                           |             | Clear  |
|  |  |  |  |  |   |                                  |                           |             | Clear  |
|  |  |  |  |  |   |                                  |                           |             |  |
|  |  |  | 13.35  |  |   |                                  |                           |             | (kar   |
|  |  | 1  | 10.30  |  |   |                                  |                           |             | <del></del>  |
|  | YES  | NO NO  | 10.51  | 1-9515   | or all  |                                  |                           |             | Liters   |
| Temn   | Snec   |  | T  |  | Turbidity   | Т                                | Γ                         | 1           | Appearance or Comment  |
| (°C)   | Cond.  | pH   | 1  |  | (NTU)   |                                  |                           |             | Clarity, Color, Odor, Ect.   |
| 11.50  | 3252   | 6.63   |  |  | 2.17  |                                  |                           |             | Clear  |
|  |  | 10.99   3729   10.93   32.30   11.50   32.55   11.50   32.55 | 1,09   3/29   6,65    0,47   3276   6,65    1,60   5/2   6,67    1,50   6/2   6/2    1,50   6/2    1,50   6/2   6/2    1,50   6/ | 1,09   3229   6,65   0,45   10,63   32.56   6,65   0,36   11,60   32.50   6,65   0,36   11,50   32.50   6,65   0,36   11,50   32.50   6,65   0,36   11,50   32.50   6,65   0,36   11,50   32.50   6,65   0,36   11,50   12,5 | 1,09   3229   6,65   0,45   28,3   10,43   3236   6,65   0,35   21,6   11,60   3250   6,63   0,36   -1,7   11,50   3252   6,63   0,36   -1,7   11,50   3252   6,63   0,3   -43,5   35   35   35   35   35   35   35 | 10 . <4  7207                    | 10.54  7207               | 10.54  7207 | 1  |

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

NA or - = not appliciable



# Appendix B Annual Groundwater Monitoring and Corrective Action Report

# **Coyote Blue Pit Groundwater Velocity Calculation**

| Sampling Date | 5/6/2024 |
|---------------|----------|
|---------------|----------|

# Upgradient (BLUE 13)

| Top of Casing Elevation | 2045.27 | ft amsl      | Groundwater Monitoring System Report (Barr, 2016) |
|-------------------------|---------|--------------|---|
| Depth to Water          | 104.85  | ft below TOC |   |
| Water Level Elevation   | 1940.42 | ft amsl      |   |

#### Downgradient (BLUE 15)

| Top of Casing Elevation | 1995.88 | ft amsl      | Groundwater Monitoring System Report (Barr, 2016) |
|-------------------------|---------|--------------|---|
| Depth to Water          | 78.40   | ft below TOC |   |
| Water Level Elevation   | 1917.48 | ft amsl      |   |

| horizontal hydraulic    | 5.20E-05 | cm/s   |
|-------------------------|----------|--------|
| conductivity (Kh)       | 1.47E-01 | ft/day |
| porosity (n)            | 0.2      |        |
| horizontal distance     | 2403.4   | ft     |
| WL elevation difference | 22.94    | ft     |
| gradient (i)            | 0.010    | ft/ft  |
| linear velocity (V)     | 0.0070   | ft/day |
| V                       | 2.6      | ft/vr  |

Groundwater Monitoring System Report (Barr, 2016)

Groundwater Monitoring System Report (Barr, 2016)

# Appendix B Annual Groundwater Monitoring and Corrective Action Report

# **Coyote Blue Pit Groundwater Velocity Calculation**

| Sampling Date | 10/08/24 |
|---------------|----------|
|---------------|----------|

# Upgradient (BLUE 13)

| Top of Casing Elevation | 2045.27 | ft amsl      | Groundwater Monitoring System Report (Barr, 2016) |
|-------------------------|---------|--------------|---|
| Depth to Water          | 105.12  | ft below TOC |   |
| Water Level Elevation   | 1940.15 | ft amsl      |   |

# Downgradient (BLUE 15)

| Top of Casing Elevation | 1995.88 | ft amsl      | Groundwater Monitoring System Report (Barr, 2016) |
|-------------------------|---------|--------------|---|
| Depth to Water          | 80.39   | ft below TOC |   |
| Water Level Elevation   | 1915.49 | ft amsl      |   |

| horizontal hydraulic    | 5.20E-05 |        |
|-------------------------|----------|--------|
| conductivity (Kh)       | 1.47E-01 | ft/day |
| porosity (n)            | 0.2      |        |
| horizontal distance     | 2403.4   | ft     |
| WL elevation difference | 24.66    | ft     |
| gradient (i)            | 0.010    | ft/ft  |
| linear velocity (V)     | 0.0076   | ft/day |
| V                       | 2.8      | ft/vr  |

Groundwater Monitoring System Report (Barr, 2016)

Groundwater Monitoring System Report (Barr, 2016)



## 2024 Annual Fugitive Dust Control Report

# Coyote Station Plant - Blue Pit

Date: December 4, 2024

#### Introduction

This report fulfills the requirements of 257.80(c) in the Coal Combustion Residual (CCR) rule that went into effect in October of 2015. This report is for the Blue Pit landfill for the Coyote Station Plant is located in Mercer County, North Dakota. This Annual Report covers the time period from December 2023 to December 2024.

Section 257.80(c) of the CCR requires three segments for the completion of this report. The first is actions taken by the owner/operator to control CCR fugitive dust. The second is a record of all citizen complaints. The third is a summary of any corrective measures taken. See Table 1 for citizen complaints.

#### Actions taken to control CCR fugitive dust

The following Best Management Practices have been identified as CCR fugitive dust control measures at the Coyote Plant.

#### Water

 Fugitive dust is largely controlled by the use of water. Water is used to condition the CCR prior to its transfer from silos to transport vehicles and is also used to wet the in-place CCR and haul roads as needed.

#### **Vehicle Speed Control**

 Drivers are instructed to travel no faster than 25 miles per hour when traveling to and from CCR disposal areas.

#### Minimize the Open Working Area

• The working face of the landfill or CCR unit will be as small as is practicable to prevent erosion. This is accomplished by installing intermediate and final cover to reduce footprint size.

#### Vehicle covering

 Occasionally other vehicles may be used to transport CCR. These vehicles will be enclosed or covered during transport if fugitive dust is a concern.

#### **Curtailing operations**

In extreme weather events, transport of CCR will be reduced or delayed until conditions improve.

# Table 1 Citizen Complaint Record

| Fugitive Dust Citizen Complaint |   |                                  |   |
|---------------------------------|---|----------------------------------|---|
| Date                            | Citizen Complaint   | Was complaint confirmed (Yes/No) | Corrective Measures Taken   |
| 10/11/24                        | Citizen complaint to the State of ND on Oct. 5, 2024. State relayed the complaint to OTP on Oct. 11, 2024 | Yes                              | See attached response to State of ND. Regional conditions that day were sustained wind speeds of 35 to 45 mph with gusts up to 65 mph. No CCR hauling occurred on this day. |

### Summary of corrective measures taken

See the attached correspondence with the North Dakota Department of Environmental Quality below.

# Hollen, Josh

From:

Hollen, Josh

Sent:

Wednesday, October 16, 2024 11:29 AM

To:

Quach, Anthony

Subject:

**RE: Ash Complaint** 

Attachments:

2023 - Coy Fugitive Dust Control Plan.pdf

Hi Anthony,

Thank you for your email on October 11, 2024, about a citizen complaint of fugitive dust from the Coyote Station Blue Pit Landfill. Per your email, the citizen was concerned about dust blowing over State Highway 49 on Saturday, October 5, 2024.

Saturday, October 5<sup>th</sup> was an extremely windy day. Past weather data for that day indicate wind speeds of 35 to 45 mph for the day with reported wind gusts of up to 65 mph on several occasions. Regarding dust mitigation efforts, no ash hauling, or other solid waste activities occurred at the Blue Pit on the day in question.

Please see the attached Fugitive Dust Control Plan for the Blue Pit. Best management practices for controlling fugitive dust may include adding some water to the ash to limit dust creation, controlling vehicle speed if we are hauling ash, or discontinue hauling ash for the day if it is too windy. Plant personnel are trained on identifying blowing fugitive dust conditions and can take the necessary actions to control fugitive dust whenever present. Our approach of suspending all ash hauling activity on October 5<sup>th</sup> was in line with our best management practices during excessive windy conditions.

Please let me know if you have any additional concerns or questions.



# Josh Hollen

Environmental Compliani Environmental Services [

Phone: (218) 739-8314

otpco.com

From: Quach, Anthony <aQuach@nd.gov> Sent: Friday, October 11, 2024 2:22 PM To: Hollen, Josh <jhollen@otpco.com>

Subject: Ash Complaint

\*\*\*This is an EXTERNAL email. DO NOT open attachments or click links in suspicious email. \*\*\*

A citizen had called the division of Waste Management today regarding ash/dust blowing over Hwy 49 last Saturday October 5, 2024. The individual in question wants to know what the Otter Tail Power Coyote Station is doing to reduce or eliminate dust issues.

Thanks,

# Anthony Quach

Division of Waste Management • Solid Waste Program

701-328-5156 • 701.328.5200 (fax) • <u>aquach@nd.gov</u> • <u>https://deq.nd.gov/</u>

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